AGRICULTURAL BURNING POLICY

OF THE

YAKIMA REGIONAL CLEAN AIR AGENCY

Revised April 10, 2014

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BACKGROUND

Introduction

Agricultural burning can have an adverse effect on people and the environment. Inhaling smoke can pose a serious threat to the respiratory system, causing irritation, coughing, lung damage, chronic lung disease, cancer, and in some cases, respiratory failure. Those most at risk have heart or lung disease, asthma, or anemia, or are infants or elderly. Below are pollutants found in smoke from ag burning and some of the potential health effects:

- PM - (particulate matter) most particles in smoke are less than one micron in size, allowing them to reach the lower lung where they become trapped.
- CO - (carbon monoxide) produced in very large amounts by burning, reducing the blood's ability to supply oxygen to body tissues.
- VOCs - (volatile organic compounds) react with oxides of nitrogen in sunlight to form ozone which aggravates allergies, asthma and emphysema, and impairs lung function.
- NO_x - (oxides of nitrogen) combine with VOCs to form ozone and when combined with water vapor in the air form acid rain and acid fog.
- SO_2 - (sulfur dioxide) a respiratory irritant, also combines with water vapor in the air causes acid rain and acid fog.
- Toxic Air Pollutants - many of the compounds found in smoke are toxic. These gaseous compounds are adsorbed by the particles and carried deep into the lungs, diffusing into blood capillaries. Benzene and other hydrocarbons have been implicated in causing cancer.

YRCAA is responsible for the enforcement of burning regulations for Yakima County, except within the Yakama Reservation. See the map on page 18. YRCAA receives many complaints each year about ag burning. Primarily, the complaints refer to nuisance, odor, interference with visibility, and adverse health effects. Response to these complaints is a cost to the public. Also, aesthetics are important to the well-being and economy of our valley.

YRCAA regulations, which incorporate state and federal regulations, require that ag burning comply with the following:

- Burning must be necessary to the agricultural operation and meet a Best Management Practice (BMP) click here to view;
- Smoke or odor from the burning must not interfere with others;
- Burning must not be conducted on days of impaired air quality;
- Only natural vegetation may be burned;
- Burning must not cause emissions detrimental to health or property; and
- Burning must not cause emissions that interfere with the use or enjoyment of other property.

In order to comply with Clean Air laws the YRCAA issues agricultural burning permits. Issuing permits avails YRCAA the opportunity to inform and educate permit holders and condition the burning to minimize emissions. Burning of orchard prunings, ditch banks, fence rows or vegetation blown in by wind does not require a permit. All other ag burning requires a permit. See section 4.02.

Ambient Air Quality Standards are affected by ag burning. The following are major pollutants of concern in Yakima County and a description of the status of attainment:

- PM_{10} - the upper Yakima Valley was designated nonattainment for the 24 hour standard) but is currently in attainment and under a maintenance plan.
- CO - the upper Yakima Valley was designated nonattainment for the 8 hour standard) but is currently in attainment
- $PM_{2.5}$ - 2006 standard, the Yakima Valley threatens to exceed the standard, but is currently designated as in attainment with the 24-hour standard and the annual standard.

Pilot Program

The development of this policy was in itself a pilot program. The process enabled both agriculture and the YRCAA to determine how effective the good burning practices, the best management practices, alternatives to burning, and permit requirements were before formalizing the Policy by Board action. Pilot implementation of the Policy was accomplished from February, 1999 through January, 2000. After an assessment of the effectiveness of the Policy, and feedback from growers and others, no need for substantive changes to the text of the interim policy was found. The Yakima Ag Task Force took part in this assessment. The Policy was approved by the YRCAA Board on January 12, 2000.

Evaluation and Revision

Changes to YRCAA Regulation 1, RCW 70.94 WAC 173-400 and WAC 173-430 have prompted the assessment and revision of this policy. The process of evaluation and revision was accomplished by collaboration with a re-established Yakima Ag Task Force. The revised policy was approved by the YRCAA Board of Directors on April 10, 2014.

ARTICLE I: POLICY, SHORT TITLE AND DEFINITIONS

SECTION 1.01 - POLICY

It is declared to be the public policy of the Yakima Regional Clean Air Agency to provide for consistent and effective prevention of emissions from agricultural burning sufficient to ensure compliance with laws and regulations; to achieve emission control by utilizing good burning practices for agricultural burning; to identify reasonable alternatives that prevent emissions; and to inform growers of the laws, regulations, effective control measures and how they can take steps to minimize emissions from agricultural burning.

