

SOIL GAS VENT TERMINATION

PURPOSE

The purpose of this interpretation is to provide guidance in relation to soil gas vent termination when an active soil depressurization (ASD) system is installed.

DISCUSSION

Part 9 of the National Building Code-2019 Alberta Edition (NBC(AE)) has requirements to rough-in an ASD system for buildings within its scope. However, Part 9 does not provide additional information for ASD vent termination locations as only the “rough-in” portion of an ASD system is required.

The Gas Regulations reference CSA-B149.1 “Natural gas and propane installation code,” which has prescriptive requirements for power vented gas vent terminals. Soil gas vent terminals in buildings with ASD systems which do not require professional involvement may be addressed in a similar manner as power vented gas vent terminals.

An electrical permit may be required for completion of the ASD system if wiring is involved for a power supply to the fan.

Part 3 buildings ASD systems require professional involvement and would reference Part 6 of the NBC(AE).

CODE REFERENCES

Clause 6.2.1.1.(1)(i) states:

6.2.1.1. Good Engineering Practice

(See Appendix A.)

1) Heating, ventilating and air-conditioning systems, including mechanical refrigeration equipment, shall be designed, constructed and installed in conformance with good engineering practice such as that described in, but not limited to,

- i) EPA 625/R-92/016, “Radon Prevention in the Design and Construction of Schools and Other Large Buildings.”

APPLICATION

Soil gas vents termination in ASD systems which do not require professional involvement.

Unless stated otherwise, all Code references in this STANDATA are to Division B of the National Building Code-2019 Alberta Edition

Issue of this STANDATA is authorized by
the Provincial Building Administrator



[Original Signed]
Paul Chang

INTERPRETATION

1. The end of the soil gas vent pipe shall be terminated in outside air.
2. The end of the soil gas vent pipe shall not terminate with respect to the following conditions:
 - (a) where it may cause hazardous frost or ice accumulations on adjacent property surfaces;
 - (b) less than 2.1 m (7 ft) above a paved sidewalk or a paved driveway that is located on public property;
 - (c) within 1.8 m (6 ft) of a mechanical air-supply inlet to any building;
 - (d) due to condensation discharge, above a gas regulator within 900 mm (3 ft) horizontally of the vertical centreline of the gas regulator vent outlet to a maximum vertical distance of 4.5 m (15 ft);
 - (e) less than 300 mm (1 ft) above grade level;
 - (f) within 300 mm (1 ft) of a window or door that can be opened in any building, of any non-mechanical air-supply inlet to any building, or of the combustion air inlet of any appliance;
 - (g) underneath a veranda, porch, or deck which is enclosed.
3. Additionally, if vented above the roof, the soil gas vent pipe shall be:
 - (a) terminated high enough to prevent the entry of roof drainage but not less than 150 mm (6 in) above the roof or above the surface of storm water which could pond on the roof, and
 - (b) provided with flashing to prevent the entry of water between the soil gas vent pipe and the roof.
4. All building envelope penetrations shall be properly sealed.
5. Fans used in ASD systems shall be designed for Radon use.

This INTERPRETATION is applicable throughout the province of Alberta.

Additional Resources:

- **Alberta**
e-mail: Radon_ABNT@hc-sc.gc.ca
Telephone: 1-855-809-6966
Toll Free: 1-866-225-0709
- Sidewall Vent Terminations Standata - [G-01-10-\[Rev1\]-SidewallVentTerminations](#)
- Radon Reduction Guide for Canadians - http://www.hc-sc.gc.ca/ewh-semt/alt_formats/pdf/pubs/radiation/radon_canadians-canadiens/radon_canadians-canadien-eng.pdf
- Reducing Radon Levels in an Existing Home: A Guide for Professional Contractors - http://www.takeactiononradon.ca/file/take-action/pdf/Radon-Guide-for-Professional-Contractors_EN.pdf
- Radon Frequently Asked Questions - http://www.hc-sc.gc.ca/ewh-semt/radiation/radon/faq_fq-eng.php
- Testing your Home for Radon - <https://www.canada.ca/en/health-canada/services/radon/testing-your-home-radon.html>

Note: If hiring a contractor, Health Canada recommends that the contractor be certified as a radon mitigation professional from an accredited organization. Health Canada recognizes the Canadian certification program, Canadian National Radon Proficiency Program (C-NRPP) www.c-nrpp.ca, 1-855-722-6777