

“Radon” means the radioactive noble gas radon-222.

“Radon progeny” means the short-lived radionuclides formed as a result of the decay of radon-222, including polonium-218, lead-214, bismuth-214 and polonium-214.

“Sump” means a pit or hole in or through a basement floor slab designed to collect water, and from which such water is drained by means of a vertical-lift or sump pump.

“Sump pump” means a pump used to move collected water out of the sump to an above grade discharge remote from the structure.

“Working level (WL)” means that concentration of short-lived radon decay products that will result in 130,000 million electron volts of potential alpha-particle energy per liter of air. Working level is a measure of radon decay product concentration in air.

### 5:23-10.3 Enforcement

(a) The provisions of this subchapter shall be enforced by the enforcing agencies having responsibility for the enforcement of this chapter.

(b) Enforcement responsibility shall be divided among subcode officials in the following manner:

1. For new structures and additions:

i. Except as otherwise indicated in (b)1ii below, plan review and inspection with regard to compliance with N.J.A.C. 5:23-10.4(b) shall be the responsibility of the building subcode official;

ii. Plan review and inspection with regard to work performed under N.J.A.C. 5:23-10.4(b) that is otherwise subject to the plumbing, electrical or fire protection subcode shall be the responsibility of the plumbing, electrical or fire protection subcode official, respectively.

2. For existing structures:

i. Construction enforcement responsibility for verification that radon mitigation work in all structures, other than detached one and two family dwellings, is in conformance with the adopted subcodes shall be as set forth in N.J.A.C. 5:23-3.4(a), (c), (d) and (f).

ii. In existing detached one and two family dwellings, the building subcode official shall be responsible for verification that all construction aspects of radon mitigation work are in conformance with the adopted subcodes, except that the electrical subcode official shall be responsible for those construction aspects that are subject to the electrical subcode.

Amended by R.1991 d.429, effective August 19, 1991.  
See: 23 N.J.R. 1487(a), 23 N.J.R. 2501(a).

In (b), added 5 and 6.

Amended by R.1994 d.609, effective December 19, 1994 (operative April 1, 1995).

See: 26 N.J.R. 2704(a), 26 N.J.R. 5007(b).

### 5:23-10.4 Construction techniques

(a) Tier one radon hazard areas shall be identified in accordance with the county/municipal radon listing established by the Department of Environmental Protection. The current list of municipalities in tier one areas is set forth in Appendix 10-A of this subcode.

(b) The construction techniques set forth in this subsection shall be the minimum radon hazard protective features required to be incorporated into construction of buildings in Use Groups E and R in tier one areas, and may be incorporated elsewhere, in order to minimize radon and radon progeny entry and facilitate any post-construction radon removal that may be required. Enumeration of these construction techniques is not intended to preclude voluntary use of additional or more extensive techniques. Full compliance with these construction techniques is not required for additions; however, those construction techniques that are feasible shall be incorporated.

1. A continuous vapor barrier not less than six-mil (.006 inch; .152 mm) polyvinyl chloride or polyethylene with any seams overlapped not less than 12 inches (305 mm), or other approved materials, shall be installed under the slab in basement and slab-on-grade construction and on the soil in crawl space construction.

2. Floors of basements and slab on grade construction shall be placed over a base course, not less than four inches (102 mm) in thickness, consisting of gravel or crushed stone containing not more than 10 percent of material that passes through a No. 4 sieve.

3. Basement slabs with interior foundation pipe drains installed shall have a solid three-inch minimum diameter vent pipe section installed in conjunction with this drainage system and be connected to an independent vent stack pipe terminating at an approved location on the exterior of the building.

4. Basement slabs which do not have an interior foundation pipe drain, and slab on grade construction (excluding non-habitable spaces such as garages), shall be provided with one three-inch minimum solid vent pipe section with a “T” pipe fitting for every 1,500 square feet, or portion thereof, of slab area, this vent pipe section to be installed into the sub-slab aggregate. The horizontal openings of the “T” pipe fitting shall be placed in the sub-slab aggregate. The vertical portion of the “T” pipe fitting shall be connected to an independent vent stack pipe terminating at an approved location on the exterior of the building. Where more than one vent pipe section is provided, interconnection of these sections into a single independent vent stack is permitted.