A. This Policy requires:

1. Permits for ag burning (except as exempted in section 4.03);
2. Growers to utilize good burning practices and BMPs; and
3. Growers to use alternatives to burning when reasonably available (Click Here).

B. The purpose of this policy is to provide a means for growers to:

1. Understand the laws pertaining to agricultural burning;
2. Demonstrate diligent efforts to minimize emissions from ag burning; and
3. Achieve a uniform degree of compliance with regulations.

SECTION 1.02 - SHORT TITLE

This policy will be known and cited as the "Agricultural Burning Policy of the Yakima Regional Clean Air Agency".

SECTION 1.03 - DEFINITIONS

The definitions of terms and phrases contained in Regulation 1 of the Yakima Regional Clean Air Agency (YRCAA), Chapter 70.94 RCW and Chapter 173-430 WAC are incorporated by reference into this policy. Unless a different meaning is plainly required by context, the meanings of the following terms and phrases are used in this policy.

A. Agricultural burning: Means the burning of vegetative debris from an agricultural operation necessary for disease or pest control, necessary for crop propagation, and/or crop rotation, or where identified as a BMP by the State Agricultural Burning Practices and Research Task Force as established in RCW 70.94.6528(6), the Yakima Ag Task Force, or other authoritative source on agricultural practices.

B. Agricultural operation: Means a grower who can substantiate that the operation is commercial agriculture by showing the most recent year's IRS schedule F form or proof that the land is designated in a classification for agricultural use. It also includes burning conducted by irrigation district or drainage district personnel for water system management.

C. Best management practice (BMP): Means the criteria established by the State Agricultural Burning Practices and Research Task Force or developed locally and endorsed by the Yakima Ag Task Force.

D. State Agricultural Burning Practices and Research Task Force: Means the agricultural burning practices and research task force established by the Department of Ecology in accordance with RCW 70.94.6528(6).

E. Good burning practices: Means methods for managing agricultural burning that promote the most complete combustion possible, thereby minimizing emissions.

F. Grower: Means the same as Farmer; any person engaged in the business of growing or producing for sale upon their own lands, or upon lands for which they have a present right of possession, any agricultural product. Grower does not mean using such products as ingredients in a manufacturing process, or persons growing or producing such products primarily for their own consumption.

G. Incidental agricultural burning: Means burning that constitutes a minor element of a commercial agricultural operation.

H. Yakima Ag Task Force: Means the Yakima Agricultural Task Force established under this policy in accordance with YRCAA Regulation I Section 1.05D.

ARTICLE II: APPLICABILITY AND EXEMPTIONS

SECTION 2.01 - APPLICABILITY

This policy is applicable to any grower conducting burning that is reasonably necessary to carry out the agricultural enterprise. It also applies to irrigation and drainage districts that support agricultural operations. See definitions.

SECTION 2.02 - POLICY EXEMPTIONS

A. The Control Officer may waive certain provisions of this policy during emergency situations, provided that the owner or operator of the source notifies the YRCAA by the end of the next business day following the onset of such emergency and complies with all requirements of this policy as soon as is feasible after the emergency has been resolved. Emergency means when compliance with the requirements of this policy would cause risk to human health or substantial crop damage.

B. The provisions of this policy do not apply to a grower if a variance or a renewal of a variance, granted in accordance with the provisions of Section 3.00 of the YRCAA Regulation I, so states.

ARTICLE III: AG BURNING WORKGROUP of the YAKIMA AG TASK FORCE

In an effort to involve those most affected by regulations pertaining to agricultural burning, and those most knowledgeable about agricultural practices, in the revision of this policy, an advisory council is established under the authority of Section 1.05D of YRCAA Regulation I. The advisory council will be known as the Ag Burning Workgroup of the Yakima Ag Task Force.

SECTION 3.01 - MEMBERSHIP and PARTICIPATION

The Ag Burning Workgroup of the Yakima Ag Task Force will be composed of at least the following:

1. One member from YRCAA who will serve as facilitator;

2. One member from the South Yakima Conservation District;

3. One member from the WSU Extension Office;

4. One member from the YRCAA Board of Directors;

5. Local growers or their representatives; and

6. One member from the general public.

SECTION 3.02 – DUTIES

This policy is the product Ag Burning Workgroup of the Yakima Ag Task Force, developed through a process of in-depth involvement of the people most affected by it. It is expected that the task force will continue to be involved in the adoption, implementation and any future revision.
Duties of the Ag Burning Workgroup include working to:

A. Identify burning practices that will minimize air pollution from agricultural burning and constitute "reasonable precautions", as used in WAC 173-400-040(4);

B. Encourage implementation of good burning practices at all agricultural operations;

C. Identify (and make recommendations to the Control Officer for research and development of) reasonable alternatives to agricultural burning;

D. Develop and make educational materials available that describe the health effects of agricultural burning emissions, good burning practices, and alternatives to agricultural burning;

E. Support and promote this policy to the agricultural community;

F. Assist the Control Officer to evaluate and endorse:

1. Burning as necessary to successfully carry out an enterprise;
2. Alternatives to burning as available and reasonably economical;
3. Local BMPs; and
4. Exemptions to the prohibition of burning where reasonable alternatives are available.

