

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
STANDARDS AND REGULATIONS
CHAPTER 10
SMOKE MANAGEMENT

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Section 1. Introduction to smoke management.

(a) Chapter 10 establishes restrictions and requirements on specific burning practices. Section 2 regulates refuse burning; open burning of trade wastes, for salvage operations, for fire hazards, and for fire fighting training; and vegetative material open burning. Section 3 specifically regulates emissions from wood waste burners. Section 4 regulates sources of vegetative burning for the management of air quality emissions and impacts from smoke on public health and visibility.

Section 2. Open burning restrictions.

(a) **Definitions.** The following definitions apply to Chapter 10, Section 2. Unless defined differently below, the meaning of the terms used in this section is the same as in Chapter 1, Section 3 of these regulations.

(i) **“Jurisdictional fire authority”** means an agency, organization or department whose purpose is to prevent, manage, and/or suppress fires in a designated geographic area, including, but not limited to, volunteer fire departments, fire districts, municipal fire departments and federal fire staff.

(ii) **“Open burning”** shall mean a fire where any material is burned in the open or in a receptacle other than a furnace, incinerator, or other equipment connected to a stack or chimney. Open burning does not include burns for recreational purposes, cooking of food, providing warmth for human beings, branding of animals, handheld fire extinguisher training and other similarly insignificant burning activities.

(iii) **“Pile volume”** means the quantity in cubic feet of vegetative materials that have been manually or mechanically relocated and heaped together, as calculated using pile shape and overall dimensions.

(iv) **“Population”** means all individuals, other than the open burner, occupying a fixed area. Fixed areas include, but are not limited to, portions of property normally occupied as residential, recreational, institutional, commercial, or educational premises, but do not include fixed areas under control of the open burner.

(v) **“Prohibited materials”** means substances including, but not limited to; natural or synthetic rubber products, including tires; waste petroleum products, such as oil or used oil filters; insulated wire; plastic products, including polyvinyl chloride (“PVC”) pipe, tubing and connectors; tar, asphalt, asphalt shingles, or tar paper; railroad ties; wood, wood waste, or lumber that is painted or chemically treated; explosives or

ammunition; batteries; hazardous waste products; asbestos or asbestos containing materials; or materials which cause dense smoke discharges, excluding refuse and flaring associated with oil and gas well testing, completions and well workovers.

(vi) “**Refuse**” means any waste material including garbage that is generated at dwelling units, farmsteads, or ranch headquarters.

(vii) “**Trade wastes**” shall mean solid, liquid, or gaseous material resulting from construction or the prosecution of any business, trade or industry, or any demolition operation including but not limited to wood, plastics, cartons, grease, oil, chemicals and cinders and excluding vegetative material and refuse.

(viii) “**Vegetative material**” means untreated unprocessed wood, including, but not limited to, trees, tree stumps, tree limbs, bark, chips, duff, grass, grass clippings, leaves, conifer needles, bushes, shrubs, weeds, clippings from bushes and shrubs, and agricultural plant residue.

(b) Compliance with requirements.

(i) The person or organization conducting an open burn shall comply with all rules and regulations of the Wyoming Department of Environmental Quality, Division of Air Quality, and with the Wyoming Environmental Quality Act.

(ii) Authorized representatives of the Division shall be given permission by the person or organization conducting an open burn to enter and inspect a property, premise or place on or at which an open burn is or was located solely for the purpose of investigating actual sources of air pollution, and for determining compliance or non-compliance with any applicable rules, regulations, standards or orders. This permission shall extend for a maximum time of ten business days after the open burn is completed. Site inspections during this period shall be initiated only after notification of the person or organization conducting the open burn.

(iii) Nothing in this Section shall relieve any person or organization conducting an open burn of the responsibility to comply with all applicable local, state and federal laws, regulations and ordinances.

(iv) Nothing in this Section shall relieve any person or organization conducting an open burn of the responsibility to comply with any lawfully issued restriction on burning.

(v) Nothing in this Section is intended to address safety issues related to the use of fire, which fall under the control of jurisdictional fire authorities.

(c) **Unlawful open burning.** No person shall burn prohibited materials using an open burning method, except as may be authorized by permit.

