PERMIT NO._____
DATE_____

P.O. Box 550
102 Front Street North
Barnesville MN 56514

Phone: 218-354-2292
Fax: 218-354-2472

CITY OF BARNESVILLE

Application for

Gas Piping Permit

Application Fee $25.00
State Surcharge Fee $1.00
Total Fee: $26.00

Date: _____

Customer Information:

Name: _____

Address: _____

Mailing Address: _____

Phone Number: _____

Contractor Information:

Name: _____

Mailing Address: _____

Phone: _____ **Bond (License) Number:** _____

_____ _____
Signature of Applicant **Date**

_____ _____
Signature of Building Official

Continued on next page

CITY OF BARNESVILLE

Homeowner acting as the Contractor

Are you as the homeowner acting as the contractor? **Yes** ☐ **No** ☐

Please complete and sign section below.

I understand that the City of Barnesville requires that all in home gas piping systems should be installed, leak tested and pressure tested by a bonded Heating, Ventilation and Air-Conditioning (HVAC) contractor. As the home owner acting as the HVAC contractor I assume all responsibility for the installation, leak testing and pressure testing of the gas piping I am installing.

I understand that I am responsible to schedule the pressure inspection with the city. The gas line must be charged to 25 pounds per square inch with a test medium such as air, nitrogen, carbon dioxide or an inert gas. Oxygen shall not be used. The line must include a pressure gauge that does not exceed 125 pounds at its maximum reading. The line must hold this pressure for at least 15 minutes. The City Code Enforcement Inspector must be present during the pressure test. Once the test is complete I am responsible to connect the gas piping to the Xcel gas meter and purge the lines of all test medium.

I accept full responsibility for any and all issues that may arise out of the installation and testing of this gas piping in my home including but not limited to gas leaks, fire and explosion. I further understand that the City Code Enforcement Inspector is only verifying the gas pipe held pressure for the required amount of time.

In addition to holding the City harmless from any and all claims arising out of or related to my installation, leak testing and pressure testing of the piping I agree to indemnify and defend the City from any and all actions brought against the City relating to or arising out of my installation, leak testing and pressure testing of the piping. Said indemnification shall include, *inter alia*, attorneys fees, damages, whether punitive, economic or compensatory, and costs and disbursements. I specifically agree and acknowledge that this indemnification provision shall survive the termination of this waiver.

_____ _____

Homeowner Signature Date

Gas Piping Test Inspected by_____

Date Approved_____

Direct Bonding of Standard (Yellow) CSST

Direct bonding is required for gas piping systems incorporating standard (yellow) or uncoated CSST whether or not the connected gas equipment is electrically powered. This requirement is provided as part of the manufacturer's instruction for single-family and multi-family buildings and required by the 2009 and later editions of the National Fuel Gas Code, the International Fuel Gas Code and the Uniform Plumbing Code. A person knowledgeable in electrical system design, the local electrical code and these requirements should specify the bonding for commercial applications.

Standard CSST installed inside or attached to a building or structure shall be electrically continuous and direct-bonded to the electrical ground system of the premises in which it is installed. The gas piping system shall be considered to be direct-bonded when installed in accordance with the following:

The bonding conductor is permanently and directly connected to the electrical service equipment enclosure, the grounded conductor at the electrical service, the grounding electrode conductor, or to one or more of the grounding electrodes used. When an additional grounding electrode(s) is used for the gas service, it shall be bonded to the electrical service grounding electrode system or, where provided, the lightning protection grounding system. For single and multi-family structures a single bond connection shall be made on an accessible rigid piping component or CSST fitting located downstream of the utility gas meter or second-stage LP regulator. The bonding clamp attachment point may be at any location within the gas piping system. However, the shortest practical bonding wire length will improve the effectiveness of the direct-bond. The corrugated stainless steel tubing portion of the gas piping system shall not be used as the point of attachment of the bonding clamp under any circumstances. (Fig. 1, 2)

The bonding conductor shall be no smaller than a 6 AWG copper wire or equivalent. The bonding conductor shall be installed and protected in accordance with the *National Electrical Code, NFPA 70, (NEC)* and *Canadian Electrical Code CSA-C22.1 (CEC)*. Bonding/grounding clamps shall be installed in accordance with its listing per UL 467 and shall make metal-to-metal contact with a rigid pipe component or CSST fitting. This direct-bond is in addition to any other bonding requirements as specified by local codes for ground fault protection.

The 2015 edition of the National Fuel Gas Code, International Fuel Gas Code, and Uniform Plumbing Code limits the length of the bonding conductor to 75-ft. When there are no local code requirements for the length of this conductor refer to the manufactures instructions or the NEC / CEC for guidance regarding the permissible length of the bonding conductor.