G. Periodically as needed, assess whether:

1. Agriculture has implemented the policy;
2. The policy is effective; and
3. Revision of the policy, additional policy or regulation is needed.

The task force will also be convened periodically, no less frequently than once per year, to advise and assist in continued implementation of the policy.

ARTICLE IV: REQUIREMENTS

SECTION 4.01 - RULES - The following rules apply to all agricultural burning, regardless of permit requirements.

A. Agricultural burning is prohibited under any of the following conditions, except where no alternative to burning exists for control of disease or pests:

1. If the proposed burning is not reasonably necessary to successfully carry out a commercial agricultural enterprise;

2. In an area where a local impaired air quality or air pollution episode burn ban is in effect; or

3. During the hours between sunset and dawn. Do not start a fire earlier than two hours after sunrise or later than two hours prior to sunset.

   It is understood that, for large diameter wood, a fire may continue for many hours when the burning is not accelerated. In these cases, it is not required that the fire be extinguished prior to sunset, as long as every effort is made to manage, and continue managing, the fire in a manner that promotes rapid, complete combustion in as little time as possible. For example, build a small hot fire instead of a large fire, accelerate the burn and make a determined effort to conclude burning prior to sunset.

B. When conducting any agricultural burning, a grower must comply with the protocol established in Appendix A of this policy, in its entirety.

C. Burning is prohibited where a reasonable alternative is available. RCW 70.94.6524(6) states: "Burning shall be prohibited in an area when an alternate technology or method of disposing of the organic refuse is available, reasonably economical, and less harmful to the environment."

1. Burning of field and turf grasses grown for seed is prohibited in accordance with WAC 173-430-045. The Department of Ecology has determined and certified that mechanical residue management is a reasonably available alternative to the burning of residue from field and turf grass seed operations.

2. Burning of any material less than or equal to two inches in diameter that has been cut, pruned or otherwise removed from the ground or the plant is prohibited. The YRCAA and the Ag Burning Workgroup have determined that reducing the material by mechanical means and applying the material back to the soil is a reasonably available alternative to burning. This includes residue management.

   EXCEPTION: For orchard removal, dry small diameter wood and leaves should be included in the fire to aid the combustion of the larger wood.

   EXCEPTION: The burning of hop roots has been demonstrated under 4.01.C.3 of this section when necessary for control of disease, to be exempt from 4.01.C.2.

3. On a case specific basis a grower may demonstrate to the Control Officer that burning is necessary to prevent or destroy disease or insects, in which case limited burning may be allowed where it is otherwise prohibited.

4. On a case specific basis a grower may demonstrate to the Control Officer that burning is necessary due to ground conditions, inaccessibility or other conditions, in which cases burning may be allowed where it is otherwise prohibited.

SECTION 4.02 - PERMITS

70.94 RCW, the Washington Clean Air Act and 173-430 WAC, Agricultural Burning, require growers conducting outdoor burning to obtain a permit prior to conducting the burning, except as provided for in Section 4.03. Permit applications may be submitted by telephone, mail, email, or in person. Permit fees are due at the time of issuance. A permit is not valid until the permit fee is received in the YRCAA office. See Appendix A.

A. Prior to burning, applications for permits must be submitted to the YRCAA in accordance with Appendix A.

B. YRCAA will evaluate the application and, within seven days, either approve the application and issue a permit, request additional information, or give reasons why the application is denied. Most applications will be approved or denied at the time of application.

C. Permits will be conditioned to minimize the adverse health and environmental effects from burning as specified in Appendix A. Conditions in addition to those included in Appendix A may be required and so stated in a permit.

SECTION 4.03 - PERMIT EXEMPTIONS

A. Incidental agricultural burning that otherwise complies with the requirements of this policy, YRCAA Regulation, and requirements of any other agency of jurisdiction is allowed without permit if the material being burned is:

1. Orchard prunings;
2. Natural vegetation along fence rows or irrigation/drainage ditches; or
3. Natural vegetation blown by wind.

