

*Note to Public: This public hearing item is continued from May 3, 2013 and is to consider only those provisions pertaining to beach fire rings in Proposed Amended Rule 444.*

BOARD MEETING DATE: July 12, 2013

AGENDA NO. 1

**PROPOSAL:** Amend Rule 444 – Open Burning and Issue RFP for Low Emission Non-Wood Beach-Type Fire Ring Demonstration

**SYNOPSIS:** Amendments to Rule 445 – Wood-Burning Devices and Rule 444 – Open Burning were adopted on May 3, 2013 to implement 2012 Air Quality Management Plan control measures BCM-01 and 02: actions to reduce PM emissions from biomass burning. Rule 444 amendments to address beach burning activities, originally part of the May 2013 Board package, were continued to provide additional public comment time on alternative rule language. Under the current proposal, local authority to regulate beach burning devices through a nuisance declaration would be strengthened. In the absence of such a nuisance declaration, all beach fire rings located more than 700 feet from a residence would be allowed. This action is to amend Rule 444 to prohibit beach burning activities after March 1, 2014 in areas within 700 feet of a residence unless specified spacing requirements were met. All beach burning would be prohibited when high PM2.5 levels were forecast for coastal areas. An additional action is to issue an RFP to solicit proposals for the demonstration of low emission non-wood beach-type fire rings.

**COMMITTEE:** Not Applicable

**RECOMMENDED ACTIONS:**

1. Adopt the attached resolution adopting Proposed Amended Rule 444 – Open Burning; and

2. Approve Issuance of RFP# P2013-21 Demonstration of Low-Emission Outdoor Non-Wood Public Beach-Type Fire Rings and/or Low-Emission Non-Wood Burning Retrofit Equipment and Devices for Existing Outdoor Public Beach-Type Fire Rings.

Barry R. Wallerstein, D.Env.  
Executive Officer

EC:LT:PF:TG:ML

---

### **Background**

There are approximately 765 beach fire rings in Los Angeles and Orange counties with the overwhelming majority (approximately 90 percent) along the Orange County coastline. Smoke emissions from these devices have recently come to the attention of SCAQMD staff through formal actions by the City of Newport Beach. Specifically, in March of 2012 the Newport Beach City Council voted to direct City staff to take the necessary steps to remove beach fire rings at Big Corona and Balboa Pier beach areas.<sup>1</sup> A coastal development permit application (No. 5-12-134) was subsequently prepared by City staff and submitted to the California Coastal Commission (Commission) for approval to remove the rings. According to the Commission's staff report, one of the City's reasons for fire ring removal was health impacts from wood smoke; however, the City acknowledge that there were no direct studies of health effects associated with fire ring use, nor is there any current regulation restricting such use. Although the item was continued at a March 2013 meeting and no formal action was taken, the Commission's staff recommendation was to deny the request.<sup>2</sup> In its denial justification of the City's request, Commission staff cited the exemption for recreational burning in SCAQMD rules.

Emissions from biomass burning are typically addressed through SCAQMD rules but use of beach fire rings is presently exempt from source specific regulations and is only subject to SCAQMD Rule 402 – Nuisance. Local jurisdictions have similar authority to declare and abate nuisances under State law. Although beach fire rings are currently exempt from some SCAQMD regulations, that does not imply that wood smoke emissions from these devices are not a health concern or insignificant. Based on SCAQMD knowledge of wood smoke health effects, the number of existing devices, proximity to residences and the extent of usage a proposal was made to remove the existing Rule 444 exemption for beach fires and prohibit the activity after January 1, 2015. The proposal received significant public comment at a March 28, 2013 public consultation meeting, as well as via e-mail, direct mail, and telephone correspondence during the subsequent public review period. As a result the proposal has been revised to

---

<sup>1</sup> [http://newportbeach.granicus.com/MinutesViewer.php?view\\_id=44&clip\\_id=1530](http://newportbeach.granicus.com/MinutesViewer.php?view_id=44&clip_id=1530)

<sup>2</sup> <http://documents.coastal.ca.gov/reports/2013/3/W18b-3-2013.pdf>

allow beach burning devices at least 700 feet from a residence or meeting specified spacing requirements unless the city has declared such burning to be a public nuisance.

### **Wood Smoke Health Effects**

The health effects from exposure to household and neighborhood wood smoke have been studied extensively. According to the U.S. EPA, the greatest health effect from wood smoke exposure originates from the fine particles that can cause health problems ranging from minor irritations such as burning eyes and runny noses to chronic illnesses such as bronchitis. Fine particles also can aggravate chronic heart and lung diseases and are linked to premature deaths in people with these conditions. Persons that may be more susceptible to wood smoke health effects include those with existing heart or lung disease (congestive heart failure, angina, chronic obstructive pulmonary disease, emphysema or asthma), the elderly and the young<sup>3</sup>. In addition, CARB has determined that wood smoke exposure is “a serious threat to public health”.

In addition to national wood smoke health effects information, a series of large Southern California wildfires occurring in 2003 afforded the opportunity to assess the effects of biomass burning emissions on the local population. In the University of Southern California Children’s Health Study, it was found that respiratory symptoms such as eye, nose and throat irritation, cough, bronchitis, wheezing, and asthma attacks, were associated with individually reported smoke exposures. Medication usage and physician visits were also reported to have increased. Risks for these effects increased with the number of reported smoky days.<sup>4</sup> In another report, the relationship of hospital admissions and particulate exposures during smoky days during the October 2003 fires was examined. The authors reported that wildfire-related PM<sub>2.5</sub> exposures were associated with increased respiratory related admissions. The strongest associations were noted among those over 65 years of age, and those 1-4 years of age.<sup>5</sup>

### **Beach Air Quality Monitoring**

The SCAQMD conducted a series of measurement studies at coastal beaches spanning Los Angeles and Orange Counties. The main objective of these field studies was to assess potential local air quality impacts from beach fire ring activity. A scientific assessment of local air quality conditions with and without the contribution of fire ring activity was conducted to evaluate the extent of such exposure. The beach air monitoring results showed that beach fire activity is impacting PM<sub>2.5</sub> levels at the beach and in neighboring communities. Concentrations were found to be up to ten times background levels for short periods of time in beach parking areas and up to three times background at nearby residential locations. The studies also showed that 1-hour average PM concentrations directly attributed to beach fires can exceed short term public health guidance levels. As would be expected, the study showed that exposure to

---

<sup>3</sup> US EPA Fact Sheet, Health Effects of Wood Smoke, <http://www.epa.gov/woodstoves/healtheffects.html>

<sup>4</sup>Release [http://www.eurekaalert.org/pub\\_releases/2006-12/uosc-scw113006.php](http://www.eurekaalert.org/pub_releases/2006-12/uosc-scw113006.php)

<sup>5</sup>Abstract <http://oem.bmj.com/content/66/3/189.abstract>

wood smoke emissions from beach fire rings decreases as distance from the source increases. Based on the time-of-day, day-of-week, wind direction, direct observations, and chemical composition, the observed elevated PM2.5 levels were shown to be from beach fire activity.

### **Public Process**

Proposed Amended Rule 444 provisions related to beach fires were available at a SCAQMD Stationary Source Committee meeting held on March 15, 2013. A revised preliminary draft staff report was released on March 21, 2013 and a public consultation meeting to discuss the draft rule language was held at SCAQMD Headquarters in Diamond Bar on March 28, 2013. Public comment on the beach fire ring proposal was also received at the April 7, 2013 SCAQMD Governing Board meeting. Revised proposed amended Rule 444 language was released to the public on June 6, 2013. Two additional public consultation meetings were held during evening hours to discuss the currently proposed Rule 444 beach fire provisions on June 13<sup>th</sup> and 14<sup>th</sup>, 2013 in the cities of Newport Beach and El Segundo, respectively. In addition to these public meetings, information on proposed Rule 444 provisions related to beach fires was presented at the April 12, 2013 Local Government & Small Business Assistance Advisory Group meeting and at a May 17, 2013 meeting held by SCAQMD Board Member Mayor Pulido in the City of Huntington Beach.

A web page (<http://www.aqmd.gov/prdas/beachfiremonitoring/homepage.html>) was developed to provide the public information on the result of the beach fire monitoring efforts. The page also provides updated information on meetings and documents available to the public regarding PAR 444. The page has been updated regarding monitoring results and activities, and will be updated in the future as additional information becomes available.

### **Summary of Proposal**

As mentioned, Rule 444 amendments to prohibit all beach burning activities were originally proposed in March 2013, but alternative rule language was developed in response to public comments and released in June 2013. Under the current proposal, local authority to prohibit beach burning devices through a nuisance declaration under State law would be strengthened. Specifically, the proposed Rule provisions would not allow the state or local authority to make beach fire rings available if smoke emissions from such devices were declared a nuisance by a city or county pursuant to Public Resources Code section 30005(b) or Health & Safety Code section 41509(a).<sup>6</sup>

All beach fire rings located more than 700 feet from a residence would be allowed under proposed amended Rule 444 unless the city or county has declared such devices within its boundaries are a nuisance. The proposed amendments would prohibit beach

---

<sup>6</sup> Nuisance defined under Civil Code section 3479 or Health & Safety Code section 41700(a)

burning activities after March 1, 2014 in areas within 700 feet of a residence unless the rings were spaced at least 100 feet apart or at least 50 feet apart if there are no more than 15 fire rings per contiguous beach area within the city's boundaries. The contiguous beach area condition is intended to consider beaches separately, in terms of rule applicability, if a city has beaches that are separated by another city's or unincorporated area's beaches.

All beach burning would be prohibited when PM<sub>2.5</sub> levels in excess of 35 µg/m<sup>3</sup> [federal 24-hour standard] were forecast for coastal areas, but it is anticipated that very few, if any, of these days would be forecast during summer months unless a wildfire or some other event was impacting coastal air quality. Based on a review of historical data there would have been one of these days in the last three years and this day was during the wintertime. The amendments would also clarify that the proposed amendments are only applicable to fire rings located on beach sand in coastal areas (adjacent to the ocean). In addition, the exemption provisions have been modified to prohibit the burning of trash and other inappropriate materials.

### **Education and Outreach**

During the rule development process, many public comments were received regarding public education and outreach on wood smoke health effects. Suggestions were made for local jurisdictions to improve efforts to ensure that the public was informed of the importance of only burning seasoned firewood as a means to reduce potential health impacts from beach fires. Such suggestions are recognized and an item has been added to the adoption resolution directing SCAQMD staff to work cooperatively with local jurisdictions and state agencies to develop education, outreach, and compliance programs. The intent of these efforts is to inform the public of the health hazards associated with wood smoke exposure and to prevent the burning of inappropriate materials such as treated wood or trash. Educational material would also recommend exercising in areas without beach fire rings or when such devices are not in use.

### **Gaseous- or Liquid-Fueled Beach-Type Fire Ring Demonstration Project (RFP)**

In addition to commercially available gaseous-fueled fire rings for residential or commercial use, SCAQMD staff has been made aware of several instances where these devices are used in outdoor camp-type settings. SCAQMD staff requests that the Board approve issuance of RFP #P2013-21 to solicit proposals for the demonstration of low-emission outdoor public beach-type fire rings and/or low-emission retrofit equipment and devices for existing outdoor public beach-type fire rings fueled by sources other than wood such as propane and/or natural gas. The purpose of this RFP is to solicit proposals from qualified and experienced entities for the deployment and demonstration of beach burning alternatives, including but not limited to gaseous-fueled fire ring options. SCAQMD staff will work with local beach authorities to select host-sites for the demonstration of the low-emission systems. Potential initial host sites could include Big Corona beach and the Balboa Pier area in Newport Beach and state beaches in

Orange and Los Angeles counties. Multiple awards are anticipated to multiple applicants to test a variety of technological approaches. The initial goal is for the demonstration of up to a total of 25 outdoor non-wood public beach-type fire rings.

#### RFP Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFP/RFQ and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders may be notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFP/RFQ will be e-mailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (<http://www.aqmd.gov> where it can be viewed by making menu selections "Inside SCAQMD"/"Employment and Business Opportunities"/"Business Opportunities" or by going directly to <http://www.aqmd.gov/rfp/index.html>). Information is also available on SCAQMD's bidder's 24-hour telephone message line (909) 396-2724.

#### RFP Bid Evaluation

Proposals will be reviewed and evaluated by a diverse, technically qualified panel in accordance with criteria contained in the attached RFP. The panel will include SCAQMD staff, as well as outside experts and partner agencies.

#### **Key Issues**

The public and affected agencies have expressed strong opinions on beach fire rings. Many support the continued, unrestricted use of beach fire rings as a low-cost recreational opportunity that generates revenue for local businesses and governments (e.g., parking fees). Others that live in the general area or visit or exercise in coastal areas have expressed concerns over wood smoke health effects and the potential for exposure to toxic emissions from the burning of painted/treated wood or non-wood items such as trash, including plastics. As mentioned, the proposed amendments would allow continued use of beach fire rings, subject to local authority oversight, in instances where residences are not in close proximity or where the devices are dispersed. Additional efforts are proposed to increase public education on wood smoke health effects, reduce the burning of inappropriate materials and evaluate alternatives to wood-based beach fires.

#### **Impacts**

Under the above proposed rule language for subparagraph (d)(3)(G), Dockweiler State Beach, Huntington City Beach, and Bolsa Chica State Beach are not expected to be affected by the criteria other than the no-burn days. However, the proposal may affect

the other beaches in that some fire rings would have to be moved or removed at the various beaches. For example, the 700 foot buffer would require Huntington State Beach to move or remove an estimated 30 fire rings that are less than 700 feet from a mobile home park, although some fire rings may be able to be retained within 700 feet if the rings are at least 100 feet apart from one another. Corona Del Mar State Beach and Balboa Beach fire rings are all currently located within 700 feet and would have to either be removed or moved elsewhere. Doheny State Beach would be the most heavily impacted whereby all day-use fire rings are within 700 feet of residences. Due to the modified definition of beach burning, only the fire rings on the sand in the southern two-thirds of the campground will be impacted. At Doheny, the fire ring spacing ranges from 35 to 90 feet. As a result, under the separation criteria, the day-use area is expected to retain at least half of the rings at a spacing of 100 feet, which would result in the removal of the remainder of the fire rings. Capistrano Beach Park may also have to move two or more fire rings to provide for the 50 foot spacing requirement. Under the distance element of the proposed rule, the total number of publicly accessible fire rings in Aliso Beach County Park and along the San Clemente and North Beach coast is not anticipated to be affected. In the cases of Aliso Beach County Park and San Clemente beaches, the 50 foot limitation would also apply and grant greater flexibility for fire ring locations. Although Cabrillo Beach and Dockweiler State Beach are both in the City of Los Angeles, the beaches are not contiguous and are separated by other cities' beaches. Therefore, Cabrillo Beach will only be subject to the 50 foot spacing requirement since it contains less than 15 fire rings. It is anticipated that some fire rings might have to be moved to meet this spacing requirement, but the total number of fire rings at Cabrillo Beach should not be affected.

Relative to the nuisance provisions, designated beach burning devices may not be made available by a state or local authority if a city or county has declared that such devices within their boundaries causes a nuisance, as defined in Civil Code section 3479 or Health and Safety Code section 41700(a), due to wood smoke exposure. Cities or counties can make this finding pursuant to Public Resources Code section 30005(b) or Health and Safety Code section 41509(a). In summary, the Public Resources Code provides that no provision of the California Coastal Act is a limitation on a city or county's authority to declare, prohibit, or abate nuisances. Likewise, the Health and Safety Code provides that no provision of the Air Resources Division of the Health & Safety Code, or any order, rule, or regulation of CARB or of any air district, is a limitation on the power of any local or regional authority to declare, prohibit, or abate nuisances. If a city or county makes a nuisance declaration, it would require the state or local authority that oversees the beach area where fire rings are located to remove the beach burning devices. The proposed Rule 444 amendments would further strengthen a city or county's authority by adding SCAQMD's regulatory authority over area-source emissions.

### **Implementation and Resources**

Existing SCAQMD resources are sufficient to conduct education/outreach activities and refine the PM2.5 forecasting program for beach fire prohibitions. Due to the nature of the potential demonstration projects, the actual award amount cannot be determined at this time; however, a request for sufficient funds will be made for selected projects subject to Board approval. It is anticipated that the majority of funding will be made available from interest earned from Rule 1309.1 Priority Reserve Fund (36).

### **Attachments**

1. Resolution
2. PAR 444 - Open Burning
3. Final Addendum to the Draft Final Staff Report
4. Notice of Exemption
5. Public Consultation Meeting Presentation
6. RFP # P2013-21 Demonstration of Low-Emission Outdoor Non-Wood Public Beach-Type Fire Rings and/or Low-Emission Non-Wood Burning Retrofit Equipment and Devices for Existing Outdoor Public Beach-Type Fire Rings
7. May 3, 2013 PAR 445/444 SCAQMD Governing Board Package



## ATTACHMENT 1

### RESOLUTION NO.

**A Resolution of the SCAQMD Governing Board adopting the provisions of Proposed Amended Rule 444 – Open Burning that relate to beach burning. These provisions include paragraphs (b)(11) and (c)(7), subparagraph (d)(3)(G), (d)(4), and paragraphs (h)(5) and (6).**

**WHEREAS**, the SCAQMD Governing Board has determined with certainty that Proposed Amended Rule 444 – Open Burning, is a “project” pursuant to the California Environmental Quality Act (CEQA); however, South Coast Air Quality Management District staff reviewed the proposed project and because the proposed project in question would reduce air pollution and further protect the public from harmful exposure to wood smoke, and would not have a significant adverse effect on the environment, it was determined that the proposed project is exempt from CEQA pursuant to CEQA Guidelines §15308 – Actions by Regulatory Agencies for the Protection of the Environment; and

**WHEREAS**, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code section 21080.5 and has conducted CEQA review pursuant to such program (AQMD Rule 110); and

**WHEREAS**, SCAQMD staff has prepared a Notice of Exemption (NOE) for the provisions of Rule 444 that relate to beach burning, as proposed to be amended, that is completed in compliance with CEQA Guidelines §15002 (k)(1) - Three Step Process and §15061(b)(3) – Review for Exemption (General Rule Exemption); and has determined that the amendments are exempt under CEQA Guidelines Section 15308, Actions Taken By Regulatory Agencies for the Protection of the Environment, and

**WHEREAS**, a Mitigation Monitoring Plan pursuant to Public Resources Code Section 21081.6, has not been prepared since no significant impact and no feasible mitigation measures are necessary; and

**WHEREAS**, the SCAQMD Governing Board voting on Proposed Amended Rule 444 – Open Burning, has reviewed and considered the NOE; and

**WHEREAS**, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment for Proposed Amended Rule 444 – Open Burning is consistent with the March 17, 1989 and October 14, 1994 Board Socioeconomic Resolution for rule adoption; and

**WHEREAS**, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment is consistent with the provisions of Health and Safety Code § 40440.5, 40440.8, and 40728.5; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 444 – Open Burning as proposed would result in foreseeable cost impacts as described in the Staff Report; and

**WHEREAS**, the SCAQMD Governing Board has actively considered the Socioeconomic Impact Assessment and has made a good faith effort to minimize such impacts; and

**WHEREAS**, the SCAQMD Governing Board has determined that a need exists to adopt the beach burning provisions of Proposed Amended Rule 444 – Open Burning to further protect the public from harmful exposure to wood smoke; and

**WHEREAS**, the SCAQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from California Health and Safety Code § 39002, 40000, 40001, 40702, 40725 through 40728, inclusive and 41700; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 444 – Open Burning as proposed is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 444 – Open Burning as proposed is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or federal or state regulations; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 444 – Open Burning as proposed does not impose the same requirements as any existing State or federal regulations and the proposed rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the AQMD; and

**WHEREAS**, the SCAQMD Governing Board in adopting this regulation, references the following statutes which the AQMD hereby implements, interprets or makes specific: California Health and Safety Code § 40001 (rules to achieve ambient air quality standards), 40440 (rules to carry out the Air Quality Management Plan), and 41700 (prohibition of nuisance); and

**WHEREAS**, the SCAQMD Governing Board finds and determines, taking into consideration the factors in §(d)(4)(D) of the Governing Board Procedures, that the modifications which have been made to Proposed Amended Rule 444 – Open Burning since notice of public hearing was published do not significantly change the meaning of the proposed project within the meaning of Health and Safety Code §40726; and

**WHEREAS**, the SCAQMD specifies the Assistant Deputy Executive officer for Proposed Amended Rule 444 – Open Burning as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed rule is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

**WHEREAS**, the SCAQMD Governing Board has determined that there is a problem that the beach burning provisions of Proposed Amended Rule 444 – Open Burning as proposed will help alleviate (including protection of public health from harmful exposure to wood smoke); and

**WHEREAS**, the health effects associated with wood smoke exposure are well documented in the scientific literature; and

**WHEREAS**, the California Air Resources Board has concluded that wood smoke is a serious threat to public health; and

**WHEREAS**, the burning of wood in beach fire rings is an uncontrolled source of wood smoke and PM2.5; and

**WHEREAS**, recent beach monitoring studies downwind of beach burning activity indicate a potential significant impact to surrounding communities; and

**WHEREAS**, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code § 40725; and

**WHEREAS**, the SCAQMD Board has held a public hearing in accordance with all provisions of law.

**NOW, THEREFORE, BE IT RESOLVED**, that because no significant adverse environmental impacts were identified as a result of implementing Proposed Amended Rule 444 – Open Burning, Findings, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan are not required;

**BE IT FURTHER RESOLVED** that the Governing Board of the South Coast AQMD does hereby amend, pursuant to the authority granted by law, Proposed Amended Rule 444 – Open Burning, as set forth in the attached pertaining to open burning at beach areas, and incorporated herein by this reference. These provisions include paragraphs (b)(11) and (c)(7), subparagraph (d)(3)(G), (d)(4) and paragraphs (h)(5) and (6), and will not be submitted into the State Implementation Plan.

**BE IT FURTHER RESOLVED** that the Governing Board of the South Coast AQMD does hereby direct staff to work cooperatively with local jurisdictions and state agencies to develop education, outreach, and compliance programs to inform the public of the health hazards associated with wood smoke exposure, to prevent burning of inappropriate materials, and to raise awareness of the other rule provisions, including the no burn forecast as it pertains to the beach areas. Staff is directed to return to the Stationary Source Committee every six months regarding the effectiveness of the cooperative effort and the potential need for future regulatory options.

**BE IT FURTHER RESOLVED** that the Governing Board of the South Coast AQMD does hereby, in conjunction with the release of RFP# P2013-21 for the demonstration of new and retrofit low-emission outdoor non-wood public beach-type fire rings, direct staff to work cooperatively with local jurisdictions and state agencies to implement such demonstration program for non-wood beach burning alternatives, including but not limited to gaseous-fueled fire ring options. Staff is further directed to report back to the Stationary Source Committee regarding the demonstration program and the potential for broader-scale implementation within one-year of project initiation.

DATE: \_\_\_\_\_

\_\_\_\_\_  
CLERK OF THE BOARDS

## ATTACHMENT 2

(Adopted October 8, 1976)(Amended October 2, 1981)  
(Amended October 2, 1987)(Amended December 21, 2001)  
(Amended November 7, 2008)(Amended May 3, 2013)  
(PAR 444, July 2, 2013 Version)

### **PROPOSED AMENDED RULE 444.      OPEN BURNING**

(a) Purpose

The purpose of this rule is to ensure open burning in the District is conducted in a manner that minimizes emissions and impacts, and that smoke is managed consistent with state and federal law in order to protect public health and safety.

(b) Applicability

The provisions of this rule shall apply to any person conducting or allowing any open burning including, but not limited to:

- (1) Agricultural burning
- (2) Disposal of Russian thistle (*Salsola kali* or “tumbleweed”)
- (3) Prescribed burning
- (4) Fire prevention/suppression training
- (5) Open detonation or use of pyrotechnics
- (6) Fire hazard removal
- (7) Disposal of infectious waste, other than hospital waste
- (8) Research of testing materials, equipment or techniques
- (9) Disposal of contraband
- (10) Residential burning
- (11) Beach burning

(c) Definitions

- (1) AGRICULTURAL BURNING means open burning of vegetative materials produced wholly from the growing and harvesting of crops in agricultural operations, including the burning of grass and weeds in fence rows, ditch banks and berms in non-tillage orchard operations, fields being prepared for cultivation, agricultural wastes, and the operation or maintenance of a system for the delivery of water for agricultural operations.

- (2) AGRICULTURAL OPERATIONS means any business occurring on a ranch or farm directly related to:
  - (A) Growing of crops
  - (B) Raising of fowl or other animals for the primary purpose of making a profit or for a livelihood
  - (C) Conducting agricultural research or instruction by an educational institution
- (3) AGRICULTURAL WASTES means unwanted or unsalable materials produced wholly from agricultural operations directly related to the growing of crops or raising of animals for the primary purpose of making a profit or for a livelihood. Agricultural wastes do not include items such as plastic, rubber, ornamental or landscape vegetation, chemically treated wood, shop wastes, construction and demolition material, material containing asbestos, garbage, oil filters, tires, tar paper, pesticide and fertilizer containers, broken boxes, pallets, sweat boxes, packaging material, packing boxes or any other material produced in the packaging or processing of agricultural products. Orchard or vineyard waste or any other material, generated as a result of land use conversion to nonagricultural purposes is not agricultural waste.
- (4) AIR QUALITY INDEX (AQI) is a value established by the federal Environmental Protection Agency (EPA) to measure the level of the major air pollutants regulated by the Clean Air Act. The values range from 0 to 500 and are divided into six categories; higher values indicate greater levels of pollution and greater associated health concerns. The following summarizes the AQI:
  - (A) 50 or below is Good
  - (B) 51 through 100 is Moderate
  - (C) 101 through 150 is Unhealthy for Sensitive Groups
  - (D) 151 through 200 is Unhealthy
  - (E) 201 through 300 is Very Unhealthy
  - (F) Over 300 is Hazardous
- (5) APPROVED IGNITION DEVICES means those instruments or materials that will ignite agricultural waste without the production of black smoke. This would include such devices using liquid petroleum gas, butane, propane, or diesel oil burners and flares where the device produces a flame and the flame is then used for ignition.