(d) Emergency open burning. For purposes of eliminating a potential or an imminent danger to public health, safety, or the environment, the Administrator of the Division may, on a case-by-case basis, waive any and all requirements of this Section.

(e) Restrictions on refuse burning. No person shall dispose of refuse by open burning, or cause, suffer, allow or permit open burning of refuse, except open burning of refuse associated with dwelling units, farmsteads, or ranch headquarters generated on those same premises, when all of the following requirements are met.

(i) The nearest population is at least 500 feet away from the refuse burn.

(ii) The refuse burn is conducted during the daytime hours.

(iii) The person conducting the open burn shall attend and observe the refuse burn periodically to determine the dispersion, direction, and impacts of the smoke.

(f) Restrictions on open burning of trade wastes, salvage operations, fire hazards, or fire fighting training. No person or organization shall conduct or cause or permit open burning for the disposal of trade wastes, for a salvage operation, for the destruction of fire hazards if so designated by a jurisdictional fire authority, or for fire fighting training, except when it can be shown by a person or organization that such open burning is absolutely necessary and in the public interest. Any person or organization intending to engage in such open burning shall file a request to do so with the Division, on a form provided by the Division. Upon approval of the request by the Division, the person or organization may proceed with the open burn, when all of the following requirements are met.

(i) Prior to ignition of an open burn, the person or organization conducting an open burn shall remove all prohibited materials, except as may be authorized by permit.

(ii) The person or organization conducting the open burn shall notify the Division prior to the ignition of the open burn, in accordance with the notification process approved by the Administrator of the Division. This notification shall include the contact information for the person or organization conducting the open burn, the location of the open burn, and other information required by the Administrator of the Division.

(iii) Prior to the ignition of an open burn, the person or organization conducting the open burn shall communicate burn information to the public by notifying the jurisdictional fire authority(ies) responsible for the geographic area in which the open burn is to occur.

(iv) The person or organization conducting the open burn shall attend and observe the open burn periodically to determine the dispersion, direction, and impacts of the smoke.

(g) Restrictions on vegetative material open burning.

(i) Open burning of vegetative material is subject to the requirements of Chapter 10, Section 4, except as provided in Subsection (g)(ii) of this regulation.

(ii) Open burning of vegetative material under this Subsection may be conducted provided that burning does not exceed 0.25 tons of PM₁₀ emissions per day. When areas or piles are on a contiguous land area and will be burned on the same day and by the same person or organization, the sum of these areas or piles constitutes the daily burn area or daily pile volume. Open burning of vegetative material under this Subsection shall meet all of the following requirements:

(A) Prior to the ignition of an open burn, the person or organization conducting the open burn shall communicate burn information to the public by notifying the jurisdictional fire authority(ies) responsible for the geographic area in which the open burn is to occur.

(B) The person or organization conducting the open burn shall attend and observe the open burn periodically to determine the dispersion, direction, and impacts of the smoke.

(C) The open burn, except for fenceline, irrigation ditch or canal burns, shall only be conducted at least 500 feet from a population, unless a waiver of this requirement has been granted by the Administrator of the Division. The person or organization conducting the open burn shall document in writing the reasons for requesting the waiver. The Administrator of the Division shall consider such waiver requests on a case-by-case basis.

Section 3. Wood waste burners.

(a) Emissions of any air contaminant from any wood waste burner discharged into the atmosphere for a period or periods aggregating more than 6 minutes in any one hour shall not exceed:

(i) An opacity of 20 percent as determined by a qualified observer.

(b) Operational requirements for all wood waste burners shall include:

(i) A thermocouple and recording pyrometer or other temperature measurement and recording device approved by the Division shall be installed and maintained;

(ii) A daily written log of the wood waste burner operation shall be maintained to determine optimum operational patterns for different fuel and atmospheric conditions. Such log shall include, but not be limited to, the time of day, draft settings, exit gas temperature, type of fuel, and atmospheric conditions. It must be shown that

there is adequate time and responsibility delegated for proper burner maintenance, operation, and control; such log or a copy shall be made available to the Division within 10 days upon request;

(iii) Asphaltic materials, rubber products, or materials which cause dense smoke discharges shall not be burned or disposed in wood waste burners;

(iv) Continuous flow conveying methods shall be utilized to convey process wood waste to the combustion chamber of the wood waste burners.