B. Flaming of green vegetative material for the purposes of killing a crop plant or killing disease or insects on the plant is not considered to be outdoor burning and is not subject to the requirements of this policy, provided that:

1. The fuel for the flame is propane or similar gaseous fuel; and
2. Combustion of the plant or any other materials does not occur. Combustion of any material other than the burner fuel requires a permit, except as provided for in Section 4.03A.

SECTION 4.04 - PERMIT FEES

A. For all agricultural burning not exempted in Section 4.03, the grower must obtain a written permit and pay a fee prior to burning.

B. In an effort to promote seeking alternatives to planned burning, refunds of fees will be given when a grower demonstrates to the Control Officer that less material was burned than that on which the permit fee was based, provided the adjusted fee after subtracting the refund is not less than the

minimum permit fee for the type of burning conducted.

SECTION 4.05 – BURN ALLOCATION

WAC 173-430-040(2) states "For allowed agricultural burning, ecology or local air authorities with jurisdiction will make daily or specific fire burn calls (during times of anticipated burning) and use metering when necessary to minimize the potential for adverse air quality impacts. Metering is a technique of limiting emission from burning at specific times and places by taking into account potential emission rates, forecasted weather (dispersion), and current and projected air quality. The burn decision process will consider: The potential number of burns and their expected size(s) and duration(s); recent and current ambient concentrations of pollutants; other potential emissions sources; and evaluations and judgments about how foreseeable meteorological conditions will affect concentrations of pollutants in the air sheds."

To comply with the above requirement YRCAA has developed a Smoke Allocation Plan. See Appendix B. Prior to burning a grower or designated representative must contact YRCAA and receive expressed permission to burn a specific quantity of material, in a specific location, on a specific day. Burn allocations are given one day prior to burning. Air quality and dispersion conditions change rapidly and the amount of materials allowed changes from day to day. If a burn ban is present, this step may be eliminated since no burning is allowed.

ARTICLE V: COMPLIANCE, ENFORCEMENT AND PENALTIES

SECTION 5.01 - COMPLIANCE ASSURANCE

A. In determining if a grower is in compliance with this Policy and the regulations, YRCAA will consider the following:

   1. If the burning is reasonably necessary to successfully to carry out the enterprise;

   2. If the grower used good burning practices and the burning met the criteria of the BMPs;

   3. If a reasonable alternative to the burning was available; and

   4. If a violation of YRCAA or State regulation has occurred due to the burning.

B. YRCAA may require the grower to demonstrate the need for burning to the Control Officer.

SECTION 5.02 - ENFORCEMENT

Inspections will be conducted in accordance with the YRCAA Compliance and Enforcement Policy contained in Section 5 of YRCAA Administrative code, Part B.

A. If YRCAA determines that a grower is not in compliance with this policy or regulation, the YRCAA will order a change in burning practices or an alternative to burning as appropriate. The YRCAA will attempt to work with the grower in good faith to resolve a violation.

B. If agreement cannot be reached, or a grower refuses to take appropriate action, the YRCAA may initiate enforcement action. Enforcement action will not be taken for failure to comply with this

policy, only for violations of an order, law or regulation.

C. For recurrent violations of the same requirement YRCAA will take immediate enforcement action.

SECTION 5.03 - PENALTIES

A. A civil Penalty will not be issued to a grower for a violation of this policy, but may be issued for violation of a regulation in accordance with YRCAA Regulation 1, Article 5.

B. If an equipment breakdown or upset condition occurs resulting in a violation, the violation will not be subject to Civil Penalty, provided that:

1. The grower takes immediate corrective action and reports the breakdown or upset condition to the YRCAA by the next working day;

2. The upset or breakdown was not a result of gross negligence;

3. The upset or breakdown is not repetitive; and

4. The grower takes effective action to prevent the upset or breakdown from recurring.

Examples of breakdown or upset condition include things like failure of a fan used to accelerate a fire, breakdown of a loader used to consolidate or feed a burn pile or a sudden wind shift or rainfall that would cause smoke to be excessive.

ARTICLE VI: ALTERNATIVES TO AGRICULTURAL BURNING

SECTION 6.01 - RESEARCH and DEVELOPMENT

A. It is the policy of YRCAA and the Ag Burning Workgroup to encourage and assist research and development of any agricultural practice that would lessen or eliminate the need for burning. YRCAA commits to seek funding for projects or studies to this end, as recommended to the Control Officer by the Ag Burning Workgroup.

