

Coconino County Community Development
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PROCEDURE FOR OBTAINING A GAS OR ELECTRIC APPLIANCE OR WOOD STOVE PERMIT.

CODES AND SPECIFICATIONS.

- 1.) Gas piping and equipment shall be installed in accordance with (2006) International Fuel Gas Code, International Mechanical Code and International Residential Fuel Gas and Mechanical Code Sections and County amendments.
- 2.) Gas appliances shall be installed in accordance with the manufactures installation specifications and the (2006) International Mechanical Code, International Fuel Gas Code and International Residential Mechanical and fuel gas Code sections and County amendments.
- 3.) Listed wood stove or pellet stove shall be install as per manufactures specification or if unlisted use Coconino County specifications.
- 4.) Gas and mechanical permits are valid for 6 months. This means that all work specified by the permit must be completed within 6 months or the permit will expire. In which time, if the work is not completed a new permit must be obtained.

A PERMIT IS REQUIRED FOR THE FOLLOWING WORK.

- 1.) Converting appliances from electric or propane to natural gas.
- 2.) Installing a new furnace, water heater, space heater, boiler, wood stove or other appliances requiring venting, relocating and replacement.
- 3.) Electric furnaces, water heaters, dryers, range hood and exhaust fans.
Exception – Replacement of dryers, range hoods and exhaust fans of similar type in the same location.
- 4.) Installing new or relocating gas piping.
- 5.) When extending gas piping for future appliances, the pipe must be capped off and in the interior of structure. No capped off piping in crawl space.

NOTE: Un-vented appliances not allowed. Un-vented decorative appliances, fireplaces, and room heaters are not allowed regardless of the location or type of fuel. Amended IFGC 621.2 and IRC G2445.2

THE FOLLOWING INFORMATION MUST BE PROVIDED WHEN APPLYING FOR A PERMIT.

- 1.) A permit application shall be submitted, filled out completely. This includes parcel #, If in a subdivision we need subdivision name, lot and unit, owners name, complete address and phone #; contractors name, complete address, phone # and license #; and type of work being done.
- 2.) Indicate whether the gas permit is for a site built single family dwelling, manufactured home or accessory building.
- 3.) A floor plan showing the locations of all new or existing appliances.
- 4.) Installation specifications for new appliances shall be required at time of inspection.
- 5.) A plot plan is required when a new or relocated L.P. tank is set.
- 6.) A gas or mechanical permit will not be issued if it is determined that the new or existing gas appliance is in a prohibited location as specified in section Amend IFGC 303.3 and IRC G2406.2 By adding IFGC 303.3.1 and IRC G2406.2.

PROHIBITED FURNACE, BOILER AND WATER HEATER LOCATIONS AND INSTALLATION.

- 1.) All warm air furnaces, water heaters and boilers, gas or electric, shall not be allowed in under stair locations, bedrooms, bathrooms, toilet room clothes closets or in spaces having access through such rooms and spaces.
- 2.) Exception 5 of IFGC 303.3 of the (2006) International Fuel Gas Code and (2006) IRC G2406.2. Will apply as an option, Furnace or water heater closets may access through a bedroom, bathroom or toilet room when all combustion air is taken from the outside and the door is a 1 3/8" solid core; fully weather stripped and self closing. Combustion air shall comply with 2006 IFGC Section 304.6 and IRC G2407.6.
- 3.) Vented gas heaters, fireplaces, decorative appliances and wood burning fireplaces and stoves located in bedrooms and bathrooms shall be direct vent only. Added to exception 1 of 2006 IFGC 303.3 and 2006 IRC G2406.2.
- 4.) Gas fireplaces and gas logs shall be equipped with a listed device (Flame Safeguard Device). The flame safeguard device shall automatically shut off the fuel supply to the main burner or group of burners when the means of ignition of such burners becomes inoperative.
- 5.) All gas appliances shall be installed in accordance with the manufactured specifications and listing.
- 6.) Electric furnaces and water heaters shall have an approved electric disconnect within sight of the appliance.