- (6) APPROVED IGNITION FUELS means pipeline quality natural gas, liquefied petroleum gas, or a petroleum liquid having an API gravity of at least 30.
- (7) BEACH BURNING means any recreational, ceremonial or open burning conducted in any public coastal area marked by an accumulation of sand. For the purposes of this rule, beach burning does not include the use of charcoal or gaseous or liquid fuel.
- (8) BURN AUTHORIZATION NUMBER is the number that is assigned to a burn project upon being granted approval by the Executive Officer.
- (9) BURN MANAGEMENT PLAN means a document prepared by an agricultural operator for a project which provides a description of the project, and other information as required under subparagraph (d)(~~8~~ 7)(D).
- (10) BURN PROJECT means an active or planned prescribed burn, agricultural burn, fire prevention/suppression training, a naturally ignited wildland fire managed for resource benefits, or any other burn approved by the Executive Officer.
- (11) EMERGENCY BURN PLAN means a document prepared by an agricultural operator for open burning as an emergency measure to protect crops from freezing which provides a description of the project, and other information as required under subparagraph (h)(4)(C).
- (12) FIELD CROP means crop, other than fruit or vegetable, which is grown for agricultural purposes.
- (13) FIRE HAZARD means a hazardous condition involving combustible, flammable, or explosive material that could present a substantial threat to life or property, as declared by a fire protection agency.
- (14) FIRE PREVENTION/SUPPRESSION TRAINING means the instruction of employees in the methods of preventing or suppressing fires.
- (15) FIRE PROTECTION AGENCY means any public agency with the responsibility and authority to protect people, property, and the environment from fire, within its respective area of jurisdiction.
- (16) HEAVY FUELS means materials that burn slowly, sustain heat, and are difficult to extinguish. Heavy fuels include large downed woody materials such as logs and branches.
- (17) IMMINENT FIRE HAZARD means a fire hazard that presents an immediate danger to property or the health and/or safety of a person or persons and for which direct abatement by fire is necessary as directed by

a fire protection agency. An imminent fire hazard is distinguished from a prescribed burn by the immediate or urgent action needed to alleviate a threat.

- (18) 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.
- (19) LIGHT FUELS means materials that burn quickly with a short period of intense heat such as grass and field crops.
- (20) MANDATORY WINTER BURNING CURTAILMENT means a period of time during the consecutive months of November through February where the burning of solid fuels is restricted for portions of the South Coast Air Basin at elevations below 3,000 feet above Mean Sea Level (MSL) based on the air quality criteria contained in AQMD Rule 445 (Wood-Burning Devices).
- (21) MARGINAL BURN DAY means a day in an air basin when open burning for individual projects is restricted to designated source/receptor areas and is not otherwise prohibited by the California Air Resources Board (CARB) or the Executive Officer of the District. A marginal burn day is declared when:
  - (A) At least one of the meteorological criteria for an air basin is predicted to be met;
  - (B) The AQI throughout the basin is predicted to be 150 or less;
  - (C) The AQI in the designated source/receptor area(s) is predicted to be 100 or less; and
  - (D) The designated source/receptor area(s) is not further restricted by a mandatory winter burning curtailment pursuant to AQMD Rule 445 (Wood-Burning Devices).
- (22) METEOROLOGICAL CRITERIA defines the daily predicted meteorological conditions that need to be satisfied to permit open burning for an air basin. The criteria are as follows:
  - (A) Burn Area 40: South Coast Air Basin (at least one criterion must be satisfied):
    - (i) Near 6:00 a.m., the expected height of the inversion base, if any, at Los Angeles International Airport is 1,500 feet above mean sea level or higher.

- (ii) The expected maximum mixing height during the day is 3,500 feet above the surface.
  - (iii) The expected mean surface wind between 6:00 a.m. and noon is greater than five miles per hour.
- (B) Burn Area 53: Mojave Desert Air Basin (all criteria must be satisfied):
- (i) Near the time of day when the surface temperature is at a minimum, the temperature at 3,000 feet above the surface is not warmer than the surface temperature by more than 13 degrees Fahrenheit.
  - (ii) The expected temperature at 3,000 feet above the surface is colder than the expected surface temperature by at least 11 degrees Fahrenheit for 4 hours.
  - (iii) The expected daytime wind speed at 3,000 feet above the surface is at least 5 miles per hour.
- (C) Burn Area 55: Salton Sea Air Basin (at least three criteria must be satisfied):
- (i) Near the time of day when the surface temperature is at a minimum, the temperature at 3,000 feet above the surface is not warmer than the surface temperature by more than 13 degrees Fahrenheit.
  - (ii) The expected temperature at 3,000 feet above the surface is colder than the expected surface temperature by at least 11 degrees Fahrenheit for 4 hours.
  - (iii) The expected daytime wind speed at 3,000 feet above the surface is at least 5 miles per hour.
  - (iv) The expected daytime wind direction in the mixing layer is not southeasterly.
- (23) NO BURN DAY means a day in an air basin during which open burning is prohibited by the CARB or Executive Officer of the District. A no burn day is declared when:
- (A) None of the meteorological criteria for an air basin are met, or
  - (B) The AQI in any area of the basin is predicted to be greater than 150.
- (24) OPEN BURNING COMBUSTION/OPEN DETONATION means the ignition and subsequent burning, or ignition, rapid decomposition and



subsequent burning of solid, liquid, or gaseous materials, outside of a combustion chamber with or without a visible flame and not directed through a chimney or flue.

- (25) **PERMISSIVE BURN DAY** means a day in an air basin during which open burning is not prohibited by the CARB or Executive Officer of the District. A permissive burn day is declared when:
- (A) At least one of the meteorological criteria for an air basin is predicted to be met,
  - (B) The AQI throughout the basin is predicted to be 100 or less, and
  - (C) The designated source/receptor area(s) is not further restricted by a mandatory winter burning curtailment pursuant to AQMD Rule 445 (Wood-Burning Devices).
- (26) **PRESCRIBED BURNING** means planned open burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, identified on lands selected in advance for removal of:
- (A) Vegetation from land predominantly covered with chaparral, trees, grass, or standing brush.
  - (B) Forest vegetation or debris for the purposes of forest protection.
  - (C) Brush, weeds, arundo, or other plant matter to promote a healthier environment for plant or animal species or to re-establish native plant species.
  - (D) Disease and pest prevention.
  - (E) Fire prevention/suppression training consuming greater than 10 acres.
- (27) **PRODUCT TESTING** means the evaluation of commercial products designed to detect the presence of flame or smoke or intended to prevent equipment damage due to flame.
- (28) **RESIDENTIAL BURNING** means open burning for the purposes of disposing of combustible or flammable solid waste, excluding Russian thistle, from a specific residence on its premises.
- (29) **SENSITIVE RECEPTOR LOCATIONS** include schools, daycare centers, hospitals, and convalescent homes, and other locations where children, chronically ill individuals, or other sensitive persons could be exposed.
- (30) **SMOKE MANAGEMENT PLAN** means a document prepared for each open burning event or project by land managers that provides information and procedures to minimize smoke impacts.

- (31) SOURCE/RECEPTOR AREAS. A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are measured. Any area can be a source area, a receptor area, or both a source and receptor area. The source/receptor areas are delineated on the attached map (Attachment 1).
- (32) WILDLAND means:
- (A) “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.
- (B) For the California Department of Forestry and Fire Protection 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.
- (d) Requirements and Prohibitions
- (1) A person shall not conduct or allow open burning unless all of the following are met:
- (A) The Executive Officer has declared the day a permissive burn day or a marginal burn day on which burning is permitted in the applicable source/receptor area and such burning is not prohibited by the applicable public fire protection agency.
- (B) The Executive Officer or the applicable fire protection agency has issued a written permit for the burn. For disposal of Russian thistle, subject to paragraph (d)(2)(C), a permit may also be issued by the Director of Forestry and Fire Protection or a County

Agricultural Commissioner, pursuant to California Health and Safety Code Section 41809.

- (C) The Executive Officer has authorized the burn by issuing a Burn Authorization Number for each day for each open burning event.
  - (i) The Executive Officer has received the Burn Authorization Number request by 4:00 p.m. on the day prior to the burn.
  - (ii) The Executive Officer may delay issuing a Burn Authorization Number until such time that an inspection of the proposed Burn Project can be conducted, in order to determine whether the open burning event complies with the provisions of the rule.
- (D) All site-specific permit conditions are met, pursuant to Rule 208 – Permit and Burn Authorization for Open Burning.
- (2) The Executive Officer may authorize open burning for:
  - (A) Agricultural burning
  - (B) Prescribed burning
  - (C) Disposal of Russian thistle
  - (D) Abatement of a fire hazard that a fire protection agency determines cannot be abated by an economically, ecologically and logistically viable option
  - (E) Disposal of waste infected with an agricultural pest or disease hazardous to nearby agricultural operations and upon the order of the County Agricultural Commissioner
  - (F) Disposal of infectious waste, other than hospital waste, upon the order of the County Health Officer to abate a public health hazard
  - (G) Use of pyrotechnics for the creation of special effects during filming of motion pictures, videotaping of television programs or other commercial filming or video production activities provided untreated wood, charcoal or Approved Ignition Fuels are used
  - (H) Disposal of contraband in the possession of public law enforcement personnel provided they demonstrate that open burning is the only reasonably available method for safely disposing of the material
  - (I) Fire prevention/suppression training exercises, provided notifications and compliance with all requirements of Rule 1403 –

Asbestos Emissions from Demolition/Renovation Activities shall be required when applicable

- (J) Researching or testing fire retardant properties of materials (or enclosures) or the efficacy of fire suppression techniques or devices
- (3) A person is prohibited from open burning for:
- (A) Residential burning
  - (B) Disposal of waste, except as specified in (d)(2) above, including hospital waste
  - (C) Disposal of materials generated as a result of land use conversion for non-agricultural purposes
  - (D) Disposal of materials from the production or storage of military ordnance, propellants, or pyrotechnics unless a fire protection agency, law enforcement agency or governmental agency having jurisdiction determines that onsite burning or detonation in place is the only reasonably available method for safely disposing of the material
  - (E) Suppression of wildland fires, except those set by fire protection agencies, for the purpose of saving life or property
  - (F) Complete burning of existing structures for fire prevention/suppression training exercises
  - (G) Effective March 1, 2014, beach burning, unless:
    - (i) PM2.5 AQI of 100 or less has been forecast for the coastal source receptor area; and
    - (ii) beach burning occurs in devices that are:
      - (I) at least 700 feet from the nearest residence; or
      - (II) at least 100 feet apart from one another; or
      - (III) at least 50 feet apart from one another, if there are no more than 15 devices per contiguous beach area within the city's boundaries.
- (4) Notwithstanding the provisions of subparagraph (d)(3)(G), if a city or county has declared, pursuant to Public Resources Code section 30005(b) or Health and Safety Code section 41509(a), that designated beach burning devices within its boundaries cause a nuisance, as defined in Civil Code section 3479 or Health and Safety Code section 41700(a), due to

wood smoke exposure, then those devices may not be made available by a state or local authority.

- (~~5~~ 4) A person shall not commence:
- (A) Open burning for agricultural field crops before 10:00 a.m. or later than 5:00 p.m.
  - (B) Open burning, other than for agricultural field crops, except as authorized in an approved Smoke Management Plan:
    - (i) Earlier than one hour after sunrise
    - (ii) Later than two hours before sunset, with no new ignition, or fuels added to an existing fire
- (~~6~~ 5) A person shall use only approved ignition devices to ignite open burning.
- (~~7~~ 6) A person shall not transport vegetative waste for the purpose of open burning from one property to another, unless it is necessary to avoid burning within 1,000 feet of a sensitive receptor.
- (~~8~~ 7) Additional requirements for agricultural burning:
- (A) A person shall not conduct or allow the open burning of agricultural waste unless it has been allowed to dry for the following minimum times:
    - (i) Trees and large branches (3 in. or greater): 6 weeks
    - (ii) Prunings and small branches (1 in. to less than 3 in. diameter): 4 weeks
    - (iii) Wastes from field crops that are cut in a green condition: 4 weeks
    - (iv) Fine fuels (0.25 in. to less than 1 in. diameter): 3 weeks
    - (v) Very fine fuels (less than 0.25 in.): 10 days
  - (B) A person shall not conduct or allow the open burning of agricultural waste unless it is free of dirt, soil, and visible moisture.
  - (C) A person shall ignite rice, barley, oat and wheat straw only by strip-firing or by backfiring into the wind unless a fire protection agency declares such actions would constitute a fire hazard.
  - (D) A person shall not conduct or allow the open burning of agricultural waste unless a Burn Management Plan is approved in writing by the Executive Officer for any project greater than 10 acres or a project that produces more than one ton of particulate matter emissions, as determined using EPA AP-42 or equivalent emissions factors approved by the Executive Officer, CARB, and

EPA. At a minimum, the Burn Management Plan shall contain the following information:

- (i) Location, types, and amounts of material to be burned
- (ii) Expected duration of the fire from ignition to extinction
- (iii) Identification of responsible personnel, including telephone contacts
- (iv) Identification and location of all smoke sensitive areas
- (v) Calculation of the particulate emissions tonnage, when the particulate emissions tonnage is selected as the criteria for determining the project size

(E) A person shall not conduct or allow the open burning of agricultural waste unless the burn is located farther than 1,000 feet from a sensitive receptor location.

(9 8) Additional requirements for prescribed burning:

(A) A person shall conduct or allow prescribed burning only when the fires are set by, under the jurisdiction of, or pursuant to the orders or requirements of a fire protection agency.

(B) A person shall not conduct or allow prescribed burning unless a Smoke Management Plan is approved in writing by the Executive Officer for any project greater than 10 acres or that produces more than one ton of particulate matter emissions, as determined using EPA AP-42 or equivalent emissions factors approved by the Executive Officer, CARB, and EPA. Smoke Management Plans shall be updated annually. At a minimum, the Smoke Management Plan shall contain the following information:

- (i) Location, types, and amounts of material to be burned
- (ii) Expected duration of the fire from ignition to extinction
- (iii) Identification of responsible personnel, including telephone contacts
- (iv) Identification and location of all smoke sensitive areas
- (v) Calculation of the particulate emissions tonnage

(C) A person shall not conduct or allow prescribed burning unless a Smoke Management Plan is approved in writing by the Executive Officer for any project greater than 100 acres or that produces more than 10 tons of particulate matter emissions, as determined using EPA AP-42 or equivalent emissions factors approved by the

Executive Officer, CARB, and EPA. Smoke Management Plans shall be updated annually. At a minimum, the Smoke Management Plan shall contain the information required by subparagraph (d)(9)(B) and the following information:

- (i) Identification of meteorological conditions necessary for burning
  - (ii) Smoke management criteria the land manager will use for making burn ignition decisions
  - (iii) Projections, including a map, of where the smoke from burns is expected to travel both day and night
  - (iv) Specific contingency actions (such as fire suppression or containment) that will be taken if smoke impacts occur or meteorological conditions deviate from those specified in the Smoke Management Plan
  - (v) Evaluation of and consideration of emission reduction techniques including environmentally, economically, and logistically viable alternatives to burning
  - (vi) Discussion of public notification procedures
- (D) The Executive Officer shall prioritize burn authorization requests based upon:
- (i) The level of training of the person conducting the burn as identified in the Burn Management Plan and Smoke Management Plan.
  - (ii) The measures identified in the Smoke Management Plan proposed to reduce emissions.
- (E) Notwithstanding subparagraph (d)(1)(A), the Executive Officer may allow prescribed burning on marginal burn days, provided a Smoke Management Plan has been approved.

(e) The Executive Officer may allow the Maximum Daily Burn Acreage for Agricultural Burning and Prescribed Burning as follows:

- (1) For all areas within the District jurisdiction, excluding the Coachella Valley:
  - (A) 175 acres for prescribed wildland and range burning; and
  - (B) 175 acres for agricultural burning;
- (2) For the Coachella Valley:

- (A) 6 acres for prescribed wildland and range burning; and
- (B) 41 acres for agricultural burning; and
- (3) The provisions of this subdivision, limiting the maximum daily acreage, shall not apply to prescribed burning when a land manager has:
  - (A) Demonstrated that the prescribed burn is required to reduce a fire hazard that jeopardizes public health or safety; and
  - (B) Submitted a satisfactory Smoke Management Plan that has been approved by the Executive Officer.
  
- (f) Administrative Requirements
  - (1) An Annual Post Burn Evaluation Report shall be submitted on or before January 31<sup>st</sup> of each calendar year for any open burn projects that require a Smoke Management Plan or a Burn Management Plan. The Report shall include, but not be limited to, the following:
    - (A) The type of material burned
    - (B) The total acreage permitted to burn
    - (C) The total acreage burned
    - (D) The total tons of material burned
    - (E) The estimated fuel loading in tons per acre
    - (F) The total of the estimated PM emissions
  - (2) Fire Protection Agencies within the District must submit copies of written burn permits to the Executive Officer quarterly.
  
- (g) Fees

If required by District Rule 306, any person conducting or allowing any open burning shall accompany the submittals required by subparagraphs (d)(~~8~~ 7)(D), (d)(~~9~~ 8)(B), (d)(~~9~~ 8)(C), (h)(4)(C), and paragraph (f)(1) with applicable filing and evaluation fees pursuant to District Rule 306.
  
- (h) Exemptions
  - (1) The provisions of paragraphs (d)(1) and (d)(~~5~~ 4) of this rule shall not apply in the case of an imminent fire hazard, as defined in this Rule.
  - (2) The provisions of subparagraphs (d)(1)(A), (d)(1)(B), (d)(1)(D) and clause (d)(1)(C)(ii) shall not apply to fire prevention/suppression training exercises or research, conducted by fire protection agencies, provided that:
    - (A) For training exercises not conducted within existing structures:



- (i) Each training fire is limited to no more than 30 minutes duration,
    - (ii) The total cumulative burn time in a 24-hour period does not exceed:
      - (a) Four (4) hours for Light Fuel
      - (b) Six (6) hours for Heavy Fuels or a mixture of Light and Heavy Fuels
    - (iii) Only Authorized Ignition Fuels are used.
  - (B) For training exercises conducted within existing structures, each training fire is limited to no more than 30 minutes in duration.
- (3) The provisions of subparagraphs (d)(1)(A), (d)(1)(B), (d)(1)(D) and clause (d)(1)(C)(ii) shall not apply to fire prevention/suppression training exercises or to product testing conducted by non-fire protection agencies provided that:
- (A) Each fire is limited to no more than 30 minutes in duration,
  - (B) The total burn time does not exceed four (4) hours in a 24-hour period, and
  - (C) Only Authorized Ignition Fuels are used.
- (4) The provisions of subparagraphs (d)(1)(A) and (d)(~~8~~ 7)(E) of this rule shall not apply to open burning as an emergency measure to protect crops from freezing provided that:
- (A) Open burning is the most immediate or only option available;
  - (B) The temperature at the time of the requested open burning is reasonably anticipated to be below 40° Fahrenheit;
  - (C) An Emergency Burn Plan submitted by the person seeking to conduct open burning is approved by the Executive Office prior to conducting the burn. The Plan shall include, but not be limited to, the following:
    - (i) Location, types, and amounts of material to be burned
    - (ii) Type of crop being protected
    - (iii) Estimate of potential economic loss
    - (iv) Expected dates, time, and duration of the fire from ignition to extinction
    - (v) Identification of responsible personnel, including telephone contacts

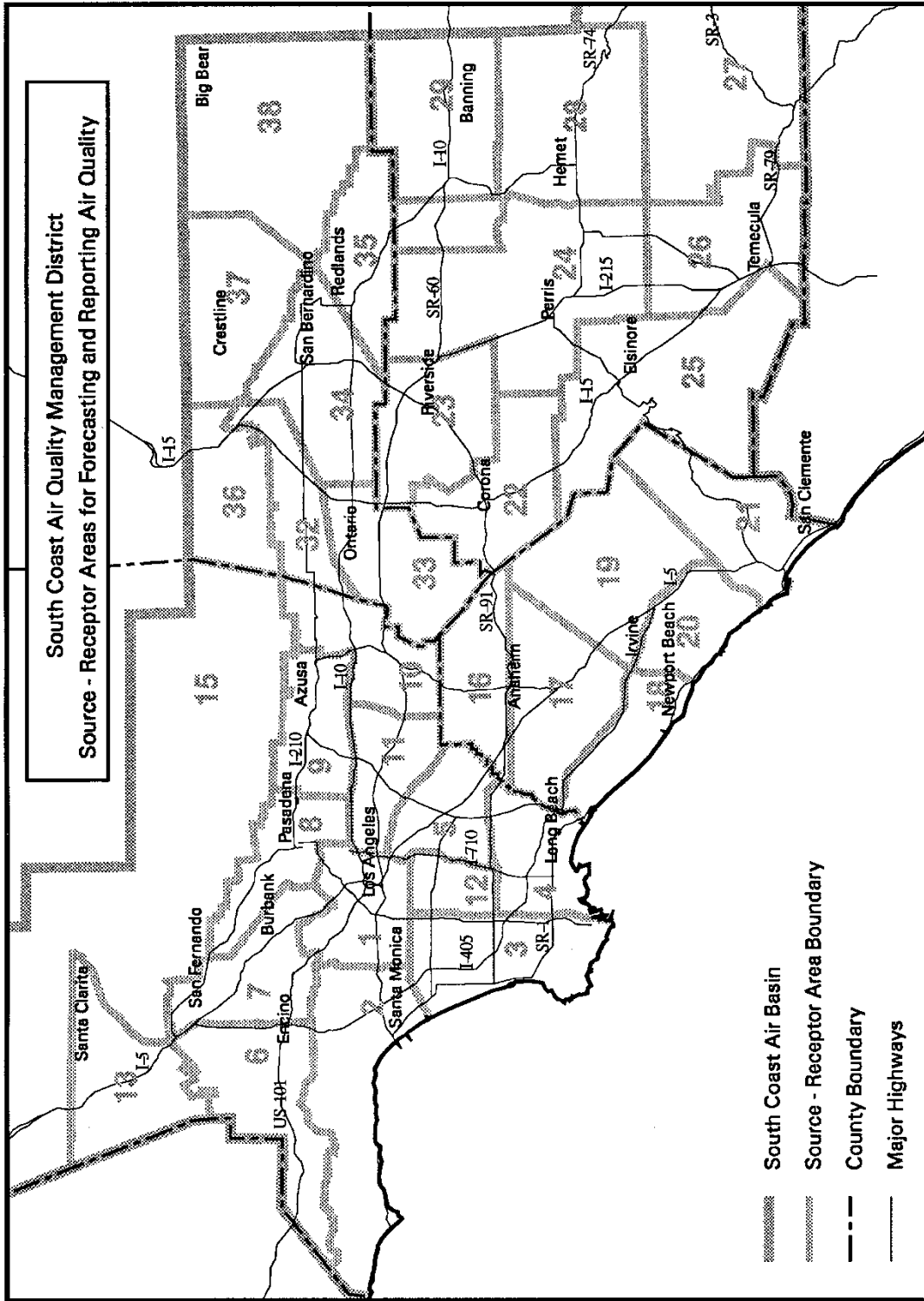
- (vi) Identification and location of all smoke sensitive areas
  - (D) All site-specific conditions imposed by the Executive Officer as part of the approved Emergency Burn Plan are met; and
  - (E) The person conducting the open burn shall notify the Executive Officer no more than 24 hours following the authorized burn to report the total amount of agricultural material burned.
- (5) The provisions of this rule shall not apply to:
- ~~(A) Recreational fires or ceremonial fires, including fires conducted pursuant to United States Code, Title 4, Chapter 1, Section 8.~~
  - ~~(B) Open burning of natural gas, propane, untreated wood, or charcoal for the purpose of:
    - ~~(i) Preparation or warming of food for human consumption; or~~
    - ~~(ii) Generating warmth at a social gathering.~~~~
  - (A) Open burning located on islands 15 miles or more from the mainland coast.
  - (B) Fireworks displays.
  - (C) Pyrotechnics used for creation of special effects at theme parks.
  - (D) Detonation of explosives during:
    - (i) Quarry or mining operations
    - (ii) Bomb disposal by a law enforcement agency
    - (iii) Demolition of buildings or structures
  - (E) The use of pyrotechnics, detonation of explosives, or fire effects for creation of special effects during theatrical productions, filming of motion pictures, videotaping of television programs or other commercial filming or video production activities provided that:
    - (i) Each fire effect is limited to no more than 30 minutes in duration, and
    - (ii) The fuel is untreated wood, charcoal, or Authorized Ignition Fuels.
- (6) Except for the requirements of subparagraph (d)(3), the provisions of this rule shall not apply to:
- (A) Recreational fires or ceremonial fires, including fires conducted pursuant to United States Code, Title 4, Chapter 1, Section 8.
  - (B) Open burning of natural gas, propane, untreated wood, or charcoal for the purpose of:

- (i) Preparation or warming of food for human consumption; or
- (ii) Generating warmth at a social gathering.

(i) Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances.

ATTACHMENT 1



ATTACHMENT 3

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

---

**Final Draft ~~DRAFT~~ Addendum to the May 2013 Draft Final Staff Report**

**Proposed Amended Rule 444 – Open Burning**

**July ~~June~~ 2013**

**Deputy Executive Officer**

Planning, Rule Development and Area Sources  
Elaine Chang, DrPH

**Assistant Deputy Executive Officer**

Planning, Rule Development and Area Sources  
Laki Tisopulos, Ph.D., P.E.

**Assistant Deputy Executive Officer**

Science and Technology Advancement  
Philip Fine, Ph.D.

---

AUTHORS:

Michael Laybourn – Air Quality Specialist  
Tracy A. Goss, P.E. – Program Supervisor  
Jason Low, Ph.D. – Atmospheric Measurements Manager

REVIEWED BY:

Barbara Baird – Chief Deputy Counsel  
John Olvera - Principal Deputy District Counsel  
Megan Lorenz – Senior Deputy District Counsel

**ATTACHMENT 3**

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
GOVERNING BOARD**

Chairman: DR. WILLIAM A. BURKE  
Speaker of the Assembly Appointee

Vice Chairman: DENNIS YATES  
Mayor, Chino  
Cities of San Bernardino County

**MEMBERS:**

MICHAEL D. ANTONOVICH  
Supervisor, Fifth District  
County of Los Angeles

BEN BENOIT  
Councilmember, Wildomar  
Cities of Riverside County

JOHN J. BENOIT  
Supervisor, Fourth District  
County of Riverside

MICHAEL A. CACCIOTTI  
Councilmember, South Pasadena  
Cities of Los Angeles County/Eastern Region

JOSIE GONZALES  
Supervisor, Fifth District  
County of San Bernardino

JOSEPH K. LYOU, Ph. D.  
Governor's Appointee

JUDITH MITCHELL  
Mayor Pro Tem, Rolling Hills Estates  
Cities of Los Angeles County/Western Region

SHAWN NELSON  
Supervisor, Fourth District  
County of Orange

DR. CLARK E. PARKER, SR.  
Senate Rules Appointee

JAN PERRY  
Councilwoman, 9<sup>th</sup> District  
City of Los Angeles Representative

MIGUEL A. PULIDO  
Mayor, Santa Ana  
Cities of Orange County

**EXECUTIVE OFFICER:**

BARRY R. WALLERSTEIN, D.Env.

