

Ventura County Air Pollution Control District

Smoke Management Program

Smoke Management Program

**Ventura County Air Pollution Control District Policies and Procedures to
Comply with the California Code of Regulations Title 17 Smoke Management
Guidelines for Agricultural and Prescribed Burning**

13 November 2001

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ACRONYMS/ABBREVIATIONS

a.k.a.	Also known as
AQMD	Air Quality Management District
ARB	Air Resources Board
CDF	California Department of Forestry
CEQA	California Environmental Quality Act
EPA	U.S. Environmental Protection Agency
Fish and Game	California Department of Fish and Game
mb	Millibars
mph	Miles Per Hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Protection Agency
NOV	Notice of Violation
PM	Particulate Matter
PM ₁₀	Particulate Matter Smaller Than 10 Microns
PM _{2.5}	Particulate Matter Smaller Than 2.5 micrometers
ppb	Parts Per Billion
ppm	Parts Per Million
PST	Pacific Standard Time
SMP	Smoke Management Program
SSA	Smoke Sensitive Area
USDA	U.S. Department of Agriculture
VCAPCD	Ventura County Air Pollution Control District
VCFPD	Ventura County Fire Protection District

1. INTRODUCTION

Some form of open burning, either agricultural burning, prescribed burning, or wildfires, is a relatively common event in Ventura County. The Ventura County Air Pollution Control District's (VCAPCD) mission is to protect the public health and agriculture from the adverse effects of air pollution. This policy guidance manual entitled "Smoke Management Program" (SMP) describes the means by which the VCAPCD coordinates allowing open fires while protecting public health. This SMP documents VCAPCD's current open burning procedures and describes how these procedures comply with recent revisions to Title 17 (July 2000), the California Code of Regulations, "Smoke Management Guidelines for Agricultural and Prescribed Burning."

2. BACKGROUND

2.1 Program Purpose

The Smoke Management Program for Ventura County is designed to allow open fires, but with the over-riding goal of protecting public health. The SMP strives to allow vegetation management and promote agriculture. However, it is the VCAPCD's mission to protect public health from the adverse effects of air pollution by minimizing the smoke impacts from open burning.

2.2 Authority to Implement and Enforce the Smoke Management Program

The VCAPCD derives its authority to regulate agricultural and prescribed burning activities by implementing and enforcing the Smoke Management Program from the California Code of Regulations, Health and Safety Code (H&S Division 26, Part 4, Chapter 3, Articles 2 & 3), Title 17, and VCAPCD Rule 56, Open Fires.

2.3 Ventura County Characteristics and Air Pollution

Ventura County covers an area of 1,873 square miles, including 43 miles of shoreline. The County is located northwest of Los Angeles County, with Kern County to the north, Santa Barbara County to the west, and the Pacific Ocean on the southwest. There are 411 acres of state beach parks. The Los Padres National Forest accounts for 860 square miles of the northern portion of the county (46 percent of the county's land mass). Elevation changes within the county from sea level to the highest point on Mount Pinos at 8,831 feet. Ventura County ranks 26th in land size among California's 58 counties.

There are ten incorporated cities: Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Santa Paula, Simi Valley, Thousand Oaks and San Buenaventura (Ventura), the County seat. A strong economic base with a large and diverse labor pool, the area includes major industries: agriculture, biotechnology, telecommunications & advanced technologies, manufacturing, tourism, military testing, and development. Ventura County has some of the best soil in the nation for agriculture production, resulting in crop values totaling over \$1 billion in 1999 and ranking Ventura County 10th in agricultural production among California counties.

Ventura County offers very diverse climates. Coastal areas offer a mediterranean climate, while the northern half of the county is mountainous with a sub-alpine climate. Interior valleys offer a mild

climate moderated by the daily sea breeze that progresses through and across the county beginning in the early morning at the coast and reaching the inland valleys by early afternoon. Ventura County's mountains, valleys, and seashore give the area six (6) different micro-climates, more than any other county in the nation. Ventura County does experience four (4) different seasons. The difference between the seasons, although subtle, is the distinct weather patterns.

The first rains of winter usually begin during the last week of October. Although amounts are usually light at that time, the weather turns noticeably cooler. The County sees the rain increase in amount and intensity into December. The rainiest months are December, February, and March. The most rain occurs in February. The last significant rains typically occur during the third week of March.

Santa Ana winds usually begin in late September and continue through the fall, winter, and spring, occurring every three (3) to six (6) days, with the end of the Santa Ana season during the second week of May. Santa Ana winds are a northeasterly foehn-type (dry-warm) wind with wind speeds of 15-30 mph (miles per hour), and gusts as high as 60 mph during the stronger events.

Winter temperatures are mild with daytime highs of 55-60 degrees Fahrenheit and nighttime lows in the upper 30s to mid 40s. Spring comes quickly as the rain frequency diminishes during the last half of March. April through mid-May is mild and warm, with clear skies. Low clouds and fog, night and morning hours, begin in mid-May and continue through late July, becoming less frequent, with less extent as the summer progresses towards August.

Monsoonal moisture from Mexico begins in late July and continues sporadically until early October. August, September, and the first week of October are the hottest months, especially inland valleys where daily high temperatures are 90-100+ degrees. Geographically, summer temperatures range from daytime highs in the mid-60s at the coast to the 100s in the hotter inland valleys.

Ventura County's air pollution problem is ozone. As of Fall 2001, ozone exceeded the federal 1-hour standard, on average, 12 days per year (10 year average) and exceeded the State 1-hour ozone standard 57 days per year (10 year average). During the past three years, Ventura County has had only five (5) exceedances of the federal 1-hour ozone standard. The important point is, from year to year, there has been cleaner air - as evidenced by fewer and fewer federal and state air quality standard exceedances. Figure 1 below shows the decline in the number of federal

1-hour ozone exceedances over the years, even though the population continues to increase.

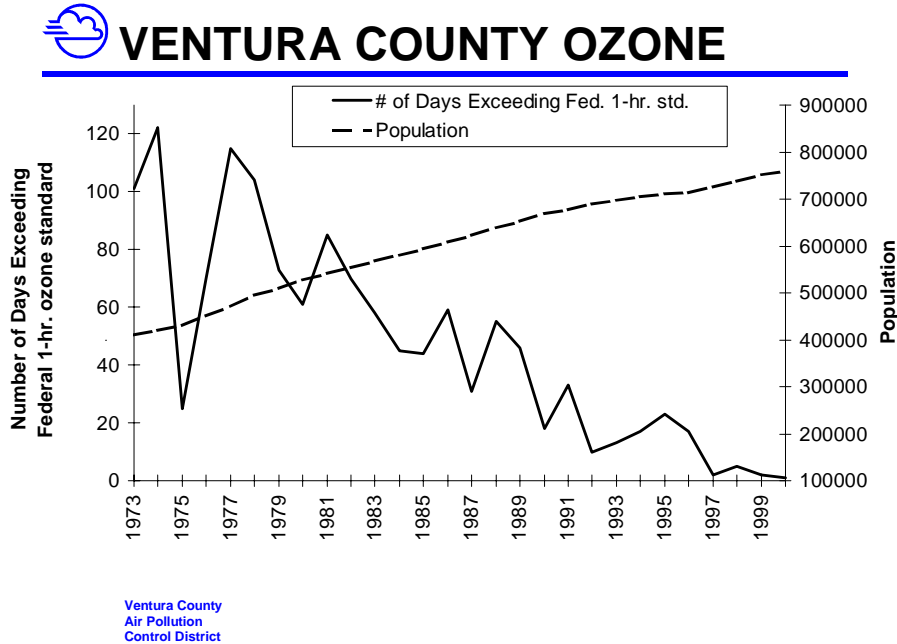


Figure 1 – Ventura County’s Ozone Exceedances by Year with Population Increase Overlay.

