



AMERICAN SOCIETY OF HOME INSPECTORS, INC.
 RADON - EXISTING SOIL GASSES MITIGATION SYSTEM INSPECTION CHECKLIST

	<u>Components</u>	<u>Condition</u>	<u>Action Needed</u>
1	Results of a radon test conducted within the previous two years are available	() Yes () No	() Yes
2	Type of Mitigation System Installed Active () Passive ()		
3	Foundation Types Basement () Ventilated crawlspace () Closed crawlspace Combined crawlspace and basement () Slab ()		
4	Foundation Wall Materials Concrete () CMU () Wood () Brick (...) Rock w/Mortar () Rock Dry Stack () ICF () Other ()		
5	Basement or Crawlspace Floor Materials Slab () Gravel () Soil ()		
	<u>Openings in Foundation and Foundation Condition</u>	<u>Condition</u>	<u>Action Needed</u>
6	Top CMU block solid, filled, or sealed	() Yes () No	() Yes
7	Openings between basement and crawlspace separated with air tight doors with gaskets	() Yes () No	() Yes
8	Openings and penetrations are sealed between habitable and depressurized uninhabitable spaces (e. g., under showers and tubs, penetrations between crawlspace or basement and habitable space above); sealant condition is acceptable	() Yes () No () Unknown	() Yes
9	Slab floor cracks, wall cracks, joints between slab floor and walls, and slab and wall penetrations that are practical to seal are sealed; sealant condition is acceptable. Applies to depressurized uninhabitable spaces only.	() Yes () No	() Yes
10	Wood in contact with soil is preservative treated	() Yes () No	() Yes
11	Foundation ventilation openings are permanently opened	() Yes () No	() Yes
12	No visible evidence of backdrafting or other combustion or vent system defects at fuel-burning appliances located in uninhabitable spaces (e. g., basements and crawlspaces)	() Yes () No	() Yes
	<u>Sump Pumps</u>	<u>Condition</u>	<u>Action Needed</u>
13	Sump pump drain terminates outside the foundation	() Yes () No	() Yes
14	One-way valve installed on sump pump drain terminating outside the foundation	() Yes () No	() Yes
15	Cover includes a physical access port, a flexible coupling disconnect for suction piping, located in a manner to allow removal of cover without causing damage	() Yes () No	() Yes
16	Cover is clear, durable, sealed with silicone or similar that allows removal for service	() Yes () No	() Yes
17	Penetrations through the cover sealed	() Yes () No	() Yes

18	Sump pump discharge pipe has backflow valve	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
19	Sump pump cover has label stating: "Radon Reduction System" and "Component of a Radon Reduction System. Do not Tamper with or Disconnect". Similar wording is acceptable.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
	Vapor Retarders	<u>Condition</u>	<u>Action Needed</u>
20	Vapor retarder present	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
21	Seams lapped at least 12 in.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
22	No unsealed holes or openings in vapor retarder	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
23	Vapor retarder sealed to walls when sub-slab depressurization system installed	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
24	Vapor retarder sealed to walls in crawlspace that are accessible for maintenance, storage, etc.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
25	Grade allows water on surface of vapor retarder to drain toward disposal point	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
	Mitigation Fan Installation	<u>Condition</u>	<u>Action Needed</u>
26	Fan labeled "Radon Reduction System"	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
27	Fan manufactured and listed as ASD; fan listed for intended use	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
28	Fan monitor, manometer, is accessible and appears functional and is showing adequate pressure as indicated on the information label. Answer (No) if information label is not present.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
29	Fan installed in attic, exterior of building, or garage where no conditioned space is above. Fan not installed in conditioned space or below conditioned space.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
30	Where fan in basement, installed prior to 1991; not allowed after 1991	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
31	Fan installed to prevent condensation buildup in fan; fan installed vertically unless otherwise allowed by manufacturer	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
32	Fan installed below grade is protected from damage and moisture, and is accessible	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
33	Flexible rubber couplings installed on both sides of fan	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
34	Vertical/horizontal termination present in crawlspace, under the soil gas retarder membrane and open to entire membrane	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
35	Opening around membrane penetrations sealed in a permanent airtight manner	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
36	No gurgling noted in the pipe noted water collection	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
	Electrical Installation	<u>Condition</u>	<u>Action Needed</u>
37	Receptacle in visible and accessible location	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
38	Plug & cord not over 6 ft.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
39	Exterior installation hard wired to a weathertight switch	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes
40	Breaker for hardwired system identified "Radon"	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes

