

RESIDENTIAL GAS-FIRED LOG LIGHTERS

(2015 IRC requirements as amended by St. Louis County Ordinances for 1-& 2-Family Dwellings and Townhouses)



This **Gas-Fired Log Lighter Checklist** is based on St. Louis County's (SLCO) policies, construction codes amended and adopted by ordinances. See list below. It is not a substitute for those codes and ordinances, but serves as a guide to reading them. More information and explanation is provided in commentaries and interpretations published by St. Louis County and acknowledged code organizations.



List of Applicable Codes and Ordinances:

2015 International Residential Code (IRC) & Ordinance #27,654-Ch.1116 ("R" "G", "N", and "M" references and Appendix K - Sound Transmission).

2015 International Building Code (IBC) & Ordinance #27,654-Ch.1116\5 ("B" references).

2015 International Mechanical Code (IMC) & Ordinance #27,619-Ch.1108 ("IMC" refs).

For inquiries regarding the information provided in this guide, please contact:

St. Louis County Permit Processing _____ (314) 615-5184

St. Louis County Zoning Review _____ (314) 615-3763

St. Louis County Building Plan Review _____ (314) 615-5485

Right-of-Way Owner

State _____ (888) 275-6636

County _____ (314) 615-8517

Municipality _____ **Call the project site's Municipality**

St. Louis County's Municipal Contracts Matrix shows those municipalities that currently contract for its Code Enforcement services. The Matrix can be found on our web site at www.stlouisco.com/YourGovernment/CountyDepartments/PublicWorks.

And visit us online at www.stlouisco.com/YourGovernment/CountyDepartments/PublicWorks/Construction

Notices Regarding Permits



- The applicant (property owner or the Contractor) is responsible for contacting those other agencies separate from St. Louis County, that may be affected by, or have legal oversight of, the new work along with but separate from St. Louis County. Contact these agencies before beginning work approved under a permit issued by St. Louis County. Such agencies may include:
 1. The project site's Municipality;
 2. The Property's Local Fire Protection District.
 3. Subdivision Trustees.
- This guideline is for the homeowner and installer/contractor and provides basic mechanical code requirements for a permit to install a gas log lighter in an existing all-masonry fireplace, and provide the lighter's associated gas piping.
- The new work proposed under a mechanical permit cannot include construction. Where construction is proposed, apply for a building permit and submit 4 sets of drawings of the construction with appliance installation.
- The installer/contractor must be a registered, financially responsible (bonded and insured) or licensed contractor authorized to do mechanical work.
Notice: Homeowners performing their own work may obtain a permit to do mechanical work within their own dwelling with no requirement to be registered or licensed.
- **The Plan Reviewer** may determine the proposed work, conditions, or construction require additional drawings and information be submitted to Code Enforcement-Plan Review.

Submittal Requirements



Submit the following to install only a gas-fired log lighter and its associated gas piping in an existing all-masonry solid-fuel burning fireplace:

- A completed, signed and dated **mechanical permit application**.
- **A mechanical permit may be issued the same day** an application is made over-the-counter and while you wait. An eligible application has identified a gas-fired log lighter as tested in accordance with code-referenced standard CSA 8, and is listed and labeled by the approved testing agency for installation in an existing all-masonry fireplace (*G2433.1*).
- **NOTICE:** There are apparently few gas-fired log lighters that meet the testing, listing, and labeling requirements noted above. Inspections checks the product manufacturer and model in the field, so be aware Inspections will not pass those that do not comply (*SLCO Policy*).
- **NOTICE:** Be aware a gas-fired log lighter shall not be approved for installation in a factory-built solid-fuel burning fireplace, unless the fireplace manufacturer and the model number are provided, and the installation manual shows the fireplace is listed and allows a gas-fired log lighter installation.

- For a gas-fired log lighter installation that includes new work construction, see the St. Louis County checklist “Residential Factory-Built Fireplaces, Chimneys & Fireplace Stoves” for submittal requirements. Go to www.stlouisco.com/pubworks, select the ‘Guides’ link in the left column, then select the ‘Fireplaces’ link in the second column under the heading ‘Residential Brochures’.