Ozone season begins in May and concludes at the end of October. The majority of exceedances occur in June, July, and August. Ozone concentrations and the number of exceedance days increase along a path from the ocean to the inland valleys. Coastal locations, on a 10 year average have had less than one federal 1-hour ozone exceedance per year, compared to Simi Valley which has, by far, the worst air quality in the county with almost 11 exceedances per year (10 year average). Simi Valley not only produces the air contaminants that contribute to ozone, but pollutants are transported into Simi Valley. Air pollutants are brought in from Ventura and Oxnard, and all locations in between by the sea breeze. To add to the mix, at times air pollutants are brought into Simi Valley at different levels of the lower atmosphere by winds from the Los Angeles area.

Ozone, the main ingredient of smog, even at low concentrations, can cause a number of respiratory problems. Several groups of people are particularly sensitive to ozone, especially when they are active outdoors

because physical activity causes people to breathe faster and more deeply. Active children are the group at highest risk from ozone exposure. Active adults of all ages and people with asthma or other respiratory diseases are also at risk from ground-level ozone.

Ground-level ozone is formed when other pollutants, nitrogen oxides, and volatile organic compound gases (photo-chemically reactive hydrocarbons) chemically react in sunlight. Sources for these pollutants include motor vehicles, power plants, factories, chemical solvents, combustion products from various fuels, and consumer products.

Ozone can cause numerous health effects. It interferes with lung function and can cause pain and discomfort at concentrations as low as 0.08 ppm (parts per million), averaged over an eight-hour period. Health effects of ozone include:

- Chest pain
- Coughing
- Wheezing
- Pulmonary and nasal congestion
- Labored breathing
- Increased airway permeability and airway inflammation
- Faster breathing rates in athletes (the faster the breathing rate, the greater the amount of ozone that can penetrate the respiratory tract)

Ozone exposure can also reduce resistance to infections. Research has shown that immune system cells move into the lungs after acute exposure to ozone, producing a nine-fold increase in disease fighting cells. In addition, short-term ozone exposure has also been shown to decrease resistance to bacterial pneumonia in animal studies.

2.4 Program Development

The relationship between VCAPCD, the agricultural community, and the prescribed burners is one of mutual understanding, respect, and working together to accomplish our goals. The VCAPCD meteorologists make an extra effort to contact farmers to understand their issues and concerns with the disposal of agricultural waste. During these contacts, the meteorologists explain the relationship of agricultural burning to air quality and the need to protect public health. With the ever-increasing population of the county, it becomes more and more difficult to conduct agricultural burning without smoke impacting the public health.

People are moving into Ventura County for the open spaces, clean air, and scenery. As they move in, some move next door to agricultural fields. But, the public doesn't necessarily know that the orchards are a thriving organism that require care and maintenance. Part of that maintenance is agricultural waste burning.

Agriculture is the largest contributor to Ventura County's economy. Therefore, the VCAPCD works closely with the farming community to help keep agriculture viable. With this mutual understanding of needs and mission, the agricultural community has gained an understanding for the reasoning behind Burn and No Burn day decisions.

A No Burn day is called when air dispersion is poor for any one region or if wildfire danger is a concern due to weather elements. The VCAPCD and the Ventura County Fire Protection District (VCFPD) work with growers in consideration of economic and special needs to consider burning under special circumstances. The VCAPCD and VCFPD work with growers to accomplish their goals in a timely manner - weather, air pollution dispersion, and wildland fire safety permitting. VCAPCD is in daily contact with VCFPD and the agricultural community. With this proactive relationship, VCAPCD receives very few complaints, accomplishes all of the prescribed burning requests by the fire agencies, and accommodates as much agricultural burning as air quality and fire safety can allow on any given day.

Fire protection agencies in the county perform 10-30 prescribed burns per year. Prescribed burns are carried out with the cooperation and assistance of VCAPCD. The VCAPCD reviews the smoke management segment of the burn plan and is involved in the day-to-day decision of when to burn and at what location. The prescribed burn decisions are made in consideration of air pollution concentrations and smoke dispersal. Under the right conditions, agricultural burning may be allowed Monday through Saturday. Agricultural burning is not allowed on Sundays and holiday weekends.

Of primary importance is smoke dispersal from agricultural waste burning. Some important questions faced when the meteorologists are working on the daily air pollution forecast are:

- Where will the agricultural burn smoke go?
- How will it disperse?
- Where are the burns relative to populated areas?
- Will the weather be appropriate for burning in a certain region during the morning or afternoon?
- Will the weather fit within VCFPD criteria?

Using the above criteria, VCAPCD allows approximately 100-180 days per year of agricultural burning. Burn day frequency is often reduced during the late summer and early fall due to air quality considerations and/or high wildfire potential. Following the first rains, burn days are usually allowed for three to five days a week through spring.

2.5 Program Resources

2.5.1 VCAPCD Resources

VCAPCD meteorologists handle the agricultural burning and prescribed burning activities. VCAPCD's Compliance Division assists the meteorologists by responding to public calls regarding burning or smoke. The meteorologists keep abreast of the current weather and develop daily forecasts for air quality and open burning conditions. The meteorologists perform weather forecasts at 8 a.m. and 4 p.m. daily. As part of the weather forecast process, "Burn"/"No Burn" decisions are made for each of the six (6) burn regions within the County for the morning and afternoon burn periods. In addition to daily agricultural burning issues, the meteorologists work with the local fire protection agencies to help in determining which days would be appropriate for specific planned prescribed fires, based on the burn plan prescription and objectives for the planned fire.

2.5.2 Meteorological Resources

VCAPCD has two meteorologists on staff to address air pollution and burn day issues. The meteorologists' schedules are staggered so that there is day-to-day coverage for air pollution and open burning issues. VCAPCD operates an air pollution and weather monitoring network comprised of six (6) sites (Ventura, Ojai, El Rio, Piru, Thousand Oaks, and Simi Valley) and one upper-air monitoring site (Simi Valley/Moorpark), see Figure 2. These sites are located in different sub-air basins of the county to measure ambient air quality and meteorology. These sites have various air pollutant measurement instruments, as well as a full complement of meteorological sensors. The meteorological measurements include wind speed, wind direction, temperature, relative humidity, and solar radiation. Some sites have additional meteorological sensors such as

barometric pressure and visibility. The “upper air” site on the west end of Simi Valley has an atmospheric profiler.

The atmospheric profiler is a vertically pointed radar and acoustic device, which can determine lower atmospheric winds and temperatures along a vertical path, every 200 feet, from the surface up to 10,000 feet.

Hourly averaged data from the monitoring network is readily available via a central data acquisition system.

In addition to these local data sources, the meteorologists use a contract meteorological service for satellite images, meteorological charts, and near real-time data. The internet is an invaluable tool for current observation data and a variety of meteorological atmospheric models. Relevant information from all of these sources is reviewed to develop the twice-daily air quality and agricultural burning forecasts.



Figure 2 – Ventura County Air Pollution Control District’s Air Monitoring Site Locations

The VCAPCD's weather forecast begins by gathering data and analyzing the current state of the atmosphere using many different data types: satellite (water vapor, infra-red, visible) images, atmospheric analysis charts (from surface to 300 mb {millibars}), observation compilation charts, airport observations, remote meteorological sites, upper-air profilers, and local air quality and meteorological monitoring data. From this wide range of information, a good picture of what is currently occurring and what occurred during the past few days can be determined. This base of information is compared with climatology and the atmospheric prognostic models to start to develop a forecast. There are many atmospheric prognostic models available from a variety of institutions and agencies. The meteorologist must compare the different models to current conditions, to determine which model is best at simulating atmospheric effects on local conditions, given the most recent weather patterns.

As mentioned above, the meteorologist chooses the atmospheric model that will do the best job, under the current conditions, as a tool for forecasting. Most models do a relatively good job, but it is the meteorologist's experience, and practiced interpretation of the model outputs, compared to different local scenarios, which will provide the best forecast. The meteorologist analyzes day-to-day data and even the hour-to-hour data. The magnitude of these changes and the differences from one point to another, or of one variable to the next, can have significance. The meteorologist analyzes these variables and uses them to determine what is changing and why. These changes are compared from past to present, and forecast for present to future. In preparation for a forecast, the meteorologist also reviews the weather pattern scales - from the large (synoptic) scale to the micro-scale.