## TABLE OF CONTENTS

Options Evaluated Regarding Restrictions on Open Burning in Beach Areas .....1

Air Quality Impacts of Beach Burning Activities.....7

~~Attachment – Air Quality Impacts of Recreational Beach Fires: Preliminary Assessment  
(May 15, 2013)~~

Attachment – Public Consultation Meeting: Proposed Amended Rule – Open Burning (El  
Segundo; June 14, 2013)

*Note to Reader: This Addendum to the May 2013 Draft Final Staff Report is regarding only those provisions pertaining to beach burning in Proposed Amended Rule 444. This Addendum speaks to the options evaluated relative to the current proposal for consideration and summarizes the beach fire monitoring results conducted in Los Angeles and Orange Counties. Changes made since the June 13 and 14, 2013 Public Consultation Meetings are denoted in underline and strike-out format.*

## **OPTIONS EVALUATED REGARDING RESTRICTIONS ON OPEN BURNING IN BEACH AREAS**

### **Options Evaluated to Reduce Wood Smoke Exposure**

In conjunction with SCAQMD staff's continued analysis of air quality and health impacts associated with the use of wood-burning fire rings in publicly accessible beach areas, staff has evaluated several options to the initial proposal to prohibit all open burning in beach areas. As wood smoke exposure is considered a health hazard, the intent of the proposal is to better protect public health. As shown through air monitoring efforts, it has been demonstrated that smoke from beach burning can contribute to short-term exposure to wood smoke particles in excess of established health guidelines. Staff acknowledges that the beach fire ring configurations vary at each public beach and that the use of the fire rings occurs generally in the evening hours and is higher during the summer months. Staff has evaluated various options for better protecting the public from the health impacts due to exposure to wood smoke. The following are being recommended for Board consideration:

- Buffer zones to the nearest residence; or
- Increase distance between fire rings.
- No-burn days during unfavorable meteorology or air quality conditions;
- Cooperative compliance programs to reduce the burning of inappropriate materials;
- Enhanced public education regarding wood smoke, including alternatives for susceptible individuals; and
- Cooperative participation in clean-technology demonstration programs (propane/CNG).

Each is briefly summarized below.

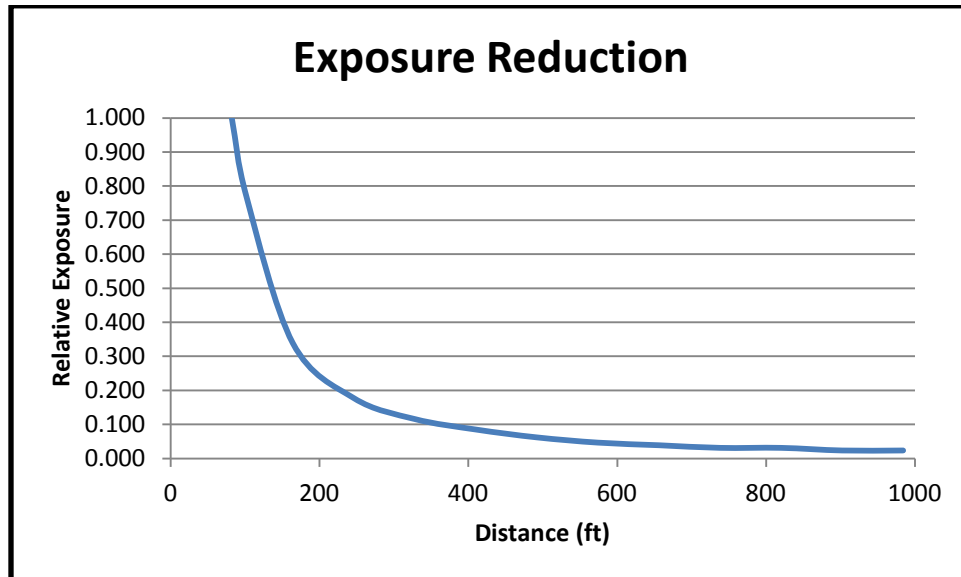
#### **Buffer Zones to Nearest Resident**

It is known from exposure studies that the greater the distance from a source, the lesser the exposure to harmful air contaminants. Depending on various conditions, such as topography, meteorology, rate of emissions, number of sources (i.e., fire rings), etc., the concentration of fine particulates from a particular source or sources may vary. In general, as demonstrated through a screening model approach (Chart 1), relative exposure to smoke from a single fire ring is decreased by up to 98 percent at 220 meters (or approximately 700 feet). This 98 percent reduction in exposure to wood smoke particulates is generally proposed as a buffer zone requirement for distance between the fire rings and residences. This distance is consistent with the significant decrease in emissions observed by the recent gradient study conducted in



Huntington State Beach and Doheny State Beach to measure fine particulate matter downwind from beach burning activities.

Chart 1  
Relative Reduction in Wood Smoke Exposure Over Distance



It is acknowledged that setting a buffer zone could affect the location and number of fire rings on public beaches. Setting a buffer zone (without consideration of any other criteria) of 700 feet would eliminate fire rings from San Clemente public beaches and all of Doheny State Beach, except for the northern one-third of the camping area. Therefore, the proposal allows an alternative of increasing the spacing between fire rings to reduce concentrations of smoke. It should be noted however, that in these areas, alternatives to wood-based fires, such as the use of gaseous (propane or natural gas) fueled fire rings, could be explored. Gaseous-fueled rings are currently in use in Southern California by scouting organizations in Irvine and Brea Canyon and are further discussed below.

#### **Increase Distance Between Fire Rings**

Depending on each beach location that contains fire rings, the distance between rings varies. As seen in surveys of the various public coastal areas where most beach burning occurs (Bolsa Chica State Beach, Huntington State Beach, Huntington City Beach, Balboa Beach, and Corona Del Mar State Beach), the distance between rings can vary from 25 to over 50 feet. Dockweiler State Beach's average distance between fire rings is approximately 72 feet. Increasing ring distance to 100 feet will reduce the density of fire rings and thus will reduce wood smoke particulate concentrations by as much as 50 percent or more, benefiting the surrounding community during the periods of fire ring activity. In some instances, there are a minimal number of fire rings within a beach area. In these cases, a shorter separation distance may be acceptable. In addition, some beaches also have multiple rows of fire rings that can add to the concentration of fine particulates over a small stretch of beach. For example, some beach areas have multiple rows of fire rings that are either in a straight-line or zig-zag pattern. Limiting the

distance between fire rings and the configuration to a single row down the coastline would also result in lower concentration of wood smoke particles to the surrounding communities. Therefore, the proposal allows fire rings within 700 feet of a residence if they are 100 feet apart, or 50 feet apart if there are no more than 15 in the city per contiguous beach area.

Therefore, increasing the distance between fire rings and decreasing the density of the beach burning activity can benefit the surrounding community during the periods of high fire ring activity. It is acknowledged that depending on the beach configuration, setting a minimal fire ring separation distance could result in a reduction of the total number of fire rings available for use by the public in some areas.

#### **No-Burn Days During Unfavorable Meteorology or Air Quality Conditions**

SCAQMD Rule 445 – Wood Burning Devices and existing Rule 444 provisions for agricultural and prescribed burning each contain forecast criteria by which no-burn days are declared. As with these existing programs, a similar program could be implemented for beach areas to reduce public exposure to wood smoke during unfavorable weather conditions that could lead to unhealthful exposure to high levels of particulates. The existing Rule 445 forecasting program is strictly for residential burning and is applicable to wintertime (November through February) only. This program is focused on prohibiting wintertime residential wood combustion when such activity would cause an exceedance of the federal 24-hour standard of 35 micrograms per cubic meter, which is equivalent to a PM2.5 Air Quality Index (AQI) of 100. For the coastal beach areas, a similar program would be implemented year-round, and could take into consideration forecasted fine particulate concentrations relative to expected meteorological conditions, such as prevailing wind/sea breeze strength and direction. Such a forecasting program would focus on the reduction of local exposure rather than the regional air quality focus of the other programs. Very few days a year are expected to be declared as “no-burn days” and will likely occur only during major forest fire incidences with off-shore wind patterns.

#### **Cooperative Compliance Programs**

During the recent air monitoring efforts, staff observed numerous fire rings being used to burn materials other than firewood, such as trash from food and beverage materials brought for the purposes of picnicking. Also, wood waste materials were observed being burned, including pallets, dimensional lumber, and treated material. In addition, large quantities of paper/cardboard and lighter fluid were observed being used to get fires started or to increase the size of the fire. Also, key to reducing the harmful emissions from fire ring use would be to ensure that only seasoned, untreated firewood was being used.

An effective compliance program would ensure that no inappropriate materials are burned in the beach fire rings. The program could be a joint effort between SCAQMD inspection staff and the local or state agency overseeing the beaches, and could start with enhanced education to the beach goers (discussed further below) intending to use the fire rings. It should be noted that some beaches provide numerous trash containers for the beach goers to use for their picnicking waste. Increased signage regarding proper materials for fires could be provided in and around the fire ring areas at these beaches.

### **Enhance Public Education**

For those members of the public that use fire rings, a public education system would help to ensure that inappropriate materials are not burned. As noted above, staff has observed numerous non-wood items that would emit potentially highly toxic materials being burned instead of or in addition to seasoned firewood. An enhanced program could be initiated to educate the public through signage along the beach areas where fire rings exist, as well as at parking areas near the fire ring areas. Also, where parking fees are taken, flyers could also be handed out. Flyers could also be handed out by local or state agency personnel as well as retailers providing supplies to the beach goers. The coastal cities could also use their multi-media resources to encourage the beach goers to not burn any materials other than seasoned firewood. Enhanced public education could also include information on health effects, concerns regarding exposure to susceptible individuals with heart and lung ailments, as well as alternatives to beach burning using wood-based fuels. SCAQMD will work with the cities and counties regarding development of appropriate outreach materials and methods.

### **Cooperative Participation in Clean-Technology Demonstration Programs**

A potential solution for reducing public exposure to wood smoke and to preserve the enjoyment of beach fire rings is to explore the use of non-wood burning alternatives. This would include the use of gaseous (propane or natural gas) alternatives. This will be accomplished through a joint effort, partially or fully funded by SCAQMD, to demonstrate and potentially implement promising technologies. These alternatives could be used within in the buffer zone or to increase the concentration of fire rings within a certain distance of each other. These alternatives may also provide an option for susceptible individuals to enjoy the beach fire experience without the corresponding exposure to wood smoke.

There are existing gaseous-fueled fire rings located in group activity areas (including camping areas) in Irvine and Brea Canyon used by Scouting and other groups, but efforts are needed to further demonstrate their viability in a beach environment.

### **Alternative Rule Proposal**

Taking the above options into consideration, in addition to public comments received, the following alternative Rule 444 language is proposed for consideration regarding open burning in beach areas and replaces the prior May 3, 2013 language proposing a complete prohibition of beach burning activities as defined in PAR 444.

In summary, the definition of beach burning has been modified to clarify the rule applicability to focus on those activities occurring in the public ocean-adjacent coastal sandy beach areas, with emphasis on day use areas. The definition is not meant to apply to fire activities on the shore of inland lakes. Specifically, the definition has been changed to read:

- (7) BEACH BURNING means any recreational, ceremonial or open burning conducted in any public coastal area marked by an accumulation of sand. For the purposes of this rule, beach burning does not include the use of charcoal or gaseous or liquid fuel.

Beach burning would, beginning March 1, 2014, be subject to potential no-burn forecasting for the coastal areas. Specifically, beach burning in these areas would only be prohibited if the SCAQMD has forecast poor PM2.5 air quality conditions with levels greater than the federal 24-hour standard, 35 micrograms per cubic meter, which is an AQI greater than 100. This forecast would be conducted year-round. Historically, this has occurred only once in the last three years, and it occurred in the winter season.

In addition, effective March 1, 2014, beach burning would be permitted if the fire rings provided by the state or local authority are were either more than 700 feet from the nearest residence or, if less than 700 feet, the beach fire rings are were spaced at least 100 feet apart or 50 feet apart if there are no more than 15 fire rings per contiguous beach area within the city's boundaries. The contiguous beach area condition is intended to consider beaches separately, in terms of rule applicability, if a city has beaches that are separated by another city's or unincorporated area's beaches (an example is Dockweiler State Beach which has 73 fire rings and Cabrillo Beach has 6 fire rings, both of which are in the City of Los Angeles but separated along the coast by several other cities' beaches). Also, a state or local authority may not make devices for beach burning available if a city or county has declared, pursuant to Public Resources Code section 30005(b) or Health and Safety Code section 41509(a), that such devices within its boundaries cause a nuisance, as defined in Civil Code section 3479 or Health and Safety Code section 41700(a), due to wood smoke exposure. Until March 1, 2014, beach burning is allowed at all existing fire rings unless poor air quality is forecast, absent a city or county's declaration that such devices cause a nuisance due to wood smoke exposure.

The PAR 444 rule language requirements applicable to beach burning have been modified to read as follows:

(d) Requirements and Prohibitions

...

(3) A person is prohibited from open burning for:

...

(G) Beach burning, effective March 1, 2014, unless:

(i) PM2.5 AQI of 100 or less has been forecast for the coastal source receptor area; and

(ii) beach burning occurs in devices that are:

(I) at least 700 feet from the nearest residence; or

(II) at least 100 feet apart from one another; or

(III) at least 50 feet apart from one another, if there are no more than 15 devices per contiguous beach area within the city's boundaries.

(4) Notwithstanding the provisions of subparagraph (d)(3)(G), if a city or county has declared, pursuant to Public Resources Code section 30005(b) or Health and

Safety Code section 41509(a), that designated beach burning devices within its boundaries cause a nuisance, as defined in Civil Code section 3479 or Health and Safety Code section 41700(a), due to wood smoke exposure, then those devices may not be made available by a state or local authority.

### **Impacts**

Due to the modification to the definition of Beach Burning, the fire rings at the Doheny State Beach camping area that are not on the beach are now not subject to this rule. There are approximately 90 camp sites with fire rings not on the sand that will now be excluded from the total fire ring count subject to the beach burning provisions. Therefore, the total number of fire rings impacted by the rule is approximately 765.

Under the above proposed rule language for subparagraph (d)(3)(G), Dockweiler State Beach, Huntington City Beach, and Bolsa Chica State Beach are not expected to be affected by the criteria other than the no-burn days. However, the proposal may affect the other beaches in that some fire rings would have to be moved or removed at the various beaches. For example, the 700 foot buffer would require Huntington State Beach to move or remove an estimated 30 fire rings that are less than 700 feet from a mobile home park, although some fire rings may be able to be retained within 700 feet if the rings are at least 100 feet apart from one another. Corona Del Mar State Beach and Balboa Beach fire rings are all currently located within 700 feet and would have to either be removed or moved elsewhere. Doheny State Beach would be the most heavily impacted whereby all day-use fire rings are within 700 feet of residences. Due to the modified definition of beach burning, only the fire rings on the sand in the southern two-thirds of the campground will be impacted. At Doheny, the fire ring spacing ranges from 35 to 90 feet. As a result, under the separation criteria, the day-use area is expected to retain ~~about~~ at least half of the rings at a spacing of 100 feet, which would result in the removal of the remainder of the fire rings. Capistrano Beach Park ~~and Cabrillo Beach~~ may also have to move two or more fire rings to provide for the 50 foot ~~100 foot~~ spacing requirement. Under the distance element of the proposed rule, the total number of publicly accessible fire rings in Aliso Beach County Park and along the San Clemente and North Beach coast is not anticipated to be affected. In the cases of Aliso Beach County Park and San Clemente beaches, the 50 foot limitation would also apply and grant greater flexibility for fire ring locations. Although Cabrillo Beach and Dockweiler State Beach are both in the City of Los Angeles, the beaches are not contiguous and are separated by other cities. Therefore, Cabrillo Beach will only be subject to the 50 foot spacing requirement since it contains less than 15 fire rings. It is anticipated that some fire rings might have to be moved to meet this spacing requirement, but the total number of fire rings at Cabrillo Beach should not be affected.

Relative to paragraph (d)(4) nuisance provisions, beginning March 1, 2014, designated beach burning devices may not be made available ~~limited~~ by a state or local authority if a city or county has declared that such ~~devices~~ activity conducted within their boundaries causes a nuisance, as defined in Civil Code section 3479 or Health and Safety Code section 41700(a), due to wood smoke exposure. Cities or ~~C~~counties can make this finding pursuant to Public Resources Code section 30005(b) or Health and Safety Code section 41509(a). In summary, ~~both~~ the Public Resources Code provides that no provision of the California Coastal Act is a limitation on a city

or county's authority to declare, prohibit, or abate nuisances. Likewise, ~~the~~ Health and Safety Code ~~provides sections indicate~~ that no provision of the Air Resources Division of the Health and Safety Code, or any order, rule, or regulation of CARB ~~the state board~~ or of any air district, is a limitation on the power of any local or regional authority to declare, prohibit, or abate nuisances. ~~Therefore, if~~ If a city or county makes such declaration, it would require ~~preclude~~ the state or local authority that oversees the beach area where fire rings are located ~~from allowing to remove the~~ beach burning ~~devices-activities~~. The proposed Rule 444 amendments would further strengthen a city or county's authority by adding SCAQMD's regulatory authority over area-source emissions.

## **Future Efforts**

To ensure these efforts move forward and to provide assistance to the local jurisdictions and state agencies in implementing the rule requirements, two provisions will be added to the PAR 444 adoption Resolution, directing SCAQMD staff to:

- work with local jurisdictions and state agencies to develop education, outreach, and compliance programs to inform the public of the health hazards associated with wood smoke exposure, to prevent burning of inappropriate materials, and to raise awareness of the other rule provisions, including the no-burn forecast as it pertains to the beach areas; and
- in conjunction with the release of an RFP for demonstration of new and retrofit low-emission outdoor non-wood public beach-type fire rings, work cooperatively with local jurisdictions and state agencies to implement ~~a~~ demonstration program for beach burning alternatives, including but not limited to gaseous-fueled fire ring options.

Staff will also report back to the Stationary Source Committee. These efforts will help with rule implementation and to investigate and promote, to the extent feasible, alternative fuels in lieu of burning wood-based fuels.

## **AIR QUALITY IMPACTS OF BEACH BURNING ACTIVITIES**

### **Introduction**

The SCAQMD conducted a series of measurement studies at coastal beaches spanning Los Angeles and Orange Counties. Air quality monitoring was conducted along the beaches, characterized by fire ring recreational activity with parking facilities, tourist attractions, and residential areas nearby. The main objective of these field studies was to assess potential local air quality impacts from fire ring activity. There are approximately 765 fire rings within Orange and Los Angeles Counties. Proximity to fire ring activity could potentially lead to increased exposure to one or more combustion-related pollutants. A scientific assessment of local air quality conditions with and without the contribution of fire ring activity was conducted to evaluate the extent of such exposure for the purposes of providing supporting scientific information for consideration in the proposed Rule 444 development. A concern regarding fire ring activity is the emissions of pollution in the form of fine particulate matter (or PM). These

particles are individually too small to see with the naked eye, but are collectively responsible for the visible smoke and can be inhaled into the body and have serious health effects.

Although national standards are based on annual or 24 hour averages, using these averages does not adequately address very high, but short-term, peaks that can be associated with significant local sources of shorter duration such as wildfires and multiple fire rings. Guidance for public officials for wildfire smoke (Lipsett, 2008) has been developed to recommend protective measures based upon shorter term exposure which includes time frames as short as one to three hours as shown in Table 1.

**Table 1**

Air quality categories with associated PM2.5 concentration ranges and health effects guidance for those levels for a short term (1 to 3 hour) exposure (adapted from Lipsett, 2008).

Category	PM2.5 Levels (µg/m <sup>3</sup> , 1 to 3 hr avg.)	Health Effects	Recommended Actions
Good	0-38	None expected	If smoke event forecast, implement communication plan
Moderate	39-88	Increasing likelihood of respiratory or cardiac symptoms in sensitive individuals, aggravation of heart or lung disease, and premature mortality in persons with cardiopulmonary disease and the elderly.	Issue public service announcements (PSAs) advising public about health effects and symptoms and ways to reduce exposure; Distribute information about exposure avoidance
Unhealthy for Sensitive Groups	89-138	Increasing likelihood of respiratory or cardiac symptoms in sensitive individuals, aggravation of heart or lung disease, and premature mortality in persons with cardiopulmonary disease and the elderly.	If smoke event projected to be prolonged, evaluate and notify possible sites for cleaner air shelters; If smoke event projected to be prolonged, prepare evacuation plans
Unhealthy	139-351	Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population.	Consider "Smoke Day" for schools (i.e., no school that day), possibly based on school environment and travel considerations; Consider canceling public events, based on public health and travel considerations
Very Unhealthy	352-526	Significant aggravation of heart or lung disease, premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.	Cancel outdoor events (e.g., concerts and competitive sports)
Hazardous	>526	Serious aggravation of heart or lung disease, premature mortality in persons with cardiopulmonary disease and the elderly; serious risk of respiratory effects in general population.	Close Schools; Cancel outdoor events (e.g., concerts and competitive sports); Consider closing workplaces not essential to public health; If PM level projected to continue to remain high for a prolonged time, consider evacuation of sensitive populations.

## Air Monitoring

To assess the potential human exposure to wood smoke from fire ring activity, SCAQMD has used a combination of air monitoring technologies and sampling strategies to obtain a thorough view of scientific exposure information for consideration. The two main types of sampling strategies include gradient surveys and fixed site monitoring. Sand and ash samples were also analyzed for content. When conducting air monitoring studies, considerations that may affect results include shifting meteorology, variable activity levels, and technology limitations.

### Methods

The analytical methods to measure the ambient species for these studies are briefly described in Table 2. The various techniques allowed for multiple types of studies to be conducted for different study objectives and constraints.

**Table 2**

Ambient species measured and the corresponding analytical method used to conduct monitoring

Ambient Species	Sampling Method	Monitoring Type	Laboratory Analysis
PM <sub>2.5</sub> mass	DustTrak	Gradient	Continuous mass and size determination by using light scattering
PM <sub>2.5</sub> mass	Environmental Beta Attenuation Monitor (EBAM)	Fixed	Continuous mass determination using beta ray attenuation.
PM <sub>2.5</sub> mass and metals	FRM Sampler/ Medium-Volume Teflon Filters	Fixed	Mass determined by micro-balance; metals determined by X-Ray fluorescence and/or subsequent analysis on by using X-Ray Fluorescence (XRF)
Elemental and Organic Carbon (EC/OC)	FRM Sampler/ Quartz Filters	Fixed	Section of a PM filter is removed and analyzed on a laser corrected carbon analyzer
PM <sub>10</sub> mass and metals	Low-Volume Quartz Filters	Fixed	Mass determined by analytical balance; metals determined by analysis on inductively coupled plasma mass spectrometry (ICP/MS); Ions extracted with water from filter
Black Carbon	Aethalometer	Fixed	Real-time optical measurement of light absorbing carbonaceous aerosols (mainly black carbon) in 7 different wavelengths ranging from 370nm to 950nm.
Ultrafine Particles	Condensation Particle Counter (CPC)	Fixed	Particle count as small as the low nanometer size range at concentrations up to 10 <sup>6</sup> particles per liter.
Polycyclic Aromatic Hydrocarbons (PAHs)	Soil and Ash Samples	N/A	Extraction with liquid solvent. Analysis conducted by High performance liquid chromatography (HPLC) with UV and fluorescence detection.



### **PM2.5 Mass: DustTrak (TSI Model 8533)**

The DustTrak Aerosol monitor is a portable continuous real-time light scattering laser photometer that simultaneously measures size-segregated mass fraction concentrations corresponding to PM1, PM2.5, PM4, PM10, and Total PM size fractions. These monitors were selected for conducting the gradient survey studies because of their small size, portability, and time resolution. Although DustTraks are not based upon certified techniques approved by U.S. EPA to provide data for NAAQS comparison, they are very good for providing relative measurements and provide a good survey tool. They are also prone to effects of humidity for which SCAQMD implements a drying inlet to reduce the impact of excess moisture.

### **PM2.5 Mass: EBAM (Met One)**

The EBAM (Environmentally-protected Beta Attenuation Monitor) also provide continuous real time PM2.5 measurements by using beta particles counts from a naturally occurring radioactive isotope on a filter to estimate the mass. The monitor is not portable but is able to be quickly field deployed to run continuously. EBAMs use the same measurement principles as monitors approved by U.S. EPA for regulatory action but do not meet all performance criteria. They provide a very good estimation (manufacturer specification of +/-10%) of PM2.5 concentration and have better accuracy when detecting PM concentrations greater than 50 µg/m<sup>3</sup>.

### **PM2.5 Mass/ Metals/ Carbon: Federal Reference Method (FRM) Sampler (Anderson)**

A stationary FRM sampler collects filters over a 24-hour period using a size selective inlet (SSI) according to the method based on U.S. EPA's Federal Reference Method 40CFR50. The measurement method complies with U.S. EPA approved methods and criteria for regulatory action but does not provide information on time scales less than a complete day. The PM<sub>2.5</sub> samples are weighed using a microbalance. Since the samples are collected on a physical media, chemical species of the PM can be measured. Samples collected upon teflon filters were for total PM mass and analyzed by x-ray fluorescence for metal content. Samples collected upon quartz filters were analyzed for organic carbon (OC) and elemental carbon (EC). Carbon analysis is conducted by taking a small circular disk from sampled filters. The small circular disk is placed into a carbon analyzer which utilizes either a thermal optical reflectance or thermal optical transmittance method (IMPROVE or NIOSH method) to measure the OC and EC content of the filter.

### **Black Carbon: Aethalometer (Magee Scientific AE-21)**

An aethalometer provides a real-time optical measurement of light absorbing carbonaceous aerosols (mainly black carbon) in 7 different wavelengths ranging from 370nm to 950nm. The principle of the aethalometer is to measure a beam of light transmitted through a filter. The less light that is measured through the filter, the higher the concentration of estimated black carbon. Black carbon is an indicator of combustion which can assist with determining a potential source of particulate pollution.

### **Ultrafine Particles (UFP): Condensation Particle Counter (CPC) (TSI 3781)**

UFP counts were measured using Condensation Particle Counter (CPC) instruments. These instruments have continuous flow sensors and are able to detect ultrafine particles as small as the 10 to 15 nanometer size range at concentrations up to 10<sup>6</sup> particles per liter.

### **Polycyclic Aromatic Hydrocarbons (PAHs): HPLC/GCMS**

Sand and fire ring ash samples were analyzed for PAHs using U.S. EPA Method 8310, a technique using High Performance Liquid Chromatography (HPLC) that has a combination of Ultraviolet and fluorescence detection for determining PAH amount.

### **Gradient Surveys**

Gradient surveys were conducted to assess the PM impacts of the beach fires at multiple locations downwind over the course of an evening. Gradient studies conducted through ~~May 4~~ June 1, 2013 include two at Corona del Mar (March 19 and March 29, 2013), one at Balboa Beach (March 23, 2013), one at Dockweiler State Beach (April 20, 2013), ~~and four~~ six at Huntington Beach (April 6, 13, and 27 and May 4, 11, and 25, 2013), and one at Doheny State Beach (June 1, 2013). TSI DustTrak particulate monitors were mounted in vehicles. For gradient study deployments, two or three zero emission vehicles were equipped with DustTraks. One vehicle would collect measurements at a site(s) expected to be downwind during high fire ring activity and a second and sometimes third vehicle would collect measurements over a period of 10 to 20 minutes at multiple locations in the surrounding area. Initial gradient studies were done to conduct a survey to assess PM concentrations observed in the areas surrounding beach fire activity (an example is provided in Figure 1). A series of PM<sub>2.5</sub> measurements were collected before and during fire ring activity, saturating nearby areas in a grid-like pattern with short term snapshots to determine if air quality changed in nearby areas when the fire ring activity was occurring. (Note: similar gradient studies continue and additional data will be made available to the public.)

