

PUBLIC WORKS

RULES & REGULATIONS

OF THE MANAGER OF THE DEPARTMENT OF PUBLIC WORKS, CITY & COUNTY OF DENVER

Adopted Pursuant to Article II of the Charter of the City & County of Denver and Section 2-91 et seq. and Chapter 27 of the Revised Municipal Code

GOVERNING HOUSING CODE

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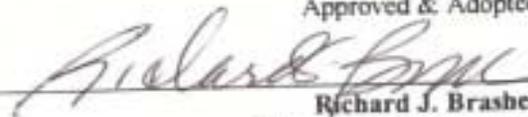
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Approved as to form:



Daniel E. Muse
Attorney for the City & County of Denver

Approved & Adopted



Richard J. Brasher
Manager of Public Works

July 9, 1998

Effective Date

Rules and Regulations
Prepared Under the Authority of
The Charter of the City and County of Denver and Section 2-91 and
following Chapter 27 of the Revised Municipal Code
of the City and County of Denver
Entitled "Housing Code"
JULY 1998

Regulation No. 1

Subject: Definitions. As used in the Rules and Regulations the following shall mean:

1. Accessibility: Located on the same or an adjacent floor without passing through any room of any other rooming unit.
2. A.S.T.M.: The American Society for Testing materials.
3. Approved Water System: A potable water system approved by the Manager.
4. Basement: The portion of a dwelling unit between the floor and ceiling which is partly below and partly above grade, the floor of which is more that four-(4) feet below the average grade of the adjoining ground.
5. Basement Hatchway: An outside entrance to a basement.
6. Bearing wall: A wall, which supports any load other than it's own weight.
7. Chimneys or Flues: Conduits or passageways, vertical or nearly so, for conveying products of combustion to the outside air.
8. Clean and Sanitary: Free from filth, garbage, debris, litter, decayed organic matter, dust, garden soil and grease, or anything offensive to sight or smell. Anything that serves as an attractant, food, or harborage for insects and rodents.
9. Clean-out: An opening into a chimney or plumbing drain for the purpose of removing an obstruction.
10. Door: An opening in a solid wall for ingress and egress of people, including doorways, lintels or headers, casing, sills, and doors, with or without glazing.

11. **Draft Diverter:** A device attached or part of the vent outlet from an appliance and designed to: insure the escape of the products of combustion, in the event of no draft, back draft, or obstruction in the vent or flue beyond the draft hood; prevent a back draft from entering the appliance; neutralize the effect of stack action of the flue upon operation of the appliance.
12. **Easily Cleanable Surface:** A smooth, durable surface, free from unsealed cracks, breaks, crevices, and impervious to amounts of water used in cleaning.
13. **Elements:** Wind, rain, snow, hail or sleet, or surface run-off water.
14. **Kitchen sink:** A sink designed for washing kitchen utensils and preparation of food.
15. **Lintel:** The beam or girder placed over an opening in a wall, and which supports the wall construction above.
16. **Makeshift repair:** Not in accordance with ordinance requirements, rules and regulations, accepted practices, prevailing standards, or manufacturer's recommendations.
17. **Manager:** The Manager of Public Works or his authorized representative.
18. **Owner:** Any person who, alone or with others:
 - (a) Has record legal or equitable title to any dwelling or dwelling unit, with or without accompanying actual possession thereof;
 - (b) Acts as the agent or manager for the person who holds the record legal or equitable title to any dwelling, dwelling unit in a multiple dwelling structure, or common area or utilities servicing a single unit dwelling, or dwelling unit in multiple dwelling structure, or acts as an agent or manager for any group of such owners;
 - (c) Is the personal representative, trustee, or fiduciary of an estate, trust, other entity, which holds record legal or equitable title to any single unit dwelling or dwelling unit in a multiple unit structure, or common area or utilities servicing a single unit dwelling or dwelling unit in multiple dwelling structure.
 - (d) Controls access to any service, facility equipment, or utility which is required under this article and which is servicing any single unit dwelling or dwelling unit in multiple dwelling structure.

