

3701-69-01

Definitions.

(A) Terms defined in this rule are intended to be used only within this chapter of the Administrative Code.

(B) As used in this chapter:

- (1) "Active soil depressurization (ASD)" means a family of radon mitigation systems involving mechanically driven soil depressurization, including subslab depressurization (SSD), drain tile depressurization (DTD), block wall depressurization (BWD), and submembrane depressurization (SMD).
- (2) "Altering" means to change or modify a building or building design, or to revise, rather than repair, a mitigation system or mitigation system design.
- (3) "As Low As Reasonably Achievable (ALARA)" means every reasonable effort to maintain exposures to radiation as far below the dose limits as is practical consistent with the purpose for which the licensed activity is undertaken.
- (4) "Backdrafting" means a condition where the normal movement of combustion products up a flue, resulting from the buoyant forces on the hot gases, is reversed, so that the combustion products can enter the house. Backdrafting of combustion appliances (such as fireplaces and furnaces) can occur when depressurization in the house overwhelms the buoyant force on the hot gases. Backdrafting can also be caused by high air pressures or blockage at the chimney or flue termination.
- (5) "Backer rod" means a semirigid foam material resembling a rope of various diameters used to fill around pipes, large cracks and gaps, etc. and to assist in making a sealed penetration. For example, where a pipe is inserted through a concrete slab, a length of backer rod is jammed into the opening around the pipe. Caulking is then applied to the space above the backer rod and between the outside of the pipe and the slab opening. The purpose of the backer rod is to hold the semifluid caulk in place until it sets or hardens. It is most important that a sealant only adhere to the two sides of the joint and not the base of the joint (third side). This allows for a long-lasting, flexible, air-tight seal. Adhesion to all three sides prevents the sealant from elongating properly and causes sealant failure.
- (6) "Block wall depressurization (BWD)" means a radon mitigation technique that depressurizes the void network within a block wall foundation by drawing air from inside the wall and venting it to the outside.
- (7) "Building" means a publicly or privately owned structure consisting of any combination of foundations, walls, columns, girders, beams, floors, or roofs, with or without other elements or appurtenances.

- (8) "Business entity" means a corporation, partnership, association, firm, sole proprietorship, or other entity engaged in business.
- (9) "Check source" means a radioactive source, not necessarily calibrated, that is used to confirm the continuing satisfactory operation of an instrument.
- (10) "Clearly and conspicuously" means that the print used to state the information required in a radon mitigation contract either is equal in size to the print in the remainder of the contract and is boldfaced or is larger than the print in the remainder of the contract.
- (11) "Client" means any person who contracts for measurement or mitigation services.
- (12) "Combination foundations" means buildings constructed with more than one foundation type; e.g., basement/crawlspace or basement/slab-on-grade.
- (13) "Commercial building" means a type of building that is designed for commercial use, including but not limited to office buildings, warehouses, retail facilities, schools, recreational facilities, assisted living facilities and buildings that combine these uses.
- (14) "Communication test" means a diagnostic test designed to qualitatively measure the ability of a suction field and air flow to extend through the material beneath a concrete slab floor and thus evaluate the potential effectiveness of a subslab depressurization system. This qualitative test is commonly conducted by applying suction on a centrally located hole drilled through the concrete slab and simultaneously observing the movement of smoke downward into small holes drilled in the slab at locations separated from the central suction hole.
- (15) "Continuing education (CE) credits" means those credits received for documented successful completion of, or for instructing, a radon course approved by the director.
- (16) "Crawlspace depressurization" means a radon control technique designed to achieve lower air pressure in the crawlspace relative to indoor air pressure by use of a fan powered vent drawing air from within the crawlspace.
- (17) "Diagnostic tests" means procedures used to identify or characterize conditions within buildings that may contribute to radon entry or elevated radon levels or may provide information regarding the performance of a mitigation system.
- (18) "Director" means the director of health or his authorized representative.
- (19) "Drain tile depressurization (DTD)" means a type of active soil

depressurization system where the suction point piping attaches to a drain tile or is located in the gas-permeable material near the drain tile. The drain tile may be inside or outside the footings of the building.

