

DIVISION 48

SMOKE MANAGEMENT

629-048-0001

Title, Scope and Effective Dates

(1) OAR 629-048-0001 through 629-048-0500 are known as the Smoke Management rules.

(2) The Smoke Management rules apply to prescribed burning of forest fuels for forest management purposes within any forest protection district in Oregon as described by OAR 629-041-0500 to 629-041-0575. ~~In addition, the rules apply to forestland outside any forest protection district in Oregon as described by ORS 527.620(7) at the discretion of the Oregon Department of Forestry and Department of Environmental Quality defined in a joint agreement.~~

(3) The Smoke Management rules are effective ~~July 11, 2014~~ **March 1, 2019**.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0005

Definitions

Unless otherwise defined below, terms used in this rule division shall have the meaning provided in ORS 477.001:

(1) “Alternatives to burning” means any forest management activity that reduces the volume of material, rather than actually being burned.

(2) “Board” means the State Board of Forestry.

(3) “Burn boss” means the person, authorized by the owner (may include the owner) or a federal land management agency to conduct and make decisions regarding the practices involved in conducting a prescribed burning operation and who is responsible for compliance with all requirements under this rule division and related laws.

(4) “Burn registration” means the act or product of notifying the forester to the required level of detail, of intent to conduct a prescribed burning operation as required by OAR 629-048-0300.

- (5) “Class I Area” means national parks and certain wilderness areas designated by Congress in 1977 as federal Class I Areas that are subject to visibility protection under the Environmental Protection Agency’s Regional Haze Rule and the federal Clean Air Act. Class I Areas in Oregon include: Crater Lake National Park, Diamond Peak Wilderness, Eagle Cap Wilderness, Gearhart Mountain Wilderness, Hells Canyon Wilderness, Kalmiopsis Wilderness, Mountain Lakes Wilderness, Mount Hood Wilderness, Mount Jefferson Wilderness, Mount Washington Wilderness, Strawberry Mountain Wilderness and Three Sisters Wilderness.
- (6) “Class 1 forestland” has the same meaning as given in ORS 526.324 to “timber class” and includes all forestland primarily suitable for the production of timber.
- (7) “Class 2 forestland” has the same meaning as given in ORS 526.324 to “timber and grazing class” and includes all forestland primarily suitable for joint use for timber production and the grazing of livestock, as a permanent or semi-permanent joint use, or as a temporary joint use during the interim between logging and reforestation.
- (8) “Class 3 forestland” has the same meaning as given in ORS 526.324 to “agricultural class” and includes all forestland primarily suitable for grazing or other agricultural use.
- (9) “Department” means the ~~State Forestry Department~~ **Oregon Department of Forestry (ODF)**.
- (10) “Eastern Oregon” means the eighteen Oregon counties lying east of Multnomah, Clackamas, Marion, Linn, Lane, Douglas, and Jackson Counties.
- (11) “Emission reduction technique” means any forest management activity that allows for a lower volume of particulate to be produced from a given volume of burning.
- (12) “Emissions” means the gaseous and particulate combustion products in smoke resulting from burning forest fuels.
- (13) “Federal land management agency” means the United States Department of Agriculture’s Forest Service; the United States Department of the Interior’s Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, or Bureau of Indian Affairs; or any other federal agency that may conduct prescribed burning within a forest protection district.
- (14) “Field administrator” means an **ODF** employee of the ~~State Forestry Department~~, a forest protective association, or federal land management agency who has, among other responsibilities, an official role in determining whether a prescribed burn should proceed, continue or be suspended.
- (15) “Forester” means the State Forester or authorized representative including but not limited to fire wardens appointed under ORS 477.355.

(16) “Forest fuels” means any flammable woody material, grass or other plant matter that may constitute a wildfire hazard or that is intended for disposal by prescribed burning, but does not include products that have had secondary processing such as boards, posts or paper.

(17) “Forest protection district” means an area of forestland designated by the State Forester for protection from fire pursuant to ORS 477.225. Detailed descriptions of the forest protection districts may be found in OAR 629-041-0500 to 629-041-0575.

(18) “Ground level” means at or close to the surface of the earth such that smoke at “ground level” could be inhaled by persons going about their normal business, in or out of doors. It does not include smoke that passes overhead when prescribed burning is conducted in accordance with the Smoke Management forecast and instructions.

(19) “Level 1 regulation” means the program of requirements that apply to all forestland managed by a federal land management agency statewide, and all Class 1 forestland in western Oregon within a forest protection district (OAR 629-048-0100(2)). These requirements include burn registration at least seven days in advance (OAR 629-048-0300), fee administration (OAR 629-048-0310), compliance with Smoke Management forecast instructions (OAR 629-048-0230), and reporting of accomplishments (OAR 629-048-0320).

(20) “Level 2 regulation” means the program of requirements that apply to all non-federal forestlands in eastern Oregon, and all Class 3 forestland in western Oregon within a forest protection district (OAR 629-048-0100(3)). These requirements include burn registration (OAR 629-048-0300) and reporting of accomplishments (OAR 629-048-0320).

(21) “Mop-up” means action, usually involving the application of water or other means to eliminate heat, remove fuel or reduce the supply of oxygen, sufficient to make a fire safe or reduce residual smoke.

(22) “Other areas sensitive to smoke” means specific recreation areas not listed as SSRAs in OAR 629-048-0140 but that are intended to receive consideration for focused forecasting attention for limited times during periods of heavy use by the public such as coastal beaches on holidays and other areas during special events.

(23) “Prescribed burning” means the use of fire ignited as a planned management activity on forestland to meet specific objectives involving the reduction or removal of forest fuels. Prescribed burning does not include impromptu fires ignited for purposes such as warming fires, burn-out or backfire operations used in wildfire suppression, or lightning ignited “wildland fire use” as practiced by federal land management agencies.

(24) “Regional haze” means air pollution transported over long distances into Class I Areas that reduces visibility in those areas.

(25) “Residual smoke” means smoke produced after the initial fire has passed through the fuel.

~~(2826)~~ “Smoke Sensitive Receptor Area or SSRA” means an area designated for the highest level of protection under the Smoke Management Plan, as described and listed in OAR 629-048-0140.

~~(2627)~~ “Smoke intrusion” means the verified entrance of smoke from prescribed burning into an ~~Smoke Sensitive Receptor Area SSRA~~ at ground level ~~that meets or exceeds averages at or above 70 micrograms per cubic meter of particulate matter of 2.5 microns or less (PM2.5) for any one-hour period and/or averages at or above 26 micrograms per cubic meter for a 24-hour period, measured from midnight to midnight beginning on the first day of smoke entrance.~~

(28) “Smoke incident” means the verified entrance of smoke from prescribed burning into an SSRA, other areas sensitive to smoke, or a community other than an SSRA at levels below a smoke intrusion (see “Smoke intrusion” definition), ~~other areas sensitive to smoke, or a community other than an SSRA.~~

~~(2729)~~ “Smoke Management forecast unit” means any or all of the persons appointed or assigned by the State Forester to develop and interpret weather forecasts and produce Smoke Management instructions, usually operating from the department headquarters in Salem.

(2930) “Underburning” means low-intensity prescribed burning to maintain forest health through reduction of fuels in the understory of a forest stand while maintaining the overstory stand characteristics.

(31) “Vulnerable populations” means people with specific sensitivities including, but not limited to, those with heart diseases, coronary artery disease, congestive heart failure, or those with lung and respiratory diseases, such as chronic obstructive pulmonary disease (COPD), and those with asthma, older adults, pregnant women, and children.