- 7.) Equipment burning Liquid Petroleum Gas shall not be located in a pit, an under floor space, below grade or similar locations where vapors or fuel might unsafely collect unless an approved method for the safe collection, removal and containment or disposal of the vapors or fuel is provided.
- 8.) At grade crawl spaces, garages and non-habitable spaces in under floor locations, and daylight basements shall be spaces where methods for safe collection, removal and containment or disposal of the vapors or fuel may be provided. Pits and below grade basements are spaces that LPG appliances are strictly prohibited.
- 9.) Combustion air shall not be obtained into a LPG appliance location from an under floor crawl space where the combustion air opening through the floor would allow the gas to drain into the crawl space.
- 10.) New construction and existing buildings that have been remodeled and durably sealed against air infiltration as regulated under the International Energy Conservation Code shall be considered Unusually Tight Construction. All fuel burning appliances shall have the required combustion air drawn from the outdoors.
- 11.) All Appliances within habitable portions of a building shall be installed in a sealed compartment with outside combustion air or be of the Direct-Vent type.

Exceptions to this requirement shall include: gas clothes dryer, gas cooking range and oven, one (1) woodstove, or one (1) fireplace, or one (1) free standing vented heater or one (1) vented wall heater.

GAS PIPING INSTALLATION.

- 1.) All new or existing gas piping must be installed in accordance with the (2006) International Fuel Gas Code and (2006) International Residential Fuel Gas Code Section.
- 2.) Gas piping shall not be installed in or on the ground under any building or structure. The term building or structure shall include structures such as porches, steps, whether covered or uncovered, breezeways, roofed patios, carports or drives, covered walk-ways, paved driveways and similar structures or appurtenances.

Exception – Gas piping installed below grade under buildings or structures when placed in approved recessed channels or conduits that are properly vented as described in 2006 IFGC 404.11 and 2006 IRC G2415.11 (This does not include piping entering below grade into foundations or basements or crawl spaces).

- 3.) The gas pipe shall emerge out of the ground before entering any foundation wall of basements or crawl spaces.
- 4.) Gas piping material shall be corrosion-resistant coated pipe for below grade installations. Non-coated black iron pipe is allowed above grade (6” minimum.) only. Non-coated pipe riser may be used provided the sections which are below grade are wrapped with approved pipe wrap material for a height of not less than 8” above grade. All buried joints shall be wrapped.

- 5.) Gas piping that is under drive-ways shall be sleeved and vented by approved methods and approved materials.
- 6.) Other types of gas piping material must be approved by the Building Official.
- 7.) Black Iron, approved underground burial -- twelve (12) inches minimum of cover
Plastic Pipe, approved underground burial – eighteen (18) inches minimum of cover
Amended 2006 IFGC 404.9 and 2006 IRC G2415.9
- 8.) All structures served by gas shall have an APPROVED EXTERIOR BALL VALVE gas shut-off valve on the piping, located outside and adjacent to the building, near where the pipe enters the building.

On the supply side of the gas shut off valve a union shall be installed. In areas where the gas pipe emerges out of the ground the union shall be of the isolating type.
Amended 2006 IFGC 409.1.1 and 2006 IRC G2420.1.1 by adding IFGC 409.1.1.1 and IRC G2420.1.1.1.

- 9.) Gas yard piping for manufactured homes shall be installed below grade to the riser location in all circumstances. A manufactured home rated flex connector, shut off and isolating union shall be installed. The gas pipe coming from the Manufactured home shall stub out a minimum of 4”.
- 10.) The arrangement of gas shut off valves, flex connectors, unions non- isolating and isolating, risers and gas piping are illustrated in the Coconino County details. All gas piping for conversion or change over from electric to gas must conform to either the manufactured home detail or the single family dwelling detail.
- 11.) In concealed locations, where piping other than black or galvanized steel is installed through holes or notches in wood studs, joists, rafters or similar members less than 1.5 inches (38 mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Shield plates shall be a minimum of 1/16-inch-thick (1.6 mm) steel, shall cover the area of the pipe where the member is notched or bored and shall extend a minimum of 4 inches (102 mm) above sole plates, below top plates and to each side of a stud, joist or rafter.
- 12.) The trench shall be graded so that the pipe has a firm, substantially continuous bearing on the bottom of the trench.
- 13.) A yellow insulated copper tracer wire or other approved conductor shall be installed adjacent to under ground nonmetallic piping. Access shall be provided to the tracer wire or the tracer wire shall terminate above ground at each end of the nonmetallic piping. The tracer wire size shall not be less than 18 AWG and the insulation type shall be suitable for direct burial.
- 14.) Pipe Support. 1/2” steel pipe every 6’ on center. 1/2” tubing 4’ on center. 3/4” or 1” steel pipe, 8’ on center. 5/8” or 3/4” tubing 6’ on center. 7/8” or 1” tubing (horizontal) 8’ on center.
- 15.) The connection of the building gas yard line to the regulator at the LPG tank shall be a rigid pipe or an approved, listed and labeled exterior flex connector (Manufactured Home Flex Connector) sized for the full demand of fuel to be served.