- (20) "Drain tile loop" means a continuous length of drain tile or perforated pipe extending around all or part of the internal or external perimeter of a basement or crawlspace footing.
- (21) "Dwelling" means a single-family home or a single unit within a multifamily complex.
- (22) "Eave" means the border of a roof that overhangs any wall.
- (23) "Electret" means a plastic disk, typically of teflon, that holds an electric charge on its surface and serves as the detector in an electret ion chamber radon test device.
- (24) "Electret ion chamber" means a radon test device consisting of an electrically conducting enclosure of a known air volume, with an electret as part of the interior surface, inside which radiation emitted from the decay of radon and radon progeny cause ionization of the air.
- (25) "Footprint" means each foundation type in direct contact with soil or other material.
- (26) "Foundation type" means basement, crawlspace, slab-on-grade or any other construction technique approved by local building code.
- (27) "Government entity" means the state, a state agency as defined in section 1.60 of the Revised Code, a political subdivision, or any entity of local government.
- (28) "Home environment measurement" means a short-term or long-term measurement of radon in a single-family home, duplex or condominium.
- (29) "Individual" means any human being.
- (30) "Interfere" means to adversely or potentially adversely impact the successful completion of an indoor radon measurement by changing the radon or radon progeny concentrations or altering the performance of measurement equipment or an indoor radon mitigation system installation or operation.
- (31) "Laboratory analysis" means the act of analyzing by a laboratory approved by the director, a radon measurement device to determine the radon concentration to which it was exposed during a radon test.
- (32) "Licensee" means a person, business entity or government entity to whom a

license is issued.

- (33) "Living area" means any area in a building that is, or could be, adapted for human habitation whether the area is located in a basement, over a crawlspace, or situated on a slab-on-grade.
- (34) "Long-term measurement" means measurements lasting ninety-one days or more.
- (35) "Lower limit of detection (LLD)" means the smallest amount of sample activity which will yield a net count for which there is confidence at a predetermined level that activity is present.
- (36) "Mechanically ventilated crawlspace system" means a radon control technique designed to increase ventilation within a crawlspace, achieve higher air pressure in the crawlspace relative to air pressure in the soil beneath the crawlspace, or achieve lower air pressure in the crawlspace relative to air pressure in the living spaces, by use of a fan.
- (37) "Multifamily building" means a building, three stories or less, designed to house four or more families in separate units that do not have a common heating ventilation and air conditioning (HVAC) system for multiple units.
- (38) "Passive monitor" means a measurement device that does not require external power or batteries to operate, such as charcoal detectors or alpha-track detectors.
- (39) "Perimeter channel drain" means a system for collecting water in a basement by means of a large gap or channel between the concrete floor and the wall. Collected water may flow to aggregate beneath the slot (french drain) or to a sump where it can be drained or pumped away.
- (40) "Person" means any individual, business entity, or government entity.
- (41) "Picocurie per liter (pCi/L)" means 2.22 disintegrations per minute of radioactive material per liter of air.
- (42) "Pressure field extension" means the distance that a pressure change is induced in the subslab area, measured from a single or multiple suction points.
- (43) "Radon" means both the radioactive, gaseous element produced by the disintegration of radium and the short-lived radionuclides that are decay products of radon.
- (44) "Radon chamber" means a facility in which radon measurement devices or detectors are exposed to known radon concentrations.

- (45) "Radon device manufacturer" or "device manufacturer" or "manufacturer" means a person, business entity or government entity which develops or manufactures radon measurement devices.
- (46) "Radon laboratory" means a business entity or government entity that analyzes air, soil, water, or passive radon detection devices to determine the presence and concentration of radon in them.
- (47) "Radon mitigation" means the application or installation of methods or materials to reduce airborne radon concentrations or to prevent the entry of radon into the indoor atmosphere.
- (48) "Radon mitigation contractor" means a business or government entity which performs or authorizes employees to perform radon mitigation.
- (49) "Radon mitigation specialist" means an individual who performs radon testing; provides professional or expert advice on radon testing, radon exposure, health risks related to radon exposure, radon mitigation, or radon entry routes; provides on-site supervision of radon mitigation; or holds himself or herself out as doing any of the foregoing.
- (50) "Radon mitigation system" or "mitigation system" or "radon reduction system" means any system or steps designed in whole or in part to reduce radon concentrations in the indoor air of a building.
- (51) "Radon progeny" means any combination of the short-lived decay products of radon.
- (52) "Radon resistant new construction (RRNC)" means the established United States environmental protection agency (USEPA) model standards and techniques for control of radon, as described in USEPA document 402-R-94-009, or any substantially equivalent techniques approved by the director in writing.
- (53) "Radon test" means the act of examining a building, air, soil, or water for the presence and concentration of radon, including taking air, soil, or water samples, or the act of diagnosing the cause of radon contamination in a building.
- (54) "Radon tester" means any individual who performs a test to determine the presence and concentration of radon; provides professional or expert advice on radon testing, radon exposure, or health risks related to radon exposure; or holds himself or herself out as doing any of the foregoing.
- (55) "Real-estate testing" means short-term measurements that may be requested by a party not residing in the dwelling and that are performed in, or as a result of,