19. Parapet wall: That part of any wall extending entirely above the roofline.
20. Privacy:. Completely enclosed by rigid partitions, doors, or opaque windows, from floor to ceiling and wall to wall.
21. Shared Areas: The space used for trash storage, halls, passageways, stairways, porches, yards, sidewalks, basements, and any other areas jointly used by occupants of two or more dwelling units.
22. Sound Condition and Repair: The complete cessation and reversal of the deteriorating effects of weather, water, settling, damage by persons, insects, rodents or building age and the protection from deteriorating effects by painting, stuccoing, tuck-pointing, masonry work, water-proofing, carpentry, or other methods by the Manager.
23. Stairway: A flight or series of flights of steps and supporting structure connecting separate levels.
24. Trap: A fitting or device in a plumbing system designed and constructed to provide, when properly vented, a liquid seal which will prevent the back flow of air without materially affecting the flow of sewage or wastewater through it.
25. Vent: A pipe designed to convey the products of combustion from an appliance to a flue or chimney.
26. Window: An opening in a solid wall for the interior illumination and ventilation of a structure, including lintels or headers, casings, sills, frames, and glazing.

Regulation No. 2

Subject: Plumbing.

1. Every dwelling unit shall be provided with a kitchen sink in an area or room designated for cooking. The sink shall not be located in a separate room or area, without approval of the Manager.
2. Kitchen sinks shall be of seamless construction with rounded internal angles and corners. The internal surfaces shall easily cleanable, and impervious to water and grease, and no smaller than 20 inches by 16 inches, with a minimum uniform depth of 6 inches and a maximum uniform depth of 20 inches.

3. Every dwelling unit shall be provided with a toilet in a room affording privacy to a person within. The toilet shall have an integral, water-seal trap and be provided with an integral flushing rim constructed to flush the entire interior of the bowl.
4. Toilets shall have impervious, easily cleanable surfaces free from cracks, breaks, leaks, or makeshift repairs and shall be equipped with seats and covers of smooth material, impervious to water.
5. Direct flush valves connected to toilet shall be equipped with vacuum breakers.
6. Every dwelling unit shall have a hand sink designed, located, and used exclusively for personal hygiene.
7. Hand sink surfaces shall be smooth, unbroken, easily cleanable, and impervious to water and grease.
8. Every dwelling unit shall be provided within a room which affords privacy to a user, containing a bathtub or shower stall.
9. Bathtubs shall have a smooth, impervious, and easily cleanable inner surface.
10. Shower stalls, shall have a leak-proof base, and walls, which are impervious to water, soap, and body acids. The base shall pitch sufficiently to drain completely, minimize slipping and shall be made of materials such as pre-cast stone, cement aggregates, preformed metals or material of similar qualities. The surface shall be of smooth, non-absorbent materials without sharp corners. Paint or other finish that readily peels shall not be used. The entire assembled shower stall shall be rigid, watertight and easily cleanable, and shall not be less than 30 inches in its shortest dimension, nor have walls less than 6 feet above the floor.
11. Built-in bathtubs with overhead showers shall have waterproof walls and the joints between the tub and adjacent walls shall be waterproof.
12. The bathtub or shower and the toilet shall be located in a room affording privacy to a person within the room.

Regulation No. 3

Subject: Waste Disposal.

1. Every dwelling unit shall be furnished with facilities for the storage of waste, which is offensive to sight and smell and is not conducive to the propagation and harborage of rodents and insects or the creation of fire or any other hazard.

2. Waste shall be stored in sound, fly-tight and rodent-proof containers constructed of metal or equivalent nonabsorbent material with tight-fitting lids. Rubbish containers shall be provided in sufficient size and number so that rubbish does not accumulate in other than approved receptacles.
3. Waste shall not be strewn about the floor of any part of any dwelling or on the ground surrounding any dwelling.

Regulation No. 4

Subject: Heating, Water Heating Facilities, and Gas Fired Cooking Appliances.