2.5.3 Air Quality Monitoring Resources

Air pollutants are monitored locally at the VCAPCD's six (6) air monitoring sites. Ventura County's most significant air pollutant is ozone, which is monitored at each of the sites. In addition, hydrocarbons and oxides of nitrogen are monitored at several sites. These gaseous pollutants are typically monitored using continuous analyzer instrumentation, with summarized data sent hourly into the central data acquisition system at VCAPCD headquarters. The local air quality data, coupled with the meteorology, aid the meteorologists in their daily forecasts.

3. SMOKE MANAGEMENT PLANNING AND PERMITTING

3.1 Minimizing Smoke

Smoke is the VCAPCD's primary concern with open outdoor fires. Short-term emissions of ozone precursors - reactive organic compounds and nitrogen oxides - are less of a concern, because burning is not allowed when local ozone levels are forecast to be elevated. In general, the best way to minimize smoke is for the organic material to be thoroughly dry, have good ventilation, and be free of materials that inhibit burning (dirt, moisture, etc.) or are non-natural. To continue the combustion process, the burning material needs to be stoked following the active flame stage. This ensures the material will burn faster and hotter, causing less smoke during the final smoldering stage.

For agricultural burning, the VCAPCD requires material to be burned to have a minimum drying time of at least four (4) weeks (see appendix B, VCAPCD Rule 56 subsection C.6). Due to the density of some materials and/or the time of year, six (6) weeks of drying time may be more appropriate.

Smoke is also a concern with prescribed burning. For each prescribed burn, there is a burn plan. Within that burn plan is a burn prescription and a smoke management section describing how the smoke from the burn will be monitored to ensure a clean burn with minimal smoke impacts. For prescribed burning requirements, go to Section 3.3 of this document. In practice, completing the planned burn, staying within the prescription, staying within the objectives, and minimizing smoke impacts, is a difficult challenge. Often times, it requires special steps by VCFPD personnel to ensure that all of the issues are addressed. Specifically, the direction and impact of the smoke on areas outside of the burn site need to be closely monitored. At times, fire operations need to be altered to accomplish all of these goals. VCAPCD requires that a meteorologist be on site for every prescribed burn. The meteorologist is there to provide fire weather information as well as to aid in the monitoring of the smoke and its impacts.

3.2 Burn Permits

Every agricultural burn must have an agricultural burn permit. Prescribed burns are allowed by permit from one of the public burn agencies in Ventura County: Ventura County Fire Protection District (VCFPD), California State Parks, National Park Service, and Los Padres National Forest. The burn agency must comply with VCAPCD Prescribed Burning Smoke Management requirements (see Section 3.3).

Agricultural burn permits are issued by VCFPD. When issuing a burn permit, VCFPD follows their policy for pile inspection and burn permit

issuance. Their primary purpose is fire safety. But, as part of their policy, VCFPD reviews the burn piles for compliance to VCAPCD Rule 56.

Residential green waste burning, a.k.a. (also known as) backyard burning, is not permitted in Ventura County, per VCAPCD Rule 56, Appendix B.

To receive an agricultural burn permit, a grower must first qualify as an ongoing agricultural operation, per VCAPCD Rule 56. The next step is for the grower to pile the agricultural waste material. The grower is only allowed to burn what is grown. VCAPCD Rule 56 requires, agricultural waste material to be dried and separated from its root system for a period of at least four (4) weeks. This enables the material to be dry enough to burn and decreases the amount of smoke potential from residual moisture within the material. Longer drying periods are preferred for larger diameter material. A longer drying time equates to less smoke production. When material is dry, it burns hot and quickly – so the grower gets a clean burn (less smoke), and the public impact is reduced.

Following the drying and stacking of the material, VCFPD can be contacted for a site inspection and burn permit. VCFPD inspects the piles and the immediate surroundings for fire safety. In addition, VCFPD checks to make sure the piles are in compliance with VCAPCD Rule 56. If there are questions related to Rule 56, issuance of the burn permit is delayed until VCAPCD can inspect the piles and ensure that any burning/smoke concerns relative to Rule 56 are properly addressed. If VCFPD has no concerns, they issue the burn permit, sometimes with restrictions relative to fire safety and/or smoke sensitive areas. The burn permit is printed on a multi-copy form. Copy distribution is to the grower, the local fire station, VCFPD dispatch, and VCAPCD. The VCFPD station issuing the permit mails the permit to VCFPD dispatch and VCAPCD. The VCAPCD requires that the burn permit not be activated for 72 hours, allowing for mailing of the permit to the VCAPCD. The VCAPCD tracks all active burn permits as to location and amount of material to be burned. Special attention is given to determine which of the six (6) burn regions the burn will be in, whether the burn is upwind of smoke sensitive areas, the type of material to be burned, the amount of material to be burned, and any noted burn restrictions. For larger burns (>300 tons) the VCAPCD may contact the grower to discuss burn timing (amounts/day) and number of days expected to complete the project.

The “Burn” “No Burn” decision is made at 8 a.m. and 4 p.m. each day, with a few exceptions. During the late fall through late spring, burn day decisions are made Monday through Saturday. During this time of year, the burn decision for Monday is decided Monday morning and broadcast

by 8 a.m. From late spring through fall, the burn decision is made seven (7) days a week. Sunday is always a No Burn Day. The 4 p.m. burn day decision is for the following day. The 8 a.m. decision is used to update that day's burn decision. Prior to burn ignition, the VCAPCD requests that growers call the burn day recording – (805) 654-2807 - to get the most up-to-date burn day decision. In addition, the grower must follow all notification requirements and restrictions on the burn permit. The County is divided into six (6) different burn regions (see Figure 3 below).

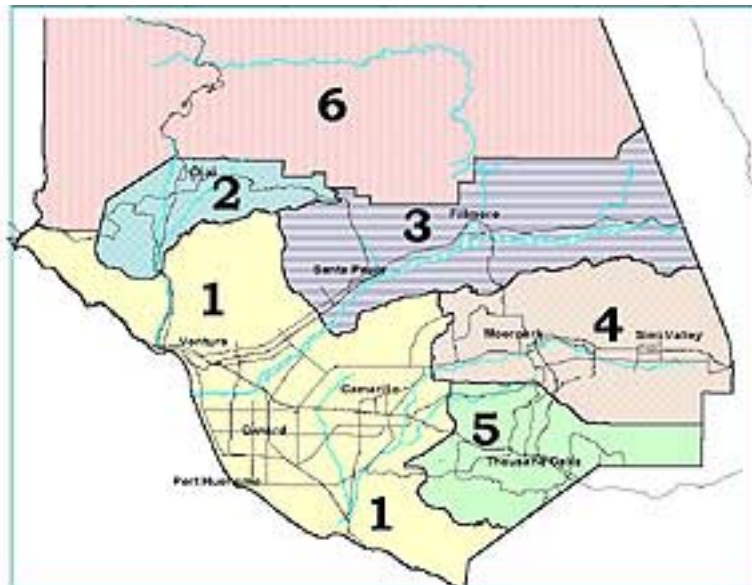


Figure 3 - Ventura County Burn Regions

Region 1 includes the coastal shore and the coastal plain. Region 2 includes the Ojai Valley and surrounding rural areas. Region 3 includes the majority of the Santa Clara River Valley from Santa Paula to Piru. Region 4 is the Moorpark and Simi Valley area. Region 5 is the Conejo Valley (Thousand Oaks and Newbury Park area). Region 6 is the northern half of the county, primarily occupied by the Los Padres National Forest.

There are two burn periods per day. The morning period runs from 7 a.m. until noon, and the afternoon period runs from noon until 4 p.m. During these times, the grower is allowed to ignite the burn material. Outside of these times the grower is allowed to stir and tend the piles to maintain burning and reduce smoke production. The grower is not allowed to add to the piles or ignite additional material outside of the burn periods.

Often, there are special circumstances related to an agricultural burning project. The VCPACD works closely with VCFPD in helping growers to complete burns in the most expeditious manner possible, allowing for

public health and safety. Special cases are handled on a first come, first served basis. When there are exceptions, priorities can change based on imminent need, or because of weather or fire safety concerns. All requests are given consideration.