B. YRCAA will work to promote reasonable alternatives to burning, including facilitating the demonstration of equipment designed to reduce material by chipping, grinding and mowing. To this end, YRCAA will seek funding from growers, grower associations and public agencies and will provide matching funds when available

C. YRCAA will convene the Ag Burning Workgroup to review and update the list of available alternatives, evaluate and endorse new alternatives as reasonably available, and as needed, no less frequently than once per year.

SECTION 6.02 - EXAMPLES of ALTERNATIVES to AGRICULTURAL BURNING

This section describes methods for dealing with or eliminating the generation of vegetative debris other than by burning. Whether these alternatives are reasonable, feasible or readily available now or will be in the future is unknown and may depend on site and material specifics. The fact remains that all of these alternatives are less harmful to the environment than burning and should be considered prior to,

and instead of, burning.

A. Prevention

Eliminating growth of vegetation that is not needed or wanted is the basis for preventing the generation of requiring disposal and can be accomplished by:

1. Applying herbicides to prevent growth or to kill plant tissue;

2. Disking or plowing; and

3. Flaming

In order to kill disease, insects or infested plant tissue, flaming is accomplished by means of a propane (or other gaseous fuel) burner. This procedure must not cause combustion of any material other than the burner fuel. Combustion of any material other than the burner fuel requires a permit, except as provided for in Section 4.03A.

B. Reuse/Recycling

Debris from harvested crops, prunings, ground cover, weeds, or trees that have been removed for replacement can be reduced by mulching, grinding, chipping, mowing or other mechanical means and used for:

1. Direct land application - as a soil amendment, either alone or augmented with nitrogen or other compound to enhance soil quality.

2. Composting - either on farm or made available to a commercial composter as carbon, an essential element of composting.

3. Wood by-products - wood chips can be made available to manufacturers of products such as paper, particle board, oriented strand board, presto logs, and wood heat pellets.

4. Fuel - wood can be used to fuel wood stoves and fireplaces. Wood chips and other vegetative debris have been used to power hogged fuel boilers, electricity and co-generation plants or other combustion processes.

ARTICLE VII: GOOD BURNING PRACTICES

A grower conducting burning must minimize the emissions from burning by using good burning practices. These burning practices, or other effective means to minimize emissions, are required in addition to the requirements of Article V of this policy. Planning and managing a fire properly can make the difference between burning legally or in violation.

SECTION 7.01 - GENERAL PRINCIPLES

A. The principle mechanism by which most of these practices operate is to create and maintain conditions that promote complete combustion, thereby minimizing emissions.

B. A grower may modify the operation of these practices from the systems described below as long as

the effectiveness is not compromised.

C. It is expected that, for most burning, a combination of these practices will be necessary to adequately minimize emissions.

SECTION 7.02 - EXAMPLES of GOOD BURNING PRACTICES

The measures described are offered as a means of defining good burning practices or reasonable precautions to minimize emissions. A grower may choose to use one or more of the measures described or in combination with some other effective means to minimize emissions. YRCAA will convene the Ag Burning Workgroup to review and update the list of good burning practices as needed no less frequently than once per year.

A. General practices for all burning.

1. Allow the material to dry at least 30 days. Adequate drying time will vary depending on the time of year. Material may be transported to vacate space needed for immediate use as long as the new location is not within an area where burning is prohibited;

2. Build and maintain as hot a fire as possible. Do not allow the fire to smolder;

3. Maintain the fire as hot as possible until material is completely burned. Rekindle the fire if necessary;

4. Ignite and accelerate the fire with propane or other gaseous fuel (do not use diesel or other liquid fuel);

5. Avoid burning during winter months or any time an inversion exists;

6. Mix small diameter material with large diameter material to promote combustion; and

7. Light a small test fire to check air ventilation and direction of smoke plume.

B. Specific practices for standing vegetation (field burning). These practices should be considered in addition to the general practices.

1. Ignite the material with a propane burner; and

2. Ignite the fire on the downwind side of the area to be burned.

C. Specific practices for debris that is removed and piled (pile burning). These practices should be considered in addition to the general practices.

1. Build and maintain burn piles in such a way as to allow maximum exposure to, and turbulence from, air movement;

2. Kindle the fire with clean, dry, small diameter, untreated wood. This promotes the start of a hot fire and allows air space in the pile;

3. Arrange the pile to promote efficient burning as the material in the center is burned;

4. Do not include dirt in the pile. The debris should be raked, picked and placed or otherwise piled to prevent dirt from being mixed in. Do not use a blade to push debris into the pile;

5. Make several small diameter, tall piles or build and feed a single pile; and

6. Ignite the fire on the upwind side.

D. Specific practices for orchard pull-outs. These practices should be considered in addition to the general practices and the practices for debris that is removed and piled.

