

Radon Gas Mitigation Program

[*guelph.ca/radon*](http://guelph.ca/radon)

CARST 2016 Radon Conference
Sheraton Centre Montréal
Montréal, QC

AGENDA

- » **Program development**
- » **Ontario Building Code**
- » **Challenges**
- » **Next steps**
- » **Q & A**

PROGRAM DEVELOPMENT

Test results

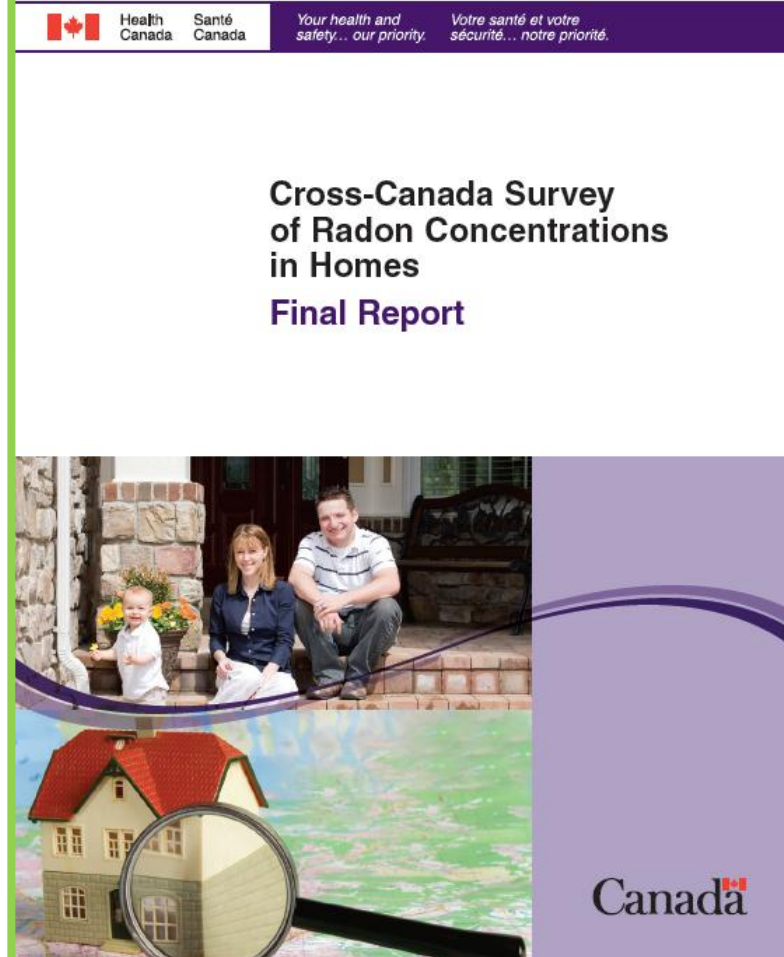
Canada: 6.9%

Ontario: 8.2%

Health Unit: 10.9%
(WDGPH)

*At what point is radon
deemed a "problem"?*

Guelph: 18.3%



Program details

- » Program development included stakeholder engagement
- » Applies to all building permit applications submitted after August 31, 2015
- » All new buildings
- » Residential additions greater than 20m²
- » ICI additions greater than 50m²
- » New construction only (*n/a to renovations*)

Frequently asked questions

- » How long will the program be in place?
- » Are any areas of the City of Guelph considered “radon-free”?
- » Is the City of Guelph paying for all radon gas testing?
- » How will the program affect building permits?
(*e.g. drawing requirements, granting of occupancy, closing building permits, etc.*)

Single detached, semi-detached and townhouses

Code Compliance **Option 1:** *(Division B, 9.13.4.2.(2)(c))*

- » Provide for subfloor depressurization
(pipe rough-in)
- » **Mandatory** testing required
- » Active subfloor depressurization system
required to be installed only if concentration
levels exceed 200 Bq/m^3

Single detached, semi-detached and townhouses

Code Compliance **Option 2:** *(Division B, 9.13.4.2.(3) & (4)(a))*

- » Sealing of walls with bituminous damproofing
(tar)
- » Sealing of floors with poly under slab and caulking
above slab
- » **Voluntary** testing provided
(winter 2015/16 and winter 2016/17)

Single detached, semi-detached and townhouses

Code Compliance **Option 3:** (*Division B, 9.13.4.2.(3) & (4)(b)*)

- » Sealing of walls with bituminous damproofing
(*tar*)
- » Install active subfloor depressurization system
(*fan*)
- » **Voluntary** testing provided
(*winter 2015/16 and winter 2016/17*)

Industrial, commercial, institutional, and multi-residential (*ICI*)

Compliance with EPA 625/R-92/016:

(Division B, 5.4.1.1.(appendix) & 6.2.1.1.)

- » Sealing of walls (*e.g. bituminous tar dampproofing*)
- » Sealing of roofs (*e.g. waterproofing*)
- » Sealing of floors (*e.g. 6 mil polyethylene sheet*)
- » Sealing of penetrations
- » Building positively pressurized when all ventilation and exhaust systems are operational
- » Pipe **rough-in only** of an active soil depressurization system
- » **Mandatory** long-term testing
- » Installation of a full active soil depressurization system if concentration levels exceed 200 Bq/m³

Have there been any challenges?

- » Little support from other municipalities during program development
- » Vague OBC requirements
- » Dated reference standard for ICI
- » No testing of existing homes
- » Program exemption requests

NEXT STEPS

Where do we go from here?

- » OBC code change requests
- » Training local builders and trades (*via C-NRPP*)
- » Supporting local health unit (*WDGPH*) to promote radon testing
- » Building test result database (*w/ WDGPH*)
- » Pilot projects with Health Canada
- » Other cities slowly following suit

Questions





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