A joint committee with members representing AIBC, APEGBC, BOABC, POABC

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Interpretation Date:	February 15, 2011 (<i>Revision 1 – October 18, 2016</i>)
Building Code Edition:	BC Building Code 2006
Subject:	Clearance to framing, finishes and cabinetry from ranges
Keywords:	Clearances, ranges, framing, finishes, cabinetry, hood fans, over the range (OTR) microwaves
Building Code Reference(s):	9.10.22. , CAN/CSA-B149.1 – 7.32

Question:

- 1. For Part 9 Buildings, what are the minimum required clearances between a gas, propane or electric residential ranges and any of the following:
 - a. Framing, finishes or cabinetry
 - b. Metal hood fan
 - c. Over the range (OTR) microwave oven
- 2. For Part 3 Buildings, what are the minimum required clearances between a gas, propane or electric residential ranges and any of the following:
 - a. Framing, finishes or cabinetry
 - b. Metal hood fan
 - c. Over the range (OTR) microwave oven

Interpretation:

<u>For Part 9 Buildings</u>, the installation of gas, propane and electric residential ranges is governed by Subsection 9.10.22.

As per Article 9.10.22.1., the clearance for natural **gas and propane residential ranges** is determined as the most restrictive requirements of either the BC Gas Safety Regulation of the BC Safety Standards Act and the reference standard CSA B-149.1 (see Attachment #1) or Articles 9.10.22.2. and 9.10.22.3.

Vertical clearance to framing, finishes and cabinets

- 750 mm with no hood fan or OTR microwave
- 750 mm with hood fan or OTR microwave that projects less than 125 mm beyond the framing, finishes and cabinets
- 600 mm with a metal hood fan that projects at least 125 mm beyond the framing, finishes and cabinets
- 600 mm when protected with 6 mm thick asbestos millboard <u>covered with</u> sheet metal not less than 0.33 mm thick

Horizontal side clearance to combustible wall framing, finishes or cabinets:

- 450 mm if there is no fire protection material provided
- 150 mm if there is fire protection material provided equivalent to 9.5 mm thick gypsum board

R. J. Light, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, APEGBC, BOABC, and POABC, which form the BC Building Code Interpretation Committee. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

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Horizontal front clearances to combustible materials

- 1200 mm front clearance is required for gas or propane ovens
- No front clearance is required for gas or propane cook tops
- A smaller clearance may be permitted per Article 7.32.6. of CSA B-149.1 if the clearance is certified and specified on the appliance rating plate
- The 1200 mm clearance is measured from the front of the oven door in its closed position

Vertical and horizontal clearances between a gas or propane residential range and an OTR microwave are based on the more restrictive recommended manufacturer's clearances for both the range and the OTR microwave.

For Part 9 Buildings, as per Article 9.10.22.1., the clearance for electric residential ranges is determined by Articles 9.10.22.2. and 9.10.22.3.

Vertical clearance to framing, finishes and cabinets

· Same as for gas or propane ranges noted above

Horizontal clearance to combustible wall framing, finishes or cabinets:

- 450 mm if there is no fire protection material provided
- 0 mm if there is fire protection material provided equivalent to 9.5 mm thick gypsum board

Vertical and horizontal clearances between an electric range and an OTR microwave are based on the more restrictive recommended manufacturer's clearances for both the range and the OTR microwave.

<u>For Part 3 Buildings</u>, installation of gas or propane residential ranges is governed by the BC Gas Safety Regulation of the BC Safety Standards Act and the reference standard CSA B-149.1 (see Attachment #1).

Vertical clearance to combustible material

- 750 mm with no hood fan or OTR microwave, or
- 600 mm when the underside of the combustible material above the range is protected with at least 6 mm thick insulating millboard covered with sheet metal not less than 28 MSG (0.3 mm), or
- For a new residential range, installed in accordance with the certified clearances from combustible material as specified on the appliance rating plate.

Horizontal side clearances to combustible material

- 150 mm to back and sides, or
- For ranges certified for zero side and rear clearances, 25 mm on the back and 0 mm of the side with a 28 MSG (0.3 mm) thick sheet metal shield on the side walls spaced out a minimum of 6 mm, or
- For a new residential range, installed in accordance with the certified clearances from combustible material as specified on the appliance rating plate

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Horizontal front clearances to combustible materials

- 1200 mm front clearance is required for gas or propane ovens
- No front clearance is required for gas or propane cook tops
- A smaller clearance may be permitted per Article 7.32.6. of CSA B-149.1 if the clearance is certified and specified on the appliance rating plate
- The 1200 mm clearance is measured from the front of the oven door in its closed position

<u>For Part 3 Buildings</u>, installation of electric residential ranges is governed by the most restrictive written manufacturer's recommendations for the range, hood fan and OTR microwave.

Refer also to BCBCIC Interpretation 98-0100.

Refer also to BCBCIC Interpretation 12-0085 for projects designed to the 2012 BC Building Code, which includes revisions to CAN/CSA-B149.1.

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ATTACHMENT 1

CAN/CSA-R149,1-05

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7.32 Residential-type ranges

7.32.1

A range shall not be installed in a **bedroom** but may be installed in a **bed-sitting room**, provided that it is not required to be used for space-heating purposes.

7.32.2

A residential-type range shall be installed level. When installed on a **combustible** floor, it shall be set on its own legs or hallled base and shall be **certified** for such mounting.

7.32.3

When a **vent connector** is attached to a range, suitable provision shall be made by the **installer** for the protection of adjacent **combustible** material.

7.32.4

Except where permitted by Clauses 4.13.2 and 7.32.5 to 7.32.7, a residential-type range shall have the following minimum clearances from **combustible** material.

- (a) above 30 in (750 mm);
- (b) front 48 in (1200 mm); and
- (c) back and sides 6 in (150 mm).

7.32.5

A residential-type range certified for zero side and rear clearances may be installed with zero side clearance from combustible material, provided that there is a 1 in (25 mm) clearance at the back and a 28 MSG (0.3 mm) sheet metal shield on the side walls spaced out a minimum of 0.25 in (6 mm). The shield shall extend from the rear wall to the front edge of the range and from 5 in (125 mm) below to 30 in (750 mm) above the cooking surface.

7.32.6

A new residential-type range shall be installed in accordance with its *certified* clearances from *combustible* material as specified on the *appliance* rating plate.

7.32.7

When the underside of the *combustible* material above a residential-type range is protected with *insulating millboard* at least 0.25 in (6 mm) thick covered with sheet metal not less than 28 MSG (0.3 mm), the clearance above the range as specified in Clause 7.32.4 may be reduced to 24 in (600 mm)

7.32.8

An exhaust hood, an exhaust *appliance*, or a combination thereof installed above a range shall be installed in accordance with *certified* installation instructions for such an exhaust hood or *appliance*.

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