1. Cut the limbs from the trunk prior to removing the trunk from the ground;

2. Remove the trees as soon after harvest as possible;

3. Build small diameter, tight, tall piles (or build and feed a single pile) with the driest, smallest diameter wood on the bottom of the pile; and

4. Fumigate prior to pull-out, if possible. This causes trees to dry faster and avoids the rush to burn.

ARTICLE VIII: EDUCATION/OUTREACH

YRCAA commits to researching, developing and making educational materials available which describe:

1. The health effects of smoke from ag burning;

2. Methods of disposing of vegetative material by means other than burning; and

3. Burning practices that promote good combustion and minimize emissions.

APPENDIX A - AGRICULTURAL BURNING PERMIT PROTOCOL

Prior to Planning a Burn:

1. Utilize all practical alternatives to minimize the need to burn.
   WAC 173-430-020 states that agricultural burning is only allowed when no practical alternative is reasonably available. Permits will not be issued if a reasonable practical alternative is available.

2. Submit a completed Agricultural Burning Permit Application and pay the appropriate fee.
   WAC 173-430-020 states that agricultural burning (except for orchard prunings, ditch banks, fence lines and organic debris blown by wind) requires a permit. Submitting a complete permit application begins the process. The following information must be provided:
   a. Grower name and contact information;
   b. The crop type and reason for each burn;
   c. The specific location of each burn;
   d. The target date for each burn;
   e. The quantity of material to be burned in acres, cubic yards or number and size of piles;
   f. The signature of a person responsible for all burning under the permit; and
   g. Pay the fee, based on the quantity of material planned to be burned. If more material is burned an invoice may be issued for the additional amount. If less material is burned a refund may be issued provided the refund subtracted from the amount paid is not less than the minimum fee required ($80 for pile burning, $37.50 for field burning).

3. Receive approval of the Permit Application.
   WAC 173-430-020 states that the permit application must be approved prior to any burning. YRCAA will generally approve the application, if the burning is reasonably necessary, at the time of receiving a complete application. If an application is denied, the fee will not be accepted or the fee will be returned and the reason(s) for denial will be stated. Permit Application approval does not constitute permission to conduct burning. Permission to burn must be obtained for the day the burning is to be conducted. See Prior to Burning, for Each Day, below.

4. Allow the material to dry before burning. The minimum required drying time is 30 days once the material is removed from the ground or, for material burned in place, after the material has become dormant. Please note that material should be allowed to dry as long as possible to avoid creating an unreasonable interference with the use and enjoyment of nearby property. This is a violation, subject to enforcement, including civil penalty.

5. For materials burned in piles, arrange piles, or plan to feed a single pile with material from other piles, so as to burn hot and promote complete combustion.

Prior to Burning, for Each Day:

1. Determine the burn status. Do not burn during an impaired air quality event burn ban or an air pollution episode burn ban.

2. Call YRCAA and receive expressed permission to burn a specific quantity of material, in a specific location, on a specific day. Burn allocations are given one day prior to burning. Air quality and dispersion conditions change rapidly and the amount of materials allowed changes from day to day. If a burn ban is present, this step may be eliminated since no burning is allowed.

If burning is allowed:

3. Call Fire Dispatch: Upper County 509-248-2103; Lower County 509-865-4202.

4. Inspect the material to be burned and remove any material which is prohibited (see 2 below); and

5. Do not burn during unsafe burning conditions, including but not limited to, high winds, dry surroundings, proximity to structures and high temperatures.

During the Burning:

1. Burn only during daylight hours. Plan and manage all burning to be concluded by sunset. Concluded or "out" for woody materials, means no visible smoke coming from the fire and coals are ashed over.

2. Burn only natural vegetation. It is prohibited to burn garbage, dead animals, asphalt, liquid petroleum products, paints, rubber products, plastics, paper, cardboard, treated wood, construction debris, metal, or any substance which normally emits dense smoke or obnoxious odors.

3. Attend the fire at all times and promote complete combustion. Attending the fire means, being in close enough proximity so as to be aware of the fire creating nuisance smoke or getting out of control. Fires must be managed to minimize the quantity of smoke being caused.

4. If needed, kindle the fire with clean, dry, untreated wood. If the material cannot be burned without creating an unreasonable quantity of smoke, the material should be kindled with enough dry material to cause the fire to burn hotter and minimize the quantity of smoke.