5. Basement slabs with French drains or channel drains shall not be allowed unless interior foundation pipe drains as described in this section are installed.

6. Joints in foundation walls and floors, including, without limitation, control joints between slab sections poured separately, and between foundation wall and floor (except for French drains or channel drains), as well as penetrations of the foundation walls and floor including, but not limited to, utility penetrations, shall be substantially sealed by utilizing a non-cracking polyurethane or similar caulk, or equivalent, in order to close off the soil gas entry routes. Any openings or penetrations of the floor over the crawl space shall be substantially sealed in order to close off the soil gas entry routes.

7. Untrapped floor drains shall be provided with removable stoppers which substantially close off the soil gas entry routes.

8. A sump cover which substantially closes off the soil gas entry routes shall be provided for all sump installations. If foundation pipe drains terminate at a sump installation and provisions are made for venting from the sump installation, the three-inch diameter solid vent pipe section requirement of (b)3 above need not be provided.

9. Any ductwork that is routed through a crawl space or beneath a slab shall be properly taped or sealed.

10. Sealant materials that substantially close off the soil gas entry routes shall be installed on any doors or other openings between basements and adjoining crawl spaces that are vented to the exterior.

11. The tops of foundation walls, including, without limitation, interior ledges, that are constructed of hollow masonry units shall be capped or the voids shall be completely filled.

12. The independent vent stack pipe provided in accordance with (b)3, 4 or 8 above shall be an adequately supported, gas tight, three-inch minimum diameter solid pipe, through any enclosed portions of the building. The pipe shall be routed in a manner that makes it accessible for the installation of a future in-line vent pipe fan in a non-conditioned (not heated or cooled) space, including, without limitation, an attic space, but excluding a basement or crawl space, and installed in a configuration, and supported in a manner, that will ensure that rain water or condensate accumulation within the pipes will drain downward into the ground beneath the slab or vapor barrier. The vent stack pipe shall meet the following termination requirements:

i. Vent pipes shall terminate at least 12 inches above the roof, measured from the highest point where the vent intersects the roof. When a vent pipe extension terminates on an occupiable roof the vent pipe shall extend at least seven feet above the roof surface. Exception: Buildings more than three stories in height shall be allowed to extend vent pipe terminals through a wall provided that the termination is at least 20 feet above grade and is effectively screened.

ii. No vent terminal shall be located directly beneath any door, window, or other ventilating opening of the building or of an adjacent building nor shall any such vent terminal be within 10 feet horizontally of such an opening unless it is at least two feet above the top of such opening.

iii. No vent terminal shall be closer than 10 feet horizontally from any lot line. Where this 10 foot horizontal distance is not possible due to lot width, the vent terminal shall be placed as remote from the lot line as practicable.

13. Radon vent pipes shall be identifiable and clearly labeled at intervals of not more than 25 feet in concealed locations, not more than 50 feet in exposed locations and not less than once in any room or space.

14. Electrical junction boxes shall be installed near the provided area, such as an accessible attic space, where a future in-line vent pipe fan and system failure alarms may be installed.

15. In combination basement/crawl space or slab-on-grade/crawl space buildings a three-inch minimum solid vent pipe shall be provided between the areas and interconnected into the independent vent stack to permit use of a single in-line vent pipe fan if activation of the system is desired.

16. In order to reduce stack effect, air passages that penetrate the conditioned envelope of the building, such as attic access openings, or other openings installed in top-floor ceilings, shall be closed, gasketed or otherwise sealed with materials approved for such applications.

Amended by R.1994 d.609, effective December 19, 1994 (operative April 1, 1995).  
See: 26 N.J.R. 2704(a), 26 N.J.R. 5007(b).