(c) During startup and building of fires, in wood waste burners, the particulate, opacity, and darkness limits specified in this regulation may be exceeded for not more than 60 minutes in eight hours. Materials prohibited in Subsection (b)(iii) shall not be used for startup and building of fires in wood waste burners.

(d) The Administrator may waive the temperature monitoring and recordkeeping requirements of Subsections (b)(i) and (b)(ii) upon written request of the owner or operator, provided the owner or operator adequately demonstrates operational practices which satisfy the other requirements of this regulation. Any waiver granted under this paragraph may be revoked should the Administrator determine that the operational requirements of Subsections (b)(i) and (b)(ii) should be reinstated in order to achieve compliance with other provisions of this regulation.

Section 4. Smoke management requirements.

(a) **Effective Date.** The requirements of this Section are effective for planned burn projects conducted and unplanned fire events that occur on or after January 1, 2005.

(b) **Definitions.** The following definitions apply to Chapter 10, Section 4. Unless defined differently below, the meaning of the terms used in this section is the same as in Chapter 1, Section 3 of these regulations.

(i) **“Alternatives to burning”** means manual, mechanical, chemical or biological treatments designed to replace the use of fire to manage vegetation.

(ii) **“Burner”** means the individual, agency, organization, land manager or landowner who is responsible for conducting a planned burn project.

(iii) **“Class I Area”** means all mandatory Class I Federal areas established in the Clean Air Act of 1977 and include the following for the State of Wyoming: Yellowstone National Park, Grand Teton National Park, North Absaroka Wilderness, Washakie Wilderness, Teton Wilderness, Bridger Wilderness and Fitzpatrick Wilderness. Such term also includes the Savage Run Wilderness, which is not a mandatory Class I Federal area, and any future Class I area redesignated in accordance with Chapter 6, Section 4(d) of these regulations.

(iv) ***“Emission reduction technique”*** means manual, mechanical, chemical or biological treatments used in conjunction with fire to minimize emissions, including, but not limited to, methods that minimize the burn area, reduce the fuel load, or increase the efficiency of combustion.

(v) ***“Jurisdictional fire authority”*** means an agency, organization or department whose purpose is to prevent, manage, and/or suppress fires in a designated geographic area, including, but not limited to, volunteer fire departments, fire districts, municipal fire departments and federal fire staff.

(vi) ***“Land manager”*** means an individual, agency or organization that has the overall land and/or resource management responsibility.

(vii) ***“Monitoring”*** means repeated observations (i.e., visual) or measurements (i.e., instrument) to evaluate changes in smoke affecting ambient air quality and/or visibility. Monitoring can be documented, which involves collection and analysis of the observations and/or measurements.

(viii) ***“Nonattainment Area”*** means any geographic area of the United States, which has been designated as nonattainment under § 107 of the Clean Air Act and described in 40 CFR Part 81.

(ix) ***“Pile volume”*** means the quantity in cubic feet of vegetative materials that have been manually or mechanically relocated and heaped together, as calculated using pile shape and overall dimensions.

(x) ***“Planned burn project”*** means burn area(s) or pile(s) of vegetative material that are being treated or managed utilizing planned fire for the same management objectives and that are on a contiguous land area.

(xi) ***“Population”*** means all individuals, other than the burner, occupying a fixed area. Fixed areas include, but are not limited to, portions of property normally occupied as residential, recreational, institutional, commercial, or educational premises, but do not include fixed areas under control of the burner.

(xii) ***“Public notification”*** means a method that communicates information regarding planned burn projects or unplanned fire events to the public.

(xiii) ***“SMP”*** means the Smoke Management Program that specifies requirements for planned burn projects (SMP-I and SMP-II) and unplanned fire events. Irrigation district burn projects are by definition SMP-I planned burn projects.

(xiv) ***“Unplanned fire”*** means any vegetative fire ignited by natural causes such as lightning and human causes such as accidental ignitions, escaped prescribed fire or arson; irrespective of the management objectives.

