

SECTION 506 - SOLID FUEL BURNING DEVICES

506.1 PURPOSE

This Section establishes emission standards, certification standards and procedures, burn ban rules, and fuel restrictions for solid fuel burning devices in order to maintain compliance with the National Ambient Air Quality Standards (NAAQS) for PM_{2.5} and to further the policy of the NWCAA as stated in Section 102 of this Regulation.

506.2 DEFINITIONS

All terms not defined herein shall have the meaning given them in WAC 173-433-030 as referenced in NWCAA 104.1 and NWCAA Section 200.

ADEQUATE SOURCE OF HEAT – A permanently installed furnace or heating system, connected or disconnected from its energy source, designed to maintain 70°F at a point 3 feet above the floor in all normally inhabited areas of a residence or commercial establishment. If any part of the heating system has been disconnected, damaged, or is otherwise nonfunctional, NWCAA will base the assessment of the adequacy of the design on the system's capability prior to the disconnection, damage, improper maintenance, malfunction, or occurrence that rendered the system nonfunctional.

CERTIFIED – Meeting at least one of the following:

- (1) Has been determined by Ecology to meet Washington emission performance standards pursuant to RCW 70.94.457 and WAC 173-433-100 as referenced in NWCAA 104.1;
- (2) Meets EPA emission performance standards when tested by an accredited independent laboratory and labeled according to procedures specified by EPA in 40 CFR 60 Subpart AAA as referenced in NWCAA 104.2; or
- (3) Was manufactured prior to 1989 and meets the "Oregon Department of Environmental Quality Phase 2" emissions standards contained in Subsections (2) and (3) of Section 340-21-115, and certified in accordance with "Oregon Administrative Rules, Chapter 340, Division 21 - Woodstove Certification" dated November 1984.

COAL STOVE - An enclosed, coal-burning appliance capable of and intended for residential space heating, domestic water heating, or indoor cooking, which has all the following characteristics:

- (1) An opening for loading coal which is located near the top or side of the appliance;
- (2) An opening for emptying ash which is located near the bottom or the side of the appliance;

- (3) A system which admits air primarily up and through the fuel bed;
- (4) A grate or other similar device for shaking or disturbing the fuel bed;
- (5) Listing by a nationally recognized safety testing laboratory for use of coal only, except for coal ignition purposes; and
- (6) Not configured or capable of burning cordwood.

COMMERCIAL ESTABLISHMENT - An establishment possessing a valid business license issued by a governmental entity.

COOKSTOVE – A wood-fired appliance designed with the primary function of cooking food, which has all of the following characteristics:

- (1) An integrally built-in oven with volume of 1 cubic foot or greater and an oven rack;
- (2) A cooking surface measured in square inches or square feet that is 1.5 times greater than the firebox measured in cubic inches or cubic feet (e.g., a firebox of 2 cubic feet would require a cooking surface of at least 3 square feet);
- (3) A device for measuring oven internal temperatures;
- (4) A flame path that is routed around the oven;
- (5) A shaker grate ash pan and an ash cleanout below the firebox;
- (6) A portion of at least four sides of the oven must be exposed to the flame path during the oven heating cycle, while a flue gas bypass will be permitted for temperature control.

Any device with a fan or heat channels used to dissipate heat into the room is not considered a cookstove. Devices designed or advertised as room heaters that also bake or cook do not qualify as cookstoves.

FIREPLACE - A permanently-installed masonry fireplace or a factory-built metal solid fuel burning device designed to be used with an air-to-fuel ratio equal to or greater than 35 to 1 and without features to control the inlet air-to-fuel ratio other than doors or windows such as may be incorporated into the fireplace design for reasons of safety, building code requirements, or aesthetics.

NON-AFFECTED PELLET STOVE - A pellet stove that has an air-to-fuel ratio equal to or greater than 35 to 1 when tested by an accredited laboratory in accordance with methods and procedures specified in EPA Method 28A in 40 CFR 60 Appendix A as referenced in NWCAA 104.2.

SEASONED WOOD – Untreated wood or untreated lumber of any species that has been sufficiently dried so as to contain 20 percent or less moisture by weight. It includes manufactured pressed wood products such as pellets and logs.