5. If needed, accelerate the fire with propane or other gaseous fuel (do not use diesel or other liquid fuel). If the Material cannot be burned without creating an unreasonable quantity of smoke, the material should be accelerated to cause the fire to burn hotter and minimize the quantity of smoke.

6. If needed, use fans to force air into and around the material. If the material cannot be burned without creating an unreasonable quantity of smoke, air should be forced into the fire to cause the fire to burn hotter and minimize the quantity of smoke.

7. Do not burn more material than the quantity allocated for any day. Each day permission is given by YRCAA to burn a specific quantity of material at a specific location.

8. Comply with local fire district notification and fire safety requirements. Be aware of any expectations of local fire districts and meet those expectations. Also, comply with any fire safety burn bans.

9. Extinguish any fire found to create a nuisance or a detriment to health, safety or welfare of any person.

After Burning:

1. Provide completion notice to YRCAA no less than ten working days after completing burning at each location. This may be done by phone, fax, email, in person or mail.

2. Pay any additional fees for burning not paid for at time of application. Once all burning has been completed, if the total quantity burned causes the permit fee to increase, an invoice will be issued, payable upon receipt.

Additional Conditions:

Additional conditions may be applied to any permit if the application could not otherwise be approved without the additional conditions. An example is an application to conduct burning in close proximity to a school could only be approved if the burning is conducted during times when the school is not in session.

APPENDIX B - SMOKE ALLOCATION PLAN

Purpose: Provide direction for YRCAA staff decisions which will limit and create equitable allocations of smoke emissions from agricultural burning and minimize potential for public health risk and nuisance.

Procedure: The purpose of this plan is accomplished by allocating a quantity in tons of material that can be burned each day to each grower who plans to burn. The allocation must be received by the grower prior to burning. The quantity is determined by the level of allocation for the given day.

Scope: This plan addresses smoke from all agricultural burning in Yakima County, Washington that is subject to the Washington Clean Air Act, RCW 70.94; Chapter 173-430 Washington Administrative Code, Agricultural Burning; and YRCAA Regulation 1, Section 3.03, Outdoor and Agricultural Burning. The plan also considers the smoke emissions from four types of agricultural burns that are exempted by RCW 70.94 from the permitting and fee requirements. The plan also considers the smoke from prescribed fires (silvicultural burning) on forested land which are regulated by the Washington Department of Natural Resources.

Allocation Areas: Smoke allocation decisions may be made for the entire County or separately for the Upper and Lower Valley portions of Yakima County. See map on page 18.

Decision Criteria for Selecting the Appropriate Smoke Allocation Level: All criteria shall be satisfied for a level to be selected. If any criterion for that level is not met, the next level of smoke allocation is considered.

Management Direction: The plan describes the most common parameters and decision criteria for smoke allocation, including good professional judgment. The plan will be used as a working tool and it can be amended or changed as needed by future decisions of the YRCAA Air Pollution Control Officer.

Waivers: A grower may be granted a waiver from an allocation level for cause. A grower must show cause and describe practices which will reduce smoke emissions to a level of non-significance. A waiver may only be granted for a specific burn, planned day, and conditions.

Decision Timing: Smoke allocation decisions shall be made according to the following schedule:

- **I. Burns planned for weekdays.** Between 3:00 and 4:00 PM of the previous workday based on complete information and fees paid by 3:00 PM the previous workday.
- **II. Burns planned for weekends.** Between 3:00 and 4:00 PM on the Friday prior to the weekend, based on complete information and fees paid by noon on the Friday prior to the weekend.
- **III. Burns planned for holidays.** Between 3:00 and 4:00 PM on the workday prior to the holiday based on complete information and fees paid by noon of that day.

Plan Details

The following describes five levels of allocation, each with the criteria for determining the appropriate level, the criteria for allocating the quantity of material, and the duration of the decided level.

1. Level One Allocation

This level requires no allocation. Air quality and weather forecasts are good. Growers may burn an unlimited quantity.

1.1. Decision Criteria

1.1.1. No burn ban in place or expected in the next 72 hours.

1.1.2. 24 hour $PM_{2.5}$ value ≤ 7 $\mu g/m^3$.

1.1.3. 1-hour $PM_{2.5}$ values during the preceding 4 hours are declining or level.
1.1.4. No mid-level inversion in place or predicted for the next 72 hours.
1.1.5. Surface level inversions are not expected to last beyond mid-day.
1.1.6. MM5 Model Ventilation Index indicates a marginal or good ventilation class for at least the mid-day hours in the decision area.