The VCAPCD has a regulation (Rule 56) and policy regarding the type of material an agricultural operation may burn - "if you didn't grow it - you can't burn it." Backyard waste burning is not allowed. Also, burning of agricultural waste on an area that will not be an ongoing agricultural operation (e.g. land development) is not allowed. For VCAPCD rule requirements on "Conditions on Open Burning," refer to Appendix B, Rule 56, Open Fires, Section C.

For agricultural burning it is important to us good judgment and common sense. Although it may be a "Burn Day," conditions may not be appropriate for the grower to burn safely or burn without causing smoke impacts to the public. The VCAPCD staff appreciates and encourages this sort of awareness, and asks growers to call if there is any trouble getting a burn project completed. For special needs, extra effort is made to get the burn completed.

Following the completion of an agricultural burn, the grower is required to contact the VCAPCD to close out the burn permit. The permit is then removed from the active file, enabling the VCAPCD to keep track of active burns.

3.3 Prescribed Burning

All prescribed burn projects shall meet the following requirements in Ventura County, which are necessary to meet the requirements of Title 17 of the California Code of Regulations.

3.3.1 Burn Project Notification

The burn permittee shall notify the VCAPCD and VCFPD for any planned burn project by prescribed fire at least three (3) months prior to the planned burn. This includes projects in areas that are considered to have a potential for "naturally-ignited" wildland fires managed for resource benefits. Project plan updates must be submitted as they occur.

3.3.2 Smoke Management Plans

All burn permittees shall submit a Smoke Management Plan to the VCAPCD for any prescribed burn project, regardless of size or potential impact on smoke sensitive areas.

VCAPCD approval of all Smoke Management Plans must be obtained prior to commencing with the plan. The VCAPCD will consult with the California Air Resources Board (ARB) as needed on large burns. Smoke Management Plans must at a minimum contain:

3.3.2.1 Project Contact Numbers

The project's "who's who" list and contact numbers (office, cell, pager) including a hierarchy within the organization that designates who has the "Go/No Go" burn authority at each stage of the burn:

- Project name
- Permittee
- Burn permit number
- Project supervisor and phone contact numbers
- Project field contact and phone contact numbers
- Identification of responsible personnel and phone contact numbers

3.3.2.2 Description of Location:

- Physical coordinates of the burn area
- Latitude/longitude of the burn area
- Legal description and Assessor's parcel number for the burn area
- Size of burn in acres
- Topography map of project area with elevations (top and bottom)

3.3.2.3 Identification of Smoke Sensitive Areas (SSAs):

- Direction of SSA from burn site (e.g., N,NE,E, etc.)
- Distance of SSA from burn site (miles)
- Elevation of SSA (feet)
- Phone contact numbers of persons in the SSA
- Schedule of special activities within the SSA (dates)
- Smoke sensitivities and concerns of those within the SSA
- Map of SSAs and project area
- Complaint handling procedures

The SSAs must be identified to document any SSA that could be affected by smoke. Smoke should, at a minimum, be monitored visually and, if required by VCAPCD, be documented on video, from the ground and/or from the air. Smoke shall be monitored during the live-fire period of burning. Additional monitoring periods may be necessary if smoke has the potential to continue to affect the SSA(s).

3.3.2.4 Fuel Description

- Type of material
- Location of material
- Amount of material
- Fuel preparation (e.g., stacked, piled, standing, other)
- Fuel burn objectives
- Project fuel loading (tons/acre)
- Particulate matter emissions (tons PM₁₀ {particulate matter small than 10 microns}), using EPA (U.S. Environmental Protection Agency) method

3.3.2.5 Burn Timing

- Preferred burn season for the fire is _____
- Preferred burn hours for the fire are: _____ a.m.- _____ p.m.

3.3.2.6 Contingency Measures

Contingency measures list specific actions that will be taken if smoke impacts occur or if meteorological conditions deviate from those specified in the SMP.

3.3.2.7 NEPA (National Environmental Protection Act)/CEQA (California Environmental Quality Act) Requirements

Have NEPA and CEQA requirements been met? If so, attach copy of NEPA or CEQA alternatives assessment. Otherwise discuss the following:

- What alternatives to burning were carried out to reduce fuel load? (alternative used, extent used, emission reduction)
- Emission reductions in tons realized by utilizing reduction techniques (listed as PM₁₀).
- List the alternatives to burning that were considered, but not carried out. Describe why these alternatives were not used.

3.3.2.8 Public Notification Procedures

The applicant must describe the public notification timing and methods.

3.3.2.9 California Department of Fish and Game (Fish and Game) Certification

The permit applicant must file with the VCAPCD a statement from the Fish and Game certifying that the burn is desirable and proper if the burn is to be done primarily for the improvement of land for wildlife and game habitat. The Fish and Game may specify the amount of brush treatment required, along with any other conditions it deems appropriate.

3.3.3 Notification Requirements

All prescribed burns must have appropriate public notification prior to the burn. The public must be notified with enough lead time to respond at a level adequate to protect their health and property from smoke injury or damage. The burn permittee shall list the public notification procedures to be used in advance of the planned fire. Indicate, as appropriate, what signage or notification will be made and how it will be done (newspaper, television, radio, other). Also, indicate the timing of the notifications.

3.3.3.1 Adjacent Air Districts

Adjacent air districts that might see air impacts shall be contacted by the burn permittee prior to the issuance of the burn permit. Three days prior to burning, adjacent air districts will be made aware of the intent and timing of the burn by the burn permittee. Prior to ignition on the day of the burn the permittee shall notify the adjacent air districts that have a potential for smoke impact.

3.3.4 Burn Coordination Following The Issuance Of A Burn Permit

3.3.4.1 Burn Permittee

The burn permittee shall coordinate all burns with VCAPCD staff in each phase of the “Go”/“No Go” decision process. No prescribed burn shall occur unless authorized by the VCAPCD. The ARB will be contacted, as needed, by VCAPCD staff prior to a burn to establish a “Go”/“No Go” decision tree.

3.3.4.2 One Week Prior To Burn

Beginning one week prior to a burn, the burn permittee shall inform the VCAPCD of the day for the burn and shall contact VCAPCD each and every day to discuss meteorological conditions leading up to the burn day.

3.3.4.3 Three (3) Days Prior To Burning

Three (3) days prior to burning, a preliminary “Go/No Go” weather decision will be issued by the VCAPCD. Two (2) days prior to the burn, a “Go/“No Go” weather decision will be issued by the VCAPCD. One (1) day before, “Go”/“No Go” weather decision will be issue by VCAPCD. Early morning of burn day, “Go”/“No Go” weather decision will be issued by VCAPCD for a test burn. After the test burn and smoke analysis on burn day, a final “Go”/“No Go” weather decision will be made by the VCAPCD for the burn.

3.3.4.4 Natural Ignition

When a natural ignition occurs on a “No Burn” day or on a “Burn” day, the initial “Go”/“No Go” decision to manage the fire for resource benefit will be a “no go.” If the responsible fire agency prefers that the fire continue for resource benefit considerations, then the fire agency must discuss smoke management concerns with the VCAPCD within 24 hours of ignition. If the wildfire is allowed to continue to burn for resource benefits, then a Smoke Management Plan that meets the requirements of this document must be submitted to the VCAPCD within five (5) working days following the decision to allow the burn to continue as a resource benefit. In addition, the responsible fire agency must be in daily contact with the VCAPCD for smoke management issues and resolutions for as long as the burn is active.

3.3.5 Conditions For Burning

3.3.5.1 Responsible Fire Agency

The responsible fire agency conducting a prescribed burn must ensure that all elements of the SMP are met on the day of the burn event and prior to ignition.