**APPENDIX 10-A**

New Jersey Municipalities in Tier 1

County	Municipality	
Burlington	Chesterfield	Mansfield
Camden	Magnolia	Somerdale
	Runnemede	
Cumberland	Bridgeton	
Gloucester	Deptford	Harrison
	East Greenwich	Wenonah
	Greenwich	
Hunterdon	All municipalities except Kingswood and Union	
Mercer	Ewing	Pennington
	Hopewell Borough	Princeton Borough
	Hopewell Township	Princeton Township
	Lawrence	
Middlesex	Highland Park	Piscataway
	North Brunswick	
Monmouth	Allentown	Marlboro
	Colts Neck	Roosevelt
	Freehold Borough	Shrewsbury Borough

County	Municipality	
	Freehold Township	Shrewsbury Township
	Holmdel	Upper Freehold
	Little Silver	
Morris	Chester Borough	Morris Plains
	Chester Township	Morristown
	Dover	Mount Olive
	Harding	Randolph
	Jefferson	Roxbury
	Long Hill	Victory Gardens
	Mendham Borough	Washington
	Mendham Township	Wharton
	Morris	
Passaic	Pompton Lakes	West Milford
Salem	Woodstown	
Somerset	Bernardsville	Montgomery
	Bernards	Peapack & Gladstone
	Branchburg	Rocky Hill
	Far Hills	Somerville
	Hillsborough	Warren
	Franklin	Watchung
	Millstone	
Sussex	All municipalities except Hardyston	
Warren	All municipalities	

Public Notice.  
 See: 23 N.J.R. 3745(a).  
 Revised Tier I list issued.  
 Administrative change.  
 See: 26 N.J.R. 3707(b).  
 Administrative change.  
 See: 27 N.J.R. 3600(a).  
 Administrative change.  
 See: 28 N.J.R. 4783(a).

**SUBCHAPTER 11. PLAYGROUND SAFETY  
 SUBCODE**

**5:23-11.1 Subcode adopted**

(a) Pursuant to authority of P.L. 1999, c.50 (N.J.S.A. 52:27D-123.9 et seq.), the Commissioner hereby adopts the playground safety guidelines of the United States Consumer Product Safety Commission, known as the 1997 edition of the "Handbook for Public Playground Safety" (Pub. No. 325). These guidelines are hereby adopted by reference as the Playground Safety Subcode for New Jersey.

1. Copies of these guidelines may be obtained from the United States Consumer Product Safety Commission, Office of Information and Public Affairs, Washington, DC 20207.
2. The "Handbook for Public Playground Safety" may be known and cited as the "Playground Safety Subcode."

(b) Only those guidelines that govern design, installation, inspection and maintenance of playgrounds and playground equipment shall be deemed to be mandatory. Guidelines concerning supervision and training of personnel shall be deemed to be advisory only.

**5:23-11.2 Definition**

For purposes of this subchapter, "playground" shall mean an improved area designed, equipped, and set aside for play of six or more children, which is not intended for use as an athletic playing field or athletic court, and shall include any play equipment, surfacing, fencing, signs, internal pathways, internal land forms, vegetation, and related structures.

**5:23-11.3 Enforcement of subcode**

(a) No permit shall be required for any element of playground construction that is not otherwise subject to the permit requirements of the State Uniform Construction Code.

(b) Compliance with the requirements of this subcode shall be the responsibility of the manager of the facility, of the owner of the facility and of the agency responsible for the administration of the facility.

(c) The facility manager and/or facility owner or agency responsible for administration of the facility shall certify in writing that any work performed complies with, and the facility is maintained in accordance with, all applicable provisions of this subcode and shall retain this certification on file.

(d) Complaints regarding lack of compliance with this subcode shall be in writing and shall be directed to the facility manager and the facility owner or agency responsible for administration of the facility. The facility manager or owner or administering agency shall respond in writing within 30 days to any written complaint received detailing the position taken with respect to the complaint. If the facility manager or owner or administering agency fails to respond in a manner satisfactory to the party registering the complaint, then the party shall have recourse to the appeals process as set forth at N.J.A.C. 5:23-2.38.

**5:23-11.4 Compliance schedule**

(a) All governmental and for-profit private entities operating playgrounds shall upgrade their playgrounds by replacement or improvement as necessary to comply with this subcode by October 18, 2004 for surfacing and by October 18, 2007 for all other elements, or, in the case of governmental entities, at such earlier date as State funds are made available for such purpose.