1. Gas-fired water heaters shall not be installed in any bath room, toilet room, or room used for sleeping purposes. Storage type water heaters shall be at least six inches away from unprotected combustible material and three inches away from approved fire-resistant material or protected combustible materials. Un-insulated tank water heaters shall not be installed in any room where the heat liberated will constitute a fire hazard.
2. Gas water heaters shall be rigidly connected to the house gas piping outlet. Gas supply pipes shall be free from internal obstructions, splits, crimps, or other imperfections which would render them unfit for the purpose intended and joints shall be constructed in safe and leak-proof fashion.
3. Every gas appliance shall be located in a manner, which permits cleaning, maintenance, and adjustment.
4. Gas water heaters shall be provided with downdraft diverters in the vent pipes of such appliances. Vents and vent-fittings shall be constructed of materials approved by the Uniform Mechanical Code and the Denver Amendments.
5. Gas-fired space heaters shall not be installed in any bathroom, room, toilet room, or sleeping room unless such heater is a direct vent type designed for such use and satisfies the following specifications:
 - (a) The combustion chamber must be sealed-off from the air in the room in which it is located.
 - (b) There must be an outside-air source of combustion air.
 - (c) The space heater must be vented to the outside atmosphere.

- (d) The space heater shall not be installed under a window nor shall the vent from the appliance be within 12 inches laterally of any openings or within 12 inches of the finished exterior grade.
- 6. The use of un-vented, gas-fired space heaters and open flame radiant heaters is prohibited. Gas logs or other gas-fired, vented decorative appliances shall be installed in accordance to the Uniform mechanical Code and the Denver Amendments.
- 7. Furnaces shall be installed in accordance with the Uniform Mechanical Code and the Denver Amendments.
- 8. Boilers and furnaces shall be equipped with approved safety devices to limit high steam pressures, water temperatures, low water or air temperatures in warm air furnaces. These devices shall be approved by and installed in accordance with the Uniform Mechanical Code and the Denver Amendments.
- 9. Gas-fired heating appliances shall be rigidly connected to the house gas piping outlet and equipped with external manual shut-off valves adjacent to such appliances. All gas piping shall be approved and installed in accordance with the Uniform Mechanical Code and the Denver Amendments.
- 10. Fuel-combustion heating appliances shall be vented to the atmosphere. Down-draft diverters shall be provided in the vents. Vents and vent-fittings shall be constructed of materials approved by the Uniform Building Code and the Denver Amendments.
- 11. A vent pipe shall be so installed as to avoid sharp turns or other features which would create excessive resistance to the flow of the gaseous products. Horizontal runs of gas vents depending on natural draft shall not exceed fifteen feet or 75% of the vertical height of the flue. Horizontal runs shall be securely supported.
- 12. All vent pipe connections to a masonry chimney or flue shall be made with a slip joint. A thimble shall be cemented into the chimney and not to extend into the chimney beyond the lining.

13. An accessible and approved clean-out opening with a tight-fitting cover shall be provided at least six inches below the lowest vent inlet into any chimney or flue not provided with a metal liner. Chimneys which are a part of and supported by walls and terminate above a floor, commonly called shelf or bracket chimneys, shall not be used to vent any gas appliance. If it is not possible to install the clean-out six inches below the inlet, a clean-out shall be provided by installing a capped tee in the vent connector next to the chimney. Class A flues requiring that the occupant crawl to each clean-out shall not be regarded as chimneys possessing an accessible clean-out.
14. The cross-sectional area of any flue shall not be less than the cross-sectional area of the flue connection outlet of the appliance it serves. when additional vents from other appliances are connected, the vent area shall be equal to the vent area of the appliances having the largest vent and plus 50% of the areas of all additional smaller appliance vents or when all vent areas of such multiple connected appliances are substantially equal, the total vent area shall be not less than 75% of the combined areas of all connected appliance vents whichever results in the greatest vent area. Single-walled metal vents or flues shall be not be less than six inches from combustible material and shall not pass through combustible walls, floors, ceilings, or partitions unless they are guarded at point of passage by approved double metal ventilated or insulated thimbles. There shall be one inch of clearance of Type B or double-walled pipe.
15. A gas appliance vent pipe may be connected to the vent pipe of another gas appliance through a suitable "Y" junction fitting.
16. All closed system water heaters must be provided with an approved pressure/temperature relief valve.
17. Gas-fired water heaters shall not be installed in pits or other places subject to flooding by water seepage.