3.3.5.2 Meteorological Conditions

The following meteorological conditions shall be identified by the burn permittee prior to burning:

- Pre-burn weather scenario
- Burn weather
- Wind (Surface)
- Wind (Aloft)
- Temperature
- Relative Humidity
- Mixing height
- Inversion depth
- Projections, including a map, of where the smoke from the burn will travel, day and night
- Duration of each of these elements, timing of each of these elements
- Post-Burn Weather

3.3.5.3 Vegetation To Be Burned

Vegetation to be burned must be in a condition that will minimize smoke emitted during combustion, considering fire safety and other factors. All vegetation to be burned must be in a state that permits good combustion, minimizes smoke, and meets burn objectives. Vegetation material piled to be burned must be prepared so that it will burn with a minimum amount of smoke.

3.3.5.4 Smoke Management Criteria

These elements shall be used by the Burn Permittee to make the ignition decisions in order to minimize emitted smoke. The limits/ranges of the criteria listed below will be made by the permittee and the VCAPCD.

- Operational burn prescription elements within limits.
- Live fuel moisture to be between ___percent and ___percent (percent to be established by VCAPCD and Permittee, dependent upon location and fuel type).

- Dead fuel moisture to be between ___percent and ___percent (percent to be established by VCAPCD and Permittee dependent upon location and fuel type).
- All prescribed burns will be attended by a VCAPCD meteorologist, unless otherwise determined by the VCAPCD.
- The VCAPCD will establish air monitoring requirements based on the location and type of planned fire. The need and specifics of the monitoring will be discussed with the permittee by VCAPCD.

3.3.5.5 Prescribed Burn Permittees

Prescribed burn permittees shall have all burning operations completed by early afternoon and all fires out by late afternoon. Only light smoldering smoke may be found following the burn, and this smoke should remain within a five mile radius, due to light evening and drainage flow winds. If winds following the burn are different than normal drainage winds, describe the changes to tactics to be taken for smoke considerations.

3.3.5.6 Multi-day Prescribed Burns

Multi-day prescribed burns are not allowed in Ventura County.

3.3.6 Post Burn Evaluation Requirements

A post burn and smoke management evaluation shall be provided by the burn permittee within 30 days of project completion. The evaluation must address whether or not the SMP objectives were met. It must also address the following:

- What were the meteorological conditions prior to, during and following the burn? At a minimum, the following variables must be monitored at least hourly, or more often if significant changes occur: wind speed (mph), wind direction (the direction the wind is coming from in compass degrees relative to true North), temperature (F), relative humidity (percent), sky cover (percent).
- Did the weather meet the prescription?
- Were there smoke impacts? If so, where? How were the impacts monitored and documented?
- Were there burn complaints? If so, list them. How were the complaints responded to and remedied?

- What went wrong, if anything, with the weather or smoke? How can this be improved upon for future burns?

4. BURN AUTHORIZATION DECISIONS

4.1 “Burn Day” or “No Burn Day” Decisions

The VCAPCD issues “Burn” and “No Burn” decisions based on a very wide variety of meteorological and air quality information. The questions that must be asked and answered before a burn day decision can be made are:

- What will the micro-scale to the synoptic scale weather be during the burn periods tomorrow in the different regions?
- What will the air quality concentrations be tomorrow in the different regions?
- Will ozone concentrations be above 70 parts per billion (ppb)?
- Will any other air pollutant be within 70 percent of the State or Federal standard?
- Will the air quality in the different regions of the county be able to handle the additional smoke pollution?
- What’s the burn decision from the CARB?
- Will tomorrow’s weather be within VCFPD criteria?

Depending upon any one or all of the above a “Burn” or “No Burn” decision may be issued for any of the six (6) regions and for the morning and afternoon burn periods. All burning decisions are made with the interest of the public health in mind. Burn decisions for any burn region or burn period are made with consideration to air quality, meteorology, number of burns in a region, and sizes of burns in a region. Consideration for the protection of public health is the primary focus for any burn day decision.

4.2 Medium and Long Range Burn Forecasts For Prescribed Burning Decisions

VCAPCD issues medium and long-range forecasts (48 to 96+ hours), which consider the meteorological patterns that affect air quality and burning. There is no one way to make a weather forecast. There are many approaches. The concerns for a medium to long-range weather forecast is the same as for a 12 or 24 hour burn decision. The meteorologist begins the forecast with what is occurring now and then expands his research outward in time using a variety of available methods, usually atmospheric modeling and climatology. Because the procedures can be very complex and variable, depending upon the data and models available, this discussion is general in nature. Long-range forecasts rely upon atmospheric models. The meteorologist must make many decisions regarding the modeling and then interpret the models for the possible burn locations, considering actual modeling results versus

model interpretation based on experience. A few of the basic questions are: How are the models initialized? How do the models compare in the short range and how have they been doing in the long range? What model should be used? Different models give different results, which model is best in this scenario? All of these questions, and more, lead to an experience-based weather and air quality forecast.

4.3 Burn Authorization Procedures

The amounts and number of agricultural burns allowed at any one time is determined by burn region (1-6), burn time period (a.m. or p.m.), amount of material per permit, smoke sensitive areas, the number of farmers ready to burn on a particular day, air quality within the region and affected regions, and most importantly, the hour to hour weather within the different burn regions.

Ventura County is divided into six (6) regions for agricultural burning. The divisions are based on smoke behavior within the sub-basins of the county. Each region has agricultural operations. Regions 1 and 3 have the most agricultural burning since they have the most citrus. Burns are allowed in a burn region if the weather is appropriate for smoke dispersal. If smoke dispersal is marginal, then the region is likely to have a “No Burn” declaration on that day. If there is a grower or growers that have special circumstances and/or small amounts, then they may be allowed to burn depending on their timing and proximity to smoke sensitive areas, with VCAPCD permission. In consideration of public health and safety, the VCAPCD will call a “No Burn” day if conditions are marginal.

Agricultural burning on a declared “Burn Day,” for a particular region, may be allowed in the morning period - 7 a.m. until noon, the afternoon period - noon until 4 p.m., or both periods from 7 a.m. until 4 p.m. Outside of these times, the piles can only be stirred to promote combustion - no additional material may be added or ignited.

On any one day, burn permits have a limit of 300 tons per day.

When the burn piles are inspected and the burn permit is being issued, additional burn restrictions may be put on the burn. Burn permit restrictions may include more restrictive burn times, burning under very specific weather conditions (wind speed, wind direction, relative humidity, temperature, etc.) due to proximity to smoke sensitive areas (schools, hospitals, residential areas, etc.), or restrictions for fire safety.

The VCAPCD receives 300-500 burn permits per year. When spread throughout the year, the larger burns are more easily handled with regard to burn timing and communication with the burners. Even though a "Burn Day" is declared, there may or may not be people ready to burn. The VCAPCD meteorologists maintain open communications with growers that have more than 300 tons, to establish burn day timing. In this way, the larger burns are monitored as to who will be burning on any one day in a particular region. The meteorologists discuss with the growers possible upcoming burn days, enabling the burner to get the appropriate staff and heavy equipment in place for the burn. In addition, the meteorologists work with the growers to minimize smoke impacts within a region or regions downwind that may have additive smoke impacts. Ventura County does not have agricultural operations that could cause smoke to extend beyond County borders. There are, however, some prescribed fires that have the possibility to produce smoke that could travel into adjacent air districts. VCAPCD meteorologists inform adjacent air districts when there are prescribed burns near County lines, or when there is a possibility of smoke affecting their areas. The same goes for wildfires. Anytime there is a wildfire, where the smoke could extend into adjacent air districts, those air districts are notified about the fire's status and future projections.

The overriding concern for the determination of a burn day call is the air quality within the County. Ozone concentrations throughout the county are closely watched and burn day declarations are initially based on ozone concentration forecasts for the different regions and impacted regions. Burn days are not allowed in any region when hourly averaged ozone is expected to be 70 ppb or greater, any where in the county.