(xv) “*Vegetative material*” means untreated unprocessed wood, including, but not limited to, trees, tree stumps, tree limbs, bark, chips, duff, grass, grass clippings, leaves, conifer needles, bushes, shrubs, weeds, clippings from bushes and shrubs, and agricultural plant residue.

(xvi) “*Ventilation category*” means the classification describing the potential for smoke or other pollutants to disperse from its source, and that is expressed in terms of Excellent, Very Good, Good, Fair or Poor.

(c) ***Applicability.*** The provisions of Chapter 10, Section 4 are applicable to burners who conduct, and jurisdictional fire authorities responsible for, the following:

(i) Planned burn projects of vegetative material that exceed 0.25 tons of PM₁₀ emissions per day. When areas or piles are on a contiguous land area and will be burned on the same day and by the same burner for the same management objectives, the sum of these areas or piles constitutes the daily burn area or daily pile volume.

(ii) Unplanned fire events that exceed 50 acres.

(d) ***Materials allowed to be burned.*** Only vegetative material shall be burned.

(e) ***Compliance with requirements.***

(i) The burner and responsible jurisdictional fire authority shall comply with all rules and regulations of the Wyoming Department of Environmental Quality, Division of Air Quality, and with the Wyoming Environmental Quality Act.

(ii) Authorized representatives of the Division shall be given permission by the burner or responsible jurisdictional fire authority to enter and inspect a property, premise or place on or at which a planned burn project or unplanned fire event is or was located solely for the purpose of investigating actual sources of air pollution, and for determining compliance or non-compliance with any applicable rules, regulations, standards or orders. This permission shall extend for a maximum time of ten business days after the completed reporting form is received by the Division. Site inspections during this period shall be initiated only after notification of the burner conducting the planned burn project or the jurisdictional fire authority responsible for the unplanned fire event.

(iii) Nothing in this Section shall relieve any burner or responsible jurisdictional fire authority of the responsibility to comply with all applicable local, state and federal laws, regulations and ordinances.

(iv) Nothing in this Section shall relieve any burner or responsible jurisdictional fire authority of the responsibility to comply with any lawfully issued restriction on burning.

(v) Nothing in this Section is intended to address safety issues related to the use of fire, which fall under the control of jurisdictional fire authorities.

(f) **SMP-I.** For all burners whose planned burn project exceeds the thresholds in Subsection (c)(i) and is projected to generate less than two tons of PM₁₀ emissions per day, all of the following shall apply.

(i) For each planned burn project, the burner shall notify the Division prior to the ignition of the planned burn project, in accordance with the notification process approved by the Administrator of the Division. This notification shall include the burner contact information, the location of the planned burn project, and other information required by the Administrator of the Division.

(ii) The burner shall communicate burn information to the public, in accordance with the public information process approved by the Administrator of the Division, utilizing all of the following:

(A) Prior to the ignition of each planned burn project, notify the jurisdictional fire authority(ies) responsible for the geographic area in which the planned burn project is to occur.

(B) When there is a population within a 0.5-mile radius of the planned burn project, conduct public notification no sooner than 30 days and no later than two days in advance of the ignition of the planned burn project. Documentation of public notification shall be submitted on the reporting form required in Subsection (f)(v). When it can be shown that the population within a 0.5-mile radius of the planned burn project is in an area of low population density, compliance with Subsection (f)(ii)(A) shall satisfy this requirement. An average of one dwelling unit per ten acres shall be used as the definition of areas of low population density.

(iii) The burner shall only ignite a planned burn project when smoke will disperse from its source. To satisfy this requirement, the burner shall ignite the planned burn project during the daytime hours, when there is a slight breeze and there is no population within 0.5 mile of the planned burn project in the downwind trajectory. The burner may request a waiver of any part of this requirement from the Administrator of the Division. The burner shall document in writing the reasons for requesting the waiver, and must receive a waiver granted by the Administrator of the Division prior to ignition of the planned burn project. The Administrator of the Division shall consider such waiver requests on a case-by-case basis.

(iv) The burner shall attend and observe each planned burn project periodically to determine the dispersion, direction, and impacts of the smoke.