18. Water heating facilities shall be considered adequate for single dwelling units if 120 degree Fahrenheit water may be drawn at each sink, tub, or shower for a period of five minutes. For rooming units and multiple dwelling buildings the volume of 120 degree Fahrenheit water required is equivalent to the volume produced by a tank-less gas-fired water heater having a 20 gallon per hour per unit recovery rate with a 100 degree Fahrenheit rise. BTU input rating shall be adjusted for altitude in Denver.

19. Gas fueled appliances for cooking shall not be installed in rooms used for sleeping purposes and in no case shall gas appliances be used for heating any portion of a dwelling. All gas cooking appliances shall be rigidly connected to the house gas-piping outlet with black iron pipe, except that a maximum of six (6) feet of approved semi-rigid tubing not less than 1/2 inch inside diameter may be used immediately adjacent to the appliance. Semi-rigid tubing may not pass through any wall, partition, floor or ceiling. All portions of the equipment shall be kept in sound condition and good repair.

Regulation No. 5

Subject: Egress.

1. Every dwelling unit shall be provided with a means of egress leading to a safe and open space at ground level. Egress shall be unobstructed. Every inside and outside stairway, porch, and addition shall be maintained in sound condition and good repair.

2. Doors, windows, corridors, stairways, fire escapes, and passageways, serving as ordinary or emergency exit routes shall be free of obstructions, and shall not be locked to persons within the building.

3. All structures containing three or more dwelling units in a multiple dwelling unit structure totaling 1000 square feet or more above the first floor shall be provided with two separate routes of egress from each occupied floor to the outside grade.

4. Dwelling units located in basements or cellars shall be provided with two separate egress routes. Egress routes utilizing windows shall comply with the Uniform Building Code and the Denver Amendments.

Regulation No. 6

Subject: Natural Illumination.

One window or skylight is required in each habitable room. The Manager may approve indirect illumination through openings into adjacent rooms, corridors, courts, and enclosed porches, provided that the light is in the amount of 5 or more foot candles, and provided that the openings to adjacent lighted areas are not readily closable.

Regulation No. 7

Subject: Ventilation.

1. Every habitable room within each dwelling unit shall be provided with at least one window or skylight, openable directly to outside air with an area of at least one square inch of opening for each square foot of floor space. The manager may approve mechanical ventilation as an alternative.
2. Every bathroom, shower/bathtub room, or toilet room shall be provided with at least 40 square inches of ventilation to the outside air utilizing a window or ductwork. The manager may approve mechanical ventilation as an alternative.

Regulation No. 8

Subject: Electrical Requirements and Lighting.

1. The electrical service entrance shall have sufficient capacity to carry full power to each appliance served by outlets and fixtures.
2. All outlets that have been added to the building without regard to the total circuitry shall be considered hazardous and unapproved. Tacked extension cords and makeshift wiring are not permitted.
 - (a) No extension cord from any electrical outlet shall extend from one room into another.
 - (b) No extension cord shall be located where foot traffic passes directly over the extension cord.
 - (c) No electrical extension cord shall extend across any doorway or pass through any wall or partition of any dwelling unit or room.
3. Sufficient numbers of branch circuits shall be provided to carry full power to appliances served by fixtures and outlets.
4. Frayed and exposed wiring, wiring unprotected by proper conduit or covering, fixtures in disrepair, and wiring or fixtures repaired in makeshift manner shall all be removed, replaced or repaired.

5. Pull-chain switches shall not be installed in any bathroom, shower, tub-room, or toilet room.

Regulation No. 9

Subject: Fly and Insect Screen.

1. During the time between May 1st to September 30th of each year, fly and insect screens are required to be installed on at least one opening to the outside in each habitable room.
2. All required screens shall be free from tears, holes, or other imperfections that would admit insects.
3. At least one opening to the outside in each habitable room shall be provided with insect screening.

Regulation No. 10

Subject: Exterior Walls, Roofs and Foundations.

1. Foundation walls, exterior walls and roofs and all additions shall be free from holes, cracks, breaks, decay and erosions, which would emit the entry of the elements or vermin, or permit excessive heat loss. These components shall also be free from bulges, shifting of materials and loose material, which might fall or collapse, and shall be maintained in a sound condition and good repair. Piers, columns, posts and other below grade foundation members shall be securely placed and free from decay and breaks.

