

Bureau of Radiological Health

http://www.idph.iowa.gov/radiological-health

INFORMATION NOTICE 2022-001

August, 2022

Mitigation System Vent Pipe Installation Requirements

The Iowa Department of Public Health (IDPH) is issuing this information notice to clarify the requirements for the installation of mitigation system vent piping, specifically the exterior installation aspects including the discharge point. It is expected that recipients will review the information for applicability to their individual situations and consider actions as appropriate. No written response to this notice is required.

DEFINITIONS AND APPLICABLE RULES:

Since October of 2006 641 IAC Chapter 44 MINIMUM REQUIREMENTS FOR RADON MITIGATION has required that the following mitigation standards be followed:

641—44.3(136B) General provisions.

44.3(4) Requirements for continued credentialing shall include, at a minimum, the following conditions:

c. The credentialed person shall comply with department standards and all the requirements as stated in EPA's Radon Mitigation Standards (RMS) EPA 402-R-93-078, October 1993 (Revised April 1994) <u>and ASTMI E2121</u>. All "shoulds" in the above document shall be "shalls" according to department standards.

EPA RMS Section 14.2 Radon Vent Pipe Installation Requirements

14.2.8 To prevent re-entrainment of radon, the point of discharge from vents of fan-powered soil depressurization and block wall depressurization systems shall meet all of the following requirements:

(1) be above the eave of the roof,

(2) be ten feet or more above ground level,

(3) be ten feet or more from any window, door, or other opening into conditioned spaces of the structure that is less than two feet below the exhaust point, and

(4) be ten feet or more from any opening into an adjacent building. The total required distance (ten feet) from the point of discharge to openings in the structure may be measured either directly between the two points or be the sum of measurements made around intervening obstacles. Whenever possible, the exhaust point should be positioned above the highest eave of the building and as close to the roof ridge line as possible.

ASTM E2121-13, Section 7. Standard Practices for Radon Mitigation

7.3.2 Radon System Piping Installation Requirements:

7.3.2.9 To reduce the risk of vent stack blockage due to heavy snow fall, to reduce the potential for re-entrainment of radon into the living spaces of a building, and to prevent direct exposure of individuals outside of buildings to high levels of radon, the discharge from vent stack pipes of active soil depressurization systems shall meet the following minimum requirements. The discharge from vent stack pipes shall be:

(1) Vertical and upward, outside the structure, at least 10 ft above the ground level, <u>above the edge of the roof</u>, and shall also meet the separation requirements of 7.3.2.9 (2) and (3). Whenever practicable, they shall be above the highest roof of the building and above the highest ridge.

Page 1 of 4

(2) Ten ft or more away from any window, door, or other opening into conditioned or otherwise occupiable spaces of the structure, if the radon discharge point is not at least 2 ft above the top of such openings.

(3) Ten ft or more away from any opening into the conditioned or other occupiable spaces of an adjacent building. Chimney flues shall be considered openings into conditioned or otherwise occupiable space.

(4) For vent stack pipes that penetrate the roof, the point of discharge shall be at least 12 in. above the surface of the roof. For vent stack pipes attached to or penetrating the sides of buildings, the point of discharge shall be vertical and a minimum of 6 in. above the edge of the roof and in such a position that it can neither be covered with snow, or other materials nor be filled with water from the roof or an overflowing gutter. In areas where it snows the point of discharge shall be 12 in. above the surface of the roof.

(5) When a horizontal run of vent stack pipe penetrates the gable end walls, the piping outside the structure shall be routed to a vertical position so that the discharge point meets the requirements of 7.3.2.9 (1), (2), (3), and (4).

(6) Points of discharge that are not in a direct line of sight from openings into conditioned or otherwise occupiable space because of intervening objects, such as dormers, chimneys, windows around the corner, etc. shall meet the separation requirements of 7.3.2.9 (1), (2), (3), (4), and (5).

DISCUSSION:

A radon mitigation discharge must meet <u>all requirements</u> as listed in the standards. This information notice addresses the issue of the discharge point of radon mitigation systems that exit a home or building through or below the rim joist where the fan and discharge piping are located on the exterior of the structure and the discharge point of the radon mitigation system does not meet the requirements of the aforementioned standards. This guidance clarifies the department's interpretation of the two standards that the discharge point must be at least 12 inches above the eave/edge of the roof on the wall of the house on which the exhaust pipe is mounted.



On the next pages are examples of acceptable

To deviate from any requirement of either RMS would require a request for a waiver from Department rule, in this case IAC Chapter 44, and would have to be requested before installation. The waiver request must be in writing and must contain certain required elements, including the name and contact information of the requester, a cite to the rule from which a waiver is requested, factors which justify the waiver, and other relevant factors. For more information about requesting a waiver or the waiver process please contact program staff.

It is the credentialed mitigation specialist responsibility to ensure that they are aware of all lowa radon mitigation requirements, some of which vary from other national standards or protocols or those from other states. It is expected that mitigation specialists have access to a copy of each of the aforementioned standards for reference. A copy of the EPA RMS can be downloaded from the IDPH Radon Website, www.idph.iowa.gov/radon/fix. A copy of ASTM E2121 can be purchased from the ASTM website, www.astm.org.

Persons determined to be in violation of the requirements of 641 IAC Chapter 44, to include the above requirements, may be subject to denial, suspension, revocation, or modification of your mitigation specialist credential.

If you have any questions regarding the above, please contact Angela Leek at (515) 371-2255 or <u>angela.leek@idph.iowa.gov</u>.

Please read this information notice carefully and consult the IDPH website for rules cited in this notice.

FAILURE TO ADHERE TO THE APPLICABLE RULES MAY RESULT IN ENFORCEMENT ACTION

Angela Leek, Bureau Chief

Page 2 of 4



Page 3 of 4



Page 4 of 4