



<b>Fuels Safety Program</b>	Ref. No.: FS-099-07	Rev. No.: 1
<b>ADVISORY</b>	Date: January 24, 2007	Date: March 15, 2007

**Subject:** Repairs of Defective Heat Exchangers in Industrial and Commercial Appliances  
**Sent to:** Posted on Web-Site

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### **Repairs of Defective Heat Exchangers in Industrial and Commercial Appliances**

Clause 4.21.3 of the CSA B149.1-05 Natural Gas and Propane Installation Code, adopted by Director's Order FS-67-05, issued under O. Reg 212/01 states:

*Where the heat exchanger of a **commercial or industrial appliance** is found to be defective, it may be repaired, and the repair shall be in accordance with procedures acceptable to the **authority having jurisdiction**.*

Because heat exchanger designs, materials, manufacturing methods etc. vary from manufacturer to manufacturer, model to model and even serial to serial number of the appliance, a single repair procedure cannot be used. It must be developed for individual heat exchanger designs and models. It is the responsibility of the person or a company wishing to make repairs to develop procedures suitable for the repair.

Where welding repairs are required, the welding procedures and welders shall be:

1. prepared in accordance with the CSA Standard W59 and approved by the Canadian Welding Bureau (CWB); or,
2. prepared in accordance with ASME Code Section IX and approved by the Boilers and Pressure Vessels Program of TSSA.

To apply for the required approval of the repair procedure, the following shall be submitted to the Director of Fuels Safety Program, by completing a variance application form:

1. Complete description of the repair process. Where the process includes welding, include the welding procedure in the CWB or ASME format;
2. Make and Model of the appliance; and,
3. Letter from the appliance manufacturer accepting the repair procedure. If the manufacturer is no longer in business, the repair procedure shall be reviewed and accepted by a Professional Engineer.

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