5. PROCEDURES FOR ADDRESSING SMOKE IMPACTS

5.1 **Burn Notification Procedures**

The VCAPCD does not issue public notification statements for burns. Any organization permitted to conduct a prescribed burn within Ventura County is responsible for informing the public and media. The contact and notification procedures used by VCFPD are to be followed for any agency wishing to burn within Ventura County. VCFPD has a very comprehensive public information office, which informs the public about the need for the burn. VCFPD also alerts the public to the pros and cons of the burn, as well as the burn timing and possible smoke impacts. For burns that have the potential to impact adjacent air districts, in addition to the notification procedures performed by the burner, the VCAPCD will notify adjacent air district meteorological and compliance staff regarding the possibility of smoke intrusion, prior to and the day of the burn(s). Inter-district involvement for smoke transport will be discussed and agreed upon by the affected districts. This includes an adjacent district's desire to have a final say in the "Go" or "No Go" burn decision and timing. The VCAPCD, in coordination with the County Health Officer, will issue health advisories/warnings for wildfire smoke or prescribed burns that exceeded the limit of control and that are, or have the potential to, impact public health.

5.2 **Alternatives to Burning**

VCAPCD recommends that the burner, grower, or fire agency look at alternatives to burning. Every Burn Plan for prescribed burning must have a review of alternatives (methods or treatments). Alternatives to burning are reviewed and discussed for their economic and environmental impacts. New methods and treatments are also reviewed and tested to determine feasibility.

5.3 **Management of Naturally Ignited Wildland Fires**

Unless there is a pre-existing VCAPCD-approved burn plan that considers the management of naturally ignited wildland fires, all naturally ignited wildland fires will be extinguished as rapidly as possible. If there is a pre-existing VCAPCD approved burn plan for the area of concern that takes into consideration the possibility of naturally ignited wildland fires, that burn plan and its prescriptive sections must be followed. All other fires, whether accidental, arson, or naturally ignited, without a burn plan that explicitly accounts for these types of unintentional ignitions, must be extinguished as rapidly as possible.

5.4 Inspection and Enforcement

VCAPCD's meteorological staff conducts and monitors all aspects of the burn program: inspecting piles, talking with growers about needs and burn timing, making burn day decisions, and being on-scene for all prescribed burns. The meteorologists are involved in all aspects of the burning to ensure that the SMP requirements are being followed. Violations of VCAPCD Rule 56 are handled by VCAPCD Compliance Division staff. VCFPD also has the ability to issue fines for violations of their rules.

Burn permits are issued by VCFPD. All burn piles are inspected by VCFPD for fire safety concerns and compliance with VCAPCD Rule 56. Following pile inspection and acceptance of the burn site, VCFPD issues a burn permit. Burning restrictions are documented on each permit and agreed to by the burner as part of the permit issuance. Following issuance of the burn permit a copy is sent to VCAPCD. All burn permits greater than 100 tons in size are flagged for review by VCAPCD for compliance with Rule 56 and this Smoke Management Plan. Permits are checked for burn region, size and number of piles, burn restrictions, location, distance and direction from Smoke Sensitive Areas. Permits for 300 tons or more of material to be burned may require special handling regarding burn timing and meteorological conditions. The holders of these permits may receive a call from the VCAPCD meteorologist to discuss burn timing and amounts allowed to be burned at any one time. Similarly, burns of 100 tons or more may require special handling due to their proximity to SSAs. Regardless of the special handling the burner is reminded not only on the permit, but also verbally that the burner is responsible for the smoke that is created and any subsequent damage to person(s) or property. Burn region decisions and declarations are made the afternoon (4 p.m.) of the day prior to the burn. Burn day status notification is made via phone recording, VCAPCD web site, FAX, and email. Following announcement of a burn day in a particular region during either the morning and/or afternoon burn period, the permit holder is required to notify the local fire station as well as the VCFPD dispatch center.

Smoke complaints will be responded to immediately. Public health is of utmost importance to the VCAPCD. Complaints are received by VCFPD, VCAPCD Compliance, and/or the VCAPCD meteorologists. The VCAPCD meteorologists respond to all complaints regarding smoke from open fires. If necessary, the meteorologist will personally go out to the burn and complaint site. If violations are noted, VCAPCD Compliance staff will issue a Notice Of Violation (NOV). Grab samples and/or nearby air monitoring sites may be used to help in documenting violations related to smoke.

5.5 Annual Burn Summary Report

Within 45 days following the end of the calendar year, an agricultural burning report will be submitted to the California Air Resources Board (CARB). The report will summarize the estimated tonnage or acreage of each waste type burned from open burning in agricultural operations and the estimated tonnage of waste from prescribed burning.

5.6 Special Permission Agricultural Burn Report

Within 45 days following the end of the calendar year, a report will be sent to the CARB summarizing the burns that were given special permission for agricultural burning. The report will summarize the estimated tonnage or acreage that was allowed to burn (agricultural and prescribed burning) under special circumstances when a “No Burn” day was declared by the CARB and denial of such a permit would threaten imminent and/or substantial economic loss. The report will include information on each burn pertaining to special circumstances. The following specifics will be included in the annual report: permit number, date(s) of burn(s), applicants name, address and phone number, location of burn, type(s) of material, amount of material, permit restrictions, burning restrictions, weather conditions (before, during, and after), and description of circumstances necessitating the burn.

APPENDIX A

Appendix A – Definitions associated with open burning from Title 17 - Subchapter 2. “Smoke Management Guidelines for Agricultural and Prescribed Burning,” Article 1. General Provisions, §80101. Definitions.

- A. “Agricultural burning” is defined in Health and Safety Code Section 39011 as follows:
- 1) “Agricultural burning” means open outdoor fires used in agricultural operations in the growing of crops or raising of fowl or animals, or open outdoor fires used in forest management, range improvement, or the improvement of land for wildlife and game habitat, or disease or pest prevention.
 - 2) “Agricultural burning” also means open outdoor fires used in the operation or maintenance of a system for the delivery of water for the purposes specified in paragraph (1).
 - 3) *“Agricultural burning” also means open outdoor fires used in wildland vegetation management burning. Wildland vegetation management burning is the use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass, or standing brush. Prescribed burning is the planned application of fire to vegetation to achieve any specific objective on lands selected in advance of that application. The planned application of fire may also include natural or accidental ignition.*
- B. “Air Pollution Control District” (VCAPCD), “Air Quality Management District” (AQMD), “air district,” or “district” means an air pollution control district or an air quality management district created or continued in existence pursuant to provisions of Health and Safety Code section 40000 et seq.
- C. *“Air quality” means the characteristics of the ambient air as indicated by state ambient air quality standards which have been adopted by the state board pursuant to section 39606 of the Health and Safety Code and by National Ambient Air Quality Standards which have been established pursuant to sections 108 and 109 of the federal Clean Air Act pertaining to criteria pollutants and section 169A of the federal Clean Air Act pertaining to visibility.*
- D. “Ambient air” means that portion of the atmosphere, external to buildings, to which the general public has access.
- E. “ARB” or “state board” means the Air Resources Board.

- F. "Basinwide air quality factor" means an air quality factor which equals the 4:00 am to 6:00 am two hour average soiling index (COH*10 {coefficient of haze}) ending at 6:00 am PST. The basinwide council may use other particulate matter measurements as an indicator of air quality if appropriate for its program.
- G. "Burn plan" means an operational plan for managing a specific fire to achieve resource benefits and specific management objectives. The plan includes, at a minimum, the project objectives, contingency responses for when the fire is out of prescription with the smoke management plan, the fire prescription (including smoke management components), and a description of the personnel, organization, and equipment.
- H. "Burn project" means an active or planned prescribed burn or a naturally ignited wildland fire managed for resource benefits.
- I. "Class I Area" means a mandatory visibility protection area designated pursuant to section 169A of the federal Clean Air Act.
- J. "Designated agency" means any agency designated by the Air Resources Board as having authority to issue agricultural burning, including prescribed burning, permits. An air district may request such a designation for an agency. The U.S. Department of Agricultural (USDA) Forest Service and the California Department of Forestry and Fire Protection (CDF) are so designated within their respective areas of jurisdiction.
- K. "Fire protection agency" means any agency with the responsibility and authority to protect people, property, and the environment from fire, and having jurisdiction within a district or region.
- L. "Forty-eight hour forecast" means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 48 hours from the day of the prediction. The prediction shall indicate a degree of confidence.
- M. "Land manager" means any federal, state, local, or private entity that administers, directs, oversees, or controls the use of public or private land, including the application of fire to the land.
- N. "Marginal burn day" means a day when limited amounts of agricultural burning, including prescribed burning, for individual projects in specific areas for limited times is not prohibited by the state board and burning is authorized by the district consistent with these Guidelines.
- O. *"National Ambient Air Quality Standards (NAAQS)" mean standards promulgated by the United States Environmental Protection Agency that specify the maximum acceptable concentrations of pollutants in the ambient air to protect public health with an adequate margin of*

safety, and to protect public welfare from any known or anticipated adverse effects of such pollutants (e.g., visibility impairment, soiling, harm to wildlife or vegetation, materials damage, etc.) in the ambient air.