Figure 1: Bonding Clamp Attachment to Pipe

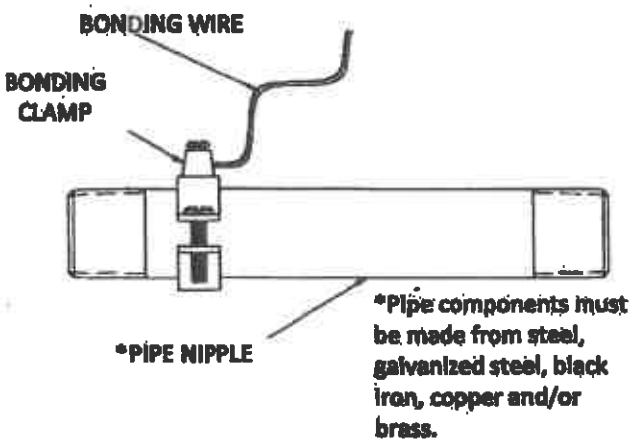
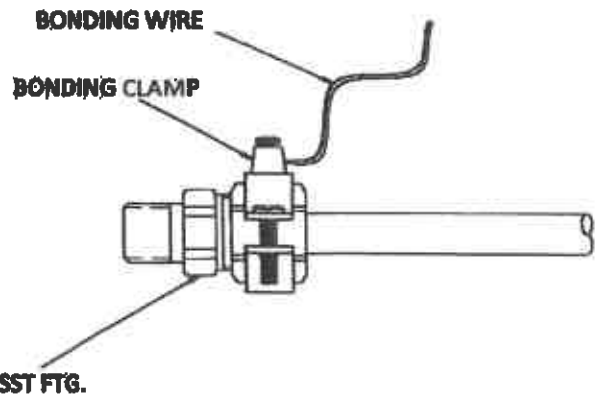


Figure. 2: Bonding Clamp on CSST Fitting



Manufactures of black jacketed CSST products which have been tested and listed to ICC-ES LC 1024, "CSST Utilizing a Protective Jacket", may not require or include in their instructions the additional direct-bonding step that is required with standard (yellow) CSST products. However local codes may be more restrictive and may differ from manufacturer's requirements. Local codes take precedence and must be adheted to.

Gas piping

Safety campaign targets yellow gas-piping systems

The National Association of State Fire Marshals (NASFM) has launched a nationwide safety campaign to bring awareness to homeowners about proper bonding of yellow corrugated stainless-steel tubing (CSST) due to potential damage risks associated with lightning.

CSST is a flexible, stainless steel pipe used to supply natural gas and propane in residential, commercial and industrial structures. Coated with a yellow, or in some cases, a black exterior plastic coating, CSST is usually routed beneath, through and alongside floor joists in basements, inside interior wall cavities and on top of ceiling joists in attic spaces.

The NASFM urges all property owners with buildings and homes constructed after 1989 with yellow CSST installed to have the tubing checked for proper bonding and grounding. Manufacturers' instructions have required direct-bonding and grounding of yellow CSST in new installations since 2006. All are encouraged to have these systems checked by a qualified and licensed electrician.

The American Gas Association partnered with the NASFM for this campaign. Learn more at www.CSSTsafety.com.

CCLD Review-Fall 2014-Minnesota Department of Labor and Industry-www.dli.mn.gov

Gas distribution system grounding required

Proper bonding of corrugated stainless steel tubing (CSST) gas distribution systems is necessary to reduce the possibility of damage from lightning-induced surges by eliminating electrical potential between various metallic building systems, including the gas distribution. Firefighters have reported damage to CSST in buildings.

Section 250.104 (B) of the National Electrical Code allows the equipment grounding conductor of the feeder or branch circuit to bond the gas piping at the supplied equipment, but not all gas appliances have an electrical component. Where CSST is used it must be bonded directly to the grounding electrode system of the premises.

