

I. DEFINITIONS

A. Unless otherwise required by the context, as used in this Regulation:

1. "Accredited Laboratory" means an independent testing laboratory which has obtained accreditation pursuant to the Federal Regulations 40 CFR Part 60 Subpart AAA.
2. "Approved Masonry Heater" means a wood burning appliance as defined in Section I.A.12 which has complied with all requirements of Section IV.
3. "Approved Pellet Stove" means a woodburning appliance as defined in Section I.A.(16), which has complied with all the requirements of Section III.
4. "Boiler" means a domestic solid fuel burning appliance used primarily for heating space where the appliance is located, by the distribution through pipes of a gas or fluid heated in the appliance. This appliance must be tested and listed as a boiler under accepted U.S. or Canadian safety testing codes.
5. "Burn down time" shall mean that period of time not to exceed three hours following the declaration of a high pollution day required for the cessation of combustion within any wood burning stove, pellet stove, masonry heater or fireplace pursuant to this Regulation.
6. "Certified wood stove" means a wood stove which is a unit of a wood stove model, or which contains a configuration of appliance, for which certification has been granted.
7. "Cookstove" means a domestic wood-fired appliance that is designed primarily for cooking food and that has the following characteristics:
 - a. An oven, with a volume of 1 cubic foot or greater, and an oven rack;
 - b. A device for measuring oven temperatures;
 - c. A flame path that is routed around the oven;
 - d. A shaker grate;
 - e. An ash pan;
 - f. An ash clean-out door below the oven; and
 - g. The absence of a fan or heat channels to dissipate heat from the appliance.
8. "Dealer" means a person who sells wood stoves, pellet stoves or masonry heaters on a regular basis.
9. "Furnace" means a domestic solid fuel burning appliance that is designed to be located outside of ordinary living areas and is used for heating spaces other than the space where the appliance is located by the distribution through ducts of air heated in the appliance. The appliance must be tested and listed as a furnace under accepted U.S. or Canadian safety testing codes.
10. "High pollution day" means those periods of time declared by Colorado Department of Health as provided for in Section 25-7-106.3(1), C.R.S.

11. "Manufacturer" means a person who constructs a wood burning stove or pellet stove or is engaged in the business of designing and constructing masonry heaters.
12. "Masonry Heater" means an appliance designed for or capable of burning wood, capable of and intended for domestic space heating or domestic water heating, which meets the following criteria:
 - a. a factory-built or site-built wood burning appliance whose core is constructed primarily of manufacturer-built, supplied or specified masonry materials (i.e., stone, cemented aggregate, clay, tile, or other non-combustible non-metallic solid materials) which weighs at least 800 kg;
 - b. The firebox effluent of the masonry heater travels horizontally and/or downward through one or more heat absorbing masonry duct(s) for a distance at least the length of the largest single internal firebox dimension before leaving the masonry heater;

For the purposes of this subparagraph:

- i. Horizontal or downward travel distance is defined as the net horizontal and/or downward internal duct length, measured from the top of the uppermost firebox door opening(s) to the exit of the masonry heater as travelled by any effluent on a single pathway through duct channel(s) within the heater (or average of net internal duct lengths for multiple pathways of different lengths, if applicable). Net internal duct length is measured from center of the internal side or top surface of a duct, horizontally or vertically to the center of the opposite side or the bottom surface of the same duct, and summed for multiple ducts or directions on a single pathway, if applicable. For duct channel(s) traversing horizontal angles of less than ninety degrees from vertical, only the net actual horizontal distance travelled is included in the total duct length.
 - ii. The largest single internal firebox dimension is defined as the longest of either the length or the width of the firebox hearth and the height of the firebox, measured from the hearth to the top of the uppermost firebox door opening(s).
- c. The appliance has one or more air-controlling door(s) for fuel-loading which are designed to be closed during the combustion of fuel loads, and which control the entry of combustion air (beyond simple spark arresting screen(s)) to one or more inlet(s) as prescribed by the masonry heater manufacturer;
 - d. The appliance is assembled in conformance with the underwriters' laboratories-listed and/or manufacturer's specifications for its assembly and, if the core is constructed with a substantial proportion of materials not supplied by the manufacturer, is certified by a representative of the manufacturer to be substantially in conformance with those specifications.
 - f. The appliance has a label permanently affixed to the appliance identifying its manufacturer and model.
13. "Method 5G/5H" is a test method(s) for determination of particulate emissions from woodheaters from dilution tunnel sampling and stack locations as described in 40 CFR, Part 60, Subpart AAA, Appendix A.