Observations from these initial studies indicated that PM<sub>2.5</sub> concentrations ranged between 2.8 to 16 times higher than background concentrations within 200 feet of the fire rings. Observations in downwind areas, which included residential communities, ranged from near background to 3.2 times higher. High readings were correlated to wood smoke smell in the area and low readings were correlated to the absence of wood smoke smell.

Formal gradient studies were conducted to assess the change in PM relative concentrations as measurements were taken progressively farther away from the beach fire activity. For example, this study was conducted by taking measurements in a line following the direct downwind direction (Figure 2).

**Figure 1**

Ratios of 10 Minute Average PM<sub>2.5</sub> Relative to Background Level Observed at Corona del Mar on March 30, 2013. The numbers reflect the factor above background.



**Figure 2**

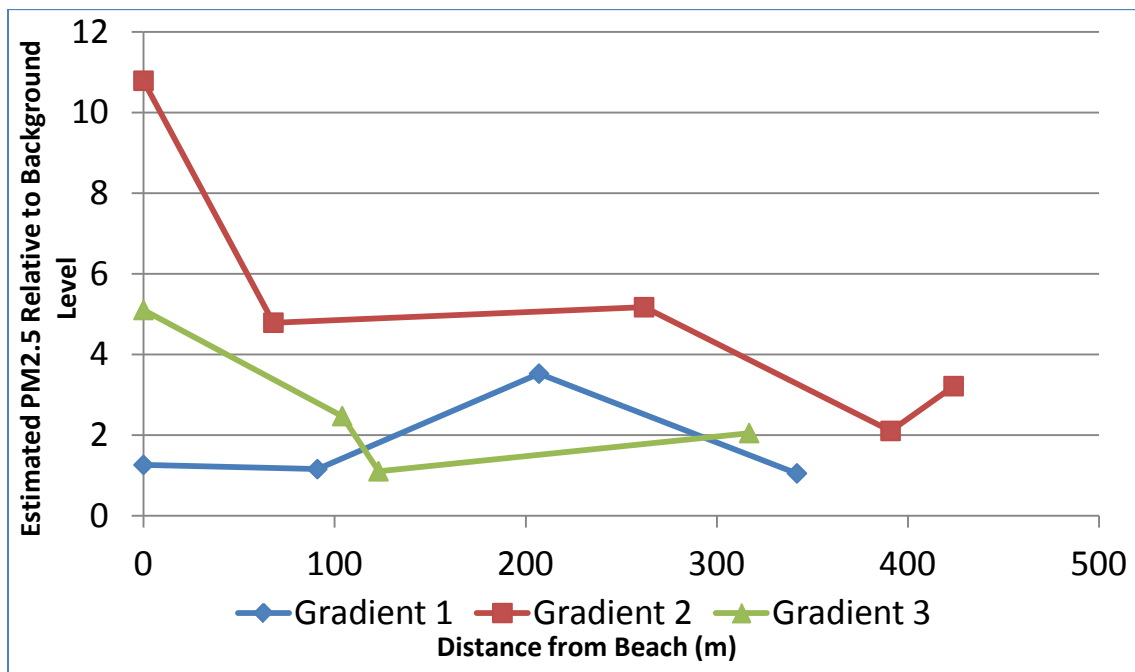
Measurement pattern in Huntington Beach on April 27, 2013 conducting three different gradients down the east/west trajectory of the predominant wind direction to assess PM concentrations with varying distance from the beach fire activity.



The gradient data observed at Huntington Beach on April 27, 2013 indicated, in general, PM2.5 concentration declined with distance (Figure 3). Gradient 1 did not have fire rings to its north so may have not captured influence of beach fire activity. Gradients 2 and 3 dropped about 50% in observed relative concentration after 100 m from the nearest measurement to the beach, but enhanced concentrations were observed greater than 400 m from the beach in Gradient 2. This gradient study was repeated on May 4, 2013 during conditions of gusty winds and although concentrations were enhanced near the beach, the gradient was not as pronounced and relative ratios to background were considerably lower.

**Figure 3**

10 Minute Average PM2.5 Relative Observations to Background Concentration as a Function of Distance at Huntington Beach on April 27, 2013



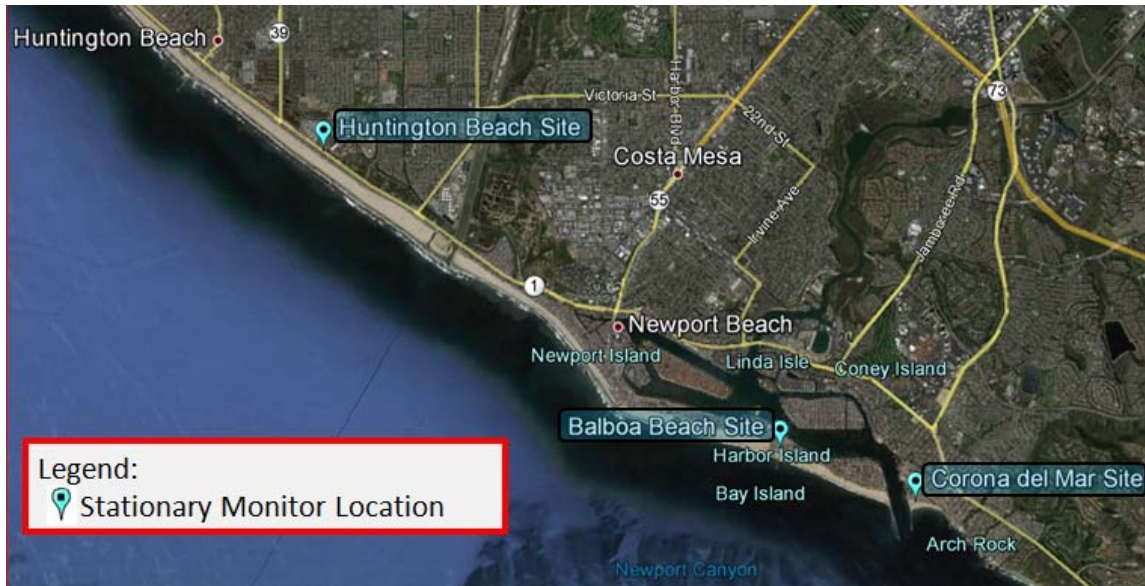
Further studies were conducted in areas near Huntington Beach, Dockweiler State Beach, and Doheny State Beach and are provided in the attachment.

### Fixed Site Monitoring

Fixed site monitoring was conducted at Corona del Mar, Balboa Beach, and Huntington Beach (Figure 4 and Table 3), continuously over time and using equipment at each site listed in Table 4.

**Figure 4**

Aerial view of the three study areas for fixed site monitoring in Corona del Mar, Balboa Beach, and Huntington Beach



**Table 3**

Location of Fixed Monitors at Each Site

Site	Location of Fixed Monitors	Estimated Distance from Fire Rings (ftm)
Corona del Mar	Roof of Rooster Café (not operating until May 31, 2013)	<del>76</del> <u>250</u>
Balboa Beach	Top of Maintance Structure in Balboa Municipal Parking Lot	<del>224</del> <u>725</u>
Huntington Beach	Parking Lot of Wetlands and Wildlife Care Center	<del>152</del> <u>500</u>

**Table 4**

Summary of Fixed Site Monitors Deployed at Each Location

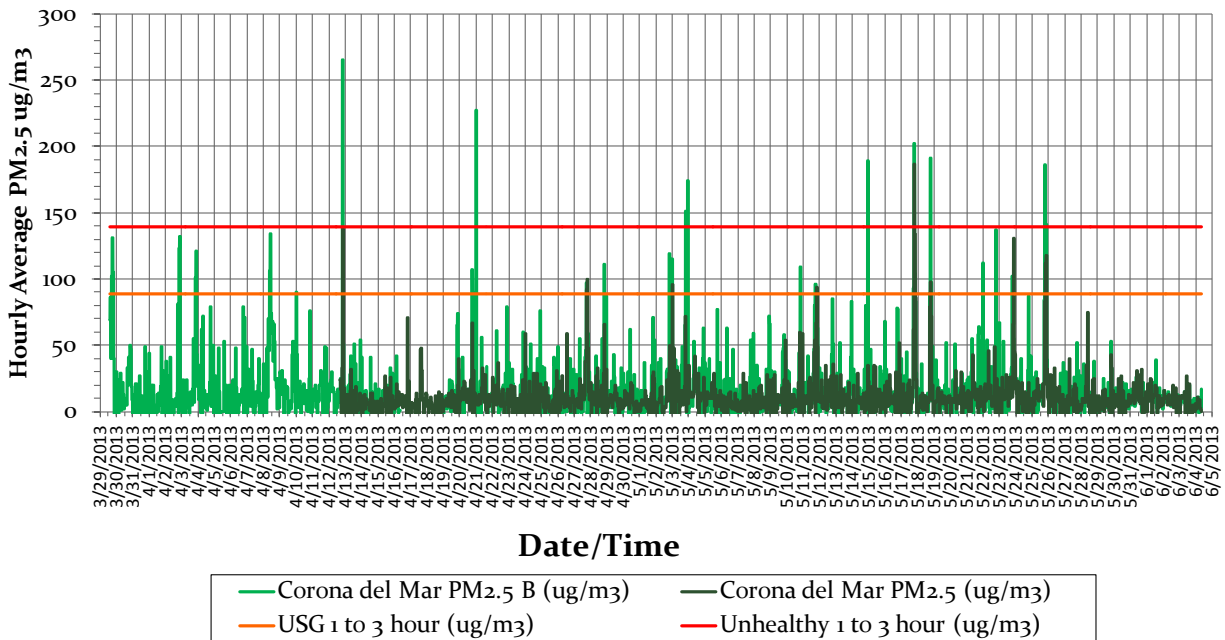
Monitor	Corona del Mar	Balboa Beach	Huntington Beach
EBAM (PM2.5)	Yes	Yes	Yes
Aethalometer (BC)	Yes	No	Yes
CPC (UFP)	Yes	No	Yes
PM2.5 FRM	Yes	No	Yes



**PM2.5: EBAM**

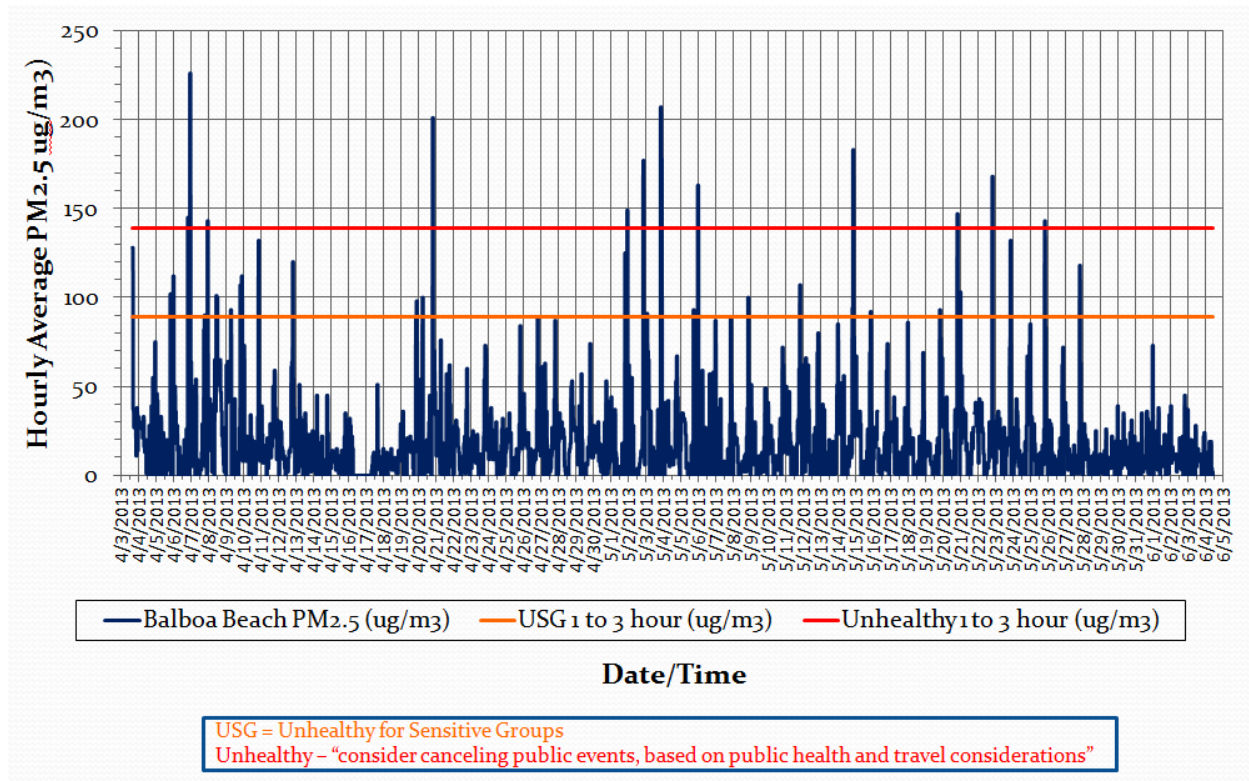
One EBAM was deployed at Corona del Mar on March 29, 2013 and a collocated one was deployed April 12. One EBAM was deployed at Balboa Beach on April 4. The EBAM time series (Figures 5 and 6-4) indicates that PM2.5 concentrations exceeded the “unhealthy for sensitive groups” guidance threshold of 89  $\mu\text{g}/\text{m}^3$ , about a third of the days and exceeded the “unhealthy” threshold of 139  $\mu\text{g}/\text{m}^3$  nearly one fifth of the days. On April 8, 2013, high PM2.5 readings were observed when high wind gusts blowing sea spray were likely the cause, a conclusion supported by other analyses conducted on filters that day. On May 3, 2013, high PM2.5 readings were under partial influence from the approximately 24,000 square acre Spring Fire in Ventura County.

**Figure 54**  
PM2.5 EBAM Time Series from Corona del Mar (updated) and Balboa Beach



USG = Unhealthy for Sensitive Groups  
Unhealthy – “consider canceling public events, based on public health and travel considerations”

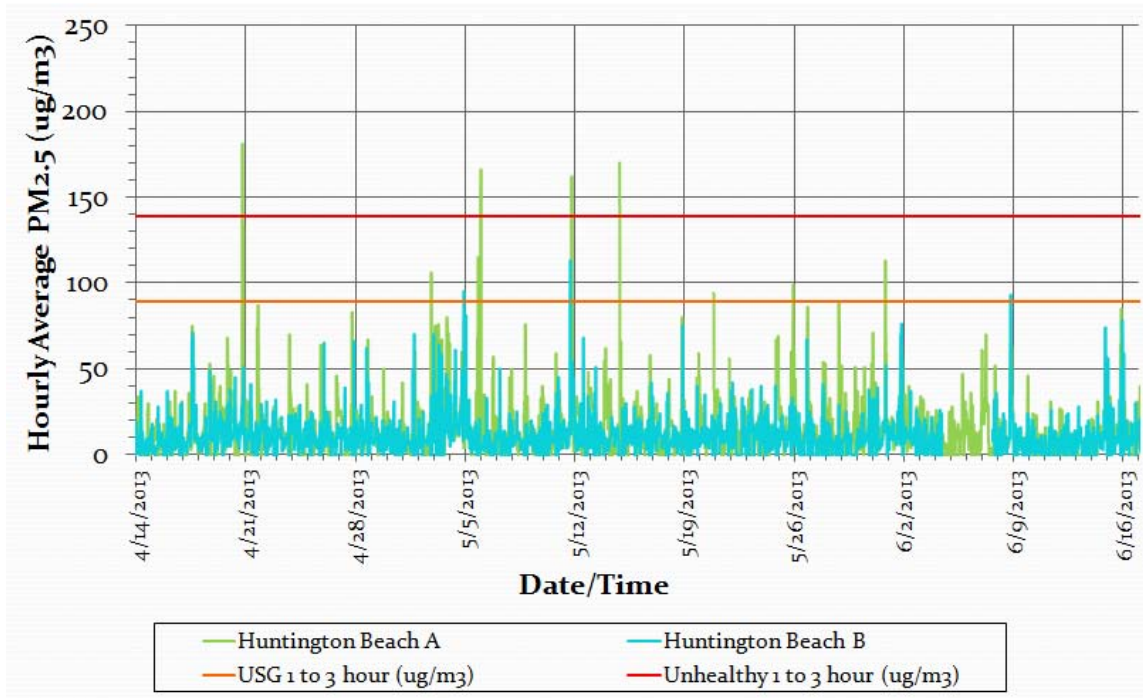
**Figure 6**  
 PM2.5 EBAM Time Series from Balboa Beach (updated)



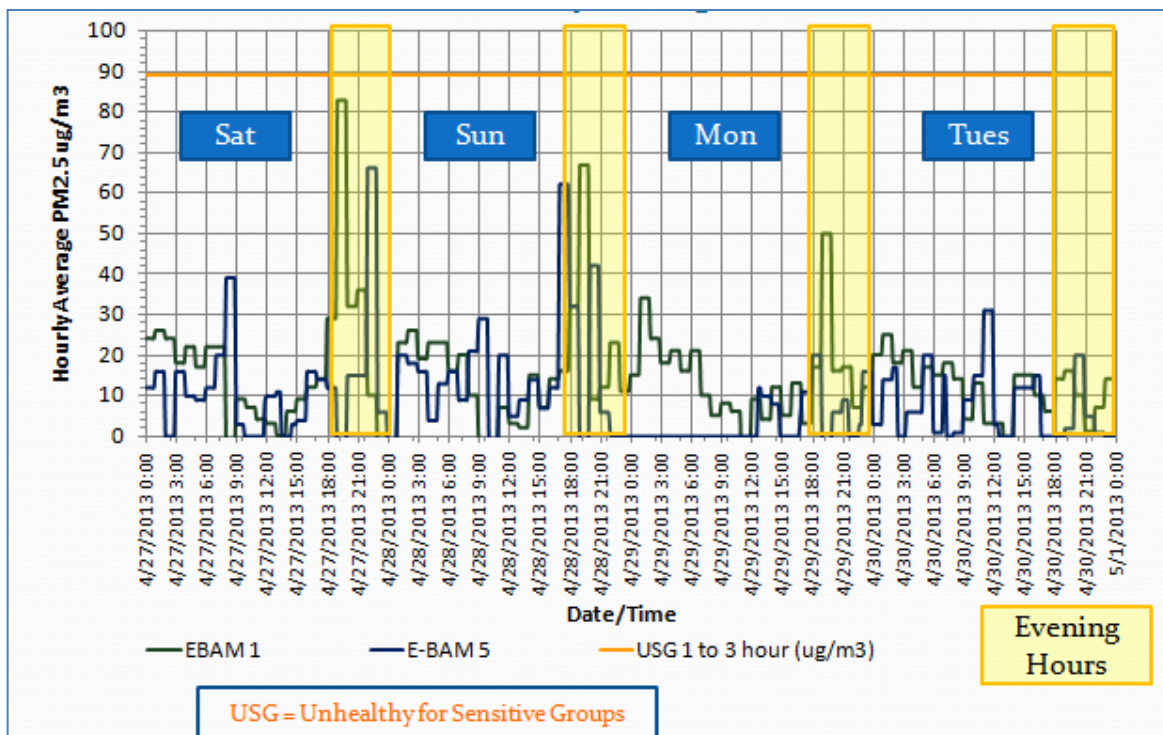
EBAMS were deployed at Huntington Beach on April 12, 2013 and the time series (Figure 7-5) shows considerably less relative exceedances of 89 and 139  $\mu\text{g}/\text{m}^3$  than Corona del Mar and Balboa Beach.

Higher PM<sub>2.5</sub> concentrations were observed at night time and weekends were typically higher than weekdays (Figure 8-6), which would be consistent with beach fire activity.

**Figure 7-5**  
PM2.5 EBAM Time Series from Huntington Beach



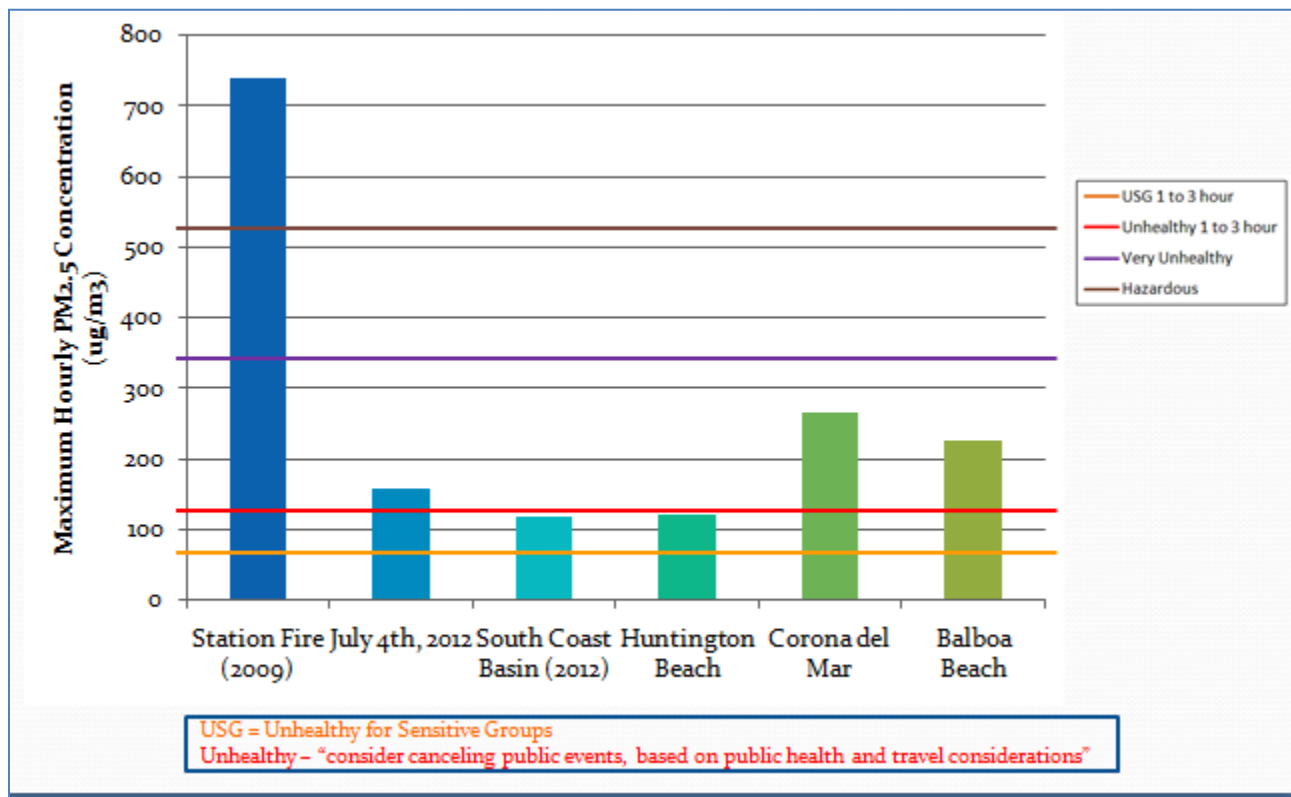
**Figure 8-6**  
Zoomed in PM2.5 Time Series from Huntington Beach from April 27 to May 1, 2013 showing variation over time of day and day of week.





SCAQMD has 16 continuous PM2.5 monitors in its air monitoring network covering Orange County and the non desert locations of Los Angeles, Riverside, and San Bernardino Counties. The highest hourly values for 2012 were when firework celebrations are prevalent. The maximum hourly PM2.5 concentrations at Corona del Mar and Balboa Beach in two months of 2013 monitoring are significantly greater than the maximum hourly PM2.5 concentration observed in the entire SCAQMD air monitoring network in 2012, including July 4th (Figure 9-7). The maximum hourly PM2.5 concentration at Huntington Beach was close to the maximum 2012 PM2.5 concentration observed in the SCAQMD network excluding the high PM2.5 associated with fireworks on July 4<sup>th</sup>. Note that the beach measurements were taken with non-federal reference or equivalent methods. Nonetheless, SCAQMD staff believes that these readings are indicative of significantly elevated short-term PM2.5 exposure levels.

**Figure 9-7**  
Maximum Hourly PM2.5 Concentration Comparison



**Black Carbon and UFP: Aethalometer and CPC**

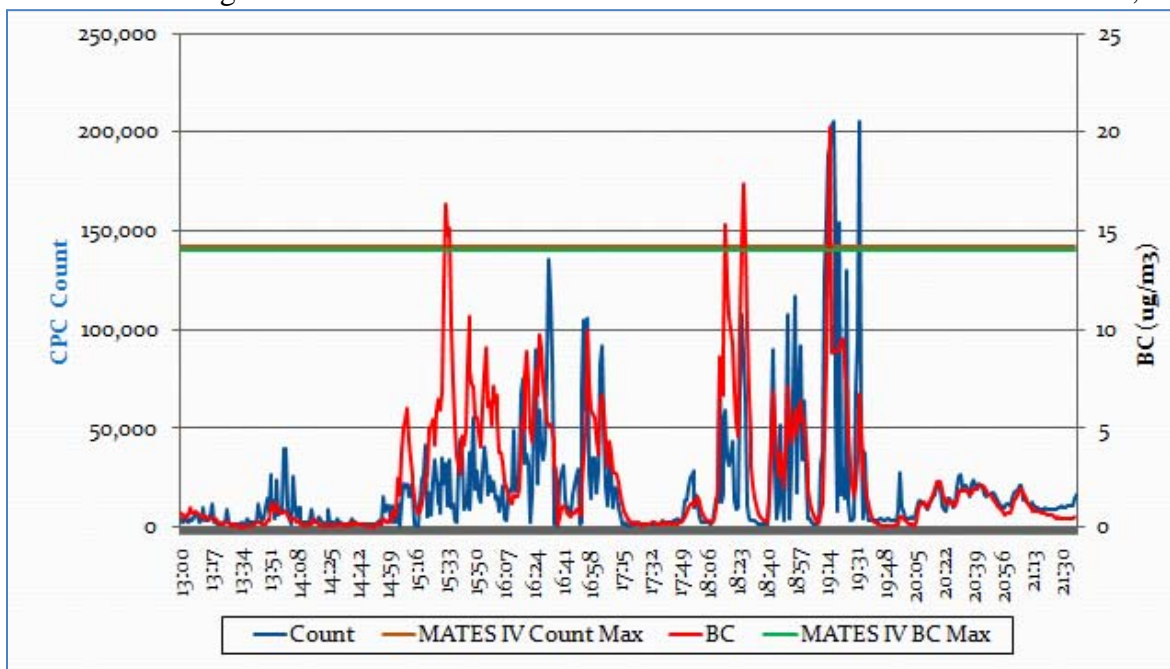
For additional PM information, a Mobile Measurement Station (MMS) comprised of a 14 foot dual axle trailer equipped with a wide array of air quality measurement instruments was deployed near the stationary monitors during the short-term measurement studies. The MMS allows for the measurement of particulate pollution, including black carbon (BC, primarily from diesel emissions and other combustion processes), and particle number concentrations (an indicator of ultrafine particles (UFP) defined roughly as particles with an aerodynamic diameter less than 100 nm). UFP is currently not regulated by the U.S. EPA although recent studies have

shown that exposure to this PM fraction is associated with the occurrence of both respiratory and cardiovascular problems.

