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Radon Policies and Legal Implications

Taken from the Canadian Environmental Law Association's report
on Radon in Homes, School and Workplaces

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Please note: this presentation is not to be taken as legal advice

http://www.cela.ca/sites/cela.ca/files/Radon-Report-with-Appendices_0.pdf



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Radon in Indoor Air: A Review of Policy and Law in Canada

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Canadian Environmental Law Association

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Health Canada Leadership Role

- Provided important leadership
- Introduced reference level in 2006: 200 bq/m³
 - Updating of building codes
 - Establishing certification program for radon mitigators (CNRPP)
 - Cross Canada surveys of homes and workplaces
 - Encouraging all homeowners to test



Major findings

- **Canadians need better legal protection to reduce radon exposure**
 - No *mandatory action* required for **testing, disclosing results or remediating**
 - Federal Building code is **not adopted** by all provincial/territorial
 - There is no lead agency responsible for the regulation of indoor air
- Some laws do exist for radon
 - Provincial building codes- 3 small Ontario towns
 - Canadian Labour Code/NORM
 - The Construction Code of Quebec, in certain regions, does require radon testing during construction and mitigation is above 800 bq/m³
- Researcher noted particular variability when discussing occupational radon exposure

OHS Ontario

Other than legislation specific to employment in mines,³⁴⁵ the Province of Ontario does not have legislation or regulations in place to regulate non-radiation worker exposures to radon in indoor air.

NORM Guidelines

- **The Ontario Ministry of Labour interprets the NORM Guidelines as intended for all occupational exposures to radon, including “incidentally exposed workers”³⁴⁶** through radon in indoor air, and the dose limit for these workers is 1 mSv per year.³⁴⁷ Under the NORM Guidelines, the derived working limit (DWL) for radon is 200 Bq/m³. Where the annual average concentration of radon gas is expected to be above 200 Bq/m³, the NORM Guidelines recommend that measurements be taken to estimate the average annual radon gas concentration.
- The Act provides employees with the **right to refuse work believed by the worker to be unsafe**.³⁷⁰ In the course of a work refusal, the employer is required to investigate the circumstances believed to be hazardous, and depending on the outcome a Ministry of Labour investigator may be required to investigate the work refusal. If the Ministry inspector finds a hazard likely to endanger the worker then, generally, the inspector will order the inspector to remedy the hazard. ³⁷¹

Table 4.1 - Radon and NORM Program Classifications ^a

Average Annual Concentration	NORM Program Classification
800 - 3000 Bq/m ³	Radiation Protection Management
200 - 800 Bq/m ³	NORM Management
Background - 200 Bq/m ³	Unrestricted

Notes:

The Canadian Nuclear Safety Commission sets radiation exposure limits. It gives two types of exposure limits

- **occupationally exposed** persons and another for the general public. The annual occupational exposure limit is an effective dose of 4 mSv (milli-Sievert).

Who is occupationally exposed?

- Miner, water treatment activities, oil and gas, phosphate fertilizer, many others...
- <http://nuclearsafety.gc.ca/eng/resources/fact-sheets/naturally-occurring-radioactive-material.cfm>



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Dorion fish hatchery radon gas levels prompt work refusal

CBC News Posted: Dec 09, 2014 4:18 PM ET | Last Updated: Dec 09, 2014 4:18 PM ET



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Municipal governments can do more

- Local jurisdictions have opportunities for bylaw-making governance
 - Property maintenance standards
 - Building standards
 - Permits and inspections
 - Home renovations
 - Childcare facilities
 - Responsibility for own employees

Energy retrofitting efforts may worsen radon

- Research has found that energy efficiency changes can increase radon levels
 - Need to test for radon not included in these type of initiatives, conflicting

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Home energy efficiency and radon related risk of lung cancer: modelling study

BMJ 2014 ; 348 doi: <http://dx.doi.org/10.1136/bmj.f7493> (Published 10 January 2014)

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Public Health Legislation

- Public health legislation generally include provision for inspection and enforcement with respect to hazard to public health
 - Similar other indoor air contaminants-> mould
- However, few complaints about radon
 - Limits ability to investigate
 - Lack of clarity regarding investigative role
 - Is reviewing high radon test results or knowing of high radon regions sufficient to initiate an investigation?
 - No clarity on this
 - Ongoing ethical debate

Schools

- No education legislation specifically pertaining to indoor air quality
- General provisions regarding health, safety and welfare of students
 - Responsibility lies with the **school boards** and their employees to supervise, inspect and undertake obligations