14. "Method 28" is a test method designed to establish certification test conditions and the particulate matter weighted emission values, as described in 40 CFR Part 60 Subpart AAA, Appendix A.
15. "Method 28A" is a test method to measure air to fuel ratios and minimum achievable burn rates as described in 40 CFR, Part 60 Subpart AAA, Appendix A.
16. "Model" means a group of wood stoves, pellet stoves or masonry heaters which are identical to one another regarding design, emissions, and heating performance.
17. "New wood stove" means any wood stove other than one which was sold to an individual for his personal use prior to January 1, 1987.
18. "Pellet Stove" means a wood heater which meets the following criteria: (1) the manufacturer makes no reference to burning cordwood in advertising or other literature, (2) the unit is safety listed for pellet fuel only, (3) the unit's operating and instruction manual must state the use of cordwood is prohibited by federal law, and (4) the unit must be manufactured and sold including a hopper and auger combination as integral parts.
19. "Phase III Certified wood stove" means a wood burning stove which meets the emission standards set forth in Section II.A.1.
20. "Primary source of heat" shall mean one or more residential wood burning stoves, pellet stoves, masonry heaters or fireplaces which provide more than half the annual heating demands for the residence.
21. "Standard method" means the applicable testing procedures and criteria set forth in the Federal Regulations 40 CFR Part 60 Subpart AAA, Appendix A.
22. "Wood burning fireplace" means an appliance designed for or capable of burning wood which does not meet the definition of a wood burning stove or is not exempt under the provisions of section II.C.
23. "Wood burning stove" means an appliance designed for or capable of burning wood, including a fireplace insert, capable of and intended for domestic space heating or domestic water heating that meets all of the following criteria:
 - a. An air-to-fuel ratio in the combustion chamber averaging less than 35-to-1 as determined by EPA method 28A as set forth in the Federal Regulations 40 CFR Part 60 Subpart AAA, Appendix A.
 - b. A useable firebox volume of less than 20 cubic feet.
 - c. A minimum burn rate of less than 5 Kilograms per hour.
 - d. A maximum weight of 800 kilograms.

II. REQUIREMENTS FOR SALE AND INSTALLATION OF WOOD STOVES

- A. On or after July 1, 1991, no person shall advertise to sell, offer to sell, or sell a new wood stove unless it has been tested, certified, and labeled for emission performance in accordance with criteria and procedures specified in the Federal Regulations 40 CFR Part 60, Subpart AAA and meets the emission standards set forth in Subsection 60.532(b)(1) or (2).
- B. The certification requirement shall apply to:

1. Advertisements for sale and offers for sale communicated by any means to any person in Colorado, including, but not limited to, offers to sell or advertisements for sale which are mailed to any person in Colorado.
2. Any sale occurring in Colorado, including, but not limited to, sales in which a new wood stove is shipped, delivered, or transported to any person in Colorado by a person located either inside or outside Colorado and to both the initial sale and any subsequent resale of a new wood stove.

C. Exemptions

1. Wood-fired appliances that are not suitable for heating equipment in or used in connection with residences. For example, portable camping stoves. Such appliances must be exempted by the Division on a case-by-case basis.
 2. Boilers
 3. Furnaces
 4. Cookstoves
- D. On and after January 1, 1993 no person shall sell or install a used wood-burning device within those portions of the counties of Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson which are located in the AIR program area, as such area is defined in Section 42-4-307(8), C.R.S. unless it meets the requirements set forth in Section II.A.