The black carbon and UFP from Corona del Mar on March 30, 2013 (Figure 10-8) suggests that their concentration levels can be 30% higher than maximum concentrations observed during 2012 MATES IV measurements.

**Figure 10-8**

One Minute Average Black Carbon and Ultrafine Particle at Corona del Mar on March 30, 2013



### FRM PM2.5 Mass

Daily 24 hour integrated PM2.5 samples were collected at Corona del Mar (March 30 to April 19, 2013) and at Huntington Beach (April 24 through current). All measurements at Huntington Beach through June 16, 2013 ranged between 5 and 18  $\mu\text{g}/\text{m}^3$ , with the higher levels occurring on weekends, especially Saturday. Measurements at Corona del Mar were below 12.5  $\mu\text{g}/\text{m}^3$ , with exception of a high reading on April 8, 2013 which was due to the gusty winds. Sampling results were observed to be affected by meteorological conditions, such as wind direction. Aside from that one anomalous point, all data were below the 24 hour level of the National Ambient Air Quality Standard. While long term exposure estimates are typically done over a year or more, two weeks of daily samples during a period of known activity can provide a good conservative estimate of longer term exposure. Although no exceedances of the federal 24-hour PM2.5 standard were observed, shorter term results did exceed health guidance levels as described above. Furthermore, these data do not include the impact of beach burning during peak summer activity.

### PM10 Mass and Metals

Also, samples of coarse particulate matter (PM<sub>10</sub>; particles with an aerodynamic diameter less than 10  $\mu\text{m}$ ) were collected during the afternoon and during the night to see if there was a

difference in toxic particulate material for the different time frames. One set of samples was collected for assessing any differences in mass or metal content from Corona del Mar from 1 to 5 pm when anticipated beach fire activity would be low compared to 5 to 9 pm when anticipated beach fire activity would peak. The 5 to 9 pm sample weighed at  $95 \mu\text{g}/\text{m}^3$ , which was 30% higher than the concentration from the afternoon sample. Potassium was the primary metal detected at elevated levels.

### **Sand and Ash Analyses**

Ash and sand samples were collected and analyzed to assess potential source signatures of fire ring activity. The above sample types were brought back to the laboratory at SCAQMD for analysis. Ash analysis indicated that there were very low PAH levels and that compared to wood ash (USDA), samples had a high presence of silicon and aluminum, indicative of sand content. Most other elements were consistent with wood ash concentrations. One sample did have an elevated level of Chromium compared to wood ash. Sand collected near the fire rings had contained PAH levels below the detection limit of the analytical method.

### **Observations/Findings**

Based on the information gathered to date, SCAMD staff has made the following observations regarding beach burning:

- Beach fire activity is impacting PM<sub>2.5</sub> levels at the beach and extending into neighboring communities;
- Concentrations can be up to 10 times background levels for short periods of time in beach parking areas, up to 3 times background at residential locations;
- 1-hour average PM concentrations can exceed short term public health guidance levels; and
- Some measurements are higher than observed across the Basin over a whole year.

Monitoring efforts continue and additional data will be made available to the public.

The attached ~~May 15, June 14, 2013~~ Public Consultation meeting presentation regarding the proposed rule amendments and preliminary beach fire monitoring results is presently located at: <http://www.aqmd.gov/prdas/beachfiremonitoring/homepage.html>. ~~The website and~~ will be updated in the future as more information becomes available.

### **References**

Lipsett, Michael and Barbara Materna, *Wildfire Smoke A Guide for Public Health Officials*, 2008.

SCAQMD. Multiple Air Toxics Exposure Study in the South Coast Air Basin. MATES III. South Coast Air Quality Management District, 2008.  
<http://www.aqmd.gov/prdas/matesIII/matesIII.html>.

**Attachment**

~~**Air Quality Impacts of Recreational Beach fires:  
Preliminary Assessment  
(May 15, 2013)**~~

**Public Consultation Meeting:  
Proposed Amended Rule 444 – Open Burning  
(El Segundo; June 14, 2013)**

## ATTACHMENT 4

# Public Consultation Meeting: Proposed Amended Rule 444 – Open Burning

Newport Beach	El Segundo
June 13th	June 14th



6/14/13

## Background

- Newport Beach request to the Coastal Commission to remove fire rings
- Commission staff cited exemption in SCAQMD rules as justification to deny request
- Large number of fire rings close to where people live, work, & play
- Wood smoke poses a localized health impact on beach goers and nearby residents

Beach Name	City	No. of Fire Rings
LOS ANGELES COUNTY		Total = 79
Dockweiler State Beach	Playa del Rey	73
Cabrillo Beach	San Pedro	6
ORANGE COUNTY		Total = 687
Bolsa Chica State Beach	Huntington Beach	178
Huntington City Beach	Huntington Beach	112
Huntington State Beach	Huntington Beach	240
Balboa Beach	Balboa/Newport Beach	33
Corona Del Mar State Beach	Newport Beach	27
Aliso Beach County Park	South Laguna	7
Doheny State Beach	Dana Point	72
Capistrano Beach Park	Capistrano	4
North Beach	San Clemente	5
San Clemente City Beach	San Clemente	9

\* Not intended to be an all inclusive list.

3



## Agency Positions on Wood Smoke

- California Air Resources Board
  - Wood smoke a serious threat to public health
  - Aggravates lung and heart disease
  - Can cause 10% increase in children's hospital admissions for respiratory symptoms
- U.S. Environmental Protection Agency
  - Wood smoke can affect everyone
    - Children, persons with existing health conditions most vulnerable
  - Health risks can be reduced by switching to gaseous fuels

## PM Health Guidance

- National Ambient Air Quality Standards for PM<sub>2.5</sub>:
  - Annual Average: 12  $\mu\text{g}/\text{m}^3$
  - 24 Hour Average: 35  $\mu\text{g}/\text{m}^3$
- Guidance for Public Health Officials for Wildfire Smoke
  - Recommended protective measures based upon shorter term PM exposure
  - Includes Time frames as short as 1 to 3 hours for both PM<sub>2.5</sub> and PM<sub>10</sub>:
    - 89 - 138  $\mu\text{g}/\text{m}^3$  - Unhealthy for Sensitive Groups (USG)
    - 139 - 351  $\mu\text{g}/\text{m}^3$  - Unhealthy - "consider canceling public events, based on public health and travel considerations"
    - 352 - 526  $\mu\text{g}/\text{m}^3$  - Very Unhealthy

Lipsett, Michael and Barbara Materna, *Wildfire Smoke A Guide for Public Health Officials*, 2008.

## Beach Fire Pit Emissions

- Assessed the emissions of a single fire ring for one evening
  - One fire event assumed to burn 2 bundles of wood (approx. 32 lbs total)
  - Assumed CARB fireplace emission factor
  - Compared emissions to that of an average on-road 2013 Heavy Duty Diesel Vehicle (HDDV)
- **One fire pit in one evening estimated to emit as much PM<sub>2.5</sub> as one Heavy-Duty Diesel Truck driving 564 miles**

## SCAQMD Monitoring Studies

- Purpose
  - Assess potential for human exposure to wood smoke from beach fires
- Approach
  - Deploy a combination of monitoring technologies and sampling strategies
- Other Considerations
  - Shifting meteorology, variable activity levels, technology limitations



# Gradient Surveys

## Objective:

Assess the PM impacts of the Beach Fires at multiple locations downwind over the course of an evening

## Methods:

TSI Inc. DustTrak DRX – Measures PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>10</sub> on a second-by-second basis

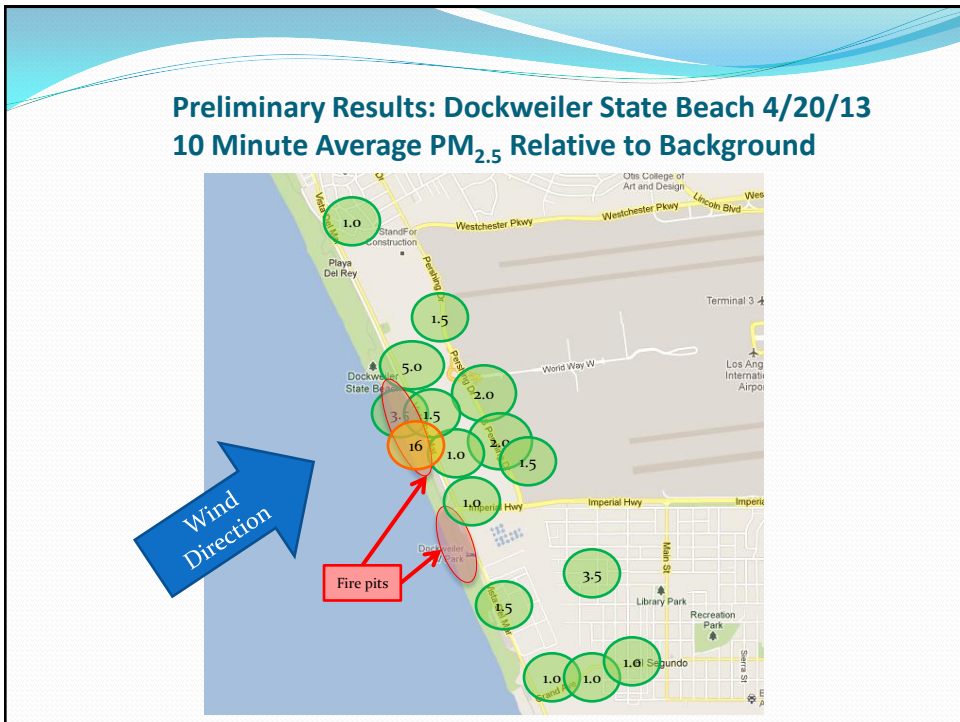
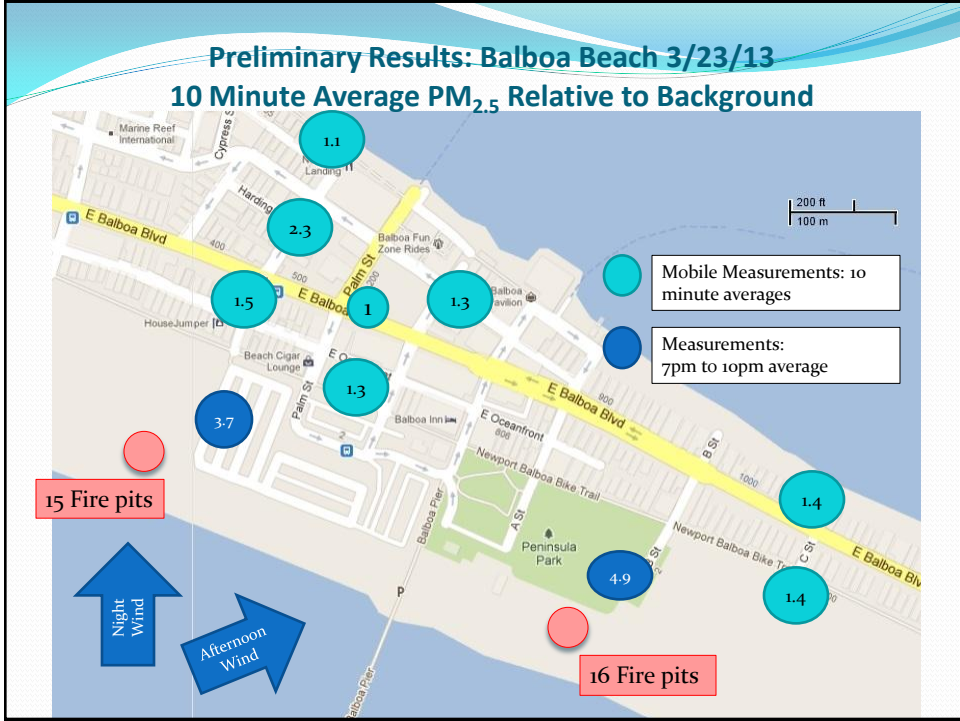
Advantages: small, portable, high time resolution, good survey tool for relative measurements

Limitations: not certified to federal reference method criteria. A drying inlet implemented to remove humidity effects

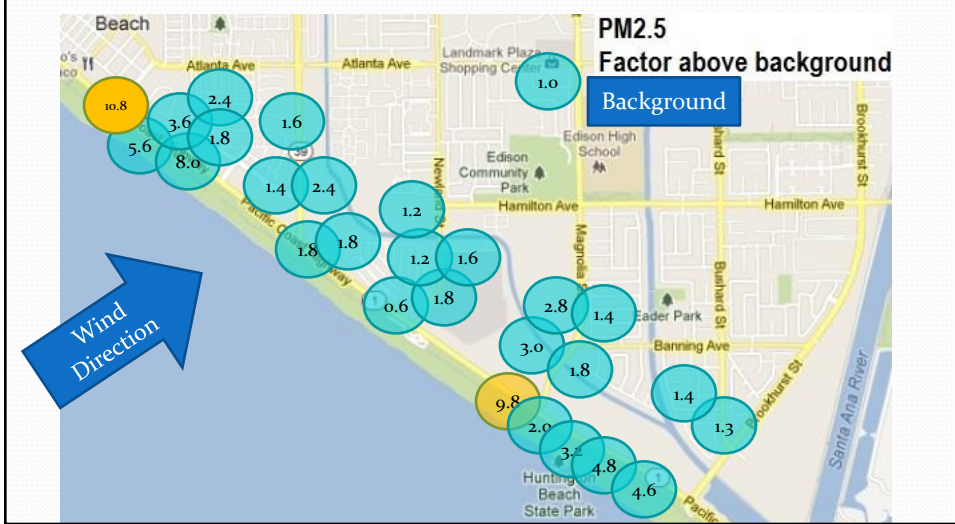


## Preliminary Results: Corona Del Mar 3/30/13 10 Minute Average PM<sub>10</sub> Relative to Background Levels





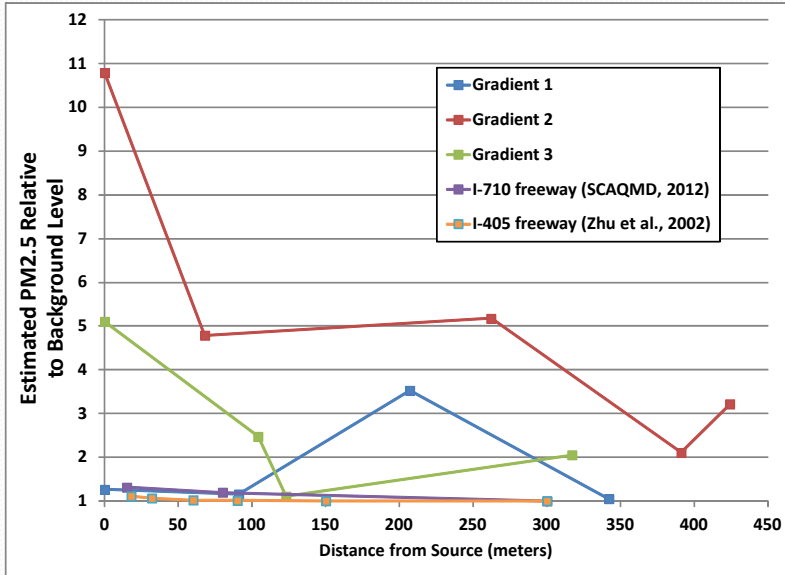
### Preliminary Results: Huntington Beach 4/13/13 10 Min Average PM<sub>2.5</sub> Relative to Background



### Preliminary Results: Huntington Beach 4/27/13



### Preliminary Results: Huntington Beach 4/27/13

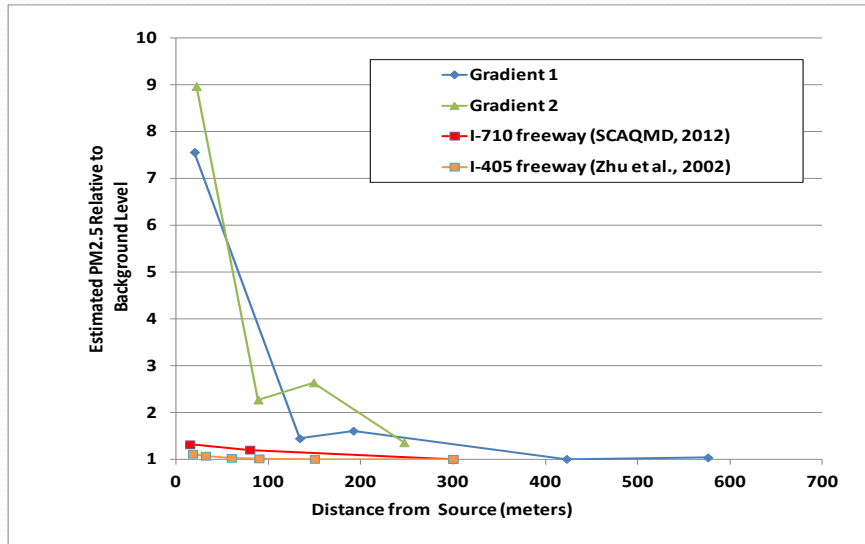


### Preliminary Results: Doheny State Beach 06/01/13 20 minute Average PM<sub>2.5</sub> Ratio to Background





## Preliminary Results: Doheny State Beach 06/01/13



## Fixed-Site Monitoring

### Objective:

Assess the PM impacts of the Beach Fires at a fixed locations, continuously over time

### Methods:

#### E-BAM – Measures PM2.5 on an hourly basis

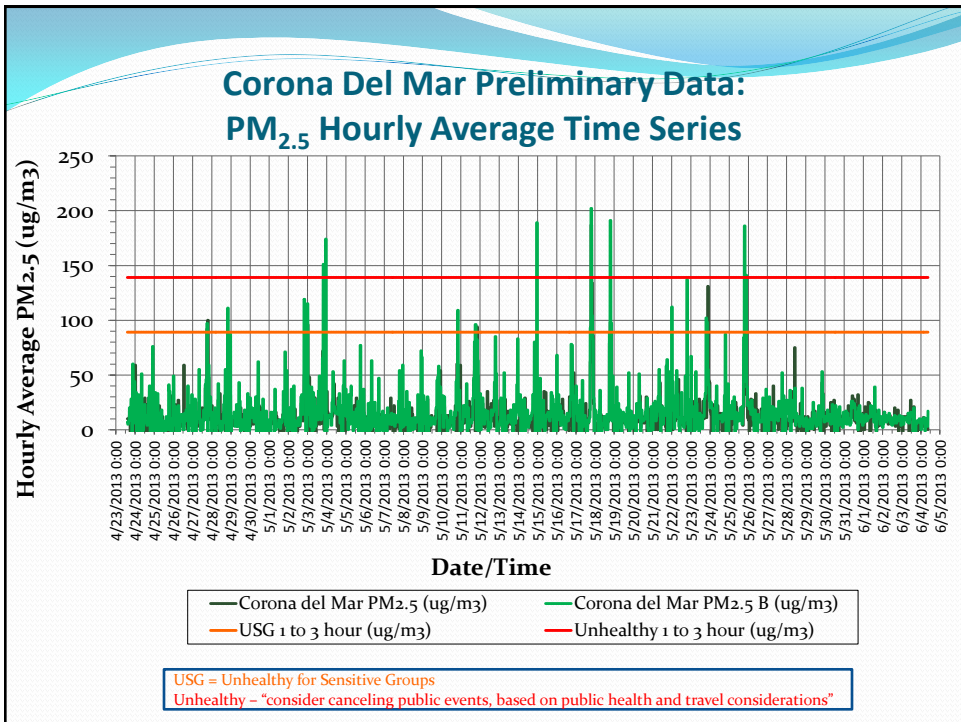
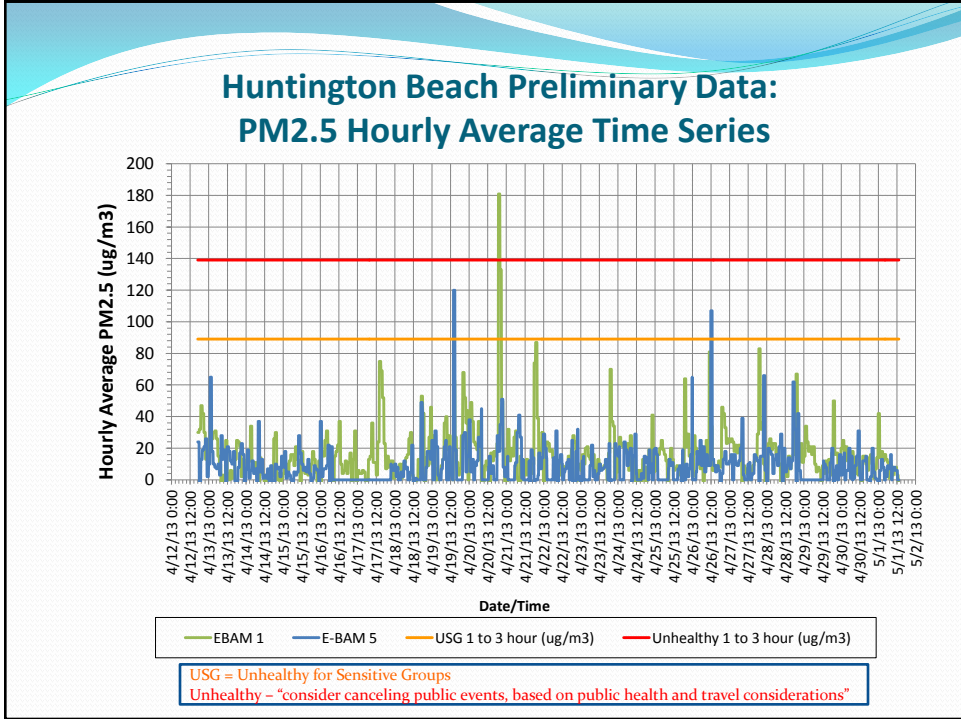
Advantages: portable, low power, same measurement principle as a Federal Equivalent Method

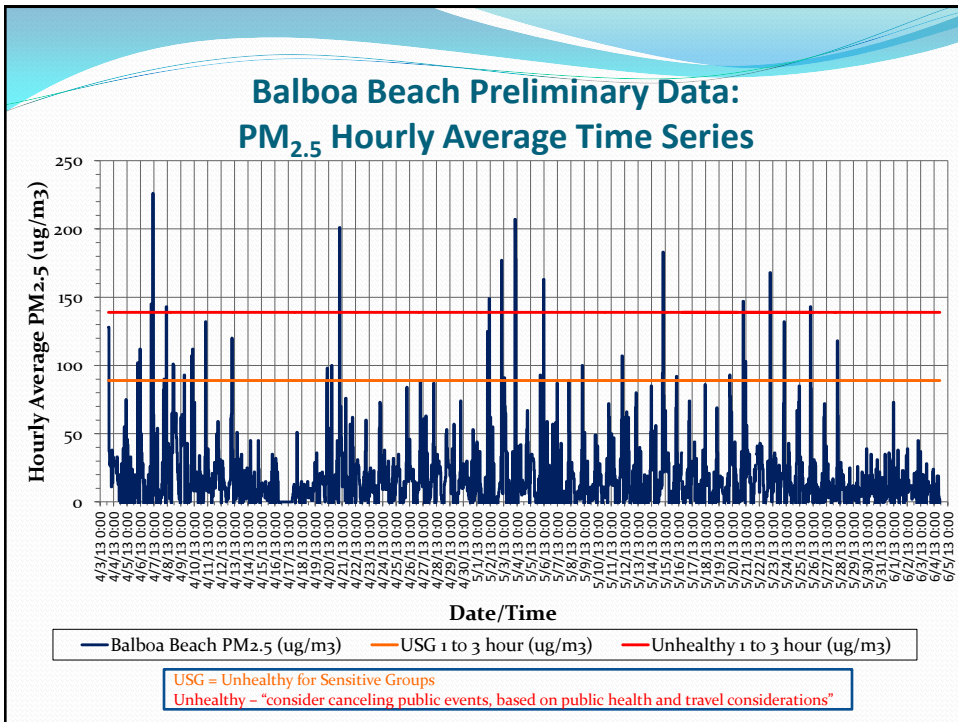
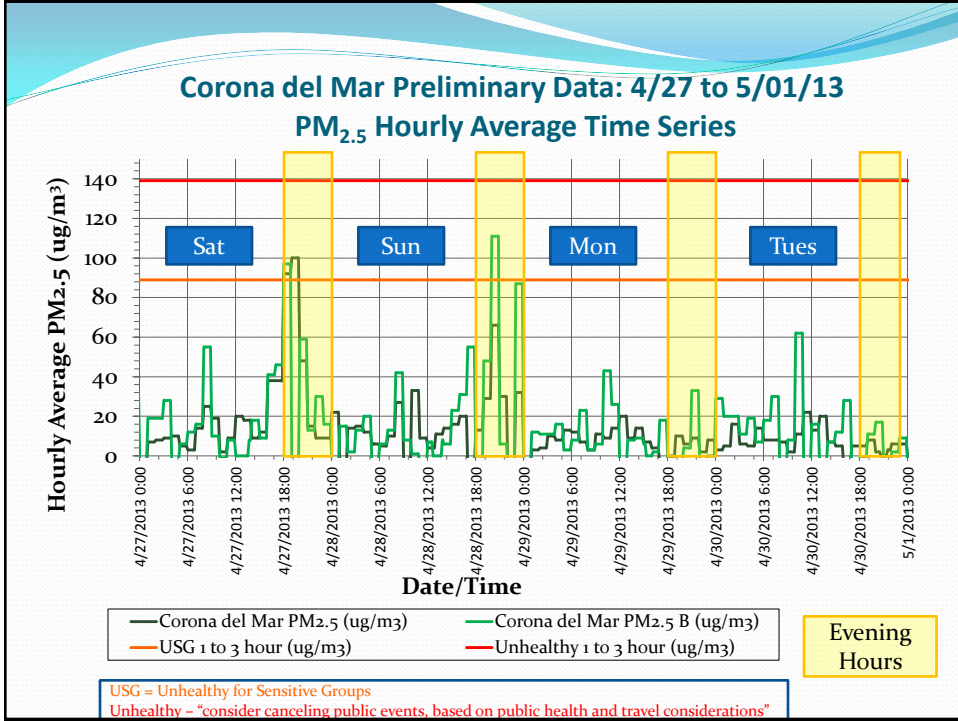
Limitations: less accurate at low levels