~~(30) “Verified smoke incident” means an entrance of prescribed burning smoke into a community, other than an SSRA, investigated by the forester to:~~

~~(a) Validate claims that smoke did, in fact, enter the area described, at ground level;~~

~~(b) Determine if the smoke or a portion of it, in fact, derived from forest management prescribed burning from a legally conducted operation; and~~

~~(c) If (a) and (b) of this section were affirmed, determine the intensity and approximate duration of the smoke incident as described in OAR 629-048-0110.~~

(3132) “Western Oregon” means the eighteen Oregon counties lying west of Hood River, Wasco, Jefferson, Deschutes and Klamath Counties.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0010

Purpose

(1) ORS 477.013 requires the State Forester and the Department of Environmental Quality (**DEQ**) to approve a plan for managing smoke in areas that they are to designate, for the purpose of maintaining air quality. The plan must designate areas within which all burning must comply with the plan.

(2) The Smoke Management rules are intended to establish the areas required by ORS 477.013; describe the objectives of the Smoke Management Plan; establish procedures to be followed in administering prescribed burning; educate the public as to the necessity of prescribed burning and the measures being taken to protect air quality, public health and visibility; and to provide enforceable mechanisms to ensure the requirements of the Smoke Management Plan are met.

(3) The Smoke Management rules, promulgated by the State Forester, together with Department Directive 1-4-1-601, “Operational Guidance for the Oregon Smoke Management Program,” shall comprise the Smoke Management Plan upon approval by DEQ and filing with the Secretary of State.

(4) The objectives of the Smoke Management Plan are to:

(a) ~~Prevent~~ **Minimize** smoke **emissions** resulting from prescribed burning **as described by ORS 477.552**; ~~on forestlands from being carried to or accumulating in SSRAs or other areas sensitive to smoke, and to provide maximum opportunity for essential forestland burning while minimizing emissions;~~

(b) Provide maximum opportunity for essential forestland burning;

(c) Protect public health **by avoiding intrusions;**

~~(bd)~~ Coordinate with other state smoke management programs;

~~(ee)~~ Comply with state and federal air quality and visibility requirements; and

~~(d) Protect public health; and~~

(ef) Promote the ~~reduction of~~ **further development of techniques to minimize or reduce** emissions by encouraging cost-effective utilization of forestland biomass, alternatives to burning and ~~alternative burning practices~~ **emission reduction techniques**.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0020

Necessity of Prescribed Burning

(1) ~~All of Oregon's forestlands are flammable can burn under the right conditions of fuel dryness, heat and wind.~~ **ORS 477.005 declares that the public policy of the State of Oregon is to preserve forests "through the prevention and suppression of forest fires." Prescribed burning is an important tool used to reduce forest fuels, re-introduce fire on the landscape, and has been demonstrated to reduce the potential for a fire to start or reduce its severity. It has also been demonstrated that fire suppression actions are more effective and lower in cost in areas with a recent history of burning.**

(2) As a part of the natural ecology of forestlands, wildfire is neither necessarily good nor bad. **In fire-dependent ecosystems, frequent wildfire serves to limit spread of subsequent fires.** However, there are a number of **undesirable** characteristics of unplanned, uncontrolled fires ~~that are usually regarded by humans as undesirable~~. Among these are threats to public safety, destruction of **natural resources and** property, and the adverse health effects that can occur from breathing a significant amount of fine particulate matter associated with wildfire smoke.

(3) When areas do not experience fire or other means of reducing forest fuels for extended periods, ~~there is a greater wildfire hazard and increases.~~ **The** ~~the~~ likelihood increases ~~that~~ if unplanned ignitions occur, through whatever means, ~~that~~ the resulting wildfire will burn at greater intensity and be more difficult to suppress.

(4) Because wildfires typically burn during hotter, drier conditions than those usually planned for prescribed fires, forest fuels are more completely consumed, producing more emissions. Also, wildfires often occur during periods of atmospheric stability, ~~and thus air stagnation~~ trapping smoke close to the ground where it's more likely to impact humans. ~~and less likely to be quickly carried away by higher altitude transport winds.~~

(5) ~~Prescribed burning is used as a management tool technique to reduce forest fuels either as the primary mechanism such as in grass and brush areas for maintenance of grazing, and underburning of open forest stands for forest health purposes; or as a secondary fuel reduction method following thinning or final harvesting~~ **an important forest management technique in all of Oregon's forests to reduce forest fuels for the**

purposes of both short term and long term fire prevention and to aid in fire suppression. ~~It~~ **Prescribed burning** is typically conducted at a time and under fuel and when weather conditions ~~whereby the~~ **allow** fine fuels that ~~more to~~ readily ignite and carry fire across the landscape are consumed but ~~the~~ **while** larger fuels are consumed to a lesser degree than in a wildfire. Resulting emissions are ~~both reduced overall, and more likely carried into higher altitudes and dissipated by high level winds, away from concentrations of people.~~ quickly, before affecting populated areas.

(6) When ~~adequate~~ forest fuel reduction can be achieved economically without ~~the use of~~ using prescribed burning, ~~because of other fire associated risks,~~ that choice is usually favored. Even so, there are often silvicultural or agricultural advantages to prescribed burning such as site preparation, nutrient cycling and reduction of pests and disease that may not be achieved by simply removing the forest fuels. For all these reasons described above, the Legislative Assembly (ORS 477.552) and Board of Forestry have found it necessary to maintain ~~the viability of~~ prescribed burning as a forest management practice.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0021

Necessity of Safeguarding Public Health

(1) Excessive smoke, no matter its source, can pose a serious health risk to the public, especially vulnerable populations.

(2) To help minimize the health risks to the public from prescribed burning, the program encourages prescribed burning emissions be minimized and smoke intrusions be avoided.

629-048-0100

Regulated Areas

(1) All lands classified as "forestland" under ORS 526.305 to 526.370 and all forestland managed by a federal agency regardless of whether or not classified, within a forest protection district, are subject to regulation of prescribed burning pursuant to ORS 477.013. The level of regulation may vary according to specific classification; e.g., Class 1, 2 or 3 forestland as described in ORS 526.305 to 526.370.

(2) Class 1 forestland in western Oregon, and all forestland managed by a federal land management agency statewide, within a forest protection district, is subject to burn registration at least seven days in advance (OAR 629-048-0300), fee administration (OAR 629-048-0310), compliance with Smoke Management forecast instructions (OAR 629-048-0230), and reporting of accomplishments (OAR 629-048-0320). The forestlands

and applicable regulations listed in this section may be referred to as "Level 1 regulation."

(3) All other non-federal forestland within a forest protection district, including, but not limited to, private forestlands in eastern Oregon and Class 3 private forestland in western Oregon is subject to burn registration (OAR 629-048-0300) and reporting of accomplishments (OAR 629-048-0320) but is not subject to fee administration or compliance with smoke management forecast instructions. The forestlands and applicable regulations listed in this section may be referred to as "Level 2 regulation."