	Vent Pipe Size, Type, Installation	<u>Condition</u>	<u>Action Needed</u>
41	ABS or PVC - Schedule 40 pipe & fittings	() Yes () No	() Yes
42	Iron, steel, copper, Schedule 20 PVC, or other material, where approved by local authority In the garage where pipe passes to exterior plastic pipe deemed acceptable by licensing or certifying agency as DWV	() Yes () No	() Yes
43	Vent pipe diameter 3 in. – 4 in. 2 in. diameter allowed where air volume less than 40 cfm	() Yes () No	() Yes
44	Multiple suction pipes joined into a 3 in. diameter pipe, if multiple suction pipes are installed	() Yes () No () Not Applicable	() Yes
45	Horizontal pipe sloped to drain toward pipe origin	() Yes () No	() Yes
46	Pipes do not compromise building structural integrity, do not compromise fireblocking and fire separation, and do not block building exits and escape openings	() Yes () No	() Yes
47	Vent pipe labeled as “Radon Reduction System” on each level where pipe is visible	() Yes () No	() Yes
	Downspout Material (Where Allowed)	<u>Condition</u>	<u>Action Needed</u>
48	Downspout material or equivalent noted only on exterior beyond fan installation Downspout material minimum 3 in. x 4 in. where equivalent of 3 in. plastic Downspout material minimum 4 in. x 5 in. where equivalent of 4 in. plastic	() Yes () No	() Yes
49	Weather tight seals for downspout materials. Sealants or flange connections observed and intact.	() Yes () No	() Yes
	Vent Pipe Integrity	<u>Condition</u>	<u>Action Needed</u>
50	Pipe, fittings, connections air tight, properly joined and sealed, no visible openings or breaks in pipe system	() Yes () No	() Yes
51	Pipe secured to building with hangers or strapping	() Yes () No	() Yes
52	Fasteners do not penetrate the piping material	() Yes () No	() Yes
53	Hangers for plastic vertical piping installed every 10 ft.	() Yes () No	() Yes
54	Hangers for plastic horizontal piping installed every 6 ft.	() Yes () No	() Yes
55	Other piping materials appears adequately supported	() Yes () No	() Yes
56	Piping does not block access to entrances or other areas requiring access for maintenance/inspection	() Yes () No	() Yes
57	Pipe insulated to at least R1.8 and a vapor retarder installed in areas where damaging condensation or ice is likely to form on outside of pipe	() Yes () No () Not Applicable	() Yes
58	Pipe and fan insulated to at least R4 in areas where ice could form on inside of pipe or fan that could affect system performance	() Yes () No () Not Applicable	() Yes

	Vent Pipe Termination	<u>Condition</u>	<u>Action Needed</u>
59	Vertical discharge vent pipe terminates at least 10 ft. above grade, patio, decking, sidewalk, and at least 12 in. above the roof penetration point, or at least 6 in. above the roof if installed at eaves	() Yes () No	() Yes
60	Vertical discharge vent pipe terminates at least 10 ft. horizontally from opening into conditioned space (e.g. window, door), or at least 2 ft. vertically above the opening	() Yes () No	() Yes
61	Vertical discharge vent pipe terminates at least 10 ft. in any direction from a mechanical air intake opening (e.g. HRV, ERV, evaporative cooler)	() Yes () No	() Yes
62	Vertical discharge vent pipe terminates at least 1 ft. above any obstruction within 10 ft., such as a parapet wall	() Yes () No	() Yes
63	Horizontal discharge (90°) vent pipe terminates at least 10 ft. from building openings in any direction, and at least 20 ft. above grade	() Yes () No	() Yes
64	Diffuse horizontal discharge (e. g., rain cap) vent pipe terminates at least 15 ft. horizontally, or at least 4 ft. vertically above opening into conditioned space, and at least 15 ft. above grade	() Yes () No	() Yes
65	Rain cap installed in area where torrential rainfalls, high wind, or blockage from debris rain caps	() Yes () No	() Yes
66	Caps or fittings at termination is unlikely to create a blockage (e. g., ice accumulation)	() Yes () No	() Yes
67	Vent pipe termination does not point downward (umbrella handle style)	() Yes () No	() Yes
68	Exhaust air is directed so it is unlikely to directly strike the building	() Yes () No	() Yes
69	Wire mesh or screen, where present, not smaller than ½ in.	() Yes () No	() Yes

IMPORTANT INFORMATION

This checklist is general in nature. It is not intended to discourage or limit additional or more detailed inspections, and it is not intended to supplant radon inspection standards or requirements promulgated by government authorities.

An inspection performed using this checklist does not replace a radon test to determine the radon level in the structure. Consumers are urged to have a radon test performed in addition to any inspection conducted using this checklist. Consumers are urged to use qualified and appropriately licensed people to conduct radon tests, and to install radon mitigation systems.

Consumers have several sources of information available to them. Additional information about radon may be found at the EPA website: <https://www.epa.gov/radon>, at state radon offices, and at some building departments. Additional information about home inspections is available at The American Society of Home Inspectors, Inc. (ASHI) website: <http://www.homeinspector.org>.

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