(v) For each planned burn project, the burner shall submit to the Division a completed reporting form, provided by the Division, no later than six weeks following completion of the planned burn project.

(g) **SMP-II.** For all burners whose planned burn project exceeds the thresholds in Subsection (c)(i) and is projected to generate greater than or equal to two tons of PM₁₀ emissions per day, all of the following shall apply.

(i) For each planned burn project, the burner shall submit to the Division a completed registration form, provided by the Division, by January 31 or no later than two weeks prior to the ignition of the planned burn project. The completed registration form shall include documentation of all of the following:

(A) The burner shall have reviewed smoke management educational material supplied by the Division or completed a smoke management training program prior to initiating a planned burn project.

(B) The burner shall consider the use of alternatives to burning for each planned burn project, and document the consideration of such alternatives in the method approved by the Administrator of the Division.

(C) The burner shall implement a minimum of one emission reduction technique for each planned burn project. The burner may request a waiver of this requirement from the Administrator of the Division. The burner shall document in writing the reasons for requesting the waiver, and must receive a waiver granted by the Administrator of the Division prior to the ignition of the planned burn project. The Administrator of the Division shall consider such waiver requests on a case-by-case basis.

(D) The burner shall only ignite a planned burn project when smoke will disperse from its source. To satisfy this requirement, the burner shall utilize one of the following options:

(I) Ignite the planned burn project during times when the ventilation category is “Good” or better. The ventilation category shall be obtained from a source approved by the Administrator of the Division.

(II) Ignite the planned burn project during times when the ventilation category is “Fair” if there is no population within 10 miles of the planned burn project in the downwind trajectory. The ventilation category shall be obtained from a source approved by the Administrator of the Division. The burner may request a waiver of any part of this requirement from the Administrator of the Division. The burner shall document in writing the reasons for requesting the waiver, and must receive a waiver granted by the Administrator of the Division prior to ignition of the planned burn project. The Administrator of the Division shall consider such waiver requests on a case-by-case basis.

(E) The burner shall conduct monitoring utilizing all of the following:

(I) For each planned burn project, conduct and document visual monitoring, in accordance with the visual monitoring process approved by the Administrator of the Division, to determine the dispersion, direction, and impacts of the smoke. Documentation of visual monitoring shall be submitted on the reporting form required in Subsection (g)(iv).

(II) When there is a population or Nonattainment Area within 10 miles of the planned burn project in the downwind trajectory, the burner may, on a case-by-case basis, be required by the Administrator of the Division to conduct and document ambient air quality monitoring. The results and documentation of any required ambient air quality monitoring shall be submitted with the reporting form required in Subsection (g)(iv).

(III) When there is a Class I Area within 30 miles of the planned burn project in the downwind trajectory, the burner may, on a case-by-case basis, be required by the Administrator of the Division to conduct and document ambient air quality and/or visibility monitoring. The results and documentation of any required ambient air quality and/or visibility monitoring shall be submitted with the reporting form required in Subsection (g)(iv).

(ii) For each planned burn project, the burner shall notify the Division prior to the ignition of the planned burn project, in accordance with the notification process approved by the Administrator of the Division. This notification shall include the planned burn project identification information, planned burn date(s), daily burn area or daily pile volume, and other information required by the Administrator of the Division. For each planned burn project, all of the following shall apply.

(A) The burner shall not exceed the daily burn area or daily pile volume that the burner specified in the notification.

(B) The Division shall contact the burner prior to the ignition of the planned burn project, in accordance with the modification process approved by the Administrator of the Division, if a modification of the planned burn project is required. If a representative of the Division does not contact the burner, the burner may proceed with the planned burn project.

(iii) The burner shall communicate burn information to the public, in accordance with the public information process approved by the Administrator of the Division, utilizing all of the following:

(A) Prior to the ignition of each planned burn project, notify the jurisdictional fire authority(ies) responsible for the geographic area in which the planned burn project is to occur.

(B) When there is a population within a 10-mile radius of the

planned burn project, conduct public notification no sooner than 30 days and no later than two days in advance of the ignition of the planned burn project. Documentation of public notification shall be submitted on the reporting form required in Subsection (g)(iv).