- P. “Ninety-six hour trend” means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 96 hours from the day of the prediction.
- Q. “No-burn day” means any day on which agricultural burning, including prescribed burning, is prohibited by the state board or the air district in which the burning will occur.
- R. “Open burning in agricultural operations in the growing of crops or raising of fowl or animals” means:
- 1) The burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowl or animals for the primary purpose of making a profit, of providing a livelihood, or of conducting agricultural research or instruction by an educational institution.
 - 2) In connection with operations qualifying under paragraph (1):
 - a) The burning of grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation.
 - b) The burning of materials not produced wholly from such operations, but which are intimately related to the growing or harvesting of crops and which are used in the field, except as prohibited by district regulations. Examples are trays for drying raisins, date palm protection paper, and fertilizer and pesticide sacks or containers, where the sacks or containers are emptied in the field.
- S. “Particulate matter (PM)” means any airborne finely divided material, except uncombined water, which exists as a solid or liquid at standard conditions (e.g., dust, smoke, mist, fumes or smog).
“PM2.5” means particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.
“PM10” means particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers (including PM2.5).
- T. “Permissive-burn day,” or “burn day” means any day on which agricultural burning, including prescribed burning, is not prohibited by the state board and burning is authorized by the district consistent with these Guidelines.
- U. “Pre-fire fuel treatment” means techniques which can reasonably be

- employed prior to prescribed burning in order to reduce the emissions that would otherwise be produced in a prescribed fire.
- V. "Prescribed burning" - see (a) (3). Tule burning in wildlands or wildland/urban interface is considered to be prescribed burning.
 - W. "Prescribed fire" means any fire ignited by management actions to meet specific objectives, and includes naturally-ignited wildland fires managed for resource benefits.
 - X. "Range improvement burning" means the use of open fires to remove vegetation for a wildlife, game, or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land.
 - Y. "Region" means two or more air districts within an air basin or adjoining air basins that sign a memorandum of understanding to implement a coordinated regional smoke management program pursuant to the requirements of Article 2 of this regulation.
 - Z. "Residential burning" means an open outdoor fire for the disposal of the combustible or flammable solid waste of a single-or two-family dwelling on its premises. Residential burning is not considered to be prescribed burning.
 - AA. "Seventy-two hour outlook" means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 72 hours from the day of the prediction.
 - BB. "Smoke Management Plan" means a document prepared for each fire by land managers or fire managers that provides the information and procedures required in section 80160.
 - CC. "Smoke management prescription" means measurable criteria that define conditions under which a prescribed fire may be ignited, guide selection of appropriate management responses, and indicate other required actions. Prescription criteria may include, but are not limited to, minimizing smoke impacts, and safety, economic, public health, environmental, geographic, administrative, social, or legal considerations such as complying with Health and Safety Code section 41700, public nuisance statute.
 - DD. "Smoke Management Program" means the program defined in these Guidelines.
 - EE. "Smoke sensitive areas" are populated areas and other areas where a district determines that smoke and air pollutants can adversely affect public health or welfare. Such areas can include, but are not limited to, towns and villages, campgrounds, trails, populated recreational areas, hospitals, nursing homes, schools, roads,

airports, public events, shopping centers, and mandatory Class I areas.

FF. “State ambient air quality standards” means specified concentrations and durations of air pollutants which reflect the relationship between the intensity and composition of air pollution to undesirable effects, as established by the state board pursuant to Health and Safety Code section 39606.

GG. *“Wildfire” means an unwanted wildland fire.*

HH. “Wildland” means an area where development is generally limited to roads, railroads, power lines, and widely scattered structures. Such land is not cultivated (i.e., the soil is disturbed less frequently than once in 10 years), is not fallow, and is not in the United States Department of Agriculture (USDA) Conservation Reserve Program. The land may be neglected altogether or managed for such purposes as wood or forage production, wildlife, recreation, wetlands, or protective plant cover.

For CDF only, “Wildland” as specified in California Public Resources Code (PRC) section 4464(a) means any land that is classified as a state responsibility area pursuant to article 3 (commencing with section 4125) of chapter 1, part 2 of division 4 and includes any such land having a plant cover consisting principally of grasses, forbs, or shrubs that are valuable for forage. “Wildland” also means any lands that are contiguous to lands classified as a state responsibility area if wildland fuel accumulation is such that a wildland fire occurring on these lands would pose a threat to the adjacent state responsibility area.

II. “Wildland fire” means any non-structural fire, other than prescribed fire, that occurs in the wildland.

JJ. For CDF only, “wildland fire” as specified in PRC section 4464(c) means any uncontrolled fire burning on wildland.

KK. “Wildland/urban interface” means the line, area, or zone where structures and other human development meet or intermingle with the wildland.

NOTE: Authority cited: Sections 39600, 39601, 41856 and 41859, Health and Safety Code. Reference: Sections 39011, 39025, 39053, 41853, 41854, 41855, 41856, 41857, 41858, 41859, 41861, 41862 and 41863, Health and Safety Code.

APPENDIX B

Appendix B – VCAPCD Rule 56 – Open Fires

Rule 56. Open Fires (Adopted 10/22/68, Revised 9/14/71, 1/25/73, 6/14/77, 1/9/79, 11/20/79, 5/24/88, 3/29/94)

A. Applicability

1. Except as provided in the following sections, the provisions of this rule shall apply to the burning of combustible materials in open outdoor fires.
2. The provisions of this rule shall not apply to open outdoor fires used only for the heating or cooking of food for human consumption or for recreational purposes when such fires are confined to a fireplace or barbecue pit.
3. The provisions of this rule shall not apply to open outdoor fires, at altitudes above 3,000 feet mean sea level, used for the disposal of agricultural wastes in the pursuit of agricultural operations.

B. Requirements

1. Except as provided in the following sections, a person shall not burn or allow the burning of combustible materials in an open outdoor fire.
2. On days declared to be "burn days," a person may use an open outdoor fire for any of the following purposes if a written permit has been obtained from the fire protection agency having jurisdiction in the area:
 - a. The disposal of agricultural wastes in the pursuit of agricultural operations;
 - b. Range improvement burning;
 - c. Wildland vegetation management burning;
 - d. Levee, reservoir or ditch maintenance; or
 - e. The disposal of Russian thistle (*Salsola kali* or tumbleweed).

3. A person conducting open burning pursuant to Section B.2 shall comply with all applicable conditions in Section C and with all other conditions prescribed or imposed by the fire protection ordinances of the fire protection agency issuing the permit.
4. A person conducting open burning pursuant to Section B.2 shall have the written permit issued by the fire protection agency at the location of the fire for the duration of the fire.
5. For range improvement burning conducted primarily for improvement of land for wildlife and game habitat, the applicant shall file with the Air Pollution Control District a statement from the Department of Fish and Game certifying that burning is desirable and proper.
6. A person may use an open outdoor fire for any of the following purposes, if the fire is authorized by a public officer pursuant to the officer's authority under other provisions of law:
 - a. Disease or pest prevention, where there is an immediate need for and no reasonable alternative to burning;
 - b. The instruction of public employees in the methods of fighting fires;
 - c. The instruction of employees in the methods of fighting fire when such fire is set on industrial, institutional or commercial property;
 - d. The prevention of a public health or fire hazard which cannot be abated by any other reasonable means;
 - e. The abatement of a fire hazard; or
 - f. The setting of backfires necessary to save life, or valuable property.
7. A person conducting open burning pursuant to Sections B.6.a-e shall inform, in writing, the Air Pollution Control District at least two working days prior to the scheduled burning and, upon request, shall provide written justification for the fire from the public

officer authorizing the fire. No open burning pursuant to Sections B.6.a-e shall be conducted on days declared to be "ban days".