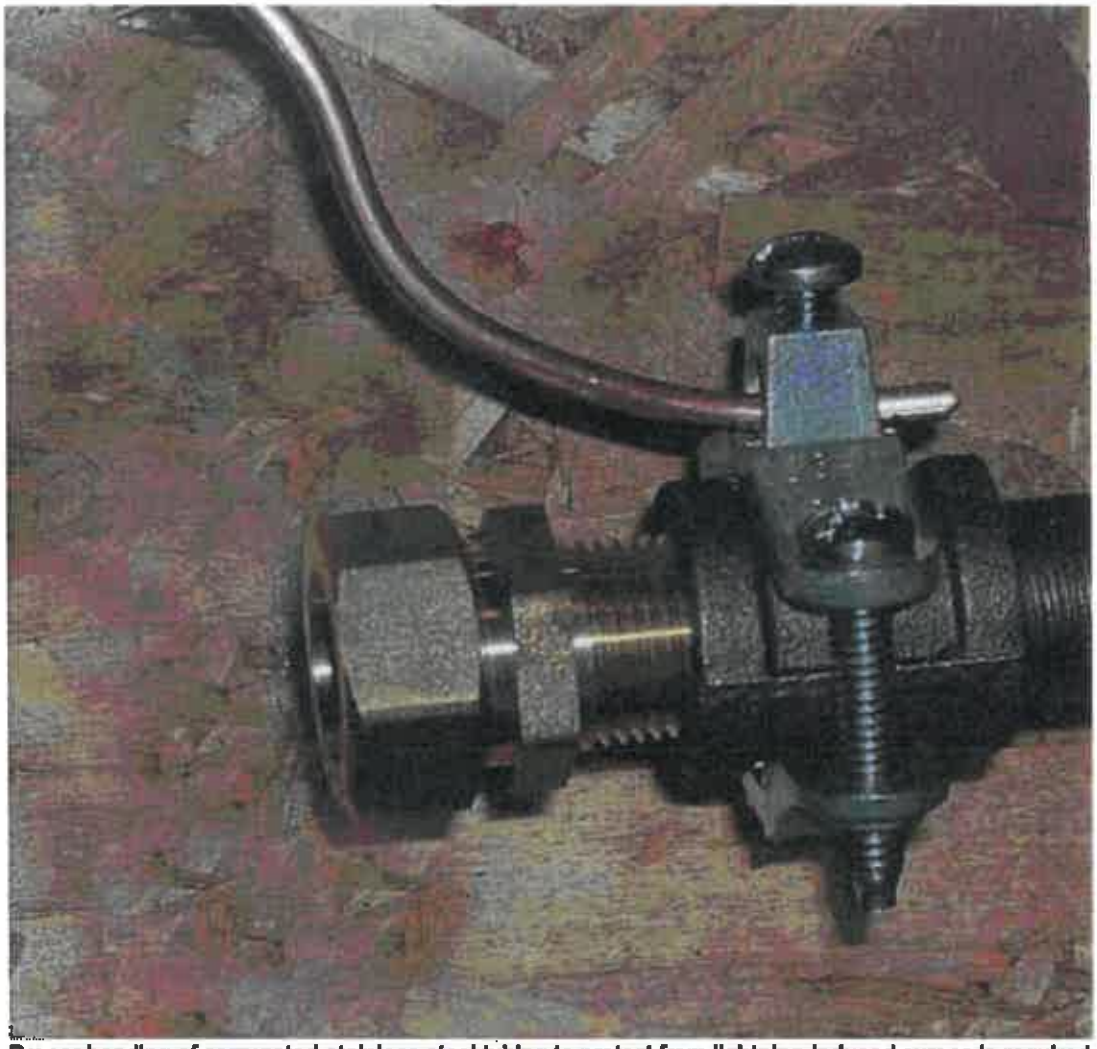
The 2009 edition of National Fuel Gas Code 54 (NFPA) requires CSST gas piping systems to be directly bonded to the building's electrical system:

• **7.13.2 CSST.** CSST gas piping systems shall be bonded to the electrical service grounding electrode system at the point where the gas service enters the building. The bonding jumper shall not be smaller than 6 AWG copper wire or equivalent.

• **7.13.3 Prohibited Use.**
Gas piping shall not be used as a grounding conductor or electrode. This does not preclude the bonding of metallic piping to a grounding system. This requirement applies to all CSST, without exception. It includes those CSST products with no additional electrical bonding requirements in the manufacturer's installation instructions.

The bonding of CSST products is enforceable under the State Mechanical Code. According to the Minnesota Electrical Act, the installation of the bonding conductor must be performed by a licensed electrical contractor. A separate electrical inspection permit is not required, as the inspection of the bonding conductor is done with the inspection of other electrical work on the premises. CSST shall be bonded with approved pipe grounding clamps at the point nearest the entrance of the gas piping to the premises. The connection must be made at a fitting, pipe or manifold that is directly connected to the

CSST and not to the tubing or tubing fittings. The bonding conductor shall be no smaller than 6 AWG copper, be as short as possible and connect directly to the premises grounding electrode system or electrical service equipment enclosures or raceways. Proper bonding of a gas distribution system of CSST requires jobsite coordination, cooperation and communication between the installer of the gas distribution system and the electrical contractor.



Proper bonding of corrugated stainless steel tubing to protect from lightning-induced surges is required on gas distribution systems.