(b) All nonprofit entities operating playgrounds shall upgrade their playgrounds by replacement or improvement as necessary to comply with this subcode by October 18, 2004 for surfacing and by October 18, 2014 for all other elements.

(c) All newly constructed playgrounds built, and all new and replacement equipment installed, by a governmental, nonprofit or private for-profit entity more than six months after October 18, 1999 shall conform to the requirements of this subcode.

(d) All construction or alteration of playgrounds, play-ground equipment and surfacing that are subject to the Playground Safety Subcode shall comply with the applicable provisions of the Barrier-Free Subcode (N.J.A.C. 5:23-7).

1. In accordance with N.J.A.C. 5:23-7.18(d) and CABO/ANSI A117.1, Section 4.5, surfaces of all routes and spaces required to be accessible shall be stable, firm and slip-resistant. Sand and gravel shall therefore not be used as surfacing materials when new equipment is being installed, or a new safety surface is being put in place, and the barrier-free subcode is therefore applicable.

## SUBCHAPTER 12. ELEVATOR SAFETY SUBCODE

### 5:23-12.1 Title; scope; intent

(a) This subchapter of the rules adopted pursuant to the authority of the Uniform Construction Code Act, entitled "Elevator Safety Subcode," shall be known and cited throughout this chapter as subchapter 12 or N.J.A.C. 5:23-12, and when referred to in this subchapter may be cited as "this subchapter."

(b) Unless otherwise specifically provided, all references to paragraphs, sections, or to provisions not specifically identified, shall be construed to refer to such paragraph or section or provision of this subchapter.

(c) This subchapter shall control all matters relating to administration of tests and inspections of elevator devices as defined in (e) below.

(d) It is the purpose of this subchapter to enhance the public safety, health and welfare by ensuring that elevator devices as defined in this subchapter are periodically inspected and maintained in accordance with nationally recognized, referenced standards.

(e) For purposes of this subchapter, "elevator" or "elevator device" means a hoisting and lowering device equipped with a car or platform which moves in guides for the transportation of individuals or freight in a substantially vertical direction through successive floors or levels of a building or structure; or, a power driven, inclined, continuous stairway used for raising or lowering passengers; or, a type of passenger carrying device on which passengers stand or walk, and in which the passenger carrying surface remains parallel to its direction of motion and is uninterrupted. This includes, without limitation, elevators, escalators, moving walks, dumbwaiters, wheelchair lifts, manlifts, stairway chairlifts and any device within the scope of ASME A17.1 (Safety Code for Elevators and Escalators) or ASME A90.1 (Safety Standard for Belt Manlifts).

1. This definition shall not apply to any conveyor devices that are process equipment.

### 5:23-12.2 Referenced standards

(a) Periodic, routine and acceptance tests and inspections, if applicable, shall be required on all new, altered and existing power elevators, escalators, dumbwaiters, moving walks, wheelchair lifts, manlifts and stairway chairlifts in accordance with the most recent edition of ASME A17.1 referenced in the building subcode. This subsection shall not apply to elevator devices in structures in Use Groups R-3 or R-4, or to any elevator device located wholly within a dwelling unit in an R-2 structure if the device is not accessible to the general public.

(b) All operating and electrical parts and accessory equipment or devices for elevator devices shall be maintained in safe operating condition. The maintenance of elevators, dumbwaiters and escalators shall conform to the most recent edition of ASME A17.1 referenced in the building subcode.

(c) (Reserved)

(d) If, upon inspection of any elevator device subject to the requirements of this subchapter, the equipment is found to be in a dangerous condition, or if there is an immediate hazard to persons riding on or using any such device, or if the design, or the method of operation in combination with the design, of the device is determined to be inherently dangerous by the elevator subcode official, the elevator subcode official shall so advise the construction official so that a notice of unsafe structure may be issued pursuant to N.J.A.C. 5:23-2.32.