or in expectation of, a real-estate transaction and are time-limited due to this transaction.

(56) "Reentrainment" means the unintended reentry into a building of radon that is being exhausted from the vent of a radon mitigation system.

(57) "Renewal" means the reissuance of a license that is expiring.

(58) "Research" means scientific investigation by testing or mitigating for radon as limited by section 3723.04 of the Revised Code.

(59) "Residential real-estate measurement" means a measurement of radon in a single-family home, duplex or condominium involved in a real-estate transaction. Based on the time-sensitive nature of real-estate transactions, only short-term measurements are appropriate and specific protocols are required.

(60) "Sealing and caulking" means to plug and make air-tight holes, cracks, gaps, etc. to reduce the passage of gas. Sealing and caulking enhances radon reduction techniques; however, sealing and caulking alone has not been shown to lower radon levels significantly or consistently and therefore is not a stand-alone radon mitigation system.

(61) "Short-term measurement" means a measurement conducted for at least forty-eight hours and up to ninety days; closed building conditions are required for measurements lasting seven days or less and recommended throughout.

(62) "Soil gas" means the gas mixture present in soil that may contain radon.

(63) "Soil gas retarder" means a continuous membrane or other comparable material used to retard the flow of soil gases into a building.

(64) "Stack effect" means the overall upward movement of air inside a building that results from heated air rising and escaping through openings in the building envelope, thus causing indoor air pressure in the lower portions of a building to be lower than the pressure in the soil beneath or surrounding the building foundation.

(65) "Submembrane depressurization (SMD)" means a radon control technique designed to achieve lower air pressure in the space under a soil gas retarder membrane laid on the crawlspace floor and sealed, relative to air pressure in the crawlspace, by use of a fan-powered vent drawing air from beneath the membrane.

(66) "Subslab depressurization (SSD) (Active)" means a radon control technique designed to achieve lower subslab pressure relative to indoor air pressure by

use of a fan-powered vent drawing air from beneath the concrete slab.

- (67) "Subslab depressurization (SSD) (Passive)' means a radon control technique designed to achieve lower subslab air pressure relative to indoor air pressure by use of a vent pipe (without a fan) routed through the conditioned space of a building and connecting the subslab area to the outdoor air. This system relies primarily on the convective flow of warmed air upward in the vent to draw air from beneath the concrete slab.
- (68) "Suitable for occupancy" means a structural area in a home currently lived in or an area not currently used for occupancy, such as a basement, that an occupant or homeowner could use for living space without renovations. This includes an unfinished basement that could be used regularly as, for example, a recreation room, playroom, exercise room or workshop.
- (69) "Supervision" means oversight, review, and approval of work at a site prior to, during, and upon completion of radon mitigation
- (70) "Working level (WL)" means any combination of short-lived radon progeny in one liter of air that results in the ultimate emission of one hundred thirty thousand MeV of alpha-particle energy. The short-lived radon progeny of radon-222 are polonium-218, lead-214, bismuth-214 and polonium-214.
- (71) "Working level month (WLM)" means a unit of exposure used to express the accumulated human exposure to radon decay products. It is calculated by multiplying the average radon progeny concentration in working levels to which a person has been exposed by the number of hours exposed and dividing the product by one hundred seventy hours per month.

Replaces: 3701-69-01

Effective:

R.C. 119.032 review dates:

Certification

Date

Promulgated Under: 119.03
Statutory Authority: 3723.09
Rule Amplifies: 3723.01, 3723.02, 3723.03, 3723.04, 3723.05,
3723.06, 3723.07, 3723.08, 3723.09, 3723.10,
3723.11, 3723.12, 3723.13, 3723.14, 3723.15,
3723.16, 3723.17
Prior Effective Dates: 7/9/2001, 1/1/92