

## Chimneys

Where certified for use with a specific chimney or class of venting system, a solid-fuel-burning appliance shall only be used with that chimney or venting system

Factory-built chimneys acceptable for use with solid-fuel-burning appliances and their installation must conform to CAN/ULC-S629-M, "650°C Factory-Built Chimneys."

Masonry and concrete chimneys must conform to the Alberta Building Code and should only be constructed by a qualified tradesperson.

## Combustion air

Appliances that have a **direct supply** of combustion air shall be tested and labelled for this application. Ducts supplying combustion air from outdoors may only be connected directly to the air inlet of an appliance that is tested and labeled for such a connection.

The installation and the components of the combustion air system must conform to the manufacturer's installation instructions or to CAN/CSA-B365, *Installation Code for Solid-Fuel-Burning Appliances and Equipment*.

## Makeup air and carbon monoxide alarms

Even at a relatively low level of depressurization, certain open-type or even closed-type solid-fuel-burning appliances whose stoking doors are left open, can spill products of combustion into the house when operating in their "die down" or smoldering stages.

The Alberta Building Code addresses the potential for spillage in dwellings that contain solid-fuel-burning appliances and equipment with requirements for **makeup air**, and **carbon monoxide alarms**.

**Carbon monoxide alarms:** Carbon monoxide alarms shall be installed in each room containing a solid-fuel-burning appliance as prescribed under the current edition of the Alberta Building Code.

## Alberta's Safety System

Alberta Municipal Affairs works in partnership with the Safety Codes Council, municipalities, corporations, agencies, and other organizations, to deliver effective community-focused public safety programs and services to Albertans.

## Questions or more information:

### Alberta Municipal Affairs

Safety Services Branch  
16th Floor, Commerce Place  
10155 - 102 Street  
Edmonton, Alberta T5J 4L4

Phone toll-free: 1 (866) 421 6929  
Fax: (780) 427 8686  
E-mail: [safety.services@gov.ab.ca](mailto:safety.services@gov.ab.ca)  
[www.municipalaffairs.gov.ab.ca](http://www.municipalaffairs.gov.ab.ca)

### Safety Codes Council

Suite 1000, 10665 - Jasper Ave NW  
Edmonton, Alberta T5J 3S9

Toll-free within Alberta:  
Phone: 1 (888) 413 0099  
Fax: 1 (888) 424 5134  
Email: [webmaster@safetycodes.ab.ca](mailto:webmaster@safetycodes.ab.ca)

Please place your agency or municipality contact information in the space below.

These brochures may be updated periodically. They have no legal status and cannot be used as an official interpretation of the various bylaws, codes and regulations currently in effect.

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# Safety Tips

## Solid-Fuel-Burning Appliances



Alberta

 SAFETY CODES COUNCIL

# Solid-Fuel-Burning Appliances

## Do you need a permit?

It is the owner's responsibility to obtain a building permit before installing or modifying any solid-fuel-burning appliance as prescribed by the current edition of the Alberta Building Code.

## Acceptable appliances and equipment

Appliances, accessories, components, and equipment are required to satisfy the requirements of one of the following standards, whichever is applicable:

- CAN/CSA-B366.1, central systems
- CAN/ULC-S610, factory-built fireplaces;
- ULC-S627, space heaters;
- ULC-S628, fireplace-inserts & hearth-mounted stoves;
- CAN/ULC-S629, factory-built chimneys;
- ULC-S632, heat shields;
- ULC-S635, lining systems for existing chimneys;
- CAN/ULC-S639, steel fireplace liners;
- CAN/ULC-S640, liners for new chimneys;
- ULC-S641, flue pipes; or
- the requirements of the authority having jurisdiction.

*Manufacturer's installation instructions are checked as part of the certification process to ensure safe operation of your solid-fuel-burning system. Labels found on certified appliances are your assurance that a product has been tested & conforms to established safety standards.*

**Note:** Appliances and equipment without permanent certification labels that confirm testing to their applicable standard will **not** be allowed for use, unless accepted by the authority having jurisdiction.