(iv) For each planned burn project, the burner shall submit to the Division a completed reporting form, provided by the Division, no later than six weeks following completion of the planned burn project.

(h) **Long-term planning.** Long-term planning shall be required for the burner and/or land manager whose total planned burn projects in a year are projected to generate greater than 100 tons of PM₁₀ emissions. The burner and/or land manager shall submit a written report to the Administrator of the Division by January 31 every third year starting in 2005. The written report shall include documentation of all of the following:

(i) The long-term burn estimates for the next three years, including the location, burn area or pile volume, vegetation type, and type of burn for each planned burn project.

(ii) The alternatives to burning considered and utilized during the previous three years and planned for the next three years, including the location and area of treatment(s), the vegetation type(s), and the specific technique(s).

(i) **Unplanned fire.** For the jurisdictional fire authority responsible for each unplanned fire event that exceeds 50 acres, all of the following shall apply. When it can be shown that the responsible jurisdictional fire authority is a volunteer fire organization, only Subsection (i)(iii) shall apply.

(i) The responsible jurisdictional fire authority shall communicate fire information to the public, in accordance with the public information process approved by the Administrator of the Division, utilizing all of the following:

(A) For each unplanned fire event, notify the jurisdictional fire authority(ies) responsible for the geographic area in which the unplanned fire event is occurring.

(B) When there is a population within a 10-mile radius of the unplanned fire event, conduct public notification. Documentation of public notification shall be submitted on the reporting form required in Subsection (i)(iii).

(ii) The responsible jurisdictional fire authority shall conduct monitoring utilizing all of the following:

(A) For each unplanned fire event, conduct and document visual monitoring, in accordance with the visual monitoring process approved by the Administrator of the Division, to determine the dispersion, direction, and impacts of the

smoke. Documentation of visual monitoring shall be submitted on the reporting form required in Subsection (i)(iii).

(B) When there is a population or Nonattainment Area within 10 miles of the unplanned fire event in the downwind trajectory, the responsible jurisdictional fire authority may, on a case-by-case basis, be required by the Administrator of the Division to conduct and document ambient air quality monitoring. The results and documentation of any required ambient air quality and/or visibility monitoring shall be submitted with the reporting form required in Subsection (i)(iii).

(C) When there is a Class I Area within 30 miles of the unplanned fire event in the downwind trajectory, the responsible jurisdictional fire authority may, on a case-by-case basis, be required by the Administrator of the Division to conduct and document ambient air quality and/or visibility monitoring. The results and documentation of any required ambient air quality and/or visibility monitoring shall be submitted with the reporting form required in Subsection (i)(iii).

(iii) For each unplanned fire event, the responsible jurisdictional fire authority shall annually submit to the Division a completed reporting form, provided by the Division, no later than December 31.

(iv) When an unplanned fire event is managed to accomplish specific pre-stated management objectives in a predefined geographic area, all of the following shall also apply.

(A) The responsible jurisdictional fire authority shall review smoke management educational material supplied by the Division or complete a smoke management training program.

(B) The Division shall contact the responsible jurisdictional fire authority, in accordance with the modification process approved by the Administrator of the Division, if a modification of the management strategy for the unplanned fire event is necessary to mitigate smoke impacts. If a representative of the Division does not contact the responsible jurisdictional fire authority, the responsible jurisdictional fire authority may proceed with the management strategy.

(j) The following are not subject to subsections 4(e)(ii), 4(f)(i), 4(f)(ii)(B), and 4(f)(v) of Chapter 10, Section 4:

(i) Planned burning of vegetative materials incident to:

(A) Weeds along fence lines;

(B) Weed growth in and along ditch banks incident to clearing ditches for irrigation purposes;

(C) Vegetative materials related to agricultural croplands.

(D) Vegetative materials related to rangeland and/or pasturelands, if the project area is less than 68 acres.

(ii) The following planned burn projects do not fall under this exemption:

(A) Vegetative materials related to rangeland and/or pasture lands, unless exempted by 4(j)(i)(D).

(iii) The burner not subject to regulation under Section (j)(i) shall provide vegetative burn data requested by the Administrator in a periodic survey of agricultural burning practices.