(4) All prescribed burning on forestland within a forest protection district is subject to suspension of burning by the forester under ORS 477.520 due to conditions such as air stagnation or fire danger.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0110

Characterization of Smoke Incidents or Intrusions Characterization and Response to Smoke Incidents, Smoke Intrusions, and National Ambient Air Quality Standards (NAAQS) Exceedances

(1)(a) When investigating or collecting information on smoke incidents or smoke intrusions, the department will attempt to characterize the ~~incident or intrusion in terms of its intensity (light, moderate or heavy) and duration in hours or minutes.~~ event impact as either a smoke intrusion or a smoke incident as defined in OAR 629-048-0005. ~~To the extent it can reasonably do so, the department may also attempt to determine the amount of populated area affected (in square miles or acres) and an estimate of the number of people present during the incident or intrusion.~~

(b) As used in the Smoke Management rules, "smoke intrusion" refers only to ground level prescribed burning smoke that enters an SSRA at ~~ground level.~~ **particulate matter values defined in OAR 629-048-0005(27).** ~~Nonetheless, the methods and descriptions described in this rule may be applied to the measurement of any smoke incident relevant to the Smoke Management Plan.~~

(2) When measurements or observations are available, **smoke** incidents or **smoke** intrusions are characterized ~~in the following manner based on nephelometer~~ **particulate matter** values (~~averaged over a one-hour~~ average period, ~~or a 24-hour average period~~) above the clean air background: **from midnight to midnight beginning on the first day of smoke entrance.**

~~(a) A light intensity incident or intrusion is characterized by light scattering measurement of less than 1.8×10^{-4} B-scat (Beta scatter);~~

~~(b) A moderate intensity incident or intrusion is characterized by a light scattering measurement of greater than or equal to 1.8×10^{-4} B-scat but less than or equal to 4.9×10^{-4} B-scat; and~~

~~(c) A heavy intensity incident or intrusion is characterized by a light scattering measurement of greater than 4.9×10^{-4} B-scat.~~

~~(3) The clean air background is the average nephelometer reading for the three hours prior to the incident or intrusion.~~

~~(4) When no nephelometer data are available, incident or intrusion intensity is characterized based on reduction in visibility (also averaged over a one-hour period) using standard National Weather Service visibility observation criteria and a table of reductions keyed to various background visibility levels as displayed in department Directive 1-4-1-601, "Operational Guidance for the Oregon Smoke Management Program." As an example, on a day when background visibility has been greater than 50 miles, a light intensity incident or intrusion has reduced visibility to greater than or equal to 11.4 miles; a moderate intensity incident or intrusion has reduced visibility to less than 11.4 miles, but greater than or equal to 4.6 miles; and a heavy intensity incident or intrusion has reduced visibility to less than 4.6 miles.~~

(3) When no particulate matter data is-are available, smoke incidents or smoke intrusions are determined based on reduction in visibility averaged over a one-hour period using standard National Weather Service visibility observation criteria (Federal Meteorological Handbook No. 1) and a table of reductions keyed to various background visibility levels as displayed in Department Directive 1-4-1-601, "Operational Guidance for the Oregon Smoke Management Program."

(4) Smoke incidents and smoke intrusions will be documented and used to assess annual program performance. Department Directive 1-4-1-601 "Operational Guidance for the Oregon Smoke Management Program" will describe applicable reporting requirements and actions to be taken.

(5) Smoke intrusions that meet or exceed average at or above the 24-hour average PM_{2.5} value of 35 microgram per cubic meter (NAAQS exceedance) will be reported to DEQ as soon as possible. Department Directive 1-4-1-601 "Operational Guidance for the Oregon Smoke Management Program" will describe applicable reporting requirements and adaptive management actions to be taken if this event occurs.

[ED. NOTE: Department Directive 1-4-1-601 “Operational Guidance for the Oregon Smoke Management Program.” is available online at: <http://www.oregon.gov/ODF/Documents/Fire/smd.pdf>]

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0120

Air Quality Maintenance Objectives

(1) When prescribed burning is conducted ~~near in proximity to~~, but outside communities or areas designated as SSRAs, the objective of the Smoke Management Plan is ~~to~~ **minimize emissions and avoid** smoke intrusions into the SSRA.

(2) When prescribed burning is conducted inside an SSRA, the Smoke Management Plan objective is to use best burn practices and prompt mop-up, as appropriate, along with tight parameters for burn-site conditions that are intended to vent the main smoke plume up and out of the SSRA and minimize residual smoke.

(3) In all other instances of prescribed burning it is the intent under the Smoke Management Plan to minimize the amount and duration of smoke that comes in contact with humans ~~at their places of residence or other places where they normally live, work, play, exercise or~~ gather in ~~numbers such as to work, conduct commerce or participate in public events.~~

(4) The first element in minimizing smoke contact is encouraging forestland owners to burn only those units which cannot otherwise meet forest management objectives in cost-effective alternative ways such as wood or biomass utilization.

(5) When prescribed burning is used, owners are further encouraged to employ the emission reduction techniques described in OAR 629-048-0210 to ensure the least emissions practicable.

(6) In addition to compliance with Smoke Management instructions issued in the daily forecast and compliance with all conditions of the burn permit required under ORS 477.515, burn bosses and field administrators are encouraged to closely observe local conditions at the burn site ~~and to light, manage,~~ **They should alter or** suspend lighting if necessary, and mop-up burns, when appropriate, in a manner that takes into consideration the possible smoke effects from the main smoke plume or significant residual smoke on residences or businesses that may be ~~near in close proximity to~~ the burn site.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0130

Visibility Objectives

- (1) It is the intent under the Smoke Management Plan to comply with the Oregon Visibility Protection Plan (OAR 340-200-0040, Section 5.2).

- (2) It is the intent under the Smoke Management Plan to operate in a manner consistent with the Oregon Regional Haze Plan, including the Enhanced Smoke Management Program (ESMP) criteria contained in the plan, for the purpose of protecting Class I Area visibility. These ESMP criteria include:
 - (a) Actions to minimize emissions;
 - (b) Evaluation of smoke dispersion;
 - (c) Alternatives to fire;
 - (d) Public notification;
 - (e) Air quality monitoring;
 - (f) Surveillance and enforcement;
 - (g) Program evaluation;
 - (h) Burn authorization; and
 - (i) Regional coordination.

- (3) When prescribed burning is conducted outside any Class I Area, an objective of the Smoke Management Plan is to minimize any smoke that impairs visibility inside the Class I Area. In addition to compliance with Smoke Management instructions issued in the daily forecast and compliance with all conditions of the burn permit required under ORS 477.515, burn bosses and field administrators are encouraged to closely observe local conditions at the burn site to avoid the main smoke plume entering a Class I Area at ground level.

- (4) When prescribed burning is conducted inside a Class I Area, the Smoke Management Plan objective is to use best practices along with tight parameters for burn-site conditions

that will vent the main smoke plume up and out of the Class I Area and minimize residual smoke.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0135

Special Protection Zone Requirements

Special Protection Zones (SPZ) have been established around certain communities (see maps located within Department Directive 1-4-1-601, “Operational Guidance for the Oregon Smoke Management Program, Appendix 5) requiring additional protection from particulates. Any burning in an SPZ, during its protection period, must have the approval of the meteorologist. These SPZ provisions apply from November 15 through February 15 to the following communities which are particulate matter (PM) nonattainment ~~and or~~ maintenance areas: Klamath Falls, Medford, Oakridge, and Lakeview.

(1) From November 15 through February 15, prescribed burning in the SPZ is allowed on “Green” and “Yellow” woodstove days (see OAR 340-262-0800 and local ordinances for communities listed above) if:

(a) The ODF Smoke Management meteorologist believes ~~there will be minimal measurable~~ smoke impacts will not exceed smoke intrusion levels.

(b) Landowners are responsible for intermittent monitoring for at least three days following ignition to ensure the smoke is not causing an impact that could exceed smoke intrusion levels. ODF can waive this provision if it believes monitoring is unnecessary on a specific burn unit due to limited smoke production.

(c) Landowners provide a level of mop-up, as directed by ODF, to minimize smoke impacts to levels below a smoke intrusion. Mop-up shall be included as an element of the burn plan.

~~(d) ODF believes that piles will not produce significant smoke after the third day.~~

(2) From December 1 through February 15, no prescribed burning is allowed on “Red” woodstove days in the SPZ. Prescribed burning on “Red” days from November 15 through 30 is allowed and subject to the same conditions for “Green” and “Yellow” days as described in section 1(a-~~dc~~) of this rule.

~~(3) Burning should be prioritized so units that are smaller and/or further from the SPZ boundary have higher priority to burn than units larger and/or closer to the SPZ boundary.~~

(4) Districts and Forests having jurisdiction in any SPZ will be responsible for

monitoring restrictions in the nonattainment or maintenance area as described in section 1 and 2 of this rule.