Occupiers' and Tenancy Legislation

- Property owners are required to ensure that rental suites are “habitable”
 - Safe and fit for people to live in.
 - This may be enough to require remediation if levels test high
- Duty of care rests on the occupier of a property to maintain the safety of their property and buildings for *visitors*

BC's *Residential Tenancy Act*

Applies to tenancy agreements, rental units, and residential properties. In the case of residential tenancies, section 32 (1) of the Act requires that the landlord “**provide and maintain [the] residential property in a state of decoration and repair that:**

- **(a) complies with the health, safety and housing standards required by law, and**
- **(b) having regard to the age, character and location of the rental unit, makes it suitable for occupation by a tenant.**

Note also that although provided with the power to enact regulations relating to **minimum health and safety standards that must be met by landlords of rental housing under the *Public Health Act*, British Columbia** has not done so. Instead, the province includes minimal standards which equate to health hazards in rental housing (including the provision of a water supply system, specified airspace per tenant, and windows that open).

The Act does not apply to several kinds of potential rental arrangements, including: commercial tenancies, community care, continuing care and assisted living facilities, public or private hospitals, accommodation owned or operated by an educational institution, or correctional institutions.

- *Residential Tenancy Act*, SBC 2002, c 78, <<http://canlii.ca/t/520x2>> retrieved on 2013-12-20
- *Public Health Act*, SBC 2008, c 28, s. 123.
- Health Hazards Regulation, BC Reg 216/2011, s. 7.

Property transfer

- No requirements for radon disclosure upon transfer of property
- Some US States have enacted this
 - Has led to increases in number of homes tested and remediated
- UK has different model

More Minnesota homeowners fixing radon problems

Lorna Benson · Dec 30, 2014

Health



Steven Reichert clears debris as he installs a radon mitigation system, July 14, 2014. *Will Matsuda / MPR News file*

- Minnesota's new radon disclosure law has led to a big jump in the number of homes equipped with radon removal systems.
- Nearly 2,400 homes installed radon reducing equipment during the first nine months of 2014. That's double the number of mitigation systems installed over the same time period during the previous two years, the [Minnesota Department of Health](#) said Tuesday.

Radon, an odorless, colorless gas is the leading cause of lung cancer in non-smokers.

• [More: Home sellers, brokers learn to live with new radon rules](#)

CELA Recommendations

- Use term “**radioactive**” so people truly grasp hazard
- Government energy efficiency programs need to alert consumers to radon testing
- **Occupational guidelines need to be clarified**
 - For incidentally exposed/non-radiation generating occupations
- **Federal Government should amend the Income Tax Act and add a tax credit**
 - Up to \$3,000 dollars for Canadians who choose to mitigate
 - Work must be done by a certified mitigator
 - Test and retest

Recommendations con't.

- Lower the federal Radon Guideline to 100 bq/m³
- All provinces need to ensure that radon protection AND mitigation provisions exist in building codes
 - **Should also require testing at time of new construction (move-in) and mitigation** if levels are still high
- Improved data sharing agreements
 - Many groups testing, need a central database and data sharing agreements

Case studies reviewed in detail

See: http://www.cela.ca/sites/cela.ca/files/Radon-Report-with-Appendices_0.pdf

- **Case Study #1: A public health official has professional knowledge of the radon test result of a particular home. The indoor radon level is above the Government of Canada Radon Guideline reference level of 200 Bq/m³. The public health official happens to live near the house and is aware that it has been listed for sale. Does the public health official have a duty to prospective buyers to inform them? Where does the professional duty start and stop?**
- **Case Study #2 A public health unit has instituted a pilot program to test for indoor radon levels at child care centres within the health unit. Does the public health unit have a duty to inform users of the building (i.e., the parents of the children) with notice of the radon testing program and test results?**

Questions to relay to Ms Cooper

- Kathy will be at the Canadian Association for Radon Scientists and Technicians meeting in Vancouver, April 25-27th 2014
- Will collate questions and relay them on

Thank you

Worksafe BC

Contains legal requirements that must be met by all workplaces,

Employer and employee rights and duties are laid out in the province's *Workers' Compensation Act*.⁹³ Part 4 of the Act details employer duties and provides that every employer must ensure the health and safety of all workers, specifying that this duty includes remedying any workplace conditions that are hazardous to the health or safety of the employer's workers, and making employees aware of all known or reasonably foreseeable health or safety hazards to which they are likely to be exposed by their work.⁹⁴