SOLID FUEL BURNING DEVICE – A device that burns wood, coal, or any other non-gaseous or non-liquid fuels, and includes any device burning any solid fuel except those prohibited by WAC 173-433-120 as referenced in NWCAA 104.1. This includes, but is not limited to, woodstoves, coal stoves, cookstoves, pellet stoves, fireplaces, and wood-burning hydronic heaters. This also includes devices used for aesthetic or space-heating purposes in a private residence or commercial establishment, which have a heat input of less than 1 million British thermal units per hour.

SUBSTANTIALLY REMODELED – Any alteration or restoration of a building the cost of which exceeds 60 percent of the appraised value of such building within a 12-month period.

TREATED WOOD – Wood of any species that has been chemically impregnated, painted, or similarly modified to improve resistance to insects, weathering or deterioration.

WOODSTOVE – A wood-fueled appliance, other than a cookstove, capable of and intended for residential space heating and domestic water heating that meets the criteria contained in 40 CFR 60 Subpart AAA as referenced in NWCAA 104.2 and has all of the following:

- (1) An air-to-fuel ratio in the combustion chamber averaging less than 35 to 1 as determined by EPA Method 28A in 40 CFR 60 Appendix A as referenced in NWCAA 104.2;
- (2) A useable firebox volume of less than 20 cubic feet;
- (3) A minimum burn rate less than 5 kg/hr as determined by EPA Method 28 in 40 CFR 60 Appendix A as referenced in NWCAA 104.2; and
- (4) A maximum weight of 800 kg, excluding fixtures and devices that are normally sold separately, such as flue pipe, chimney, and masonry components not integral to the appliance.

Any combination of parts, typically consisting of but not limited to, doors, legs, flue pipe collars, brackets, bolts and other hardware, when manufactured for the purpose of being assembled, with or without additional owner-supplied parts, into a woodstove, is considered a woodstove.

506.3 EMISSION PERFORMANCE STANDARDS

- (A) Solid Fuel Burning Devices. Except as provided in Sections 506.3(B) and (C), a person shall not advertise to sell, offer to sell, sell, bargain, exchange, or give away any solid fuel burning device unless it complies

with WAC 173-433-100 as referenced in NWCAA 104.1 which includes meeting the following particulate air contaminant emission standards:

- (1) 2.5 g/hr for catalytic woodstoves and
 - (2) 4.5 g/hr for all other solid fuel burning devices.
- (B) Fireplaces. Except as provided in NWCAA 506.3(C), a person shall not advertise to sell, offer to sell, sell, bargain, exchange, or give away a factory-built fireplace unless it meets 40 CFR 60 Subpart AAA as referenced in NWCAA 104.2 or equivalent standard that may be established by the state building code council by rule. Particulate emissions from factory-built fireplaces shall not exceed 7.3 g/kg.
- (C) Solid fuel burning devices which have been rendered permanently inoperable are exempt from NWCAA 506.3(A) and (B).

506.4 INSTALLATION OF SOLID FUEL BURNING DEVICES

- (A) No new or used solid fuel burning device shall be installed in new or existing buildings unless such device meets Washington state emission performance standards in WAC 173-433-100 as referenced in NWCAA 104.1. Any solid fuel burning device not meeting the applicable standards at the time of installation must be removed or rendered permanently inoperable.
- (B) An adequate source of heat other than a solid fuel burning device is required in all new and substantially remodeled residential and commercial construction. The rule shall apply to:
- (1) Areas designated by a county to be an urban growth area under chapter 36.70A RCW and
 - (2) Areas designated by the EPA as being in nonattainment for particulate matter.

506.5 OPACITY STANDARDS

- (A) Opacity level. Any person shall not cause or allow emission of a smoke plume from any solid fuel burning device to exceed an average of 20 percent opacity for 6 consecutive minutes in any 1-hour period. This limit does not apply during the starting of a new fire for a period not to exceed 20 minutes in any 4-hour period.
- (B) Test methods and procedures. EPA Method 9 or EPA Alternative Method 082 will be used to determine compliance with this Section.
- (C) Enforcement. Smoke visible from a chimney, flue or exhaust duct in excess of the opacity standard shall constitute prima facie evidence of unlawful operation of an applicable solid fuel burning device. This

presumption may be refuted by demonstration that the smoke was not caused by an applicable solid fuel burning device.