(54) SPZ provisions shall apply as long as the area is in PM nonattainment or is in maintenance of the PM standard. An SPZ shall be developed by DEQ or Lane Regional Air Protection Agency (LRAPA) for any newly declared PM nonattainment area, in consultation with ODF. For areas declared nonattainment from January 1 through May 31, the new SPZ requirements shall become effective on November 15 in the year the area is declared nonattainment. If the area is declared nonattainment from June 1 through December 31, the new SPZ shall be effective on November 15 of the following year.

629-048-0137

SPZ Contingency Plan Requirements

In the event communities listed in OAR 629-048-0135, ~~as well as Eugene/Springfield, Grants Pass, and La Grande maintenance areas;~~ exceed the 24-hour average PM2.5 National Ambient Air Quality Standard value of 35 micrograms per cubic meter during the SPZ provision period and prescribed burning is determined to be a ~~significant contributor~~ using verification methods to include, but not limited to: ground, aerial, or equipment monitoring, the following contingency plan requirements shall be implemented:

(1) The SPZ boundary will be expanded to include the area from which prescribed burning could impact the PM nonattainment or maintenance area. Any boundary change will be jointly agreed to by ODF and DEQ.

(2) SPZ restrictions will apply from November 1 through March 1, ~~except for Klamath Falls where they will apply from November 1 through April 1.~~

(3) The SPZ for Klamath Falls and Lakeview, as well as all future PM nonattainment or maintenance areas in areas of level 2 regulation under the Oregon Smoke Management program, shall be subject to burning reporting requirements of Level 1 regulation during the time when the SPZ is in effect.

(4) ODF and DEQ will take adaptive management steps described in OAR 629-048-0110(5).

[ED. NOTE: Language in OAR 629-048-0135 and 0137 was previously in the Department Directive 1-4-1-601 “Operational Guidance for the Oregon Smoke Management Program.”]

629-048-0140

Smoke Sensitive Receptor Areas

An SSRA is an area designated by the board, in consultation with DEQ, which is provided the highest level of protection under the Smoke Management Plan ~~because of~~. **This is due to** its past history of smoke incidents, density of population or other special legal status related to visibility such as the Columbia River Gorge Scenic Area. The following are SSRAs:

(1) The area within the State of Oregon commonly understood to be the Willamette Valley that:

(a) Lies east of the forest protection district boundaries of the Northwest Oregon, West Oregon and Western Lane Forest Protection Districts, west of the forest protection district boundaries of the North Cascade and South Cascade Forest Protection Districts and north of where the Western Lane and South Cascade Forest Protection Districts come together in southern Lane County (for detailed district boundary descriptions, see OAR 629-041-0500 to 629-041-0575);

(b) Notwithstanding the actual location of the forest protection district boundaries, includes the area within the city limits of the following cities that straddle, or are within but immediately adjoin, the forest protection district boundary:

(A) Carlton;

(B) Corvallis;

(C) Cottage Grove;

(D) Dallas

(E) Eugene;

(F) McMinnville;

(G) Portland;

(H) Sheridan;

(I) Silverton;

(J) Springfield;

(K) St. Helens;

(L) Stayton;

(M) Sublimity;

(N) Veneta;

(O) Willamina; and

(P) Yamhill;

(2) Within the acknowledged urban growth boundaries of the following cities:

(a) Astoria;

(b) Baker City;

(c) Bend;

(d) Burns;

(e) Coos Bay;

(f) Enterprise;

(g) Grants Pass;

(h) John Day;

(i) Klamath Falls;

(j) La Grande;

(k) Lakeview;

(l) Lincoln City;

(m) Newport;

(n) North Bend;

(o) Oakridge;

(p) Pendleton;

(q) Redmond;

(r) Roseburg;

(s) The Dalles; and

(t) Tillamook;

(3) The area within the Bear Creek and Rogue River Valleys described in OAR 629-048-0160, including the cities of Ashland, Central Point, Eagle Point, Jacksonville, Medford, Phoenix and Talent; and

(4) The area within the Columbia River Gorge Scenic Area, as described in 16 U.S.C. Section 544b, (2003).

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0150

Criteria for Future Listing of Smoke Sensitive Receptor Areas

To ensure continued accomplishment of the Smoke Management Plan objectives, additional SSRAs may be listed according to the following procedures:

(1) Not more than once per calendar year, the board must consider additional SSRA listings if:

(a) ~~ODF The department~~ recommends consideration of a community for SSRA listing based on observations of repeated ~~verified~~ smoke incidents as described in section (5) of this rule;

(b) ~~DEQ The Department of Environmental Quality~~ recommends consideration of a community for SSRA listing based on evidence of airborne particulate concentrations in the community at levels that make periodic ~~exceedance of ambient air quality standards~~ **NAAQS exceedances** a significant possibility; or

(c) The governing body of a city, or county for an unincorporated area, requests by official action consideration of a community for SSRA listing, and cites the reasons for its request upon:

(A) The occurrence of a ~~verified~~ smoke incident as described in section (5) of this rule lasting more than four hours; or

(B) ~~More than one~~ Repeated ~~verified~~ smoke incidents as described in section (5) of this rule in the same calendar year; ~~or~~

~~(C) Repeated verified smoke incidents as described in section (5) of this rule that have occurred within the five years immediately preceding the request.~~

(2) When considering whether to list a community as an SSRA, the board shall evaluate the evidence presented to it, including any information received at one or more public meetings.

(a) Specifically, the board shall consider information regarding:

(A) The frequency, duration and ~~intensity~~ **magnitude** of ~~verified~~ smoke incidents;

(B) Population of the community;

(C) The results, if any, of mechanical or systematic monitoring of airborne particulate concentrations, or other verifiable information regarding existing air quality problems in the community under consideration;

(D) The nature and performance of any local programs addressing airborne particulate concentrations;

(E) Recent trends in, and future plans for, prescribed burning activity on surrounding forestlands;

(F) Any local topographic or meteorological effects that may influence the frequency, duration or ~~intensity~~ **magnitude** of smoke incidents;

(G) Evaluation of the local and regional effect that listing the community as an SSRA will have on the Smoke Management Plan's objectives of maintaining air quality and accomplishing necessary prescribed burning;

(H) The reasons cited in a request received under subsection (1)(c) of this rule;

(I) The joint recommendations of the department and DEQ regarding whether the community should be listed and why; and

(J) Any other information that is relevant to accomplishing the objectives of the Smoke Management Plan.

(b) If joint recommendations are not achieved under paragraph (2)(a)(I) above, the department shall prepare a report for the board detailing any differences in recommendations and its explanations for the differences.

(3) After considering the evidence presented to it, except as provided in section (4) of this rule, the board may take any one of the following actions:

(a) Reject the recommendation or request;

(b) Acknowledge that smoke incidents have occurred, but direct the department to pursue an alternate course of further information gathering, monitoring, operational modifications or other efforts aimed at reducing the likelihood of continuing smoke incidents; or

(c) Accept the recommendation or request by defining the applicable boundaries of the community to be listed, directing the department to begin treating the community as an SSRA and following a timely process to amend OAR 629-048-0140 accordingly.

(4)(a) The board's choice of actions shall be limited to those described in either subsections (b) or (c) of this section, if it finds that all of the following circumstances exist:

(A) The community proposed for listing has incurred repeated ~~verified~~ smoke incidents as described in section (5) of this rule, ~~that have occurred within the five years immediately preceding the request or recommendation in section (1) above;~~

(B) The community is a city with a population in excess of 10,000 within the incorporated city limits, according to the most recently published population estimate of the Population Research Center, Portland State University; and

(C) There is a likelihood of continuing frequent use of prescribed burning as a forest management activity on forestland within 30 miles of the city limits.