## Professional installation

To achieve maximum performance from a solid-fuel-burning appliance and to be assured of its safety, you should consider having the system that will best serve your needs professionally installed. Seek out people trained in proper installation procedures who are "Wood Energy Technical Transfer (WETT)" certified. For additional service and safety information, contact: **Wood Energy Technical Transfer Inc.** at 1-888-358-9388 or check out their web site at [www.wettinc.ca](http://www.wettinc.ca)

## Installation of solid-fuel-burning appliances

The design, construction and installation of solid-fuel-burning appliances and equipment, including stoves, ranges and space heaters, shall conform to CAN/CSA-B365-01, "Installation Code for Solid-Fuel-Burning Appliances and Equipment." This standard covers such issues as accessibility, air for combustion and ventilation, chimney and venting, mounting and floor protection, wall and ceiling clearances, installation of ducts, pipes, thimbles and manifolds, and control and safety devices.

*If you have questions or would like to place an order for the CAN/CSA-B365-01 standard, please contact: Canadian Standards Association*  
1 (800) 463 6727 or visit them online at [www.csa.ca](http://www.csa.ca).  
**Canadian Standards Association, Western Region**  
Phone: (780) 490-2007 Fax: (780) 490 2059

**Canada Mortgage and Housing Corporation (CMHC)** has produced further safety information on the safe installation of solid-fuel-burning appliances and equipment in a document called "A Guide to Residential Wood Heating." *If you have further questions or you wish to obtain this publication; visit their website at [www.cmhc.ca](http://www.cmhc.ca) or you may reach them by phone at 1-800-668-2642*

**WARNING:** Whenever solid fuel-burning appliances are to be installed in **mobile homes**, they must be tested and labelled "*for use in mobile homes.*"

## Protection of the floor

Any combustible flooring or floor covering beneath a solid-fuel-burning appliance requires protection from hot embers that might fall during fire tending or ash removal. Combustible floors must be protected by a continuous, durable, non combustible pad made of a 0.38 mm (0.015 in) thick metal sheet, or a grouted ceramic floor-tile installed in accordance with the National Building Code of Canada shall be considered a durable pad. Floor protection pads must extend not less than 450 mm (18 in.) in front of the loading door and 200 mm (8 in.) beyond the other sides and back.

## Protection for non-tested appliances

If acceptable to the authority having jurisdiction, non-tested appliances, must provide adequate floor protection which will depend on the height of the unit supported off the combustible floor structure. Necessary protection is based on the **Mounting and Floor Protection** section of CAN/CSA-B365-01, *Installation Code for Solid-Fuel-Burning Appliances and Equipment.*

## Wall and ceiling clearances

The minimum clearance between any solid-fuel-burning appliance and combustible material (other than the floor), whether or not such material is covered with non-combustible material such as plaster, shall conform to **Table 2: Clearances to Combustible Material for Appliances Using Solid-Fuel** of CAN/CSA-B365-01, *Installation Code for Solid-Fuel-Burning Appliances and Equipment*, unless the appliance is certified for lesser clearances.

Certified appliances, accessories, components, and equipment, shall be installed in accordance with the manufacturer's installation instructions. When a difference exists between the manufacturer's installation instructions and the **CAN/CSA-B365-01, Installation Code for Solid-Fuel-Burning Appliances** standard, the manufacturer's installation instructions shall govern.

## Reduction in wall and ceiling clearances

Clearances for uncertified and certified appliances may be reduced in accordance with the clearance provisions of certified heat shields or if the requirements are satisfied as set out in **Table 3: Reduction in Appliance and Ductwork Clearance from Combustible Material with Specified Forms of Protection** of CAN/CSA-B365-01, *Installation Code for Solid-Fuel-Burning Appliances and Equipment.*

*The common feature of the clearance reduction rules is air space behind the shield material. This space sets up a convection flow of air which prevents the appliance's heat from reaching the walls and ceilings.*