St. Louis County Department of Public Works
Division of Code Enforcement

PERMANENT OUTDOOR GAS GRILLS & GAS LIGHTS
MECHANICAL PERMIT and CODE REQUIREMENTS

This guideline is intended to provide the homeowner and outdoor gas grill or gas light installer/contractor with basic information regarding permit and other mechanical code requirements applicable to the installation of permanent outdoor gas grills and gas lights and associated gas piping.

1. **Permits:** A mechanical permit is required for the installation of new permanent outdoor gas grills and gas lights and associated gas piping. Mechanical permits for the installation of outdoor gas grills and gas lights will be issued as a same day over-the-counter type permit. A mechanical permit is not required to replace existing outdoor gas grills and gas lights with the same type of listed appliance in the same location.

   The installer/contractor must be a registered financial responsible (bonded and insured) or licensed contractor authorized to do mechanical work. Homeowners performing their own work may obtain a permit to do mechanical work for their own dwelling with no requirement to be registered or licensed.

2. **General:** Gas-fired appliances designed for permanent installation must be listed and labeled by an approved agency, such as Underwriter's Laboratories (UL), the American Gas Association (AGA), etc. and must be installed in accordance with the conditions of the listing and Manufacturer's installation instructions. Appliances installed outside must be listed and labeled for outdoor installation.

3. **Manufacturers Installation Instructions:** The Manufacturer's installation instructions must be maintained available to the inspector at the site during installation and inspection.

4. **Approved Gas Piping Materials:** Gas piping material must comply with the St. Louis County Mechanical Code as listed in the following table titled "Fuel Gas Pipe".

FUEL GAS PIPE

MATERIAL	STANDARD
Aluminum-alloy pipe and tubing[3]	ASTM B 210; ASTM B 241
Brass pipe[2]	ASTM B 43
Copper or copper-alloy pipe[2]	ASTM B 42; ASTM B 302
Copper or copper-alloy tube[2] seamless (Type K or L)	ASTM B 88
Copper tube seamless (Type ACR)	ASTM B 280
Corrugated stainless steel tubing	ANSI LC-1
Ductile iron pipe	ANSI A 21.52
Plastic pipe and tubing[1]	ASTM D 2513
Steel pipe	ASTM A 53; ASTM A 106
Steel tubing	ASTM A 254; ASTM A 539

1 - To be used underground and outside only
2 - Not to be used with hydrogen sulfide content gas.
3 - Not to be used underground or outside. Shall be coated to protect against external corrosion where in contact with masonry, plaster, or insulation.

5. **Shutoff Valve:** An individual shutoff valve must be provided for every gas-fired appliance. Access must be provided to the shutoff valve and the valve must be located outside of the building and within a reasonable distance of the appliance.

6. **Piping through foundation walls.** Where installed to pass through masonry, gas piping must be encased in a sleeve. Sleeve material may be Schedule 40 steel pipe or other pipe material capable of supporting the pipe and should be sized one pipe diameter larger than the gas pipe. The sleeve must be sealed at the outside of the foundation wall to prevent entry of water. Gas piping must not penetrate a building foundation wall below grade. Piping installed aboveground outside of the building must be securely supported and protected from physical damage.

7. **Separate ditch for gas piping.** The installation of gas piping must not be in the same trench with water, sewer or drainage pipe.

8. **Protection against corrosion.** Metallic gas piping in contact with earth or other material that will corrode the piping must be protected against corrosion. Zinc coatings (galvanizing) are not adequate protection for gas piping below ground. Protection is usually provided by a factory-applied coating or by field wrapping the pipe with a protection covering, such as a coal-tar based or plastic wrapping. When dissimilar metals are joined underground, an insulated coupling must be used. Metallic piping must not be laid in contact with cinders. Ferrous metals, such as black iron/steel piping, exposed in exterior locations must be protected from corrosion in an approved manner (paint is commonly used).

9. **Minimum burial depth.** Individual gas lines to outside grills, barbeques, or other appliances must be installed at least 8 inches below grade. The gas line installed must not be susceptible to physical damage.

10. **Plastic piping limitations.** Plastic pipe is limited to areas outside of a building and underground. Plastic pipe must not be used within or under any building or slab.

11. **Tracer for nonmetallic gas piping.** An insulated copper tracer wire or other approved insulated conductor must be installed adjacent to underground nonmetallic gas piping. The insulation of the tracer wire or approved conductor must be yellow. Access must be provided to the tracer wire or the tracer wire must terminate above ground at each end of the nonmetallic gas piping. The tracer wire size must not be less than 18 AWG and the insulation type shall be suitable for direct burial.

12. **Pipe sizing:** Sizing of the gas piping serving the installation of a new gas log appliance shall be determined according to Section 1302.4 of the 1998 International Mechanical Code. **CAUTION:** Due to the substantial gas load requirements of specific appliances, the entire gas piping distribution system may have to be resized. Adding a section of gas pipe on the end of an existing run will, in most circumstances, not be sufficient to supply the proper amount of fuel to the appliance according to its listed heat input rating.

Applicants should check with their local fire district for any additional requirements which may apply.