(b) For communities with no air quality monitoring data, the board may delay a final action determining whether to list the community as an SSRA if monitoring equipment is installed in the community to gather information leading to a final determination; or

(c) The board may define the applicable boundaries of the community to be listed, direct the department to begin treating the community as an SSRA and follow a timely process to amend OAR 629-048-0140 accordingly.

(5) "Repeated ~~verified~~ smoke incidents" as used in this rule refers to ~~any of the following combinations of verified smoke incidents resulting from lawfully conducted prescribed burning on forestland in any continuous period of three years or less: two or more~~ **smoke incidents that meet or exceed the level of a smoke intrusion in one calendar year.**

~~(a) One heavy intensity smoke incident and one moderate or light intensity smoke incident, the latter lasting at least one hour;~~

~~(b) Two moderate intensity smoke incidents, both lasting at least one hour; or~~

~~(e) Three or more smoke incidents of any combination of intensity for a combined duration of at least three hours (using the intensity parameters described in OAR 629-048-0110 for all of the above).~~

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0160

Bear Creek/Rogue River Valley SSRA

The Bear Creek and Rogue River Valley smoke sensitive receptor area listed in OAR 629-048-0140 (3) is defined as beginning at a point approximately one mile NE of the town of Eagle Point, Jackson County, Oregon, at the NE corner of Section 36, T35S, R1W; thence south along the Willamette Meridian to the SE corner of Section 25, T37S, R1W; thence SE to the SE corner of Section 9, 39S, R2E; thence SSE to the SE corner of Section 22, T39S, R2E; thence south to the SE corner of Section 27, T39S, R2E; thence SW to the SE corner of Section 33, T39S, R2E; thence west to the SW corner of Section 31, T39S, R2E; thence NW to the NW corner of Section 36, T39S, R1E; thence west to the SW corner of Section 26, T39S, R1E; thence NW to the SE corner of Section 7, T39S, R1E; thence west to the SW corner of Section 12, T39S, R1W; thence NW to the SW corner of Section 20, T38S, R1W; thence west to the SW corner of Section 24, T38S, R2W; thence NW to the SW corner of Section 4, T38S, R2W; thence west to the SW corner of Section 5, T38S, R2W; thence NW to the SW corner of Section 31, T37S, R2W; thence north to the Rogue River, thence north and east along the Rogue River to the north boundary of Section 32, T35S, R1W; thence east to the point of beginning.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0180

Communication, Community Response Plans, and Exemption Requests

(1) ODF Salem headquarters office shall develop and distribute a best-practices communication framework for dissemination through local ODF and federal district offices to their respective local public health authority. The communications framework shall include general information regarding: ~~(1) the purpose and importance of prescribed burning, (2) the health risks of wildfire and prescribed fire smoke, (3) how local officials and the public can find out about daily burn plans and emission reduction actions in their area, and (4) notification of smoke anticipated entering into specific SSRAs.~~

- (a) The purpose and importance of prescribed burning,
- (b) The health risks of wildfire and prescribed fire smoke,
- (c) Recommendations for the public and vulnerable populations to reduce their exposure to smoke,
- (d) How local officials and the public can find out about current and upcoming prescribed burns planned in their area, and
- (e) How residents of an SSRA and other interested persons can get up-to-date information about anticipated smoke impacts in specific SSRAs.

(2) ODF and DEQ recommend ~~that~~ communities that are SSRAs ~~which and~~ have experienced repeated smoke incidents and/or intrusions in the past collaboratively develop a community response plan and program. ~~This plan shall be in coordination with local ODF or federal district offices with jurisdictional responsibilities for prescribed burns, to determine how an SSRA will respond when notified of a potential smoke incident or intrusion into their area.~~

(a) The information in the plan and program includes, but is not limited to the following:

~~(a) The community response plan should be coordinated through the local public health authority but developed collaboratively with input from community officials, agencies, businesses, and other interested parties.~~

(A) A description of populations in an SSRA community that are vulnerable to the health effects of short-term smoke;

(B) Adequate means by which the public, especially vulnerable populations in the SSRA community, will be notified in a clear and reliable way of anticipated smoke impacts in a timely manner;

(C) Adequate options for protecting the health of vulnerable populations (or helping such populations to protect themselves) from short-term exposure to smoke; and

(D) A plan and program for communications between the entities that conduct prescribed fire, the local public health authority, and the community's public and vulnerable populations who may be impacted by smoke.

(b) ~~The community response plan shall include education about prescribed burning for local residents so they understand potential health impacts from smoke and what steps they can take to reduce their risk of exposure. The plan shall also outline how the community will be alerted whenever smoke from prescribed burning~~

appears likely to impact it, and what local agencies can do to protect community residents, especially vulnerable populations should be coordinated through the local public health authority, but developed collaboratively with members or representatives of vulnerable populations, community officials, representatives from entities that have responsibility for prescribed fire, forest restoration collaborative groups, local businesses, and other interested members of the public.

(c) The plan shall include a public communication and education strategy as outlined in the communication framework in (1).

(3) ~~SSRA Communities~~ communities that develop and implement such a plan, which proactively alert the public of likely prescribed fire smoke impacts (as described above) and provide actions to mitigate exposure to vulnerable populations and support citizens who may not have the means to take mitigation efforts may request an exemption from the one-hour smoke intrusion threshold. This exemption is intended to provide maximum opportunity for essential forestland burning in the Wildland Urban Interface where wildfire risk to forests, communities, and firefighters is greatest. The request for exemption must be approved by the community's local governing body in coordination with the County Board of Commissioners. The request for exemption will be considered for approval by ODF and DEQ under the advisement of Oregon Health Authority that meets the criteria outlined in (2) may request an exemption from the one-hour average smoke intrusion threshold. An exemption to the one-hour smoke intrusion threshold means that smoke impacts that surpass the one-hour threshold, but not the 24-hour average threshold, shall be deemed smoke incidents, not smoke intrusions, in the SSRA.

(a) The request for exemption must be made by the community's local governing body in coordination with their County Board of Commissioners.

(b) The request for exemption will be considered for approval by ODF and DEQ under the advisement of Oregon Health Authority. The exemption shall be granted within 30 days of submission unless ODF and DEQ agree that the plan does not comply with the criteria in (2).

(c) If ODF and DEQ determine the plan does not comply with the above criteria, they shall, within 30 days of submission, provide a written explanation of the reasons for denial.

(d) ODF and DEQ may revoke the exemption if there are repeated (three or more in five years) smoke intrusions that exceed the 24-hour average threshold or prescribed burning contributes to two or more NAAQS exceedances.

(e) ODF and DEQ will revoke the exemption if the SSRA is within one exceedance of a NAAQS violation. SSRAs that are in a NAAQS violation (nonattainment) will not be eligible for an exemption.

(f) In addition, SSRAs that have received an exemption must demonstrate they are implementing their community response plan through an annual report provided by the local health authority detailing:

(A) Compliance with requirements in (2);

(B) A summary of methods used to communicate to the public and vulnerable populations;

(C) A log of dates and times the community initiated their response plan;

(D) A record of local meetings to discuss or update the community response plan.

(g) An SSRA that has their exemption revoked may reapply for the exemption after a year provided all conditions stated in (3) have been met.

629-048-0200

Alternatives to Burning

(1) When planning forest management prescriptions and particularly final harvests (prior to reforestation), owners are encouraged to use practices that will eliminate or significantly reduce the volume of prescribed burning necessary to meet their management objectives. Some practices to consider include, but are not limited to:

(a) Maximizing the cost-effective use of woody material for manufacture of products;

(b) Where cost-effective, using wood or other biomass for energy production or mulch;

(c) Lopping and scattering limbs and other woody material, or operating heavy machinery over the wood to maximize contact with the soil in order to speed its breakdown; or

(d) Re-arranging woody materials, as necessary to accomplish reforestation through the slash (from a fire prevention standpoint, this may not be desirable in areas of heavy fuel concentrations or where soil moistures are not conducive to breakdown of fuels).

