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Safety tips from CSA International for the Safe Use of Cord-connected, Fan-forced Electric Space Heaters

Toronto, ON - December 2, 2008 - During the fall and winter months, space heaters are an effective way to provide temporary warmth to those involved in a profession such as construction or simply working in the garage or around the home. CSA International would like to remind consumers that all space heaters by their very design may present certain shock, fire and burn hazards when used or installed incorrectly.

It is especially important to use extra caution when operating large, electric fan, metal-sheathed, heating element heaters in the 240 volt, 3000 watt and greater range. Due to the high heat output of these devices, there may be an increased fire hazard if used incorrectly, in close proximity to combustibles or around objects that disrupt airflow. The elements in some of these heaters have unexpectedly failed resulting in serious fires. Extreme caution must be used when using these heaters.*

CSA International offers the following tips to help prevent unexpected failures of metal-sheathed heating elements in electric heaters that could lead to electrical shock or fires:

- **Selection:** When purchasing a new heater, ensure that it has been tested and certified to the applicable standards by an accredited certification organization such as CSA International and that it is suitable for the intended application.
- **Instructions:** Always follow the manufacturer's installation and operating instructions and all warnings before using a space heater. If you do not have or understand the instructions, contact the manufacturer directly.
- **Temporary use:** Electric portable fan space heaters are designed to provide temporary warmth only. They should never be permanently installed or mounted and should not be operated continuously over extended periods of time. Portable heaters should never be suspended from ceilings or rafters or in any other manner.
- **Never hard-wire** (removing the plug cap) a portable heater directly to a power supply or modify or tamper with the construction of the unit.
- **Ventilation:** In order to avoid overheating, electric fan space heaters must have proper ventilation across the elements. Never position the heater in an area that will limit the airflow to or from the fan.
- **Connection:** Before turning the heater on, make sure the power supply cord's plug cap is fully inserted into the outlet. To avoid overheating and a potential fire hazard, do not use an extension cord with the heater.
- **Breakers and GFCIs:** Use of an electrical outlet with a Ground Fault Circuit Interrupter (GFCI) or a ground fault protected circuit is recommended. Only use a properly rated fused circuit or a breaker-protected circuit for powering the unit as indicated by the manufacturer's instructions.
- **Fire Hazards and Combustibles:** To avoid the risk of fire, do not use heating equipment near combustible surfaces. Heaters should only be installed on a noncombustible surface that extends

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a minimum of 1.5 meters beyond the front of the heater. Never operate a heater near flammable materials or in proximity to any volatile or flammable chemicals or vapours.

- **Air:** Never block a heater's air flow. Obstruction of a heater's air intake or exhaust could lead to overheating and a potential fire hazard. Do not insert or allow foreign objects to enter any air vent as this may cause a potential for electric shock, fire or damage to the equipment and never use the heater to dry clothes, boots or other items of apparel.
- **Maintenance and Storage:** Always ensure heaters have had sufficient time to cool down after use before moving or storing and be sure to store heaters in a dry location. Check regularly if there are rust marks or degradation signs on the heating element and follow the manufacturer's instruction for proper maintenance and replacement. Do not use the heater if it has been exposed to any mechanical damage. Periodically clean the heater of any dust or particle accumulation. If you suspect the heater has been damaged or does not seem to work properly, discontinue use and refer to the manufacturer's instructions.
- **Extra caution:** Use extra caution when operating portable heaters. Do not leave a heater running while unattended or use a heater in a position where it can be easily overturned or fall.

*CSA Standard C22.2 No. 46 for electric heaters has been amended to include an additional abnormal operation test to address safety issues that have arisen when devices are operated in extreme conditions or in a manner for which they were not intended. A revised Standard will be published in January, 2009, and effective April 24, 2009 manufacturers will be required to comply with the new abnormal testing requirements of the CSA standard in order to certify their products.