III. APPROVAL PROCEDURE FOR PELLET STOVES

- A. No person shall advertise to sell, offer to sell or sell a pellet stove unless it has been designated as an approved pellet stove in accordance with this Section III.
- B. On or after August 1, 1992, a manufacturer of a pellet stove who wishes to have a particular model line designated as an approved pellet stove, shall submit to the Division for their review, the following information:
1. test results showing an air to fuel ratio of 35:1 or greater, using EPA test method, 28A.
 2. test results using EPA test method 5G or 5H and corrected to 5H which have been conducted under minimum burn conditions, (category 1), using EPA test method 28.
 3. a one page letter signed by the laboratory president, verifying the information required in III. A.1. and 2.
- C. All tests conducted under III. A. shall be performed by an EPA accredited laboratory.
- D. Within twenty (20) working days after receipt of an application for approval, the Division shall notify the applicant if the application is complete. Within thirty (30) working days after receipt of a complete application, the Division shall notify the applicant whether the application satisfies all requirements for approval.
- E. If the Division denies approval, the Division shall notify the applicant in writing of the opportunity for a hearing before the Commission pursuant to Section 24-4-104(9), C.R.S., (1982).
- F. The Division shall grant approval if all information required by Section III A. is submitted and the test results in Section III.A.2. do not exceed 4.1.G/HR.

IV. APPROVAL PROCEDURES FOR MASONRY HEATERS

- A. No person shall advertise to sell, offer to sell, sell or install a masonry heater unless it has been designated as an approved masonry heater in accordance with this Section IV.
- B. On or after the effective date of this regulation, a manufacturer or builder of a masonry heater who wishes to have a model or design designated as an approved masonry heater, shall submit to the Division for its review the following information:
 - 1. Manufacturer and model identification and specifications and drawings of the firebox and duct system.
 - 2. Field test results which have been conducted by an EPA-accredited laboratory, showing "in-home" field test particulate emission levels for that model or design of masonry heater of less than 6.0 grams per kilogram.
 - 3. A letter by the laboratory president verifying: (1) the information required in Section IV.A.1; (2) that the methods used were conducted according to procedures audited by the EPA; and (3) verifying that the masonry heater model or design meets the specifications of the masonry heater definition of this regulation.
- C. Within twenty (20) working days after receipt of an application for approval, the Division shall notify the applicant if the application is complete. Within thirty (30) working days after receipt of a complete application, the Division shall notify the applicant whether the application satisfies all requirements for approval.
- D. If the Division denies approval, the Division shall notify the applicant in writing of the opportunity for a hearing before the Commission pursuant to Section 24-4-104(9) C.R.S.
- E. The Division shall grant approval if all information required by Section IV is submitted, the masonry heater model is a masonry heater within the definition of this regulation and test results pursuant to section IV.B.2 do not exceed 6.0 grams per kilogram.
- F. The Division may grant approval for a masonry heater model which has not been tested pursuant to Section IV.B.2 upon submission of the following information by the applicant:
 - 1. Manufacturer and model identification and specifications and drawings of the firebox and duct system.
 - 2. Documentation from the president of an EPA-accredited laboratory that the model is a masonry heater within the definition of this regulation, has substantially the same core construction as a model already approved and is substantially similar to the approved model in firebox and duct design, combustion function and probable emissions performance.

V. ENFORCEMENT

- A. The Division may enter and inspect the property or premises of any manufacturer, or dealer, for the purpose of investigating any actual, suspected, or potential violation of this regulation; and may, at reasonable times, have access to and copy any document, inspect any wood stove, wood stove component, pellet stove, masonry heater or testing equipment, or test the emissions of any wood stove, pellet stove or masonry heater possessed by any manufacturer, or dealer, for the purpose of ascertaining compliance or noncompliance with this regulation.
- B. The Division shall also enforce the provisions of this regulation through all means authorized by Part 1

VI. LIST OF APPROVED SOLID FUEL APPLIANCES

The Division shall request each dealer to make available to consumers a list of certified wood stoves, exempt, approved pellet stoves and approved masonry heaters to be compiled by the Division.

VII. HIGH POLLUTION DAYS

A. Applicability

Limitations on the use of wood burning stoves, pellet stoves, masonry heaters and fireplaces shall be applicable only in those portions of the counties of Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson which are located in the AIR program area, as such area is defined in Section 42-4-307(8), C.R.S. but not including those areas above seven thousand feet elevation.