(e) Removing or minimizing large fuel concentrations and heavy fuel loading to minimize smoldering.

(2) When prescribed burning is determined to be necessary to achieve forest management objectives, owners are encouraged to use emission reduction techniques as described in OAR 629-048-0210.

(3) Prior to registration, forestland managers are strongly encouraged to consult the following:

(a) "Non-burning Alternatives to Prescribed Fire on Wildlands in the Western United States" at <http://www.wrapair.org/forums/fejf/tasks/FEJFtask3.html> (Western Regional Air Partnership, February, 2004);

(b) The Oregon Forest Industry Directory website provides information on potential markets for woody material at www.orforestdirectory.com/; and

(c) ~~"Oregon Forest Biomass Estimate-Forest Biomass Analysis for Western States by County"~~ by Phillip S. Cook and Jay O'Laughlin (Western Governors' Association, January 24, 2011), ~~on the Woody Biomass Utilization Database at Oregon Department of Energy's website at:~~

https://www.researchgate.net/profile/Jay_Laughlin/publication/266451188_Forest_Biomass_Supply_Analysis_for_Western_States_by_County_Final_Report_to_the_Western_Governors%27_Association/links/55b0ead208ae9289a0849d62/Forest-Biomass-Supply-Analysis-for-Western-States-by-County-Final-Report-to-the-Western-Governors-Association.pdf

~~www.oregon.gov/energy/RENEW/Biomass/Pages/Bioenergy_maps.aspx~~

(4) As described in 629-048-0450(2)(c), the department shall complete an annual report summarizing the use of alternatives to burning.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0210

Best Burn Practices; Emission Reduction Techniques

(1) "Best burn practices" as used in this rule refers to those practices designed to minimize emissions from prescribed burning or accomplish burning at times and under such conditions as to minimize the likelihood that emissions will have adverse effects to the air quality maintenance or visibility objectives (OAR 629-048-0120 and 629-048-0130). Additional practices not described in this rule may be necessary to ensure against the escape of fire or protection of forest resources.

(2) In general, best burn practices involve methods that ensure the most rapid and complete combustion of forest fuels while nearby, "non-target" fuels are prevented from burning, such as:

(a) Physical separation of "target" and "non-target" fuels;

(b) Burn prescriptions, particularly for broadcast burns, that recognize and utilize the natural differences in fuel moistures of larger and smaller pieces of woody material; or

(c) Covering of piles sufficient to facilitate ignition and complete combustion, and then burning them at times of the year when all other fuels are damp, when it is raining or there is snow on the ground.

(3) Rapid combustion is well served by rapid ignition which may involve the use of petroleum accelerants (with appropriate safety precautions) and by maintaining an adequate air supply to the forest fuels being burned. Piles and windrows should be mostly free of soil, rocks and other non-combustible materials and should be loosely stacked to promote aeration. Where practicable, re-stacking or "feeding" the burn pile is encouraged to complete combustion and avoid smoldering.

(4) When piles are covered as a best burn practice and the covers are to be removed before burning, any effective materials may be used, as long as they are removed for re-use or properly disposed of. When covers will not be removed and thus will be burned along with the piled forest fuels, the covers must not consist of materials prohibited under OAR 340-264-0060(3), except that polyethylene sheeting that complies with the following may be used:

(a) Only polyethylene may be used. All other plastics are prohibited;

(b) The size of each polyethylene cover ~~must not exceed 100 square feet. For small piles, covering only an area may vary as necessary to achieve rapid ignition and combustion. instead of the entire pile, is encouraged;~~

(c) ~~The thickness of the polyethylene cover must not exceed 4 mil; and~~

(d) ~~Layering or multiple covers (exceeding 100 square feet combined) within a pile is prohibited, unless authorized in writing by the forester to meet ignition and combustion needs.~~

(5) The use of petroleum accelerants and polyethylene covers as "best burn practices" described in this rule is expressly intended as an exception to OAR 340-264-0060(3) as allowed by 340-264-0060.

(6) In general, rapid mop-up of prescribed burning is not needed to meet the objectives of the prescribed burn and protect air quality. However, in instances of prescribed burning

within an SSRA or when conditions change significantly from those forecasted or present at the time of ignition, rapid mop-up may become necessary to prevent ~~excessive residual~~ ~~a smoke or entry of smoke into an SSRA or other area sensitive to smoke.~~ **intrusion.** Burn plans required under OAR 629-043-0026(4), prescribed fire plans required by federal land management agency policy, or burn permits required under ORS 477.515, when appropriate, should address conditions that may require mop-up of the prescribed burn and to what extent.

(7) When local conditions for smoke dispersal appear to be better than forecasted, burn bosses and field administrators are encouraged to communicate such information to the Smoke Management forecast unit, to further the objective of accomplishing burning during the most favorable conditions.

(8) As described in 629-048-0450(2)(c), the department shall complete an annual report summarizing the use of emission reduction techniques.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0220

Forecast Procedures

(1) There are several concepts and procedural steps involved in accomplishing the Smoke Management Plan objectives, designed to maximize opportunities for accomplishing burning while minimizing the likelihood of public health effects or visibility impairment in Class I Areas. The following sections of this rule attempt to explain some of these concepts.

(2) The basic underlying mechanism in smoke management is the use of an understanding of atmospheric dynamics and combustion processes, in concert with current weather forecasts, to ensure that the bulk of emissions from prescribed burning are transported to areas of low or no adverse effect by:

(a) In the case of broadcast or large pile burning, generating heat rapidly so that the fuel is quickly consumed and emissions rise sufficiently above ground level to either:

(A) Become diluted and dispersed in the atmosphere via transport winds to areas of minimal impact; or

(B) Mix with the moisture in clouds and fall back to earth as precipitation; or

(b) In the case of low-intensity underburning or small piles under the forest canopy, managing the volume of material burned per unit of time and paying careful attention to

surface winds to keep total emissions low and disperse the smoke to relatively unpopulated areas.

(3) For each day that prescribed burning is planned on forestland with Level 1 regulation, a weather forecast is prepared by meteorologists specializing in smoke management. By examining the atmospheric conditions predicted for the burn day, such as vent heights, mixing layers, wind speed and direction, as well as information about what level of pollutants may already be present in a given area, the meteorologists determine if and where conditions will be favorable to accomplish burning.

(4) In addition to the weather forecast, specific information is required on the location of planned burns, and the tonnage of fuel that is expected to be consumed in a burn. This information is provided on a per unit basis at the time that burns are registered and planned with the forester (see OAR 629-048-0300).

(5) With knowledge of the information described above, and based on dispersion models that have been developed through time and experience, forecasters are able to reasonably predict how much smoke ~~and at what locations~~ can be put into the atmosphere, **and at what locations**, without likelihood of threat to air quality objectives. This information is then converted into instructions to field administrators and burn bosses as to what tonnages, in what weather zones and at what distances from SSRAs prescribed burning may be permitted.

(6) The forecast and instructions are made available to field administrators and any interested parties by 3:15 p.m. each day, as necessary. Locally, planned burns are compared against the forecast and instructions, as well as any local prioritization of burns, to determine which burns, if any, will be permitted on the following day. If there are any changes in the forecast for the day of the burn, the Smoke Management forecast unit will make every effort to place a message on an automatic answering phone by 8 a.m.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0230

Burn Procedures

(1) Before any prescribed burning is initiated, burn bosses should have a well thought out plan that takes into account:

(a) How weather will be monitored and changes in conditions will be communicated;

(b) Resources needed and actions taken to reduce pre-burn fuel loadings to minimize emissions.

