

Fuel Safety Bulletin

2003-03

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Subject: General

Once again the spring rush has started and we are ramping up for the opening of the many motels, restaurants and take-outs that so rely on our tourist industry. While we have gone through many changes in the permit and licencing systems this past year, the changes have been relatively seamless. The new certification upgrades have been completed, and have given us a class of installers that we can be truly proud of. Many of you are continuing your studies and are upgrading to the Gas Fitter 1 certification and I commend you for this.

This issue of the Bulletin will address a number of questions which we have been asked, and some small problems that inspectors have encountered in the field. These items are as follows;

- 1. Installation of metal chimney liners** - Some of you have been told that only certified bricklayers (masons) may install metal liners in brick chimneys. In researching this issue, I have looked at the Bricklayer Trade Regulations made under Section 41 of the Apprenticeship and Trades Qualifications Act.

Section 1(b) of these regulations states; *"bricklayer trade" or "trade" means the work performed by bricklayers in the construction of walls, partitions, fireplaces, chimneys and other structures from brick and other masonry products such as concrete or light weight block and precast panels made of concrete, stone or marble;*

For an official interpretation of this document you should contact the Department of Education, as I have, however, it appears very evident that a certified mason is only needed for the actual brick laying (new construction, or repair). Sweeping, flashing repairs, metal liner installation and metal cap installation would not need a bricklayer certification.

- 2. Green Tags** - We have received a number of questions regarding Green Tags. These questions are addressed in the following statements;
 - (a) Note that tags must be used whenever any new system is installed or any system is changed in any way
 - (b) Tags must be completed for all domestic or commercial installations
 - (c) Copies of Tags must be sent to the gas supplier for his files
 - (d) Tags must be kept on file and be accessible to an Inspector at all times.
 - (e) Tags must be fully completed (including 2 signatures) before gas is supplied to the system.
 - (f) A Green Tag must be in place, and completed fully (this includes both signatures), before the gas supply is installed. The signing of a green tag, then installing a yellow tag is not acceptable. Please read Section 31(2)(d) of the Regulations. This is the statement that you must sign, and therefore it must be true.
 - (g) A Green Tag may not be signed by a Gas Fitter 3. (Fuel Safety Regulations Section 31(2)(h))
 - (h) While a Gas Fitter 1 may sign or countersign the Green Tag for an installation under 400,000 btu total size, a Gas Fitter 2 may not provide the second signature on a Green Tag for an installation over 400,000 btu total size.
 - (i) A green tag is required for any installation or any change to an installation. This would include the installation of a container during a takeover. The installer is responsible for ensuring that the installation being taken over meets the Code under which it was originally installed.

3. Red/Yellow tag removal - The Fuel Safety Regulations require that the Chief Inspector be notified by phone, fax or e-mail when a Red and Yellow Tag is installed. The Regulations require that copies of Red and Yellow Tags that have been installed, be sent to the Chief Inspector and the Gas Supplier (Section 38(2)).

4. Plan submissions - Attached are two guides indicating the information needed when plans are submitted (Section 19, Fuel Safety Regulations). Failure to provide this information will result in the plans being returned to you.

5. Appliance conversion - We have been asked how one would convert an new appliance, that is tagged for one fuel, to use another fuel. It must be noted that any change or modification to an appliance voids its certification. As such, it would be illegal for sale, or use within this province.

- The sole exceptions to this are;
- (1) An appliance that notes both fuels on the rating plate (eg. Natural/Propane) may be field converted using the supplied changeover kit and instructions.
 - (2) An appliance may be converted with a certified conversion kit. This is a kit which the manufacturer has had certified, by the certification agency, for the field certification of a particular appliance. This kit is for a particular appliance, has detailed conversion instructions, and is labelled by the certification agency.
 - (3) A new appliance may be converted if the manufacturer has such an appliance certified for both gases. The manufacturer would then send a new rating plate to the certification agency, who would install it in the field. The appliance must be converted with a kit provided by the manufacturer, and only the original certification agency may install a rating plate in the field.

Any conversions noted above may only be done with the express written consent of the Chief Inspector .

6. Propane container vaporization rates -Some of you who are new to the industry have asked about the accepted vaporization rates of tanks and cylinders. For your information, the following are figures used by this office during plans approvals;

Cylinder / Tank size	BTU limit - Heating appliances	BTU limit - cooking / water heating
100 lb	50,000	87,500
420 lb/ 123 uswg	100,000	175,000
500 uswg	336,000	588,000
1000 uswg	537,000	940,000
2000 uswg	846,000	1,480,000

7. Domestic cooking equipment in commercial kitchens / Commercial equipment in domestic kitchens - The use of the equipment governs the protection and venting required. While a domestic range in a commercial kitchen needs a full NFPA-96 canopy, the use of a commercial range (without a griddle) in a residential domestic kitchen would simply require a canopy which would adequately remove products of combustion.

8. Vertical tanks - The use of vertical tanks is increasing, but a unique problem has surfaced. Many of you have found that the internal vapour riser in the tank presents reliquefaction problems, and have been forced to connect to the tank near the top, above the liquid level. This is certainly acceptable, as long as the tank’s main vapour shut off valve is accessible from grade level. An emergency shut off valve that is located twenty feet up the side of a tank is of little use.

9. Flexible connector use - While flexible connectors are needed on most appliances, there are a number of cases where piping, tubing or CSST may be run directly to the appliance control. These are appliances which have little or no vibration and are connected to a permanent venting system.

This would include such appliances as;

- (a) vented pizza/bake ovens,
- (b) rooftop furnaces on solid curbs with interior piping (only a stub up through the curb or roof deck to the appliance),
- (c) domestic furnaces and water heaters (also power vented where the venter is remote)
- (d) commercial furnaces and boilers (also power vented where the venter is remote)
- (e) solidly mounted unit heaters and suspended furnaces

Note: These examples would only apply where the appliance is not shipped with an appliance connector, or one is not required by the certified installation instructions.

10. Bonding of interior metal gas piping - The Canadian Electrical Code rule 10-406 (4) requires **all** interior metal gas piping to be bonded. Gas fire places are a typical example where this would be a concern.

It is not the responsibility of the gas contractor to install the bonding, however, in the interest of safety, the contractor should inform the owner that **all** interior metal gas piping must be bonded and that they should contact an electrician to have such piping bonded per the electrical code.

10. Contact information - For your convenience, I have attached a convenient contact information sheet which provides contact information for inspectors, licensing and certification personnel, as well as permit submission information.

Should there be any questions regarding this Bulletin, or if any of you have items that you would like addressed in a bulletin, please contact me at our Halifax office.

Our phone number here is 424-5721 or 1-800-559-3473.

Our Fax number is 902-424-3239.

My e-mail address is : stewardc@gov.ns.ca

Sincerely

Dale C. Stewart
Chief Inspector - Fuel Safety