Regulation No. 11

Subject: Interior Walls, Ceilings and Floors.

Floors, walls, ceilings, and other members such as base boards, moldings, and doorframes shall be secure and free from holes, cracks, breaks, dampness, loose or peeling paint, plaster or wallpaper, sags, bulges, and unevenness, which would permit harborage of insects and rodents or cause injury to the occupants.

Regulation No. 12

Subject: Windows, Doors and Hatchways.

1. Windows shall be and glazed and free from loose, broken or cracked glass that could cause injury to persons, allow the entrance of elements, or allow excessive heat loss from within.
2. Exterior doors shall fit doorway openings in a manner designed to prevent excessive heat loss and prevent the entrance of the elements and vermin. They shall be maintained free from cracks or breaks.
3. All basement hatchway entrances shall be constructed to prevent the entrance of the elements and vermin and be maintained to minimize the danger of physical injury to occupants.

Regulation No. 13

Subject: Stairways.

1. Stairway stringers shall have solid bearing at top and bottom. Stairways used for egress routes for habitable rooms shall have at least 61 611 headroom as measured vertically from the tread level.
2. Risers and treads shall be of uniform height and width throughout any one flight.
3. Every inside stairway and every outside stairway attached to a dwelling and consisting of three or more treads shall be provided with handrails securely fastened to the wall or to a sturdy balustrade. Every stairway exceeding 8811 in width shall have intermediate handrails supported by a sturdy balustrade. Hand rails shall be placed not less than 30" nor more than 34" above the tread level. Handrails need not be installed on stairways providing access to unused cellar or attic space.
4. Treads and balusters shall be intact. Tread covering, if supplied, shall be firmly attached.
5. General construction and support of stairways shall be of sufficient strength to support the heaviest loads which might be exerted.

Regulation No. 14

Subject: Plumbing Fixtures and Maintenance.

1. Plumbing fixtures, except those having integral traps, shall be separately trapped by a water seal trap, placed as near the fixture outlet as possible.
2. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches, except in the case of flush water closets with integral water seal traps.
3. A two-compartment sink may be installed on one trap, if one compartment is not more than six inches deeper than the other and if the waste outlets are not more than 30 inches apart.
4. Clean-outs on a trap shall be made with a threaded clean out plug and approved washer.
5. No fixture shall be double trapped.
6. Clean-outs shall be easily accessible.
7. If a clean-out plug is located where there is foot traffic, the head should be counter sunk to prevent accidents, or a recess in the floor must be provided.
8. Where grease interceptors exist, the size, type and location must meet the Uniform Plumbing Code and the Denver Amendments. Every interceptor shall be readily accessible.
9. All floor-mounted and wall hung fixtures shall be rigidly secured.
10. Pipe hangers and anchors shall be provided to support the pipe alignment.
11. All soil, waste, and water pipes shall be protected from freezing.
12. All portions of the plumbing system shall be installed and constructed of materials approved by the Uniform Plumbing Code and the Denver Amendments.

Regulation No. 15

Subject: Water Supply and Distribution.

1. All premises intended for human occupancy shall be connected to the municipal water system or to a water system approved by the manager.
2. Potable and non-potable water supplies shall be distributed

through systems entirely independent of each other, and any actual or potential cross-connections between such supplies is prohibited. Potable water supply piping, water discharge outlets, back-flow prevention devices, or similar equipment shall not be located in an area where they may be submerged in any contaminated substance.

3. The water distributions system shall be protected from back-flow in accordance with the Uniform Building Code and the Denver amendments.
4. Materials for water-distributing pipes and fittings shall be approved if installed in accordance with the Denver Building Code in force at the time of installation.
5. No piping material that has been used for other than a potable water supply system shall be re-used in the potable water supply system.
6. Above ground drainage system piping within buildings shall be of cast-iron, galvanized wrought iron galvanized steel, lead, brass, copper pipe or other materials approved by the Uniform Plumbing Code and the Denver Amendments.
7. All underground drains within buildings shall be of approved cast iron soil pipe or other materials approved by the Uniform Plumbing Code and the Denver Amendments.
8. Minimum Size of Soil and Waste Stacks: No soil or waste stack shall be smaller than the largest horizontal branch connected thereto.
9. Minimum Size of Stack Vent or Vent Stack: Any structure on which a building drain is installed shall have at least one stack vent or vent stack carried full size through the roof not less than 3 inches in diameter or the size of the building drain, whichever is the lesser.