8. Any open burning which meets the definition of wildland vegetation management burning shall be conducted in compliance with the requirements applicable to wildland vegetation management burning, regardless of whether such burning could also be conducted under some other provision of this Rule.

C. Conditions on Open Burning

A person conducting open burning pursuant to Section B.2 shall comply with the following conditions:

1. If feasible, the burning shall be conducted when the wind speed and direction in the vicinity of the burning project will not carry emissions into populated areas. In no case shall the burning be conducted when weather conditions could cause smoke to create or contribute to an exceedance of a state or federal ambient air quality standard or cause a public nuisance.
2. The material to be burned shall be free of other materials such as tires, rubbish, tar paper, plastics, pallets, construction debris, paper, oily waste materials, feathers, animal fur, diseased or dead animals, organic fertilizer, and noncombustible containers.
3. The material to be burned shall not include combustible containers for pesticides or other chemicals.
4. The material to be burned shall be reasonably free of dirt, soil and visible surface moisture.
5. Except for wildland vegetation management burning, all unwanted trees over six inches in diameter shall be felled. Stumps shall be uprooted and reasonably free of soil.
6. Except for wildland vegetation management burning, the material to be burned shall be allowed to become sufficiently dry to allow for maximum combustion efficiency.

The following are minimum drying times:

<u>Material</u>	<u>Drying Time</u>
Trees or branches exceeding three inches in diameter	4 weeks
Prunings and small branches three inches or less in diameter	2 weeks
Field crop wastes	1 week
Other	Adequate dryness (to be evaluated by inspection)

7. For range improvement burning, the material to be burned shall be brush treated at least six months prior to the burn if economically and technically feasible.
8. Except for wildland vegetation management burning, the material to be burned shall be stacked or arranged to allow for maximum air circulation, to facilitate combustion and to minimize the amount of smoke emitted during combustion.
9. For wildland vegetation management burning, the vegetation to be burned shall be in a condition which will facilitate combustion and minimize the amount of smoke emitted during combustion.
10. The materials to be burned shall be ignited only by those devices approved by the Air Pollution Control District. Tires, tar paper, plastics, oils and other similar materials shall not be used for ignition purposes.
11. Except for wildland vegetation management burning, the material to be burned shall be ignited as rapidly as practicable within applicable fire control restrictions.

12. Except for wildland vegetation management burning, the burning for any specific day shall be restricted to the morning, to the afternoon or to the morning and afternoon, as allowed by the Air Pollution Control District. Any morning burn shall begin no earlier than 7 a.m., and no additional material shall be ignited or added to the open fire after noon. Any afternoon burn shall begin no earlier than noon, and no additional material shall be ignited or added to the open fire after 4 p.m.

For wildland vegetation management burning, burning at night shall be minimized whenever practicable.

13. For wildland vegetation management burning, a burn plan containing all of the following information shall be provided to the Air Pollution Control District for review and approval in advance of the proposed burning:
 - a. The location and the specific objectives of the burn;
 - b. The acreage or tonnage, type and arrangement of the vegetation to be burned;
 - c. The distances and directions to nearby sensitive receptor areas;
 - d. The fuel condition, combustion and meteorological prescription elements developed for the project;
 - e. The project schedule and duration of project ignition, combustion and burndown;
 - f. Specifications for monitoring and verifying critical parameters;
 - g. A discussion of how the requirements of this Rule applicable to the burning will be satisfied;
 - h. A discussion of what mitigation measures will be taken if unanticipated meteorological conditions cause smoke to create or contribute to an exceedance of a state or federal ambient air quality standard or cause a public nuisance; and

- i. Specifications for disseminating project information.
14. The total amount of material to be burned each day shall be regulated according to criteria approved by the Air Pollution Control District. On a day when wildland vegetation management burning is scheduled to occur, the Air Pollution Control Officer may prohibit all other open burning conducted pursuant to Section B.2.

D. Violations

1. The failure of a person to meet any requirements of this Rule shall constitute a violation of this Rule.
2. The cost of putting out any open fire in violation of this Rule may be imposed on the person responsible for setting and maintaining that fire.

E. Burn Day Decisions

1. The Air Pollution Control Officer shall declare a "Burn Day," for specific areas of the District, if all of the following conditions are met:
 - a. The State Air Resources Board declares a permissive burn day for the South Central Coast Air Basin;
 - b. The Air Pollution Control District predicts that the local meteorological conditions in the specific area will be conducive to good dispersion of smoke; and
 - c. The fire protection agency with jurisdiction in the area does not prohibit burning for purposes of fire control or prevention.

Notwithstanding the above criteria, all legal County holidays, all Saturdays following legal County holidays and all Sundays shall be declared "No-Burn Days".

2. The Air Pollution Control Officer shall declare a "Ban Day" for the specific areas of the District where the ambient concentration of ozone exceeds or is predicted to exceed the state standard of 0.09 ppm, averaged over one hour.

F. Responsibility for Open Fires

The Air Pollution Control District and the fire protection agencies are not responsible for damages to property or to the general public resulting from open burning authorized by these rules. Responsibility rests with the person responsible for setting and maintaining the fire.

G. Notification Requirements

1. No person shall burn any agricultural waste without first notifying the Air Pollution Control District, in writing, no later than 48 hours before burning and shall provide the following information:

- a. Name, phone number, address or location, ranch name if available, and tons of material to be burned.
 - b. Approximate time of day that burning will occur.
2. Any person that has burned agricultural waste must notify the Air Pollution Control District, in writing, no later than 48 hours after the burn and shall provide the following information:
 - a. Name, address or location, date of burn, and tons of material that were burned.
 - b. Whether or not the burn was completed, and if not, the amount of remaining material to be burned.

H. Definitions

1. "Burn Day": A day, on which the Air Resources Board and the Air Pollution Control District and the fire protection agency do not prohibit open outdoor fires used for the purposes listed in Section B.2. On a "Burn Day," the Air Pollution Control District may restrict the burning to only the morning or only the afternoon, or may allow burning in both the morning and afternoon.
2. "No-Burn Day": A day that burning is not allowed.
3. "Ban Day": A day on which the ambient concentration of ozone exceeds or is predicted to exceed 0.09 ppm, averaged over one hour, and burning is not allowed.
4. "Agricultural Operation": An operation directly related to the growing or harvesting of products such as food crops, raising of fowls, or animals, for the primary purpose of making a profit, of providing a livelihood, or of conducting agricultural research or instruction by an educational institution.
5. "Agricultural Wastes": Unwanted or unsaleable materials produced wholly from agricultural operations.

Examples of agricultural wastes include:

- a. Tree trimmings;
 - b. Grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation; and
 - c. Materials not produced wholly from agricultural operations, but which are intimately related to the operations and which are used in the field or which result from standard agriculture practices, such as stakes or trimmings from windbreaks, except as prohibited by this Rule.
- 6. "Crop": Any agricultural product grown, produced, or raised commercially for feed or for human consumption or in connection with agricultural operations.
- 7. "Range Improvement Burning": The use of open fires to remove vegetation for a wildlife, game or livestock habitat or for the initial establishment of an agricultural practice on presently uncultivated land.
- 1. "Brush Treated": The material to be burned has been felled, crushed or uprooted with mechanical equipment, desiccated with herbicides, or was previously dead.
- 2. "Wildland Vegetation Management Burning": The use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral (as defined in Title 14, California Administrative Code, Section 1561.1), trees, grass or standing brush.
- 10. "Prescribed Burning": The planned application of fire to vegetation on lands selected in advance of such application, where any of the purposes of the burning are permitted by this Rule.