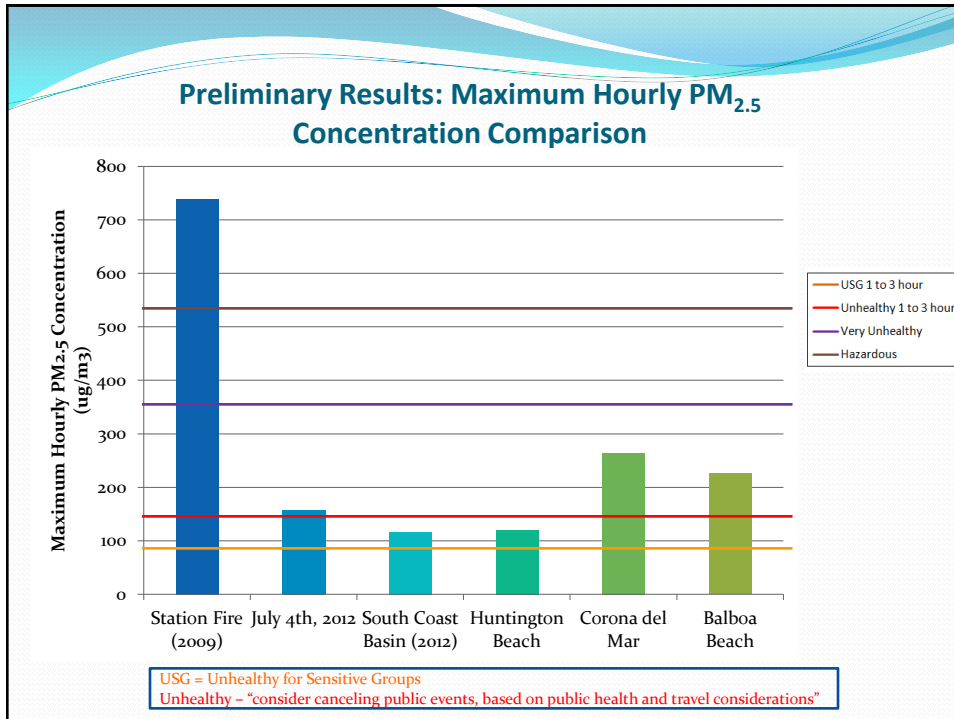
#### Aethalometer – Measures Black Carbon, an indicator of combustion, on a continuous basis

Condensation Particle Counter (CPC) - Measures Ultrafine particles, indicative of nearby sources of combustion









## Filter analysis

Corona del Mar (3/30 to 4/19), Huntington Beach (4/24 to current)

### - PM<sub>2.5</sub> Mass (24 hour average) – Daily Samples

- All below 12.5 ug/m<sup>3</sup>, under the 24 hour NAAQS level (35 ug/m<sup>3</sup>)
- One day nearly 40 ug/m<sup>3</sup>, day had very high gusty winds

### - PM<sub>10</sub> mass (4 hour sample, 4/6) - One Sample Only

- Sample collected from 5 to 9pm with burning activity shown to have PM<sub>10</sub> mass concentration of 95 ug/m<sup>3</sup>.
- 30% higher concentration than sample collected from 1 to 5pm
- Elevated levels of Potassium, an indicator for wood smoke



## Preliminary Air Monitoring Conclusions

- Beach fire activity is impacting PM2.5 levels at the beach and extending into neighboring communities
- Concentrations can be over 10 times background levels for short periods of time in beach parking areas, up to 3 times background at residential locations
- 1-hour average PM concentrations can exceed public health guidance levels
- Some measurements are higher than observed across the Basin over a whole year

## Proposed Rule 444 Amendments

- Initial proposal prohibited all beach burning (March 21, 2013)
- Revised Language released on June 6, 2013
  - Provision for cities to remove rings if they are declared to be a public nuisance
  - All rings more than 700 feet from residences are allowed
  - Spacing requirements if within 700 feet
    - 100 feet apart, or
    - 50 feet apart if 15 or less pits in a city
  - No-burn days if high particulate levels are forecast in that coastal area
  - Only applicable to pits on the sand

## Impacts of Revised Proposal

- Provides additional authority and discretion to cities to remove fire rings through a nuisance declaration
- If a city does not make a nuisance declaration
  - All fire rings outside 700 ft. residential buffer zone are still allowed at any spacing
  - Fire rings within 700 ft. zone subject to spacing requirements (50 or 100 ft.)
  - Burning is subject to coastal “no-burn” days (once in last 3 years)
- Net effect:
  - Huntington State Beach: ~30 rings would be moved or spaced out
  - Doheny State Beach: ~20 of 60 rings would be moved or spaced out
  - Aliso, San Clemente: slight shifting of rings would meet requirements

## Next steps

- Seek public input
- Continue field sampling as necessary
- Continue to report findings to public as they become available
- Continue to work with potentially impacted cities and state parks
- Demonstration project for propane and natural gas beach fire options
- Public Hearing scheduled for July 12, 2013



**ATTACHMENT 5**



**South Coast  
Air Quality Management District**

21865 Copley Drive, Diamond Bar, CA 91765-4182  
(909) 396-2000 • www.aqmd.gov

**SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

**PROJECT TITLE: PROPOSED AMENDED RULE 444 - OPEN BURNING, AS IT RELATES TO ONLY OPEN BURNING AT BEACH AREAS**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and will prepare a Notice of Exemption for the project identified above.

On May 3, 2013 the Governing Board approved amended Rule 445 and the portions of amended Rule 444 that would add a definition for product testing, establish an exemption from PAR 444 for product testing and establish a winter season burn restriction consistent with PAR 445. SCAQMD staff reviewed the proposed amendments and determined that they are exempt pursuant to the CEQA Guidelines §15308 – Actions Taken by Regulatory Agencies for Protection of the Environment. A separate Notice of Exemption was filed for that action.

The Governing Board postponed a decision on other proposed amendments of provisions of Rule 444, as it relates to only open burning at beach areas, until July 2013. These provisions include paragraphs (b)(11) and (c)(7), subparagraphs (d)(3)(G) and paragraphs (d)(4), (h)(5) and (6).

SCAQMD staff has reviewed the beach burning provisions of amended Rule 444 and determined they are exempt pursuant to the CEQA Guidelines §15308 – Actions Taken by Regulatory Agencies for Protection of the Environment. Based on SCAQMD staff's review, the beach burning provisions in amended Rule 444 would have no potential for generating significant adverse environmental impacts. The amendments relating to beach burning would better protect the public from the health impacts due to exposure to wood smoke and would not generate significant adverse environmental impacts. Upon adoption, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to me (c/o Planning, Rule Development & Area Sources) at the above address. I can also be reached at (909) 396-2706.

**Date:** July 12, 2013

**Signature:** 

Michael Krause  
CEQA Program Supervisor  
Planning, Rule Development &  
Area Sources

**Reference: California Code of Regulations, Title 14**

## NOTICE OF EXEMPTION

---

<b>To:</b> County Clerks of Los Angeles, Orange, Riverside, San Bernardino	<b>From:</b> South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765
--	---

---

**Project Title:**

Proposed Amended Rule 444 - Open Burning, as it relates to open burning at beach areas

---

**Project Location:**

South Coast Air Quality Management District (SCAQMD) area of jurisdiction consisting of the four-county South Coast Air Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin and the Mojave Desert Air Basin.

---

**Description of Nature, Purpose, and Beneficiaries of Project:**

On July 12, 2013, the SCAQMD Governing Board approved proposed amendments to Rule 444 addressing beach burning. These provisions include paragraphs (b)(11) and (c)(7), subparagraphs (d)(3)(G) and paragraphs (d)(4), (h)(5) and (6), which

- Establish buffer zones to the nearest residence;
- Increase distance between fire rings;
- Establish no-burn days during unfavorable meteorology or air quality conditions; and
- Empower local jurisdictions to invoke a provision of Rule 444 to prohibit beach burning that has been declared a nuisance due to wood smoke; and
- Reduce the burning of inappropriate materials.

Previously, the Governing Board took action on different amendments to Rule 445 and Rule 444 on May 3, 2013. The amendments adopted on May 3, 2013 did not address beach burning. A separate Notice of Exemption was filed for that action.

---

**Public Agency Approving Project:**

South Coast Air Quality Management District

**Agency Carrying Out Project:**

South Coast Air Quality Management District

---

**Exempt Status:**

Actions Taken by Regulatory Agencies for Protection of the Environment Exemption [CEQA Guidelines §15308]

---

**Reasons why project is exempt:**

The SCAQMD has reviewed amended Rule 444 and determined that it is exempt pursuant to CEQA Guidelines §15308 – Actions Taken by Regulatory Agencies for Protection of the Environment because the amended rule would better protect the public from the health impacts due to exposure to wood smoke and would not generate significant adverse environmental impacts. Amended Rule 444 has no potential for generating significant adverse environmental impacts because it would limit open burning in beach areas.

---

**Project Approval Date:**

SCAQMD Governing Board Hearing: July 12, 2013, 9:00 a.m.; SCAQMD Headquarters

---

<b>CEQA Contact Person:</b>	<b>Phone Number:</b>	<b>Fax Number:</b>	<b>Email:</b>
Mr. Michael Krause	(909) 396-2706	(909) 396-3324	mkrause@aqmd.gov

---

<b>Rule Contact Person:</b>	<b>Phone Number:</b>	<b>Fax Number:</b>	<b>Email:</b>
Mr. Michael Laybourn	(909) 396-3066	(909) 396-3324	mlaybourn@aqmd.gov

---

Date Received for Filing \_\_\_\_\_

Signature \_\_\_\_\_  
*Signed upon project approval*  
Michael Krause  
CEQA Program Supervisor  
Planning, Rule Development  
and Area Sources



**South Coast  
Air Quality Management District**

**ATTACHMENT 6**

**REQUEST FOR PROPOSALS**

**Demonstration of Low-Emission Outdoor Non-Wood Public Beach-Type Fire Rings  
and/or Low-Emission Non-Wood burning Retrofit Equipment and Devices for Existing  
Outdoor Public Beach-Type Fire Rings**

**#P2013-21**

The South Coast Air Quality Management District (SCAQMD) requests proposals for the following purpose according to terms and conditions attached. In the preparation of this Request for Proposals (RFP) the words "Proposer," "Contractor," and "Consultant" are used interchangeably.

**PURPOSE**

The purpose of this RFP is to solicit proposals from qualified and experienced entities for the demonstration of low-emission outdoor public beach-type fire rings and/or low-emission retrofit equipment and devices for existing outdoor public beach-type fire rings fueled by sources other than wood, such as propane and/or natural gas. The successful bidding entities should have proven expertise and experience, preferably with low emission hearth product technologies. Proponents should be well-acquainted with the codes, standards, safety, and permitting protocols of delivering, installing, operating, and maintaining open, general public burning devices and equipment in new applications and potentially challenging environment conditions.

SCAQMD will work with local beach authorities to select host-sites for the demonstration of the low-emission systems. Potential initial host sites could include Big Corona beach and the Balboa Pier area in Newport Beach and State beaches in Orange and Los Angeles counties. SCAQMD anticipates multiple awards to multiple applicants to test a variety of technological approaches. SCAQMD will make funding available to incentivize the demonstration of up to a total of 25 outdoor non-wood public beach-type fire rings.

**INDEX - The following are contained in this RFP:**

Section I	Background/Information
Section II	Contact Person
Section III	Schedule of Events
Section IV	Participation in the Procurement Process
Section V	Statement of Work/Schedule of Deliverables
Section VI	Required Qualifications
Section VII	Proposal Submittal Requirements
Section VIII	Proposal Submission
Section IX	Proposal Evaluation/Contractor Selection Criteria
Section X	Funding
Section XI	Draft Contract

Attachment A - Certifications and Representations

## **SECTION I: BACKGROUND/INFORMATION**

The South Coast Air Quality Management District (SCAQMD) is a regional agency with jurisdiction over air quality in California's South Coast Air Basin with a boundary that includes over 10,000 square miles and a population of 17 million. Residents of the South Coast Air Basin (Basin) are exposed to some of the highest ambient concentrations in the nation of PM10 and PM2.5, collectively referred to as particulate matter or PM. Although smoke from biomass burning (firewood and open burning) is not the largest source of the region's fine particulate pollution, it is one of the last largely uncontrolled sources of directly emitted particulates, and air quality studies indicate that significant air quality improvements can be achieved by reducing these emissions. Health studies also continue to show the importance of reducing public exposure to PM, including biomass smoke (U.S. EPA, 2009). This is reflected in the U.S. EPA's recent decision to lower the PM2.5 annual standard from 15 to 12  $\mu\text{g}/\text{m}^3$  to be more health protective.

There is ample evidence in the scientific literature regarding the adverse health effects associated with open burning of wood and other biomass fuels. What has not been previously acknowledged is the potential harmful exposure related to wood burning in beach fire rings. Over 750 beach fire rings are known to be in use in the South Coast Air Basin beaches. SCAQMD is releasing this RFP as part of an effort to work with local beach authorities to identify and demonstrate alternative lower emission outdoor non-wood burning public beach-type fire rings and/or lower emission retrofit non-wood burning equipment and devices for existing outdoor public beach-type fire rings. SCAQMD desires to demonstrate up to a total of 25 lower emission outdoor non-wood burning public beach-type fire rings for - up to a 12-month period. Multiple awards are expected to result from this RFP.

## **SECTION II: CONTACT PERSON:**

Questions regarding the content or intent of this RFP or on procedural matters should be addressed to:

Alfonso Baez, Program Supervisor  
Technology Advancement  
SCAQMD  
21865 Copley Drive  
Diamond Bar, CA 91765-4178  
(909) 396-2516  
E-mail: [abaez@aqmd.gov](mailto:abaez@aqmd.gov)

## **SECTION III: SCHEDULE OF EVENTS**

July 12, 2013	RFP Released
July 26, 2013	Bidder's Conference*
August 14, 2013	Proposals Due – <b>No Later Than 1:00 pm</b>
September 6, 2013	Governing Board Approval

\*Participation in the Bidder's Conference is optional. Such participation would assist in notifying potential bidders of any updates or amendments. The Bidder's Conference will be held in Room GB at the SCAQMD Headquarters in Diamond Bar, California at 1:00 pm on Friday, July 26, 2013. Please contact **Alfonso Baez** at (909) 396-2516 by close of business on Tuesday, July 23, 2013 if you plan to attend.

## **SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS**

A. It is the policy of the South Coast Air Quality Management District to ensure that all businesses including minority business enterprises, women business enterprises, disabled veteran business enterprises and small businesses have a fair and equitable opportunity to compete for and participate in SCAQMD contracts.

B. Definitions:

The definition of minority, women or disadvantaged business enterprises set forth below is included for purposes of determining compliance with the affirmative steps requirement described in Paragraph G below on procurements funded in whole or in part with federal grant funds which involve the use of subcontractors. The definition provided for disabled veteran business enterprise, local business, small business enterprise, low-emission vehicle business and off-peak hours delivery business are provided for purposes of determining eligibility for point or cost considerations in the evaluation process.

1. "Women business enterprise" (WBE) as used in this policy means a business enterprise that meets all of the following criteria:
  - a. a business that is at least 51 percent owned by one or more women, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or women.
  - b. a business whose management and daily business operations are controlled by one or more women.
  - c. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.
2. "Disabled veteran" as used in this policy is a United States military, naval, or air service veteran with at least 10 percent service-connected disability who is a resident of California.
3. "Disabled veteran business enterprise" (DVBE) as used in this policy means a business enterprise that meets all of the following criteria:
  - a. is a sole proprietorship or partnership of which at least 51 percent is owned by one or more disabled veterans or, in the case of a publicly owned business, at least 51 percent of its stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.
  - b. the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.



- c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.
4. "Local business" as used in this policy means a company that has an ongoing business within the SCAQMD jurisdictional boundary at the time of bid or proposal submittal and performs 90% of the work related to the contract within the SCAQMD and satisfies the requirements of subparagraph H below.
5. "Small business" as used in this policy means a business that meets the following criteria:
  - a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
    - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or
    - A manufacturer with 100 or fewer employees.
  - b. Manufacturer means a business that is both of the following:
    - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
    - 2) Classified between Codes 311000 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.
6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent of the joint venture.
7. "Low-Emission Vehicle Business" as used in this policy means a company or contractor that uses low-emission vehicles in conducting deliveries to the SCAQMD. Low-emission vehicles include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, hydrogen and diesel retrofitted with particulate matter (PM) traps.
8. "Off-Peak Hours Delivery Business" as used in this policy means a company or contractor that commits to conducting deliveries to the SCAQMD during off-peak traffic hours defined as between 10:00 a.m. and 3:00 p.m.
9. "Benefits Incentive Business" as used in this policy means a company or contractor that provides janitorial, security guard or landscaping services to the SCAQMD and commits to providing employee health benefits (as defined below in Section VIII.D.2.d) for full time workers with affordable deductible and co-payment terms.

10. "Minority Business Enterprise" as used in this policy means a business that is at least 51 percent owned by one or more minority person(s), or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or minority persons.

- a. a business whose management and daily business operations are controlled by one or more minority persons.
- b. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.
- c. "Minority person" for purposes of this policy, means a Black American, Hispanic American, Native-American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian (including a person whose origins are from India, Pakistan, and Bangladesh), Asian-Pacific-American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan).

11. "Disadvantaged Business Enterprise" as used in this policy means a business that is an entity owned and/or controlled by a socially and economically disadvantaged individual(s) as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d)(8% statute), respectively;

a Small Business Enterprise (SBE);

a Small Business in a Rural Area (SBRA);

a Labor Surplus Area Firm (LSAF); or

a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

C. Under Request for Quotations (RFQ), DVBEs, DVBE business joint ventures, small businesses, and small business joint ventures shall be granted a preference in an amount equal to 5% of the lowest cost responsive bid. Low-Emission Vehicle Businesses shall be granted a preference in an amount equal to 5 percent of the lowest cost responsive bid. Off-Peak Hours Delivery Businesses shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid. Local businesses (if the procurement is not funded in whole or in part by federal grant funds) shall be granted a preference in an amount equal to 2% of the lowest cost responsive bid.

D. Under Request for Proposals, DVBEs, DVBE joint ventures, small businesses, and small business joint ventures shall be awarded ten (10) points in the evaluation process. A non-DVBE or large business shall receive seven (7) points for subcontracting at least twenty-five (25%) of the total contract value to a DVBE and/or small business. Low-Emission Vehicle Businesses shall be awarded five (5) points in the evaluation process. On procurements which are not funded in whole or in part by federal grant funds local businesses shall receive five (5) points. Off-Peak Hours Delivery Businesses shall be awarded two (2) points in the evaluation process.

E. SCAQMD will ensure that discrimination in the award and performance of contracts does not occur on the basis of race, color, sex, national origin, marital status, sexual

preference, creed, ancestry, medical condition, or retaliation for having filed a discrimination complaint in the performance of SCAQMD contractual obligations.

- F. SCAQMD requires Contractor to be in compliance with all state and federal laws and regulations with respect to its employees throughout the term of any awarded contract, including state minimum wage laws and OSHA requirements.
- G. When contracts are funded in whole or in part by federal funds, and if subcontracts are to be let, the Contractor must comply with the following, evidencing a good faith effort to solicit disadvantaged businesses. Contractor shall submit a certification signed by an authorized official affirming its status as a MBE or WBE, as applicable, at the time of contract execution. The SCAQMD reserves the right to request documentation demonstrating compliance with the following good faith efforts prior to contract execution.
  - 1. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
  - 2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
  - 3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
  - 4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
  - 5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
  - 6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.
- H. To the extent that any conflict exists between this policy and any requirements imposed by federal and state law relating to participation in a contract by a certified MBE/WBE/DVBE as a condition of receipt of federal or state funds, the federal or state requirements shall prevail.
- I. When contracts are not funded in whole or in part by federal grant funds, a local business preference will be awarded. For such contracts that involve the purchase of commercial off-the-shelf products, local business preference will be given to suppliers or distributors of commercial off-the-shelf products who maintain an ongoing business within the

geographical boundaries of the SCAQMD. However, if the subject matter of the RFP or RFQ calls for the fabrication or manufacture of custom products, only companies performing 90% of the manufacturing or fabrication effort within the geographical boundaries of the SCAQMD shall be entitled to the local business preference.

- J. In compliance with federal fair share requirements set forth in 40 CFR 35.6580, the SCAQMD shall establish a fair share goal annually for expenditures covered by its procurement policy.

## **SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES**

Proposals for this RFP should address concisely the information requested in the following scope of work in the format specified in Section VII Proposal Submittal Requirements. Applicants are encouraged to pay close attention to Section IX Proposal Evaluation/Contractor Selection Criteria to assess how their bids will be evaluated. Each bid will be evaluated separately. Information provided should be specific enough for evaluation and scoring purposes, and for inclusion into a binding contract. Successful proposers are expected to expand, and provide more complete details on the scope of work included in the statement of work below.

The goal of this RFP is to solicit proposals from qualified and experienced entities for the demonstration of up to a total of 25 lower emission outdoor public beach-type fire rings and/or lower emission retrofit equipment and devices for existing outdoor public beach-type fire rings fueled by sources other than wood such as propane and/or natural gas; fuels proposed with a specific gravity greater than one will require provisions to eliminate ground level pooling resulting from leaks or flow of unburned fuels. Each proposal may include multiple design variations for consideration. Proposals must include allowance for an in-Basin demonstration at a host site that will be selected by the SCAQMD. Initial host sites may include Big Corona beach and the Balboa Pier area in Newport Beach and State beaches in Orange and Los Angeles counties.

The demonstration of lower emission public beach-type fire rings will be conducted in a two phase approach. In phase 1 selected contractor(s) will be expected to construct, install and assist with the operation of a working prototype lower emission outdoor non-wood burning public beach-type fire ring as part of the project. SCAQMD will then conduct an evaluation of the prototype and make a determination whether to move forward with the phase 2 demonstration of the prototype at host sites. Phase 2 will consist of the demonstration of one or more approved prototypes at host sites selected by the SCAQMD. The demonstration period at the host sites is anticipated to occur over up to 12 months. During this time, additional testing and evaluation will be done. At least five non-wood burning fire rings are expected to be demonstrated at each host site.

The successful demonstration of alternative non-wood burning public beach-type fire rings may lead to a plan for the permanent installation at the host sites.

The successful bidding entities should have proven expertise and experience in working directly with hearth product technologies. Proponents should be well-acquainted with the codes, standards, safety, and permitting protocols of delivering, installing, operating, and

maintaining open-burning devices and equipment in new applications and challenging environmental conditions.

### **Permits and Safety**

Proposers will work with the SCAQMD and local and regional authorities to acquire the necessary permits and permissions to demonstrate the proposed lower emission outdoor non-wood burning public beach-type fire rings and/or low-emission retrofit non-wood burning equipment and devices for existing outdoor public beach-type fire rings (“system”). The project funding will be contingent upon compliance with such necessary permissions and permits.

Proponents should ensure that the provisions for safety design/controls for the entire installed system will meet or exceed industry standards using listed devices and will be compliant with all applicable building, fire, plumbing, and electrical codes. Proponents should provide for system performance data. Diagrams and/or photographs of the proposed system should be enclosed with the proposals. Safety is of utmost importance. The design configuration should be such to disable or prevent the release or accumulation of non-ignited gases as well as the combustion of other materials such as scrap wood and trash if at all possible. Impacts from environmental factors should also be taken into account such as corrosion from sea salt, moisture, wind, and the sandy beach environment.

Bidders must possess the appropriate license(s) to install open-burning equipment.

### **Performance measures and economics**

Proponents should describe performance measures they expect to achieve through the system design. These performance measures will be the mechanism to track performance of the successful operation of the system. The performance measures should include the expected air pollutant emission reductions, efficiency, durability, availability and maintenance requirements. If applicant is unable to calculate air pollutant emission reductions, they may include estimates of other quantifiable outputs that have a direct relationship with pollutant emission reductions. Proponents are encouraged to provide independent verification, if any, of such data. This data should be later validated against the operating data following the installation of the system.

Due to the fire rings being used on a walk-up first-come/first served basis, the design should take into account ease of use and safety considerations such as anti-tampering measures and/or procedures. The design should include easy-to-understand user operating instructions in both English and Spanish. The operating instructions should include a way to access other translations (e.g. Vietnamese, Farsi, etc).

Finally, these systems must approximate, to the extent possible, the traditional beach bonfire experience, including gathering for warmth and compatibility with open flame cooking of food such as hot dogs and s’mores.

In the proposal, Volume II, “Cost Proposal,” proponents should discuss the anticipated costs of permitting, purchasing, installing, operating and maintaining the system. This should be later validated with the actual data.

- Proponents should determine the operating costs (fuel, utilities, maintenance, etc.) and expected useful life of the proposed fire ring system, including specifics such as:
  - How fuel will be replenished on a regular basis;
  - The supervision/staffing needed to appropriately safeguard the public and to provide a quality experience for the users;
  - Scheduled maintenance for the units;
  - How non-scheduled repairs (i.e. damage or vandalism) would be addressed to minimize the downtime of the units;
  - Provision of spare parts/rings for units, if appropriate.
- The above assumes that a local agency or its contractor will provide staffing and maintenance/repair of the rings. As an alternative, proposers can submit a proposal with proposers managing the maintenance and repair and/or staffing of the rings.
- Proponents should calculate both the capital (installation) and operating costs.
- Proponents should discuss how the proposed system will provide competitive advantages, if any, against competing technologies.

## **SECTION VI: REQUIRED QUALIFICATIONS**

Provide a resume or similar statement of the qualifications of the lead person and all persons assigned to the project. Substitution of project manager or lead personnel will not be permitted without prior written approval of SCAQMD. List all key personnel assigned to the project by level and name, and include resumes.

The proponent must have detailed knowledge and expertise in working directly with open-burning equipment and technologies. Proponents should be well-acquainted with the codes, standards, safety, and permitting protocols of delivering, installing, operating, and maintaining open-burning devices and equipment in new applications and challenging environment conditions.

## **SECTION VII: PROPOSAL SUBMITTAL REQUIREMENTS**

Submitted proposals must follow the format outlined below and all requested information must be supplied.

Each proposal must be submitted in three parts:

- Volume I - Technical Proposal
- Volume II - Cost Proposal
- Volume III - Certifications and Representations included in Attachment A to this RFP, should be executed by an authorized official of the Contractor.

A separate cover letter including the name, address, and telephone number of the contractor, and signed by the person or persons authorized to represent the firm should accompany the

proposal submission. Firm contact information as follows should also be included in the cover letter:

1. Address and telephone number of office in, or nearest to, Diamond Bar, California.
2. Name and title of firm's representative designated as contact.

## **VOLUME I - TECHNICAL PROPOSAL**

### **DO NOT INCLUDE ANY COST INFORMATION IN THE TECHNICAL VOLUME**

Summary (Section A) - State overall approach to meeting the objectives and satisfying the scope of work to be performed, the sequence of activities, and a description of methodology or techniques to be used.