506.6 FUEL TYPES

- (A) A person shall cause or allow only the following materials to be burned in a solid fuel burning device:
 - (1) Seasoned wood,
 - (2) An amount of paper necessary for starting a fire, and
 - (3) Coal with sulfur content less than 1.0% by weight burned in a coal stove.
- (B) All other materials are prohibited from being burned in a solid fuel burning device, including, but not limited to: garbage, treated pallets, treated lumber, fencing, treated wood, plastic and plastic products, rubber products, animal carcasses, asphaltic products, waste petroleum products, paints and chemicals, paper (other than an amount necessary to start a fire), or any substance that emits dense smoke or obnoxious odors when burned.

506.7 AIR QUALITY BURN BANS

(A) Stage 1 Burn Ban

No person shall operate a solid fuel burning device located in a geographic area for which NWCAA has called a Stage 1 Burn Ban unless the solid fuel burning device is certified or a non-affected pellet stove except as provided in NWCAA 506.8.

- (1) A Stage 1 Burn Ban may be called when forecasted meteorological conditions are predicted to cause PM_{2.5} levels to reach or exceed 35 micrograms per cubic meter, measured on a 24-hour average, within 48 hours, except for areas of PM_{2.5} nonattainment or areas at risk for PM_{2.5} nonattainment.
- (2) For a county containing PM_{2.5} nonattainment areas or areas at risk for PM_{2.5} nonattainment, and, when feasible, only for the necessary portions of the county, a Stage 1 Burn Ban may be called when forecasted meteorological conditions are predicted to cause PM_{2.5} levels to reach or exceed 30 micrograms per cubic meter, measured on a 24-hour average, within 72 hours.

(B) Stage 2 Burn Ban

No person shall operate a solid fuel burning device located in a geographic area for which NWCAA has called a Stage 2 Burn Ban except as provided in NWCAA 506.8.

- (1) A Stage 2 Burn Ban may be called when:
 - (a) A Stage 1 Burn Ban is already in effect and has not reduced the trend of rising PM_{2.5} levels adequately;
 - (b) The 24-hour average of PM_{2.5} levels have already reached or exceeded 25 micrograms per cubic meter; and
 - (c) Forecasted meteorological conditions are not expected to allow levels of PM_{2.5} to decline below 25 micrograms per cubic meter for a period of 24 hours or more from the time that PM_{2.5} is measured at the trigger level.
- (2) A Stage 2 Burn Ban may be called without first calling a Stage 1 Burn Ban only when all of the following occur:
 - (a) PM_{2.5} levels have reached or exceeded 25 micrograms per cubic meter, measured on a 24-hour average;
 - (b) Meteorological conditions have caused PM_{2.5} levels to rise rapidly;
 - (c) Meteorological conditions are predicted to cause PM_{2.5} levels to exceed 35 micrograms per cubic meter, measured on a 24-hour average, within 24 hours; and
 - (d) Meteorological conditions are highly likely to prevent sufficient dispersion of PM_{2.5}.
- (3) For a county containing PM_{2.5} nonattainment areas or areas at risk for PM_{2.5} nonattainment and, when feasible, only the necessary portions of the county, a Stage 2 Burn Ban may be called without first calling a Stage 1 Burn Ban only when NWCAA 506.7(B)(2)(a), (b), and (d) have been met and meteorological conditions are predicted to cause PM_{2.5} levels to reach or exceed 30 micrograms per cubic meter, measured on a 24-hour average, within 24 hours.

(C) Air Pollution Episode Declared by Ecology

No person shall operate a solid fuel burning device located in a geographic area for which Ecology has declared an alert, warning, or emergency air pollution episode pursuant to WAC 173-433-150(3), chapter 173-435 WAC, and RCW 70.94.715 as referenced in NWCAA 104.1.

- (D) Upon declaration and for the duration of a Stage 1 or Stage 2 Burn Ban or an air pollution episode, new solid fuel shall be withheld from any solid fuel burning device that is restricted from operating under NWCAA 506.7(A), (B), and (C).

- (E) Smoke visible from a chimney, flue, or exhaust duct after 3 hours has elapsed from the time of declaration of a Stage 1 or Stage 2 Burn Ban or an air pollution episode shall constitute prima facie evidence of unlawful operation of a solid fuel burning device if that solid fuel burning device is restricted from operating under NWCAA 506.7(A), (B), and (C). This presumption may be refuted by demonstration that the smoke was not caused by a restricted solid fuel burning device.