(e) Inspection and testing procedures for equipment within the scope (section 1) of the ASME A17.1 Safety Code for Elevators and Escalators shall be performed in accordance with the latest edition of ASME A17.2.

(f) Any education, experience or training requirements included or cited in reference standards shall not be binding in this State.

Amended by R.1993 d.662, effective December 20, 1993.

See: 25 N.J.R. 3891(a), 25 N.J.R. 5918(a).

Amended by R.1995 d.564, effective November 6, 1995 (operative March 1, 1996).

See: 27 N.J.R. 2829(a), 27 N.J.R. 4281(a).

### 5:23-12.3 Inspection and test schedule

(a) Routine, periodic and acceptance inspections and test of elevators shall be conducted as follows:

1. Routine and periodic inspections shall be made at intervals of not more than six months for all manlifts, and at intervals not exceeding those set forth in ASME A17.1 referenced in the most recent edition of the building subcode for elevators, escalators and dumbwaiters and moving walks. Stairway chairlifts and wheelchair lifts shall be inspected at intervals not exceeding one year.

2. Routine tests shall be made and periodic tests shall be witnessed at intervals not exceeding those set forth in the most recent edition of ASME A17.1 referenced in the building subcode.

3. Routine and periodic inspections, including any applicable acceptance inspections, shall be made by the elevator subcode official or elevator inspector. Routine tests shall be made and periodic tests, including any applicable acceptance tests, shall be witnessed by the elevator subcode official or elevator inspector.

4. Each building containing devices covered by this subchapter shall have an inspection cycle established by the enforcing agency. This cycle shall be consistent with the routine and periodic inspection and test intervals required in this section. Once this cycle is established, all such devices in the building shall be subject to inspections and tests, except as exempted by this section or by N.J.A.C. 5:23-12.9.

i. Elevator devices that have been temporarily taken out of operation for alteration work to be performed shall be exempt from routine and periodic inspection and test requirements as long as the elevator device is not accessible to the public or placed back in operation. Those devices that are still in operation, even though they are included in the alteration permit, shall be subject to routine and periodic inspections within the cycle of inspections in the building.

ii. Elevator devices that have been removed from service as per ASME A17.1 are exempt from routine and periodic inspections and tests until the device is placed back in service as per ASME A17.1, which is referenced in the building subcode. Taking a device in or out of service by Code shall be considered minor work within the meaning of N.J.A.C. 5:23-2.17A.

iii. Elevator devices that are used for construction purposes as per ASME A17.1 referenced in the building subcode are subject to inspections and tests required by ASME A17.1 for elevators used for construc-

tion. Such devices shall not be accessible to the public. During the operation of the device for construction purposes the owner shall assure that the device is used only for construction purposes by providing a designated operator, authorizing of key operation or by other methods acceptable to the elevator subcode official.

5. Elevator devices in structures classified as Use Group R-3 and R-4, except those elevator devices accessible to the public, shall be exempt from periodic inspection and test requirements. Elevator devices wholly within dwelling units in R-2 structures and not accessible to the general public shall also be exempt. In addition, signed statements and supporting inspection and acceptance test reports, filed by an approved qualified agent or agency for elevator devices in such structures, other than elevator devices accessible to the public, may be accepted by the construction official, in accordance with N.J.A.C. 5:23-2.19 and 2.20, in lieu of inspections performed by and acceptance tests witnessed by the enforcing agency for work requiring a permit. If the construction official designates the elevator subcode official to perform the inspection and to witness acceptance test for work under a permit in such structures, those inspections and tests shall assure compliance with the requirements of the code(s) under which the permit was issued.

Amended by R.1995 d.476, effective September 5, 1995 (operative January 1, 1996).

See: 27 N.J.R. 1846(a), 27 N.J.R. 3325(b).

Added (a)4 and 5.

#### 5:23-12.4 Registration of elevator devices

(a) On or before July 1, 1992, and thereafter as required by (e) below, the owner of every existing structure containing one or more elevator device, other than a structure in Use Group R-3 or R-4, or other than an elevator device wholly within a dwelling unit in an R-2 structure that is not accessible to the general public, shall register each elevator device with the Department on a form provided by the Commissioner.