10. All exterior openings provided for the passage of piping shall be properly sealed with tight fitting collars of metal or other approved rat-proof material and securely fastened into place. Interior openings through walls, floors, and ceilings shall be vermin-proof when required by the Manager.
11. Water or waste piping and plumbing fixtures shall not be repaired in a makeshift or unapproved manner.
12. The rate of flow of water to each kitchen sink, lavatory, tub and shower shall be a minimum of one gallon per minute.

Regulation No. 16

Subject: Floor Protection in toilet rooms, bathrooms, and shower or tub rooms

1. No unsealed wood, rough finished concrete, or cracked, torn or ill-fitting floor covering shall be accepted. Edges of floor covering shall be coved or extended under tightly applied quarter-round molding. Floor covering shall be tight, free from air pockets, and from any defect that might allow the passage of water or the harborage of vermin or bacteria. All holes cut in floor covering for the passage of plumbing fixtures or pipes shall be sealed to prevent passage of water or vermin.

Regulation No. 17

Subject: Safe Maintenance of Utilities and Equipment.

All supplied facilities, pieces of equipment, or utilities in or about the premises of any dwelling unit shall be capable of performing their intended function and shall not be constructed, installed or maintained to reduce the possibility of injury to persons.

Regulation No. 18

Subject: Rain Water Drainage.

All structures containing one or more dwelling units shall be provided with firmly supported gutters and downspouts free from leaks and obstruction. Downspouts shall discharge upon splash blocks with minimum dimensions of twelve (12) inches by thirty-six (36) inches, or equivalent devices so that water is directed away from foundation walls.

Regulation No. 19

Subject: Basement.

1. No area in a basement may be used for human habitation where any person lives, sleeps, eats, or cooks, if the floors and walls admit any underground or surface water.
2. All areas within a basement or cellar used for habitable purposes shall be separated from any furnace room by at least one-hour fire resistive material as defined by the American Society for Testing Materials. Any door in the fire separation shall also have a one-hour fire rating.

Regulation No. 20

Subject: Sanitary Maintenance by Owners and Operators.

The owner or operator of every dwelling containing two or more dwelling units shall be responsible for the maintenance, cleanliness, and sanitary condition of all shared areas.

Regulation No. 21

Subject: Rubbish Disposal by Occupant.

Rubbish shall be placed in containers in the dwelling or rooming unit, which the occupant occupies, or in areas which are designated by the owner as rubbish storage areas.

Regulation No. 22

Subject: Plumbing Maintenance by Occupant.

1. Every occupant shall maintain and keep all plumbing within his or her dwelling unit free from filth, debris, garbage, litter, decayed organic matter, dust, garden soil, **grease, and** anything offensive to sight or smell, or anything that may serve as an attractant, food, or harborage for vermin.
2. No occupant shall knowingly, willfully, maliciously or carelessly deposit any material in any plumbing fixture which would result in the obstruction of, or damage to plumbing.

Regulation No. 23

Subject: Rooming House and Hotel Requirements.

All required plumbing facilities shall be accessible to all persons sharing the facilities.

Regulation No. 24

Subject: Egress from Rooming Houses.

1. Every rooming house shall be provided with an unobstructed means of egress to the ground level. Every inside and outside stairway, porch, and addition shall be maintained in sound condition and good repair.
2. All emergency exit routes shall be free of stored, discarded, or extraneous material, and in no case, be obstructed or locked to persons within the building. Two or more separate routes of egress shall be available at all times to occupants of each occupied floor in buildings in which there is more than one rooming unit, provided that one of said routes may be for emergency use only. Both routes shall be equipped in such a manner as to eliminate the necessity of jumping to the ground in the event of fire.
3. Rooming units located in basements or cellars shall be provided with dual egress.

Regulation No. 25

Subject: Hotel and Rooming House Sanitation.

The owner of a hotel or rooming house shall maintain the shared areas and the vacant units in a clean and sanitary condition.