Program Schedule (Section B) - Provide projected milestones or benchmarks for submitting reports within the total time allowed.

Project Organization (Section C) - Describe the proposed management structure, program monitoring procedures, and organization of the proposed team.

Qualifications (Section D) - Describe the technical capabilities of the firm. Provide references of other similar studies performed during the last five years demonstrating ability to successfully complete the project. Include contact name, title, and telephone number for any references listed. Provide a statement of your firm's background and experience in performing similar projects for other governmental organizations.

Assigned Personnel (Section E) - Provide information on the staff to be assigned to this project including their background work experience and roles.

Subcontractors (Section F) - This project may require expertise in multiple technical areas. List any subcontractors that may be used and the work to be performed by them.

Conflict of Interest (Section G) - Address possible conflicts of interest with other clients affected by actions performed by the firm on behalf of SCAQMD. Although the Proposer will not be automatically disqualified by reason of work performed for such firms, SCAQMD reserves the right to consider the nature and extent of such work in evaluating the proposal.

Additional Data (Section H) - Provide other essential data that may assist in the evaluation of this proposal.

## **VOLUME II - COST PROPOSAL**

Name and Address - The Cost Proposal must list the name and complete address of the Proposer in the upper left-hand corner.

Cost Proposal – SCAQMD anticipates awarding a fixed price contract. Cost information must be provided as listed below:

1. Detail must be provided by the following categories:
  - A. Labor for Unit Design/Construction/Installation - List the total number of hours and the hourly billing rate for each level of professional staff to complete this task. A breakdown of the proposed billing rates must identify the direct labor rate,

overhead rate and amount, fringe benefit rate and amount, General and Administrative rate and amount, and proposed profit or fee. Provide a basis of estimate justifying the proposed labor hours and proposed labor mix.

- B. Labor for Testing, Monitoring and Reporting - List the total number of hours and the hourly billing rate for each level of professional staff to complete this. A breakdown of the proposed billing rates must identify the direct labor rate, overhead rate and amount, fringe benefit rate and amount, General and Administrative rate and amount, and proposed profit or fee. Provide a basis of estimate justifying the proposed labor hours and proposed labor mix.
- C. Subcontractor Costs - List subcontractor costs and identify subcontractors by name. Itemize subcontractor charges per hour or per day.
- D. Travel Costs - Indicate amount of travel cost and basis of estimate to include trip destination, purpose of trip, length of trip, airline fare or mileage expense, per diem costs, lodging and car rental.
- E. Other Direct Costs -This category may include such items as postage and mailing expense, printing and reproduction costs, etc. Provide a basis of estimate for these costs.

### **VOLUME III - CERTIFICATIONS AND REPRESENTATIONS** (see Attachment A to this RFP)

CERTIFICATIONS AND REPRESENTATIONS MUST BE INCLUDED IN YOUR RFP

#### **SECTION VIII: PROPOSAL SUBMISSION**

All proposals must be submitted according to specifications set forth in the section above.

Signature - All proposals should be signed by an authorized representative of the Proposer.

Due Date - The Proposer shall submit six (6) complete copies of the proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Proposer and the words "Request for Proposals #2013-21." In addition, one electronic copy of the proposal shall be included as part of the package submittal in a disc format or flash drive. **All proposals are due no later than 1:00 p.m., August 14, 2013, and should be directed to:**

Procurement Unit  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765-4178  
(909) 396-3520

**Late bids/proposals will not be accepted under any circumstances.** Any correction or resubmission done by the Proposer will not extend the submittal due date.

Disposition of Proposals - SCAQMD reserves the right to reject any or all proposals. All responses become the property of SCAQMD. One copy of the proposal shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the proposer's expense.



Modification or Withdrawal - Once submitted, proposals cannot be altered without the prior written consent of SCAQMD. All proposals shall constitute firm offers and may not be withdrawn for a period of ninety (90) days following the last day to accept proposals.

**SECTION IX: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA**

- A. Proposals will be evaluated by a panel of three to five SCAQMD staff members familiar with the subject matter of the project. The panel shall be appointed by the Executive Officer or his designee. In addition, the evaluation panel may include such outside public sector or academic community expertise as deemed desirable by the Executive Officer. The panel will make a recommendation to the Executive Officer and/or the Governing Board of the SCAQMD for final selection of a contractor and negotiation of a contract.
- B. Each member of the evaluation panel shall be accorded equal weight in his or her rating of proposals. The evaluation panel members shall evaluate the proposals according to the specified criteria and numerical weightings set forth below.

1. Proposal Evaluation Criteria

Understanding the Problem/Requirements	10
Technical/Design/Management Approach	35
Contractor Qualifications/Previous Experience on Similar Projects	25
Cost	<u>30</u>
TOTAL	100

Additional Points

Small Business or Small Business Joint Venture	10
DVBE or DVBE Joint Venture	10
Use of DVBE or Small Business Subcontractors	7
Low-Emission Vehicle Business	5
Local Business (Non-Federally Funded Projects Only)	5
Off-Peak Hours Delivery Business	2

**The cumulative points awarded for small business, DVBE, use of small business or DVBE subcontractors, low-emission vehicle business, local business, and off-peak hours delivery business shall not exceed 15 points.**

**Note: The award of these additional points shall be contingent upon Proposer completing the Self-Certification section of Attachment A – Certifications and Representations and/or inclusion of a statement in the proposal self-certifying that Proposer qualifies for additional points as detailed above.**

2. To receive additional points in the evaluation process for the categories of Small Business or Small Business Joint Venture, DVBE or DVBE Joint Venture or Local Business (for non-federally funded projects), the proposer must submit a self-certification or certification from the State of California Office of Small Business Certification and Resources at the time of proposal submission certifying that the proposer meets the requirements set forth in Section III. To receive points for the use of DVBE and/or Small Business subcontractors, at least 25 percent of the total contract value must be subcontracted to DVBEs and/or Small Businesses. To receive points as a Low-Emission Vehicle Business, the proposer must demonstrate to the Executive Officer, or designee, that supplies and materials delivered to the SCAQMD are delivered in vehicles that operate on either clean-fuels or if powered by diesel fuel, that the vehicles have particulate traps installed. To receive points as an Off-Peak Hours Delivery Business, the proposer must submit, at proposal submission, certification of its commitment to delivering supplies and materials to SCAQMD between the hours of 10:00 a.m. and 3:00 p.m. The cumulative points awarded for small business, DVBE, use of Small Business or DVBE Subcontractors, Local Business, Low-Emission Vehicle Business and Off-Peak Hour Delivery Business shall not exceed 15 points.

The Procurement Section will be responsible for monitoring compliance of suppliers awarded purchase orders based upon use of low-emission vehicles or off-peak traffic hour delivery commitments through the use of vendor logs which will identify the contractor awarded the incentive. The purchase order shall incorporate terms which obligate the supplier to deliver materials in low-emission vehicles or deliver during off-peak traffic hours. The Receiving department will monitor those qualified supplier deliveries to ensure compliance to the purchase order requirements. Suppliers in non-compliance will be subject to a two percent of total purchase order value penalty. The Procurement Manager will adjudicate any disputes regarding either low-emission vehicle or off-peak hour deliveries.

3. For procurement of Research and Development (R & D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 70 points and cost shall be weighted at 30 points. A proposal must receive at least 56 out of a total possible technical score of 70 points on R & D projects and projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, in order to be deemed qualified for award.
4. The lowest cost proposal will be awarded the maximum cost points available and all other cost proposals will receive points on a prorated basis. For example if the lowest cost proposal is \$1,000 and the maximum points available are 30 points, this proposal would receive the full 30 points. If the next lowest cost proposal is \$1,100 it would receive 27 points reflecting the fact that it is 10% higher than the lowest cost (90% of 30 points = 27 points).

- C. During the selection process the evaluation panel may wish to interview some proposers for clarification purposes only. No new material will be permitted at this time.
- D. The Executive Officer or Governing Board may award the contract to a proposer other than the proposer receiving the highest rating in the event the Governing Board determines that another proposer from among those technically qualified would provide the best value to SCAQMD considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the Request for Proposal (RFP), on evidence provided in the proposal and on any other evidence provided during the bid review process. Evidence provided during the bid review process is limited to clarification by the Proposer of information presented in his/her proposal.
- E. Selection will be made based on the above-described criteria and rating factors. The selection will be made by and is subject to Executive Officer or Governing Board approval. Proposers may be notified of the results by letter.
- F. The Governing Board has approved a Bid Protest Procedure which provides a process for a bidder or prospective bidder to submit a written protest to the SCAQMD Procurement Manager in recognition of two types of protests: Protest Regarding Solicitation and Protest Regarding Award of a Contract. Copies of the Bid Protest Policy can be secured through a request to the SCAQMD Procurement Department.
- G. The Executive Officer or Governing Board may award contracts to more than one proposer if in (his or their) sole judgment the purposes of the (contract or award) would best be served by selecting multiple proposers.
- H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional proposers for a grant or contract if additional funds become available.
- I. Upon mutual agreement of the parties of any resultant contract from this RFP, the original contract term may be extended.

**SECTION X: FUNDING**

SCAQMD will make funding available for the demonstration of lower emission outdoor open burning public beach-type fire rings fueled by sources other than wood such as propane and/or natural gas.

**SECTION XI: DRAFT CONTRACT (Provided as a sample only)**



**South Coast  
Air Quality Management District**

1. PARTIES - The parties to this Contract are the South Coast Air Quality Management District (referred to here as "SCAQMD") whose address is 21865 Copley Drive, Diamond Bar, California 91765-4178, and \*\*\* (referred to here as "CONTRACTOR") whose address is \*\*\*.
  
2. RECITALS
  - A. SCAQMD is the local agency with primary responsibility for regulating stationary source air pollution in the South Coast Air Basin in the State of California. SCAQMD is authorized to enter into this Contract under California Health and Safety Code Section 40489. SCAQMD desires to contract with CONTRACTOR for services described in Attachment 1 - Statement of Work, attached here and made a part here by this reference. CONTRACTOR warrants that it is well-qualified and has the experience to provide such services on the terms set forth here.
  - B. CONTRACTOR is authorized to do business in the State of California and attests that it is in good tax standing with the California Franchise Tax Board.
  - C. All parties to this Contract have had the opportunity to have this Contract reviewed by their attorney.
  - D. CONTRACTOR agrees to obtain the required licenses, permits, and all other appropriate legal authorizations from all applicable federal, state and local jurisdictions and pay all applicable fees.
  
3. PERFORMANCE REQUIREMENTS
  - A. CONTRACTOR warrants that it holds all necessary and required licenses and permits to provide these services. CONTRACTOR further agrees to immediately notify SCAQMD in writing of any change in its licensing status.
  - B. CONTRACTOR shall submit reports to SCAQMD as outlined in Attachment 1 - Statement of Work. All reports shall be submitted in an environmentally friendly format: recycled paper; stapled, not bound; black and white, double-sided print; and no three-ring, spiral, or plastic binders or cardstock covers. SCAQMD reserves the right to review, comment, and request changes to any report produced as a result of this Contract.
  - C. CONTRACTOR shall perform all tasks set forth in Attachment 1 - Statement of Work, and shall not engage, during the term of this Contract, in any performance of work that is in direct or indirect conflict with duties and responsibilities set forth in Attachment 1 - Statement of Work.
  - D. CONTRACTOR shall be responsible for exercising the degree of skill and care customarily required by accepted professional practices and procedures subject to SCAQMD's final approval which SCAQMD will not unreasonably withhold. Any costs incurred due to the failure to meet the foregoing standards, or otherwise defective services which require re-performance, as directed by SCAQMD, shall be the responsibility of CONTRACTOR. CONTRACTOR's failure to achieve the performance goals and objectives stated in Attachment 1- Statement of Work, is not a basis for requesting re-performance unless work conducted by CONTRACTOR is deemed by SCAQMD to have failed the foregoing standards of performance.
  - E. CONTRACTOR shall post a performance bond in the amount of \*\*\* Dollars (\$\*\*\*) from a surety authorized to issue such bonds within the State. **[USE IF REQUIRED]**

- F. SCAQMD has the right to review the terms and conditions of the performance bond and to request modifications thereto which will ensure that SCAQMD will be compensated in the event CONTRACTOR fails to perform and also provides SCAQMD with the opportunity to review the qualifications of the entity designated by the issuer of the performance bond to perform in CONTRACTOR's absence and, if necessary, the right to reject such entity. [USE IF REQUIRED]
- G. CONTRACTOR shall ensure, through its contracts with any subcontractor(s), that employees and agents performing under this Contract shall abide by the requirements set forth in this clause.
4. TERM - The term of this Contract is from the date of execution by both parties (or insert date) to \*\*\*, unless further extended by amendment of this Contract in writing. No work shall commence until this Contract is fully executed by all parties.
5. TERMINATION
- A. In the event any party fails to comply with any term or condition of this Contract, or fails to provide services in the manner agreed upon by the parties, including, but not limited to, the requirements of Attachment 1 – Statement of Work, this failure shall constitute a breach of this Contract. The non-breaching party shall notify the breaching party that it must cure this breach or provide written notification of its intention to terminate this contract. Notification shall be provided in the manner set forth in **Clause 11**. The non-breaching party reserves all rights under law and equity to enforce this contract and recover damages.
- B. SCAQMD reserves the right to terminate this Agreement, in whole or in part, without cause, upon thirty (30) days' written notice. Once such notice has been given, CONTRACTOR shall, except as and to the extent or directed otherwise by SCAQMD, discontinue any Work being performed under this Agreement and cancel any of CONTRACTOR's orders for materials, facilities, and supplies in connection with such Work, and shall use its best efforts to procure termination of existing subcontracts upon terms satisfactory to SCAQMD. Thereafter, CONTRACTOR shall perform only such services as may be necessary to preserve and protect any Work already in progress and to dispose of any property as requested by SCAQMD.
- C. CONTRACTOR shall be paid in accordance with this Agreement for all work performed before the effective date of termination under Clause 5.B. Before expiration of the thirty (30) days' written notice, CONTRACTOR shall promptly deliver to SCAQMD all copies of documents and other information and data prepared or developed by CONTRACTOR under this Agreement with the exception of a record copy of such materials, which may be retained by CONTRACTOR.
6. INSURANCE
- A. CONTRACTOR shall furnish evidence to SCAQMD of workers' compensation insurance for each of its employees, in accordance with either California or other states' applicable statutory requirements prior to commencement of any work on this Contract.
- B. CONTRACTOR shall furnish evidence to SCAQMD of general liability insurance with a limit of at least \$1,000,000 per occurrence, and \$2,000,000 in a general aggregate prior to commencement of any work on this Contract. SCAQMD shall be named as an additional insured on any such liability policy, and thirty (30) days written notice prior to cancellation of any such insurance shall be given by CONTRACTOR to SCAQMD.
- C. CONTRACTOR shall furnish evidence to SCAQMD of automobile liability insurance with limits of at least \$100,000 per person and \$300,000 per accident for bodily injuries, and \$50,000 in property damage, or \$1,000,000 combined single limit for bodily injury or property damage, prior to commencement of any work on this Contract. SCAQMD shall be named as an additional insured on any such liability policy, and thirty (30) days written notice prior to cancellation of any such insurance shall be given by CONTRACTOR to SCAQMD.

- D. CONTRACTOR shall furnish evidence to SCAQMD of Professional Liability Insurance with an aggregate limit of not less than \$5,000,000. [OPTIONAL FOR PROFESSIONAL SERVICES]
- E. If CONTRACTOR fails to maintain the required insurance coverage set forth above, SCAQMD reserves the right either to purchase such additional insurance and to deduct the cost thereof from any payments owed to CONTRACTOR or terminate this Contract for breach.
- F. All insurance certificates should be mailed to: SCAQMD Risk Management, 21865 Copley Drive, Diamond Bar, CA 91765-4178. **The SCAQMD Contract Number must be included on the face of the certificate.**
- G. CONTRACTOR must provide updates on the insurance coverage throughout the term of the Contract to ensure that there is no break in coverage during the period of contract performance. Failure to provide evidence of current coverage shall be grounds for termination for breach of Contract.

7. INDEMNIFICATION - CONTRACTOR agrees to hold harmless, defend and indemnify SCAQMD, its officers, employees, agents, representatives, and successors-in-interest against any and all loss, damage, costs, lawsuits, demands, judgments, legal fees, or any other expenses incurred or required to be paid by SCAQMD, its officers, employees, agents, representatives, or successors-in-interest arising from or related to any injury to persons or damage to property caused directly or indirectly, in whole or in part, by any willful or negligent act or omission of CONTRACTOR, its employees, subcontractors, agents or representatives in the performance of this Contract.

8. CO-FUNDING [USE IF REQUIRED]

- A. CONTRACTOR shall obtain co-funding as follows: \*\*\*, \*\*\* Dollars (\$\*\*\*); \*\*\*, \*\*\* Dollars (\$\*\*\*); \*\*\*, \*\*\* Dollars (\$\*\*\*); \*\*\*, \*\*\* Dollars (\$\*\*\*); \*\*\*, \*\*\* Dollars (\$\*\*\*); and \*\*\*, \*\*\* Dollars (\$\*\*\*).
- B. If CONTRACTOR fails to obtain co-funding in the amount(s) referenced above, then SCAQMD reserves the right to renegotiate or terminate this Contract.
- C. CONTRACTOR shall provide co-funding in the amount of \*\*\* Dollars (\$\*\*\*) for this project. If CONTRACTOR fails to provide this co-funding, then SCAQMD reserves the right to renegotiate or terminate this Contract.

9. PAYMENT

[FIXED PRICE]-use this one or the T&M one below.

- A. SCAQMD shall pay CONTRACTOR a fixed price of \*\*\* Dollars (\$\*\*\*) for work performed under this Contract in accordance with Attachment 2 - Payment Schedule, attached here and included here by reference. Payment shall be made by SCAQMD to CONTRACTOR within thirty (30) days after approval by SCAQMD of an invoice prepared and furnished by CONTRACTOR showing services performed and referencing tasks and deliverables as shown in Attachment 1 - Statement of Work, and the amount of charge claimed. Each invoice must be prepared in duplicate, on company letterhead, and list SCAQMD's Contract number, period covered by invoice, and CONTRACTOR's social security number or Employer Identification Number and submitted to: South Coast Air Quality Management District, Attn: \*\*\*.
- B. An amount equal to ten percent (10%) shall be withheld from all charges paid until satisfactory completion and final acceptance of work by SCAQMD. [OPTIONAL]
- C. SCAQMD reserves the right to disallow charges when the invoiced services are not performed satisfactorily in SCAQMD sole judgment.

[T & M]-use this one or the Fixed Price one above.

- A. SCAQMD shall pay CONTRACTOR a total not to exceed amount of \*\*\* Dollars (\$\*\*\*), including any authorized travel-related expenses, for time and materials at rates in accordance with Attachment 2 - Cost Schedule, attached here and included here by this reference. Payment of charges shall be made by SCAQMD to CONTRACTOR within thirty (30) days after approval by SCAQMD of an itemized invoice

prepared and furnished by CONTRACTOR referencing line item expenditures as listed in Attachment 2 and the amount of charge claimed. Each invoice must be prepared in duplicate, on company letterhead, and list SCAQMD's Contract number, period covered by invoice, and CONTRACTOR's social security number or Employer Identification Number and submitted to: South Coast Air Quality Management District, Attn: \*\*\*.

- B. CONTRACTOR shall adhere to total tasks and/or cost elements (cost category) expenditures as listed in Attachment 2. Reallocation of costs between tasks and/or cost category expenditures is permitted up to One Thousand Dollars (\$1,000) upon prior written approval from SCAQMD. Reallocation of costs in excess of One Thousand Dollars (\$1,000) between tasks and/or cost category expenditures requires an amendment to this Contract.
- C. SCAQMD's payment of invoices shall be subject to the following limitations and requirements:
  - i) Charges for equipment, material, and supply costs, travel expenses, subcontractors, and other charges, as applicable, must be itemized by CONTRACTOR. Reimbursement for equipment, material, supplies, subcontractors, and other charges shall be made at actual cost. Supporting documentation must be provided for all individual charges (with the exception of direct labor charges provided by CONTRACTOR). SCAQMD's reimbursement of travel expenses and requirements for supporting documentation are listed below.
  - ii) CONTRACTOR's failure to provide receipts shall be grounds for SCAQMD's non-reimbursement of such charges. SCAQMD may reduce payments on invoices by those charges for which receipts were not provided.
  - iii) SCAQMD shall not pay interest, fees, handling charges, or cost of money on Contract.
- D. SCAQMD shall reimburse CONTRACTOR for travel-related expenses only if such travel is expressly set forth in Attachment 2 – Cost Schedule of this Contract or pre-authorized by SCAQMD in writing.
  - i) SCAQMD's reimbursement of travel-related expenses shall cover lodging, meals, other incidental expenses, and costs of transportation subject to the following limitations:
    - Air Transportation - Coach class rate for all flights. If coach is not available, business class rate is permissible.
    - Car Rental - A compact car rental. A mid-size car rental is permissible if car rental is shared by three or more individuals.
    - Lodging - Up to One Hundred Fifty Dollars (\$150) per night. A higher amount of reimbursement is permissible if pre-approved by SCAQMD.
    - Meals - Daily allowance is Fifty Dollars (\$50.00).
      - ii) Supporting documentation shall be provided for travel-related expenses in accordance with the following requirements:
        - Lodging, Airfare, Car Rentals - Bill(s) for actual expenses incurred.
        - Meals - Meals billed in excess of \$50.00 each day require receipts or other supporting documentation for the total amount of the bill and must be approved by SCAQMD.
        - Mileage - Beginning each January 1, the rate shall be adjusted effective February 1 by the Chief Financial Officer based on the Internal Revenue Service Standard Mileage Rate
        - Other travel-related expenses - Receipts are required for all individual items.
- E. SCAQMD reserves the right to disallow charges when the invoiced services are not performed satisfactorily in SCAQMD sole judgment.

10. INTELLECTUAL PROPERTY RIGHTS - Title and full ownership rights to any software, documents, or reports developed under this Contract shall at all times remain with SCAQMD. Such material is agreed to be SCAQMD proprietary information.

- A. Rights of Technical Data - SCAQMD shall have the unlimited right to use technical data, including material designated as a trade secret, resulting from the performance of services by CONTRACTOR under this Contract. CONTRACTOR shall have the right to use technical data for its own benefit.



B. Copyright - CONTRACTOR agrees to grant SCAQMD a royalty-free, nonexclusive, irrevocable license to produce, translate, publish, use, and dispose of all copyrightable material first produced or composed in the performance of this Contract.

11. NOTICES - Any notices from either party to the other shall be given in writing to the attention of the persons listed below, or to other such addresses or addressees as may hereafter be designated in writing for notices by either party to the other. Notice shall be given by certified, express, or registered mail, return receipt requested, and shall be effective as of the date of receipt indicated on the return receipt card.

SCAQMD: South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765-4178  
Attn: \*\*\*

CONTRACTOR: \*\*\*  
\*\*\*  
\*\*\*  
Attn: \*\*\*

12. EMPLOYEES OF CONTRACTOR

- A. SCAQMD reserves the right to review the resumes of any of CONTRACTOR employees, and/or any subcontractors selected to perform the work specified here and to disapprove CONTRACTOR choices. CONTRACTOR warrants that it will employ no subcontractor without written approval from SCAQMD. CONTRACTOR shall be responsible for the cost of regular pay to its employees, as well as cost of vacation, vacation replacements, sick leave, severance pay and pay for legal holidays.
- B. CONTRACTOR, its officers, employees, agents, representatives or subcontractors shall in no sense be considered employees or agents of SCAQMD, nor shall CONTRACTOR, its officers, employees, agents, representatives or subcontractors be entitled to or eligible to participate in any benefits, privileges, or plans, given or extended by SCAQMD to its employees.
- C. SCAQMD requires Contractor to be in compliance with all state and federal laws and regulations with respect to its employees throughout the term of this Contract, including state minimum wage laws and OSHA requirements.

13. CONFIDENTIALITY - It is expressly understood and agreed that SCAQMD may designate in a conspicuous manner the information which CONTRACTOR obtains from SCAQMD as confidential. CONTRACTOR agrees to:

- A. Observe complete confidentiality with respect to such information, including without limitation, agreeing not to disclose or otherwise permit access to such information by any other person or entity in any manner whatsoever, except that such disclosure or access shall be permitted to employees or subcontractors of CONTRACTOR requiring access in fulfillment of the services provided under this Contract.
- B. Ensure that CONTRACTOR's officers, employees, agents, representatives, and independent contractors are informed of the confidential nature of such information and to assure by agreement or otherwise that they are prohibited from copying or revealing, for any purpose whatsoever, the contents of such information or any part thereof, or from taking any action otherwise prohibited under this clause.
- C. Not use such information or any part thereof in the performance of services to others or for the benefit of others in any form whatsoever whether gratuitously or for valuable consideration, except as permitted under this Contract.

- D. Notify SCAQMD promptly and in writing of the circumstances surrounding any possession, use, or knowledge of such information or any part thereof by any person or entity other than those authorized by this clause.
- E. Take at CONTRACTOR expense, but at SCAQMD's option and in any event under SCAQMD's control, any legal action necessary to prevent unauthorized use of such information by any third party or entity which has gained access to such information at least in part due to the fault of CONTRACTOR.
- F. Take any and all other actions necessary or desirable to assure such continued confidentiality and protection of such information.
- G. Prevent access to such information by any person or entity not authorized under this Contract.
- H. Establish specific procedures in order to fulfill the obligations of this clause.
- I. Notwithstanding the above, nothing herein is intended to abrogate or modify the provisions of Government Code Section 6250 et.seq. (Public Records Act).

14. PUBLICATION

- A. SCAQMD shall have the right of prior written approval of any document which shall be disseminated to the public by CONTRACTOR in which CONTRACTOR utilized information obtained from SCAQMD in connection with performance under this Contract.
- B. Information, data, documents, or reports developed by CONTRACTOR for SCAQMD, pursuant to this Contract, shall be part of SCAQMD public record unless otherwise indicated. CONTRACTOR may use or publish, at its own expense, such information provided to SCAQMD. The following acknowledgment of support and disclaimer must appear in each publication of materials, whether copyrighted or not, based upon or developed under this Contract.

"This report was prepared as a result of work sponsored, paid for, in whole or in part, by the South Coast Air Quality Management District (SCAQMD). The opinions, findings, conclusions, and recommendations are those of the author and do not necessarily represent the views of SCAQMD. SCAQMD, its officers, employees, contractors, and subcontractors make no warranty, expressed or implied, and assume no legal liability for the information in this report. SCAQMD has not approved or disapproved this report, nor has SCAQMD passed upon the accuracy or adequacy of the information contained herein."

- C. CONTRACTOR shall inform its officers, employees, and subcontractors involved in the performance of this Contract of the restrictions contained herein and require compliance with the above.