~~(b)~~ Resources necessary to accomplish ignition and ignition sequences;

~~(c)~~ Resources and methodology necessary to contain and control the fire and prevent its escape, including communications to access additional resources, if necessary; and

~~(d)~~ **The Smoke Management forecast and how** the burn will be conducted to ~~avoid~~ **minimize** smoke entering SSRAs, ~~or~~ other areas sensitive to smoke, **and other communities.** ~~and to minimize smoke effects on other communities.~~

(2) The forester may require that a written burn plan be prepared for approval under OAR 629-043-0026(4), prior to issuance of a burn permit. A prescribed fire plan is required under federal policy for all prescribed burning on federal lands.

(3) Prescribed burn operations with large tonnages (2000 tons or more) or burns that will occur over multiple days should be adequately planned and monitored to provide opportunities to cease lighting and hold the existing burn within smaller compartments **in order** to mitigate undesirable smoke effects or changes in the actual burn conditions from those that were forecasted.

(4) For prescription burn units on forestland subject to Level 1 regulation, burn bosses must provide specific information to be transmitted to the Smoke Management forecast unit in a standard format acceptable to the forester, regarding unit location, method of burning, and fuel loading tonnages by the day of the burn. If additional burning is deemed possible after 10 a.m. in consultation with the forecast unit, the plan deadline may be extended.

(5)(a) Before ignition of any prescribed burning in a fire season (as designated by the forester under ORS 477.505), the burn boss must obtain a permit to burn from the forester as required by ORS 477.515 (not required for federal land management agencies). Federal land management agencies must follow agency policies that provide for an affirmative "go-no go decision" before ignition of any prescribed burning as documented and approved by the federal land management agency's line officer.

(b) A permit to burn from the forester is also required for all prescribed burning on non-federal Class 1 forestland in western Oregon at any time of the year.

(c) Under ORS 477.515(1)(a), the forester may waive the requirement for a burn permit in instances of burning other than described in subsections (a) and (b) of this section, so burn bosses should check with the forester locally to determine whether permits are required outside fire season.

(6) Before ignition of any prescribed burning on forestland subject to Level 1 regulation, the burn boss must obtain the current Smoke Management forecast and instructions and must conduct the burning in compliance with the instructions. Burn bosses must make provisions to be informed if the forecast or instructions are subsequently changed. Through communication among the burn boss, field administrator and the Smoke Management forecast unit, based on information specifically relevant to the burn location, a burn boss may obtain a variance from the instructions, but must document the time and method of communication and adhere strictly to the conditions of the variance.

(7) For prescribed burn operations with large tonnages (greater than 2000 tons) or burns that will occur over multiple days, burn bosses may request at least two days in advance that a special forecast and instructions be issued to ensure adequate attention to meeting Smoke Management Plan objectives. Issuance of a special forecast and instructions will be solely within the discretion of the Smoke Management forecast unit based on workload and sufficient local information to support the forecast.

(8) The Smoke Management forecast unit, in developing instructions, and each field administrator issuing burn permits are directed to manage the prescribed burning on forest land in connection with the management of other aspects of the environment in order to maintain a satisfactory atmospheric environment in SSRAs. This direction is to be applied to situations in which prescribed burning may impact SSRAs or other areas sensitive to smoke.

(9) Each burn boss or field administrator must validate that forecasted weather conditions are consistent with actual on-site conditions prior to ignition of burns.

(10) A burn boss is required to ~~stop terminate~~ ignition, in a manner that does not compromise worker safety or the ability to prevent escape of the burn, if either of the following occurs:

(a) The burn boss determines, or is advised by a field administrator, that an SSRA, or other area sensitive to smoke is already adversely affected by the burn or would likely become so with additional burning; or

(b) The burn boss receives notice from the forester, through the Smoke Management forecast unit, or following consultation with ~~DEQ the Department of Environmental Quality~~, that air in the entire state or portion thereof is, or would likely become adversely affected by smoke.

(11) Upon ~~stopping termination of~~ ignition required by section (10) of this rule, any burning already under way should be completed, residual burning should be extinguished as soon as practicable, and no additional burning may be attempted until approval has been received from the forester.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0300

Registration of Intent to Burn

(1) In all instances of prescribed burning on forestland within a forest protection district, the operator, federal land manager, landowner, or timber owner must first register with the forester all forestland that is intended to be burned. For forestland subject to Level 1 regulation, burn registration must be completed at least seven days before the first day of ignition.

(2) The forester may waive the seven-day waiting period required in section (1) of this rule contingent upon the forester's approval of a burn plan or conditions of federally prescribed fire policies having already been met.

(3) Information provided for burn registration must be complete and recorded in a standard format approved by the forester.

(4) No operator, federal land management agency, landowner or timber owner shall be allowed to register additional forestland for burning if payment for their previous registration or burning, when required pursuant to OAR 629-048-0310, is more than 90 days past due.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0310

Fees for Prescribed Burning

(1) Any prescribed burning on forestland subject to level 1 regulation (OAR 629-048-0100) requires payment of a non-refundable registration fee of \$.50/acre and upon accomplishment (see section (3) of this rule), a burn fee as further described in sections (2), (3), (5), (6) and (8) below.

(2) Burn fees for all forms of prescribed burning, including but not limited to, broadcast burning and burning of piles (whether in-unit, on landings, or from rights-of-way) shall be assessed (where required) against the total acres in the unit from which the forest fuels were accumulated, as described in the burn registration.

(3) The first time that fire is applied to a prescribed burn unit, regardless of actual accomplishment, payment of a burn fee is required. Burn fees shall be charged according to the following schedule:

(a) If the registration of planned burning includes only landing or right-of-way piles, the burn fee shall be \$.50 per acre registered. Subsequent attempts to improve accomplishment only in landing or right-of-way piles in the same unit, in the same calendar year or the two following calendar years, shall not incur additional fees.

(b) If the registration of planned burning includes other than landing or right-of-way piles, the burn fee shall be \$3.10 per acre registered. Subsequent attempts to improve accomplishment in any portion of the same unit, in the same calendar year or the two following calendar years, shall not incur additional fees.

(c) If the registration of planned burning includes any combination of burn treatments that include landing or right-of-way piles with broadcast or in-unit pile burning, the burn fee shall be \$2.60 per acre for each in-unit treatment registered upon the first attempt of each treatment. Landing or right-of-way piles will be \$.50 per acre registered upon the first attempt ~~to burn or burning~~ any of those piles. Subsequent attempts to improve accomplishment in any portion of the same unit, in the same calendar year or the two following calendar years, shall not incur additional fees.

(4) (a) As used in this rule, "landing" means any location logs are yarded to for processing (trimming ends or limbs and tops remaining after yarding) and assembling for forwarding or loading onto trucks, including each loading site that may occur along a road. Consequently, a landing pile contains only those residues resulting from the processing, and not additional forest fuels accumulated from growth on the site or the felling process.

(b) As used in this rule, "right-of-way piles" means any accumulated forest fuels that come only from the area cleared in the pioneering stage of road construction after appropriate utilization.

(5) Areas burned as a result of escaped fires that are outside the description of the registered burn area shall not be assessed fees if the fire outside of the described area is immediately attacked for wildfire suppression. If the fire outside of the described area is managed as a prescribed fire then every additional acre burned shall incur a registration fee of \$.50 per acre and a burn fee of \$3.10 per acre.

(6) Notwithstanding section (3) of this rule, forest health maintenance burning on forestland subject to Level 1 regulation, where significant fuel reduction has been accomplished through underburning within the last five years and where there are no piled forest fuels on the site, shall be charged a burn fee of \$.50 per acre.

(7) The forester shall prepare monthly billings to collect the appropriate registration and burn fees from the operator, federal land manager, landowner or timber owner whose name is recorded on the registration form for billing purposes.