506.8 EXEMPTIONS

- (A) The provisions of NWCAA 506.7 do not apply to any person who possesses a valid exemption approved by NWCAA. NWCAA may issue exemptions to any person who demonstrates any of the following to the satisfaction of NWCAA:

- (1) One-Time 10-Day Temporary Exemption

NWCAA may issue one-time 10-day temporary solid fuel burning device exemptions if persons making such requests indicate they qualify for an exemption under NWCAA 506.8(A)(2), (3), or (4) and provide all of the information below. Unless required otherwise by NWCAA, such exemption requests may be taken via telephone.

- (a) Full name,
- (b) Mailing address,
- (c) Telephone number,
- (d) The exemption under NWCAA 506.8(A)(2), (3), or (4) for which the applicant believes they qualify,
- (e) Physical address where the exemption applies,
- (f) Description of the habitable space for which the exemption is being requested,
- (g) A statement that the applicant has not previously requested such an exemption for the same physical address. Exceptions may be allowed for unrelated breakdowns of the primary heat source, and
- (h) A statement that all of the information provided is accurate.

- (2) Low Income

NWCAA may issue written low income exemptions. The applicant must demonstrate an economic need to burn solid fuel for residential space heating purposes by qualifying under the low

income energy assistance program (LIEAP) pursuant to economic guidelines established by the U.S. Office of Management and Budget.

(3) Temporary Breakdown of Primary Heat Source

NWCAA may issue written exemptions for a residence or commercial establishment if all of the following apply:

- (a) A person in a residence or commercial establishment does not have an adequate source of heat without using a solid fuel burning device.
- (b) The applicant demonstrates that the primary heating system, other than a solid fuel burning device, is temporarily inoperable for reasons other than the applicant's own actions. When applying for this exemption, the applicant must submit a compliance schedule for bringing the primary heating system, other than a solid fuel burning device, back into operation to be used as the primary heating source. Unless otherwise approved by NWCAA, exemptions will be limited to 30 calendar days.

A person's income level is not a determining factor in the approval or denial of an exemption under this provision. Exemptions based on income level are addressed in NWCAA 506.8(A)(2).

(4) No Adequate Source of Heat

NWCAA may issue written exemptions for a residence if both of the following apply:

- (a) The residence was constructed prior to July 1, 1992 and
- (b) A person in the residence does not have an adequate source of heat without using a solid fuel burning device.

A person's income level is not a determining factor in the approval or denial of an exemption under this provision. Exemptions based on income level are addressed in NWCAA 506.8(A)(2).

(B) Exemption Duration and Renewals

Unless otherwise specified, written exemptions will expire June 30th of each year. Exemptions in NWCAA 506.8(A)(2), (3), and (4) may be renewed by NWCAA, provided the applicant meets the applicable requirements at the time of exemption renewal. For renewals under NWCAA 506.8(A)(2), the applicant must demonstrate the low income

status is met each time application is made. Exemption requests may be denied by NWCAA, regardless of the applicant's exemption history.

(C) Residential and Commercial Exemption Limitations

Except for commercial establishments qualifying under NWCAA 506.8(A)(3), exemptions are limited to residences. Exemptions are limited to normally inhabited areas of a residence, which includes areas used for living, sleeping, cooking, and eating. Exemptions will not be issued for attached and detached garages, shops, and outbuildings. For commercial establishments, exemptions will be limited to areas identified in the exemption.

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SECTION 508 - SPRAY COATING OPERATIONS

508.1 PURPOSE

This section of the NWCAA Regulation establishes a program of work practice standards and controls for spray coating operations in order to reduce particulate emissions from coating overspray, lessen public exposure to toxic air pollutants, decrease emissions of precursors to the formation of tropospheric ozone, and encourage pollution prevention.

508.2 APPLICABILITY

- (A) This section applies to spray coating operations at a source and at portable spray coating operations except as provided in NWCAA 508.2(B).
- (B) This section does not apply to spray application of:
- (1) Architectural or maintenance coatings to stationary structures (e.g., bridges, water towers, buildings, stationary machinery, mobile homes, pavement/curbs, or similar structures).
 - (2) Maintenance coatings to farm equipment and mining equipment for which it is not practical or feasible to move to a dedicated spray coating facility.
 - (3) Asphaltic or plastic liners including undercoating, sound deadening coating, and spray-on truck bed liners.
 - (4) Fiberglass resin and gel coat.

508.3 DEFINITIONS