1.2. Burn Allocation Criteria

1.2.1. Maximum quantity per burn – No limit.
1.2.2. Burn separation – None.
1.2.3. Total maximum number of permitted burns – No limit.

1.3. Decision Duration.

Under appropriate emission levels and meteorological conditions, this level may continue for multiple days or weeks.

2. Level Two Smoke Allocation

This level requires a limited allocation. Air quality and weather forecasts are generally good but may worsen. Growers may burn a limited quantity.

2.1. Decision Criteria

2.1.1. No burn ban in place or expected in the next 48 hours.
2.1.2. 24-hour $PM_{2.5}$ value between 8 and 12 $\mu g/m^3$.
2.1.3. 1-hour $PM_{2.5}$ values during the preceding 8 hours are declining or level.
2.1.4. No mid-level inversion in place or predicted for the next 72 hours.
2.1.5. Surface level inversions are not expected to last beyond mid-day.
2.1.6. MM5 Model Ventilation Index indicates a marginal or good ventilation class for at least the majority of the daylight hours in the decision area.

2.2. Burn Allocation Criteria

2.2.1 Up to 200 tons per burn.
2.2.2 Burn separation – Limited, based on conditions.
2.2.3 Total maximum number of permitted burns – Based on separation and number of burns.

2.3 Decision Duration.

Burn approvals and smoke allocations will be made for a specific calendar day. Burns expected to last more than 24 hours will require separate allocations for each additional day.

3. Level Three Smoke Allocation

This level requires a more limited (less quantity) allocation due to increasing $PM_{2.5}$ monitor values.

3.1. Decision Criteria

3.1.1. No burn ban in place or expected in the next 24 hours.
3.1.2. 24-hour $PM_{2.5}$ value between 13 and 16 $\mu g/m^3$.
3.1.3. 1-hour $PM_{2.5}$ values during the preceding 12 hours are declining or stable.
3.1.4. No mid-level inversion in place or predicted for the next 48 hours.
3.1.5. Surface level inversions are not expected to last beyond mid-day.
3.1.6. MM5 Model Ventilation Index indicates a good ventilation class for at least the majority of the daylight hours in the decision area.

3.2. Burn Allocation Criteria

3.2.1 Up to 100 tons per burn.
3.2.2 Burn separation - Limited, based on total number of burns.
3.2.3 Total maximum number of permitted burns – Based on separation and number of burns.

3.3. Decision Duration.
Burn approvals and smoke allocations will be made for a specific calendar day. Burns expected to last more than 24 hours will require a separate allocation for the second or longer 24-hour period.

4. Level Four Smoke Allocation.
This level requires a very limited allocation due to worsening air quality and predicted weather.

4.1. Decision Criteria
4.1.1. First or second stage burn ban is expected in the next 24 hours.
4.1.2. 24-hour $PM_{2.5}$ value between 17 and 20 µg/m3.
4.1.3. 1-hour $PM_{2.5}$ values during the preceding 4 hours are rising or stable.
4.1.4. Mid-level inversion in place or predicted.
4.1.5. Surface level inversions, if present, lasts most of the day.
4.1.6. MM5 Model Ventilation Index indicates a marginal or good ventilation class for six hours per day or less in the decision area.

4.2. Burn Allocation Criteria
4.2.1 Up to 50 tons per burn.
4.2.2 Burn separation - Limited, based on total number of burns.
4.2.3 Total maximum number of permitted burns – Based on separation and total number of burns.

4.3. Decision Duration.
Burn approvals and smoke allocations will be made for a specific calendar day. Burns expected to last more than 24 hours will require a separate allocation for the second or longer 24-hour period.

5. First or Second Stage Burn Ban. No burn approvals or smoke allocations will be granted.

5.1 Decision Criteria
5.1.1 First or second stage burn ban is expected in the next 24 hours.
5.1.2 24-hour $PM_{2.5}$ value ≥ 21 µg/m^3.
5.1.3 1-hour $PM_{2.5}$ values during the preceding 4 hours are rising or stable.
5.1.4 Atmospheric conditions exist which can prevent emission levels from subsiding for 48 hours or longer.
5.1.5 Mid-level inversion in place or predicted.
5.1.6 Surface level inversions, if present, last most of the day.

5.2 Burn Allocation Criteria
5.2.1 All outdoor and agricultural burning is prohibited.
5.2.2 Orchard removal burns must be terminated within eight hours after the burn ban is called.
5.2.3 All other agricultural burns must be terminated within three hours after the burn ban is called.

5.5 Decision Duration. This decision will not change until the burn ban has been removed.

Figure 1. Upper and Lower Yakima County