B. Provisions of this section may be enforced by the appropriate local agency. Local agencies are encouraged to develop suitable enforcement programs and enter into an agreement with the State to promote more effective enforcement of this regulation. Approval of a wood stove, pellet stove or masonry heater model pursuant to this regulation does not constitute authorization not to comply with requirements of any local ordinance or resolution relating to the installation or use of any wood-burning appliance.

C. This section shall not apply within any municipality which had an ordinance mandating restricted use of wood burning stoves, pellet stoves, masonry heaters and fireplaces on high pollution days in effect on January 1, 1990.

1. All such exempt areas shall be required to submit a yearly report to the commission no later than June 30, which provides information concerning the enforcement actions pursuant to their ordinance for the previous heating season.

D. Prohibitions of use

No person shall operate a wood burning stove, pellet stove, masonry heater or fireplace during a high pollution day. A burn-down time shall be allowed for the burn-down of existing fires prior to the initiation of enforcement action.

E. Exemptions

1. Persons utilizing their wood burning stove, pellet stove, masonry heater or fireplace as a primary source of heat.
2. Persons operating a Phase III certified wood burning stove.
3. Persons operating an approved pellet stove.
4. Persons operating an approved masonry heater.

VIII. REQUIREMENTS FOR INSTALLATION OF FIREPLACES

A. On and after the effective date of this regulation no person shall install any fire place in any dwelling in the area defined in Section VII.A. unless it is one of the following:

1. a gas appliance.

2. an electric device.
3. a fireplace insert that meets the requirements set forth in Section II.A.
4. an approved pellet burning fireplace insert.
5. an approved masonry heater.
6. any other clean burning device approved by the Commission which meets the emission standard set forth in Section II.A.

B. This section shall not apply to any municipality or a county which has a provision in effect on January 1, 1993 which is substantially equivalent of this section as determined by the Commission.

IX. IMPLEMENTATION OF LOCAL CONTROL STRATEGIES

The local jurisdictions listed below shall implement and enforce the indicated ordinances and resolutions, as they exist on January 1, 1993. This ordinance limits wood burning on high pollution days as determined by the Colorado Department of Health. In addition, each shall implement and enforce any ordinance adopted in accordance with this regulation. The indicated ordinances or resolutions may be amended in the sole discretion of the respective governing body, provided that they shall be submitted immediately to the Colorado Air Quality Control Commission and the United States Environmental Protection Agency as revisions to the State Implementation Plan. The listed ordinances and resolutions shall remain in full force and effect until such time as the jurisdiction obtains full approval of a State Implementation Plan revision.

Community	HPD Ordinance Number	Date Enacted	Construction Ordinance
Arvada	2451	11/87	
Aurora	87-118	4/86	92/47
Boulder	5007	10/86	5445
Broomfield	794	11/88	
Denver	Chapter 4.24	10/86	Chapter 4.24
Douglas County			R-991-128
Englewood	31	9/92	39
Federal Heights	565	1/88	
Glendale	2	1/88	15
Greenwood Village	17	6/88	9
Jefferson County	R-CC89-873	12/89	R-CC90-617
Lafayette	24	11/88	
Lakewood	113	12/86	61
Littleton	17	12/88	26
Longmont	1	1/89	
Mountain View	5	1/91	
Sheridan	22	11/88	1
Thornton	2120	10/91	2194
Westminster	6/14	11/87	20

X. REFERENCES

Written statements of the basis and purpose of this regulation and revisions as well as all other material referenced in this Regulation is hereby incorporated by reference by the Air Quality Control Commission and made a part of the Colorado Air Quality Control Commission Regulations. Materials incorporated by reference are those in existence as of the date of this regulation and do not include later amendments. The material incorporated by reference is available for public inspection during regular business hours at the Office of the Commission, located at 4300 Cherry Creek Drive South, Denver, Colorado 80222, or may be examined at any state publications depository library. Parties wishing to inspect these materials should contact the Technical Secretary of the Commission, located at the Office of the Commission.