Design Requirements



- Verify the following:
 - The gas-fired log lighter proposed** and its associated gas piping is approved-tested to CSA 8 requirements, and is listed and labeled by an approved testing agency **for installation in a solid-fuel-burning all-masonry fireplace** (G2406.1; G2406.2-Item 2; G2407.5; G2408.1; G2432.1; G2432.3).
 - The gas-fired log lighter proposed** and its associated gas piping is approved-tested to CSA 8 requirements, and is listed and labeled by an approved testing agency **for installation in a solid-fuel burning factory-built fireplace**. The specific factory-built fireplace manufacturer and model number must be provided (G2406.1; G2406.2-Item 2; G2407.5; G2408.1; G2432.1; G2432.3).
 - The factory-built solid-fuel-burning fireplace, proposed to house the gas-fired log lighter, must be identified by specific manufacturer and model number, and its installation manual must note a gas-fired log lighter installation is allowed (G2406.1; G2408.1; G2432.1; G2432.3).
- Gas piping materials** shall comply with the standards noted in the following table, and with 2015-IRC Chapter 24 (G2413.4; G2414; G2415.1; Tables G2413.4(1)-(21)):

FUEL GAS PIPE

MATERIAL	STANDARD
Semi-Rigid Copper Tubing, Type K or L (G2414.5.2)	ASTM B 88 or ASTM B 280
Corrugated Stainless Steel Tubing-CSST (G2414.3; G2415.2)	ANSI LC1/CSA 6.26-13
Polyethylene plastic pipe and tubing ^{1, 2} (G2414.6)	ASTM D 2513
Steel & wrought-iron pipe-Schedule 40(G2414.4.2)	ASTM A 53/A 53M; ASTM A 106; ASME B 36.10, 10M
Steel tubing (G2414.5.1)	ASTM A 254

1 – Piping shall be marked ‘Gas’ and ‘ASTM D 2513’.

2 – Provide Tracer wire at underground locations (G2415.17.3).

- Size gas piping** to adequately serve the new gas log appliance (G2412.8; G2413.3).
Notice: Piping systems must provide a gas supply sufficient to meet the maximum demand of, and not less than the minimum supply pressure required by, the appliance (G2413.1; G2413.2).
- Provide a shutoff valve in the same room** and within 6’-0 of the lighter and upstream of the union, connector, or quick disconnect device it serves. The shut-off valve must be readily accessible. A shutoff valve may only be provided within the firebox where noted as allowed per the manufacturer’s installation manual (G2420; G2420.5.1).

Installation Requirements



- The gas-fired log lighter manufacturer's complete instructions for installation in a solid-fuel-burning fireplace must remain on-site and be readily available to the Inspector during installation and inspection (G2408.1).
- The manufacturer's installation manual for an existing or new work factory-built, solid-fuel burning fireplace must also be maintained on-site and readily available to the Inspector during the installation and inspection of the gas-fired log lighter. The Inspector shall verify the manual notes the fireplace is listed and approved for a gas-fired log lighter installation (G2408.1).
- Gas piping into a factory-built (prefabricated) firebox is only allowed where the prefabricated fireplace is listed for the installation of the gas-fired log lighter and its associated piping. Gas piping run through an existing knockout shall be of an approved piping material listed in the "Fuel Gas Pipe" table (G2415.7).
- The gas piping system serving the gas-fired log lighter extends from the gas fuel point of delivery to its connection to the gas log appliance (G2412.1).
- **Gas piping in solid floors** shall be laid in channels or placed in conduit of Schedule 40 steel, wrought-iron, PVC, or ABS pipe. Protect piping from corrosive substances or excessive moisture. Provide floor cover that allows access to piping with minimum damage to materials (G2415.8).
- **Gas piping into an all-masonry firebox** shall comply the 2015-IRC Chapter 24. Gas piping through an outside wall shall be protected from corrosion by an approved, factory-applied coating, or wrapping with an inert material. The annular space between the piping and a protective sleeve shall be sealed (G2415.11.2; G2415.14.1).
- **Gas piping may run through the ash dump** of an existing all-masonry fireplace, where the piping serves a gas-fired log lighter installation in an existing all-masonry fireplace (G2415.3; *SLCO Policy*).
- **Gas piping through a building foundation** shall not be provided below grade. Gas piping shall enter and exit a building above grade. The annular space shall be sealed between the pipe and the foundation. Gas piping outside of the building shall be elevated at least 3-1/2" above ground, securely supported, and protected from physical damage (G2415.6; G2415.9; G2418).
- **Underground gas piping** system shall be minimum 12" below finished grade (G2415.12).
- **Provide a permanently-fixed placard** at the key operating the gas-fired log lighter key, noting the following: "SAFETY NOTICE: Turn off the gas-fired log lighter AFTER the logs have caught fire. The lighter is to start the fire ONLY. Turn it off after logs have caught fire" (*SLCO Policy*).

Notice: The preceding requirements apply to most simple projects for a **Gas-Fired Log Lighter** installation in a residential fireplace. However, the Plan Reviewer may determine the actual new work proposed requires additional information be submitted to verify its compliance with codes. The above requirements are based on the construction codes in effect at the time this checklist was last updated. Please be aware St. Louis County Code Enforcement updates its construction codes every few years.