(8) Notwithstanding sections (1) and (3) of this rule, each burn unit requires a minimum combined registration and burn fee of \$30. To reduce processing costs, the forester may elect to collect both registration and burn fees prior to accomplishment, for **landing, right-of-way, or maintenance** units less than ~~20-30~~ acres on one combined billing. **The forester may elect to collect both registration and burn fees prior to accomplishment, for broadcast, underburning, or in-unit piles units less than 9 acres on one combined billing.**

(9) Notwithstanding sections (1), (3) and (7) of this rule, in accordance with ORS 477.562(6), a federal land management agency may enter into a cooperative agreement with the forester for payment of registration and burn fees at an annual flat rate. The rate shall be based on estimated acres to be treated as a percentage of total acres on all ownerships, applied against the overall annual estimated operating cost of the Smoke Management Plan. Any such agreement shall have a provision that allows for periodic adjustment of the rate based on actual experience.

(10) Notwithstanding section (7) of this rule, any person or entity described in ORS 477.406(1) with a prior record of timely payment may, at the discretion of the forester, enter into a cooperative agreement for the efficient administration and payment of registration and burn fees provided all payments equal no less than the registration rate described in section (1) of this rule times the number of acres registered plus the burn fee rate in sections (3) or (6) of this rule, as appropriate, times the number of acres accomplished.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0320

Reporting of Accomplishments

(1) Accomplishment information for all prescribed burning that takes place on forestland within the regulated area described in OAR 629-048-0100 must be recorded in a manner that details the amount of burning ~~and emissions produced for each day of burning~~ and must be reported to the department according to the schedule described below and in standard formats prescribed by the forester.

(2) Prescribed burning on forestland subject to Level 1 regulation must be reported the next business day following each day's ignition as described in Department Directive 1-4-

1-601, “Operational Guidance for the Oregon Smoke Management Program, Appendix 1.”

(3) Prescribed burning on forestland subject to Level 2 regulation must be reported by the first business day of the week following ignition as described in Department Directive 1-4-1-601, “Operational Guidance for the Oregon Smoke Management Program, Appendix 1.”

~~[ED. NOTE: Appendix referenced is available from the agency.]~~

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0330

Emission Inventories

(1) In addition to the emissions information collected from prescribed burning under OAR 629-048-0320, the forester will annually estimate, using appropriate models and the best available information on acres burned and fuel type, the emissions produced by wildfires in Oregon. At a minimum, the forester will attempt to collect information about wildfires that burn on forestlands within a forest protection district.

(2) Emissions information from prescribed burning and from wildfires will be maintained as distinct inventories, in appropriate forms, for analysis and distribution to improve the overall understanding of the relationships of wildfire versus prescribed fire emissions.

(3) The forester may include as much information on wildfires as may be readily available from the various protection agencies and other cooperators, provided that gathering of such information does not create an unfunded cost to the Smoke Management program.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0400

Coordination with Other Regulating Jurisdictions and for Other Pollutants

(1) In order to meet the air quality maintenance and visibility objectives of the Smoke Management Plan (OAR 629-048-0120 and 629-048-0130), it is important that the forester, field administrators and other cooperators be well informed as to the existence of, or potential for smoke or other airborne pollutants other than that which will be

produced by any planned prescribed burning in the affected airshed. Local field administrators are encouraged to maintain working relationships with other local jurisdictions that authorize open burning or monitor air quality so that all parties may be adequately informed of planned burns or conditions that cumulatively might exceed standards or objectives.

(2) The forester is required to report the weather forecast, planned and accomplished burning and smoke intrusions, if any, to the Department of Environmental Quality for each applicable day, on a timely basis.

(3) Any wildfire that has the potential for smoke input into an SSRA or other area sensitive to smoke must be reported immediately by the local unit of the state or federal agency with jurisdiction for fire suppression to the State Forester's office.

(4) The Smoke Management forecast unit will communicate periodically with appropriate prescribed burning regulators in the surrounding states for the purpose of coordination and information sharing, as appropriate.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0450

Program Evaluation and Adaptive Management

(1) The department is responsible for analysis and evaluation of the prescribed burning operations conducted under the Smoke Management Plan.

(2) Reports summarizing annual activities of the program shall be published by the department addressing:

(a) The level of burning activity;

(b) ~~Results with regard to avoiding entrance of smoke into SSRAs and other areas sensitive to smoke and reports of any smoke intrusions~~ **Smoke intrusions and smoke incidents;**

(c) **PM2.5 NAAQS exceedances caused by prescribed burning and actions taken to prevent reoccurrence as described in OAR 629-048-0110(5).**

(~~d~~) Accomplishment of alternatives to burning and the use of emission reduction techniques;

(~~e~~) Evaluation of overall Smoke Management Plan accomplishment;

(ef) Evaluation of adequacy of listed SSRAs and protection measures;

(fg) Any other pertinent information related to Smoke Management Plan evaluation and improvement; and

(gh) Revenues generated from burn fees and related Smoke Management Plan costs.

(3) Copies of the reports described in section (2) of this rule will be made available to all interested parties.

(4) Upon publication of a report in accordance with section (2) of this rule, the forester will consult at least annually with the Smoke Management Advisory Committee created under ORS 477.556. Topics will include, but are not limited to, Smoke Management Plan implementation, status of the Oregon Forest Smoke Management Account (ORS 477.560), and any fee changes that may be appropriate based on the balance in this account.

(5) ~~ODF The Department of Forestry and DEQ the Department of Environmental Quality~~ will jointly review the Smoke Management Plan every five years unless there is agreement by both agencies that the plan can be reviewed at an earlier or later date, not to exceed 10 years from the previous review. Results of the review will be presented to the State Forester and the Director of Environmental Quality for joint consideration and approval. Representatives of affected agencies may assist the review at the discretion of the State Forester.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0500

Enforcement

(1) Violations of the Smoke Management Plan may be enforced either as violations of the fire prevention statutes and rules (ORS 477.980 to 477.993) or as violations of the forest practice rules (ORS 527.680 to 527.690, 527.990 to 527.992 and OAR 629-670).

(2)(a) When, in the judgment of the forester, a violation is related primarily to an act or omission that has caused or might cause fire to burn uncontrolled, enforcement under the provisions of the fire prevention statutes and rules is appropriate.

(b) When, in the judgment of the forester, a violation is related primarily to an act or omission that has caused or might cause deterioration of air quality, enforcement under the provisions of the Forest Practices Act and rules (specifically, OAR 629-615-0300) is appropriate.

(3) Enforceable standards within the Smoke Management Plan include requirements to:

(a) Register burns prior to ignition (OAR 629-048-0230(4) and 629-048-0300);

(b) Obtain approval for and follow a burn plan (OAR 629-048-0230(2) and 629-043-0026(4));

(c) Obtain a burn permit and comply with any conditions included therein (OAR 629-048-0230(5) and ORS 477.515);

(d) Obtain and comply with daily Smoke Management instructions and updates (OAR 629-048-0230(6));

(e) Comply with restrictions regarding use of ~~polyethylene~~ covers on burn piles (OAR 629-048-0210(4));

(f) Cease burning when directed by the forester (OAR 629-048-0100(4) and 629-048-0230(10));

(g) Report accomplishments (OAR 629-048-0320); and

(h) Pay fees (OAR 629-048-0310).

(4) Section 118 of the federal Clean Air Act provides for enforcement of state air quality regulations against federal agencies. It will be the policy of the Board of Forestry, in the event of a failure of a federal land management agency to comply with the Smoke Management Plan, that the forester will first inform the responsible agency of the failure and coordinate efforts to ensure timely correction of any breakdowns in procedure that may have resulted in the failure. However, if this method does not appear in the judgment of the State Forester to result in necessary correction of procedures, or under other circumstances that in the judgment of the State Forester warrant further action, enforcement action may be taken as with any other responsible party.

Stat. Auth: ORS 477.013, 477.562, 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08