The copper tubing that is generally used as the connection from the tank to the regulator is a material that can be damaged when exposed above ground outdoors. The copper tubing shall be installed as short as practical, to compensate for expansion, contraction, jarring, vibrations and settlement (by the use of bends, loops or offsets) as required by NFPA 58 section 3-2.10.6, and protected from physical damage by being installed under the protective dome of the LPG tank.

- 16.) Drip legs / Sediment traps shall be provided at the exterior of the home after the shutoff valve before entering the home or at each appliance (except dryers and ranges). As part of the periodical maintenance, it shall be the owner responsibility to clean and maintain the Drip leg and Sediment trap to prevent blockage of freezing of gas. (L.P. Gas Only.)

COCONINO COUNTY UNLISTED WOODSTOVE CLEARANCES – Amend IMC 308.6 and IRC M1306.2 by adding to Tables 308.6 and M1306.2 – A. B. C. D. E. F. G. H.

- 1.) Listed wood stove or pellet stove shall be installed to manufacture’s specifications and clearances.
- 2.) Unlisted wood stove or pellet stove shall meet minimum Coconino County clearances. See amendments below.
 - A. Thirty-six (36) inches to combustibles when unprotected.
 - B. Eighteen (18) inches to combustibles when protected by twenty-six (26) gauge sheet steel or one quarter (1/4) inch non-combustible mill board (listed) and a one (1) inch convective air space.
 - C. Twenty-four (24) inches to combustibles when protected by four (4) inches of brick on the wall.
 - D. Twelve (12) inches to combustibles when protected by four (4) inches of brick and a one (1) inch convective air space.
 - E. Stove pipe eighteen (18) inches to combustibles when unprotected. Nine (9) inches to combustibles when protected by an APPROVED heat shield.
 - F. Hearth protection for floor – brick or stone attached and mortared to the floor. Brick on mill board contained by a wooden frame.
 - G. Hearth extensions – Eighteen (18) inches in front, twelve (12) inches sides, twelve (12) inches rear or to the protected wall.
 - H. Where conflicts arise between the Tables and this list the more restrictive shall apply.

GAS STOVE OR WOOD BURNING APPLIANCES IN GARAGES.

- 1.) Any gas appliance or wood burning appliance installed in a garage, shall be installed 18” off the floor of the garage

INSPECTIONS AND APPROVALS.

- 1.) It is the responsibility of the owner or the contractor to insure that the work is completed prior to scheduling an inspection. (No same day inspections).
- 2.) The gas yard line shall be installed up to the meter riser with a pressure test.
- 3.) All interior gas piping shall be installed to the appliances and have a pressure test.
- 4.) All appliances i.e. furnace, water heater, boiler, space heaters, fireplaces, decorative appliances and others gas appliances, shall be fully installed and ready for inspection. Have manufacture's specifications on job site for Inspector.
- 5.) The pressure test for yard lanes and interior gas lines shall be 10 psi for 15 minutes.
- 6.) If a 2 stage regulator system is required, the pressure test shall be 60 psi for 30 minutes.
- 7.) Approved shut off valve, unions both non-isolating and isolating, and flex connector (For Manufactured Homes) shall be installed and ready for inspection.
- 8.) The gas line shall not be approved or "**Green Tagged**" unless all of the above have been completed and inspected.
- 9.) A \$94.00 Re-inspection fee will be charged if the inspector is on site and the work is not completed and ready for inspection or the inspector is unable to do the inspection.
- 10.) PROPANE TANK SHALL BE INSTALLED AT FINAL INSPECTION.