15. NON-DISCRIMINATION - In the performance of this Contract, CONTRACTOR shall not discriminate in recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, color, national origin, ancestry, sex, age, or physical or mental disability and shall comply with the provisions of the California Fair Employment & Housing Act (Government Code Section 12900 et seq.), the Federal Civil Rights Act of 1964 (P.L. 88-352) and all amendments thereto, Executive Order No. 11246 (30 Federal Register 12319), and all administrative rules and regulations issued pursuant to said Acts and Order. CONTRACTOR shall likewise require each subcontractor to comply with this clause and shall include in each such subcontract language similar to this clause.

16. SOLICITATION OF EMPLOYEES - CONTRACTOR expressly agrees that CONTRACTOR shall not, during the term of this Contract, nor for a period of six months after termination, solicit for employment, whether as an employee or independent contractor, any person who is or has been employed by SCAQMD during the term of this Contract without the consent of SCAQMD.

17. PROPERTY AND SECURITY - Without limiting CONTRACTOR obligations with regard to security, CONTRACTOR shall comply with all the rules and regulations established by SCAQMD for access to and activity in and around SCAQMD premises.
18. ASSIGNMENT - The rights granted hereby may not be assigned, sold, licensed, or otherwise transferred by either party without the prior written consent of the other, and any attempt by either party to do so shall be void upon inception.
19. NON-EFFECT OF WAIVER - The failure of CONTRACTOR or SCAQMD to insist upon the performance of any or all of the terms, covenants, or conditions of this Contract, or failure to exercise any rights or remedies hereunder, shall not be construed as a waiver or relinquishment of the future performance of any such terms, covenants, or conditions, or of the future exercise of such rights or remedies, unless otherwise provided for herein.
20. ATTORNEYS' FEES - In the event any action is filed in connection with the enforcement or interpretation of this Contract, each party shall bear its own attorneys' fees and costs.
21. FORCE MAJEURE - Neither SCAQMD nor CONTRACTOR shall be liable or deemed to be in default for any delay or failure in performance under this Contract or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy, war, strikes, labor disputes, shortages of suitable parts, materials, labor or transportation, or any similar cause beyond the reasonable control of SCAQMD or CONTRACTOR.
22. SEVERABILITY - In the event that any one or more of the provisions contained in this Contract shall for any reason be held to be unenforceable in any respect by a court of competent jurisdiction, such holding shall not affect any other provisions of this Contract, and the Contract shall then be construed as if such unenforceable provisions are not a part hereof.
23. HEADINGS - Headings on the clauses of this Contract are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this Contract.
24. DUPLICATE EXECUTION - This Contract is executed in duplicate. Each signed copy shall have the force and effect of an original.
25. GOVERNING LAW - This Contract shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any disputes under this Contract shall be Los Angeles County, California.
26. CITIZENSHIP AND ALIEN STATUS
  - A. CONTRACTOR warrants that it fully complies with all laws regarding the employment of aliens and others, and that its employees performing services hereunder meet the citizenship or alien status requirements contained in federal and state statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986 (P.L. 99-603). CONTRACTOR shall obtain from all covered employees performing services hereunder all verification and other documentation of employees' eligibility status required by federal statutes and regulations as they currently exist and as they may be hereafter amended. CONTRACTOR shall have a continuing obligation to verify and document the continuing employment authorization and authorized alien status of employees performing services under this Contract to insure continued compliance with all federal statutes and regulations.

- B. Notwithstanding paragraph A above, CONTRACTOR, in the performance of this Contract, shall not discriminate against any person in violation of 8 USC Section 1324b.
- C. CONTRACTOR shall retain such documentation for all covered employees for the period described by law. CONTRACTOR shall indemnify, defend, and hold harmless SCAQMD, its officers and employees from employer sanctions and other liability which may be assessed against CONTRACTOR or SCAQMD, or both in connection with any alleged violation of federal statutes or regulations pertaining to the eligibility for employment of persons performing services under this Contract.

- 27. FEDERAL FAIR SHARE POLICY - As a recipient of Environmental Protection Agency (EPA) grant funds, SCAQMD is required to flow down to all of its contractors the provisions of 40 CFR Section 31.36(e) which addresses affirmative steps for contracting with small-and-minority firms, women's business enterprises, and labor surplus area firms. CONTRACTOR agrees to comply with these provisions.
- 28. REQUIREMENT FOR FILING STATEMENT OF ECONOMIC INTERESTS - In accordance with the Political Reform Act of 1974 (Government Code Sec. 81000 et seq.) and regulations issued by the Fair Political Practices Commission (FPPC), SCAQMD has determined that the nature of the work to be performed under this Contract requires CONTRACTOR to submit a Form 700, Statement of Economic Interests for Designated Officials and Employees, for each of its employees assigned to work on this Contract. These forms may be obtained from SCAQMD's District Counsel's office. **[USE IF REQUIRED]**
- 29. COMPLIANCE WITH SINGLE AUDIT ACT REQUIREMENTS **[OPTIONAL - TO BE INCLUDED IN CONTRACTS WITH FOR-PROFIT CONTRACTORS WHICH HAVE FEDERAL PASS-THROUGH FUNDING]** - During the term of the Contract, and for a period of three (3) years from the date of Contract expiration, and if requested in writing by the SCAQMD, CONTRACTOR shall allow the SCAQMD, its designated representatives and/or the cognizant Federal Audit Agency, access during normal business hours to all records and reports related to the work performed under this Contract. CONTRACTOR assumes sole responsibility for reimbursement to the Federal Agency funding the prime grant or contract, a sum of money equivalent to the amount of any expenditures disallowed should the SCAQMD, its designated representatives and/or the cognizant Federal Audit Agency rule through audit exception or some other appropriate means that expenditures from funds allocated to the CONTRACTOR were not made in compliance with the applicable cost principles, regulations of the funding agency, or the provisions of this Contract.

**[OPTIONAL - TO BE INCLUDED IN CONTRACTS WITH NON-PROFIT CONTRACTORS WHICH HAVE FEDERAL PASS-THROUGH FUNDING]** - Beginning with CONTRACTOR's current fiscal year and continuing through the term of this Contract, CONTRACTOR shall have a single or program-specific audit conducted in accordance with the requirements of the Office of Management and Budget (OMB) Circular A-133 (Audits of States, Local Governments and Non-Profit Organizations), if CONTRACTOR expended Five Hundred Thousand Dollars (\$500,000) or more in a year in Federal Awards. Such audit shall be conducted by a firm of independent accountants in accordance with Generally Accepted Government Audit Standards (GAGAS). Within thirty (30) days of Contract execution, CONTRACTOR shall forward to SCAQMD the most recent A-133 Audit Report issued by its independent auditors. Subsequent A-133 Audit Reports shall be submitted to the SCAQMD within thirty (30) days of issuance.

CONTRACTOR shall allow the SCAQMD, its designated representatives and/or the cognizant Federal Audit Agency, access during normal business hours to all records and reports related to the work performed under this Contract. CONTRACTOR assumes sole responsibility for reimbursement to the Federal Agency funding the prime grant or contract, a sum of money equivalent to the amount of any expenditures disallowed should the SCAQMD, its designated representatives and/or the cognizant Federal Audit Agency rule through audit exception or some other appropriate means that expenditures from funds allocated to the CONTRACTOR were

not made in compliance with the applicable cost principles, regulations of the funding agency, or the provisions of this Contract.

30. OPTION TO EXTEND THE TERM OF THE CONTRACT - SCAQMD reserves the right to extend the contract for a one-year period commencing \*\*\*\*\* (enter date) at the (option price or Not-to-Exceed Amount) set forth in Attachment 2. In the event that SCAQMD elects to extend the contract, a written notice of its intent to extend the contract shall be provided to CONTRACTOR no later than thirty (30) days prior to Contract expiration. **[USE IF REQUIRED]**
31. KEY PERSONNEL - *insert person's name* is deemed critical to the successful performance of this Contract. Any changes in key personnel by CONTRACTOR must be approved by SCAQMD. All substitute personnel must possess qualifications/experience equal to the original named key personnel and must be approved by SCAQMD. SCAQMD reserves the right to interview proposed substitute key personnel. **[USE IF REQUIRED]**
32. PREVAILING WAGES – **[USE FOR INFRASTRUCTURE PROJECTS]** CONTRACTOR is alerted to the prevailing wage requirements of California Labor Code section 1770 et seq. Copies of the prevailing rate of per diem wages are on file at the SCAQMD's headquarters, of which shall be made available to any interested party on request. Notwithstanding the preceding sentence, CONTRACTOR shall be responsible for determining the applicability of the provisions of California Labor Code and complying with the same, including, without limitation, obtaining from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work, making the same available to any interested party upon request, paying any applicable prevailing rates, posting copies thereof at the job site and flowing all applicable prevailing wage rate requirements to its subcontractors. CONTRACTOR shall indemnify, defend and hold harmless the South Coast Air Quality Management District against any and all claims, demands, damages, defense costs or liabilities based on failure to adhere to the above referenced statutes.
33. APPROVAL OF SUBCONTRACT
  - A. If CONTRACTOR intends to subcontract a portion of the work under this Contract, written approval of the terms of the proposed subcontract(s) shall be obtained from SCAQMD's Executive Officer or designee prior to execution of the subcontract. No subcontract charges will be reimbursed unless such approval has been obtained.
  - B. Any material changes to the subcontract(s) that affect the scope of work, deliverable schedule, and/or cost schedule shall also require the written approval of the Executive Officer or designee prior to execution.
  - C. The sole purpose of SCAQMD's review is to insure that SCAQMD's contract rights have not been diminished in the subcontractor agreement. SCAQMD shall not supervise, direct, or have control over, or be responsible for, subcontractor's means, methods, techniques, work sequences or procedures or for the safety precautions and programs incident thereto, or for any failure of subcontractor to comply with any local, state, or federal laws, or rules or regulations.
34. ENTIRE CONTRACT - This Contract represents the entire agreement between the parties hereto related to CONTRACTOR providing services to SCAQMD and there are no understandings, representations, or warranties of any kind except as expressly set forth herein. No waiver, alteration, or modification of any of the provisions herein shall be binding on any party unless in writing and signed by the party against whom enforcement of such waiver, alteration, or modification is sought.

IN WITNESS WHEREOF, the parties to this Contract have caused this Contract to be duly executed on their behalf by their authorized representatives.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT \*\*\*

By: \_\_\_\_\_ By: \_\_\_\_\_  
Barry R. Wallerstein, D.Env., Executive Officer Name:  
Dr. William A. Burke, Chairman, Governing Board Title:

Date: \_\_\_\_\_ Date: \_\_\_\_\_

ATTEST:  
Saundra McDaniel, Clerk of the Board

By: \_\_\_\_\_

APPROVED AS TO FORM:  
Kurt R. Wiese, General Counsel

By: \_\_\_\_\_

# **ATTACHMENT A**

## **CERTIFICATIONS AND REPRESENTATIONS**



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

## **Business Information Request**

Dear SCAQMD Contractor/Supplier:

The South Coast Air Quality Management District (SCAQMD) is committed to ensuring that our contractor/supplier records are current and accurate. If your firm is selected for award of a purchase order or contract, it is imperative that the information requested herein be supplied in a timely manner to facilitate payment of invoices. In order to process your payments, we need the enclosed information regarding your account. **Please review and complete the information identified on the following pages, complete the enclosed W-9 form, remember to sign both documents for our files, and return them as soon as possible to the address below:**

**Attention: Accounts Payable, Accounting Department  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765-4178**

If you do not return this information, we will not be able to establish you as a vendor. This will delay any payments and would still necessitate your submittal of the enclosed information to our Accounting department before payment could be initiated. Completion of this document and enclosed forms would ensure that your payments are processed timely and accurately.

If you have any questions or need assistance in completing this information, please contact Accounting at (909) 396-3777. We appreciate your cooperation in completing this necessary information.

Sincerely,

Michael B. O'Kelly  
Chief Financial Officer

DH:tm

Enclosures: Business Information Request  
Disadvantaged Business Certification  
W-9  
Form 590 Withholding Exemption Certificate  
Federal Contract Debarment Certification  
Campaign Contributions Disclosure  
Direct Deposit Authorization

REV 3/13





# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

## BUSINESS INFORMATION REQUEST

Business Name	
Division of	
Subsidiary of	
Website Address	
Type of Business <i>Check One:</i>	<input type="checkbox"/> Individual <input type="checkbox"/> DBA, Name _____, County Filed in _____ <input type="checkbox"/> Corporation, ID No. _____ <input type="checkbox"/> LLC/LLP, ID No. _____ <input type="checkbox"/> Other _____

## REMITTING ADDRESS INFORMATION

Address			
City/Town			
State/Province		Zip	
Phone	(    )    -    Ext	Fax	(    )    -
Contact		Title	
E-mail Address			
Payment Name if Different			

All invoices must reference the corresponding Purchase Order Number(s)/Contract Number(s) if applicable and mailed to:

**Attention: Accounts Payable, Accounting Department**

**South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765-4178**

**DISADVANTAGED BUSINESS CERTIFICATION**

Federal guidance for utilization of disadvantaged business enterprises allows a vendor to be deemed a small business enterprise (SBE), minority business enterprise (MBE) or women business enterprise (WBE) if it meets the criteria below.

- is certified by the Small Business Administration or
- is certified by a state or federal agency or
- is an independent MBE(s) or WBE(s) business concern which is at least 51 percent owned and controlled by minority group member(s) who are citizens of the United States.

Statements of certification:

As a prime contractor to the SCAQMD, \_\_\_\_\_ (name of business) will engage in good faith efforts to achieve the fair share in accordance with 40 CFR Section 33.301, and will follow the six affirmative steps listed below **for contracts or purchase orders funded in whole or in part by federal grants and contracts.**

1. Place qualified SBEs, MBEs, and WBEs on solicitation lists.
2. Assure that SBEs, MBEs, and WBEs are solicited whenever possible.
3. When economically feasible, divide total requirements into small tasks or quantities to permit greater participation by SBEs, MBEs, and WBEs.
4. Establish delivery schedules, if possible, to encourage participation by SBEs, MBEs, and WBEs.
5. Use services of Small Business Administration, Minority Business Development Agency of the Department of Commerce, and/or any agency authorized as a clearinghouse for SBEs, MBEs, and WBEs.
6. If subcontracts are to be let, take the above affirmative steps.

Self-Certification Verification: Also for use in awarding additional points, **as applicable**, in accordance with SCAQMD Procurement Policy and Procedure:

Check all that apply:

- Small Business Enterprise/Small Business Joint Venture     Women-owned Business Enterprise  
 Local business     Disabled Veteran-owned Business Enterprise/DVBE Joint Venture  
 Minority-owned Business Enterprise

Percent of ownership: \_\_\_\_\_ %

Name of Qualifying Owner(s): \_\_\_\_\_

I, the undersigned, hereby declare that to the best of my knowledge the above information is accurate. Upon penalty of perjury, I certify information submitted is factual.

A. _____	_____
NAME	TITLE

B. _____	_____
TELEPHONE NUMBER	DATE

## Definitions

**Disabled Veteran-Owned Business Enterprise** means a business that meets all of the following criteria:

- is a sole proprietorship or partnership of which is at least 51 percent owned by one or more disabled veterans, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.
- the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
- is a sole proprietorship, corporation, partnership, or joint venture with its primary headquarters office located in the United States and which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.

**Joint Venture** means that one party to the joint venture is a DVBE and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that DVBE will receive at least 51 percent of the project dollars.

**Local Business** means a business that meets all of the following criteria:

- has an ongoing business within the boundary of the SCAQMD at the time of bid application.
- performs 90 percent of the work within SCAQMD's jurisdiction.

**Minority-Owned Business Enterprise** means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more minority persons or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more minority persons.
- is a business whose management and daily business operations are controlled or owned by one or more minority person.
- is a business which is a sole proprietorship, corporation, partnership, joint venture, an association, or a cooperative with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

“Minority” person means a Black American, Hispanic American, Native American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian American (including a person whose origins are from India, Pakistan, or Bangladesh), Asian-Pacific American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, or Taiwan).

**Small Business Enterprise** means a business that meets the following criteria:

- a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
  - **A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or**
  - A manufacturer with 100 or fewer employees.
- b. Manufacturer means a business that is both of the following:
  - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
  - 2) Classified between Codes 311000 to 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

**Small Business Joint Venture** means that one party to the joint venture is a Small Business and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that the Small Business will receive at least 51 percent of the project dollars.

**Women-Owned Business Enterprise** means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more women or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more women.
- is a business whose management and daily business operations are controlled or owned by one or more women.
- is a business which is a sole proprietorship, corporation, partnership, or a joint venture, with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

## Request for Taxpayer Identification Number and Certification

**Give Form to the  
requester. Do not  
send to the IRS.**

<b>Print or type See Specific Instructions on page 2.</b>	Name (as shown on your income tax return)	
	Business name/disregarded entity name, if different from above	
	Check appropriate box for federal tax classification: <input type="checkbox"/> Individual/sole proprietor <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate  <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____  <input type="checkbox"/> Other (see instructions) ▶ _____	
	<input type="checkbox"/> Exempt payee	
	Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
City, state, and ZIP code		
List account number(s) here (optional)		

### Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Social security number									

**Note.** If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Employer identification number									

### Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

<b>Sign Here</b>	Signature of U.S. person ▶	Date ▶
------------------	----------------------------	--------

### General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

#### Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

**Note.** If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,
- The U.S. grantor or other owner of a grantor trust and not the trust, and
- The U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

**Foreign person.** If you are a foreign person, do not use Form W-9. Instead, use the appropriate Form W-8 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

**Nonresident alien who becomes a resident alien.** Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a “saving clause.” Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

**Example.** Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity not subject to backup withholding, give the requester the appropriate completed Form W-8.

**What is backup withholding?** Persons making certain payments to you must under certain conditions withhold and pay to the IRS a percentage of such payments. This is called “backup withholding.” Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

### Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See the instructions below and the separate Instructions for the Requester of Form W-9.

Also see *Special rules for partnerships* on page 1.

### Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

### Penalties

**Failure to furnish TIN.** If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

**Civil penalty for false information with respect to withholding.** If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

**Criminal penalty for falsifying information.** Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

### Specific Instructions

#### Name

If you are an individual, you must generally enter the name shown on your income tax return. However, if you have changed your last name, for instance, due to marriage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

**Sole proprietor.** Enter your individual name as shown on your income tax return on the “Name” line. You may enter your business, trade, or “doing business as (DBA)” name on the “Business name/disregarded entity name” line.

**Partnership, C Corporation, or S Corporation.** Enter the entity’s name on the “Name” line and any business, trade, or “doing business as (DBA) name” on the “Business name/disregarded entity name” line.

**Disregarded entity.** Enter the owner’s name on the “Name” line. The name of the entity entered on the “Name” line should never be a disregarded entity. The name on the “Name” line must be the name shown on the income tax return on which the income will be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a domestic owner, the domestic owner’s name is required to be provided on the “Name” line. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity’s name on the “Business name/disregarded entity name” line. If the owner of the disregarded entity is a foreign person, you must complete an appropriate Form W-8.

**Note.** Check the appropriate box for the federal tax classification of the person whose name is entered on the “Name” line (Individual/sole proprietor, Partnership, C Corporation, S Corporation, Trust/estate).

**Limited Liability Company (LLC).** If the person identified on the “Name” line is an LLC, check the “Limited liability company” box only and enter the appropriate code for the tax classification in the space provided. If you are an LLC that is treated as a partnership for federal tax purposes, enter “P” for partnership. If you are an LLC that has filed a Form 8832 or a Form 2553 to be taxed as a corporation, enter “C” for C corporation or “S” for S corporation. If you are an LLC that is disregarded as an entity separate from its owner under Regulation section 301.7701-3 (except for employment and excise tax), do not check the LLC box unless the owner of the LLC (required to be identified on the “Name” line) is another LLC that is not disregarded for federal tax purposes. If the LLC is disregarded as an entity separate from its owner, enter the appropriate tax classification of the owner identified on the “Name” line.



**Other entities.** Enter your business name as shown on required federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name/disregarded entity name" line.

**Exempt Payee**

If you are exempt from backup withholding, enter your name as described above and check the appropriate box for your status, then check the "Exempt payee" box in the line following the "Business name/disregarded entity name," sign and date the form.

Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends.

**Note.** If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding.

The following payees are exempt from backup withholding:

1. An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2),
  2. The United States or any of its agencies or instrumentalities,
  3. A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities,
  4. A foreign government or any of its political subdivisions, agencies, or instrumentalities, or
  5. An international organization or any of its agencies or instrumentalities.
- Other payees that may be exempt from backup withholding include:
6. A corporation,
  7. A foreign central bank of issue,
  8. A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States,
  9. A futures commission merchant registered with the Commodity Futures Trading Commission,
  10. A real estate investment trust,
  11. An entity registered at all times during the tax year under the Investment Company Act of 1940,
  12. A common trust fund operated by a bank under section 584(a),
  13. A financial institution,
  14. A middleman known in the investment community as a nominee or custodian, or
  15. A trust exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 15.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 9
Broker transactions	Exempt payees 1 through 5 and 7 through 13. Also, C corporations.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 5
Payments over \$600 required to be reported and direct sales over \$5,000 <sup>1</sup>	Generally, exempt payees 1 through 7 <sup>2</sup>

<sup>1</sup> See Form 1099-MISC, Miscellaneous Income, and its instructions.

<sup>2</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney, and payments for services paid by a federal executive agency.

**Part I. Taxpayer Identification Number (TIN)**

**Enter your TIN in the appropriate box.** If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on page 2), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

**Note.** See the chart on page 4 for further clarification of name and TIN combinations.

**How to get a TIN.** If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local Social Security Administration office or get this form online at [www.ssa.gov](http://www.ssa.gov). You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at [www.irs.gov/businesses](http://www.irs.gov/businesses) and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting [IRS.gov](http://IRS.gov) or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

**Note.** Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

**Caution:** A disregarded domestic entity that has a foreign owner must use the appropriate Form W-8.

**Part II. Certification**

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, below, and items 4 and 5 on page 4 indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on the "Name" line must sign. Exempt payees, see *Exempt Payee* on page 3.

**Signature requirements.** Complete the certification as indicated in items 1 through 3, below, and items 4 and 5 on page 4.

**1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

**2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

**3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.

**4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

**5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.** You must give your correct TIN, but you do not have to sign the certification.

### What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account <sup>1</sup>
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor <sup>2</sup>
4. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee <sup>1</sup>  The actual owner <sup>1</sup>
5. Sole proprietorship or disregarded entity owned by an individual	The owner <sup>3</sup>
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulation section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity <sup>4</sup>
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulation section 1.671-4(b)(2)(i)(B))	The trust

<sup>1</sup> List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> You must show your individual name and you may also enter your business or "DBA" name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

<sup>4</sup> List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 1.

\*Note. Grantor also must provide a Form W-9 to trustee of trust.

**Note.** If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

### Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, social security number (SSN), or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

### Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to [phishing@irs.gov](mailto:phishing@irs.gov). You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: [spam@uce.gov](mailto:spam@uce.gov) or contact them at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 1-877-IDTHEFT (1-877-438-4338).

Visit [IRS.gov](http://IRS.gov) to learn more about identity theft and how to reduce your risk.

### Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.



# 2013 Withholding Exemption Certificate

# 590

This form can only be used to certify exemption from nonresident withholding under California Revenue and Taxation Code (R&TC) Section 18662. Do not use this form for exemption from wage withholding.

File this form with your withholding agent. (Please type or print)

Withholding agent's name \_\_\_\_\_

Payee's name \_\_\_\_\_

Payee's  SSN or ITIN  FEIN  
 CA corp. no.  CA SOS file no.

Address (number and street, PO Box, or PMB no.) \_\_\_\_\_

Apt. no./ Ste. no. \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

ZIP Code \_\_\_\_\_

Read the following carefully and check the box that applies to the payee.

I certify that for the reasons checked below, the payee named on this form is exempt from the California income tax withholding requirement on payment(s) made to the entity or individual.

**Individuals — Certification of Residency:**

I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Who is a Resident, for the definition of a resident.

**Corporations:**

The above-named corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return and withhold on payments of California source income to nonresidents when required. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information F, What is a Permanent Place of Business, for the definition of permanent place of business.

**Partnerships or limited liability companies (LLC):**

The above-named partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return and will withhold on foreign and domestic nonresident partners or members when required. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.

**Tax-Exempt Entities:**

The above-named entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 \_\_\_\_\_ (insert letter) or Internal Revenue Code Section 501(c) \_\_\_\_\_ (insert number). The tax-exempt entity will withhold on payments of California source income to nonresidents when required. If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.

**Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit Sharing Plans:**

The above-named entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

**California Trusts:**

At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return and will withhold on foreign and domestic nonresident beneficiaries when required. If the trustee becomes a nonresident at any time, I will promptly notify the withholding agent.

**Estates — Certification of Residency of Deceased Person:**

I am the executor of the above-named person's estate. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return and will withhold on foreign and domestic nonresident beneficiaries when required.

**Nonmilitary Spouse of a Military Servicemember:**

I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

**CERTIFICATE:** Please complete and sign below.

Under penalties of perjury, I hereby certify that the information provided in this document is, to the best of my knowledge, true and correct. If conditions change, I will promptly notify the withholding agent.

Payee's name and title (type or print) \_\_\_\_\_ Daytime telephone no. \_\_\_\_\_

Payee's signature  \_\_\_\_\_ Date \_\_\_\_\_

# Instructions for Form 590

## Withholding Exemption Certificate

References in these instructions are to the California Revenue and Taxation Code (R&TC).

### General Information

For purposes of California income tax, references to a spouse, husband, or wife also refer to a Registered Domestic Partner (RDP) unless otherwise specified. For more information on RDPs, get FTB Pub. 737, Tax Information for Registered Domestic Partners. **Private Mail Box (PMB)** – Include the PMB in the address field. Write “PMB” first, then the box number. Example: 111 Main Street PMB 123.

**Foreign Address** – Enter the information in the following order: City, Country, Province/Region, and Postal Code. Follow the country’s practice for entering the postal code. Do not abbreviate the country’s name.

### A Purpose

Use Form 590, Withholding Exemption Certificate, to certify an exemption from nonresident withholding. California residents or entities should complete and present Form 590 to the withholding agent. The withholding agent is then relieved of the withholding requirements if the agent relies in good faith on a completed and signed Form 590 unless told by the Franchise Tax Board (FTB) that the form should not be relied upon.

**Important** – This form cannot be used for exemption from wage and real estate withholding.

- If you are an employee, any wage withholding questions should be directed to the FTB General Information number, 800.852.5711. Employers should call 888.745.3886 or go to [edd.ca.gov](http://edd.ca.gov).
- Sellers of California real estate use Form 593-C, Real Estate Withholding Certificate, to claim an exemption from real estate withholding.

### B Requirement

R&TC Section 18662 requires withholding of income or franchise tax on payments of California source income made to nonresidents of California.

Withholding is required on the following, but is not limited to:

- Payments to nonresidents for services rendered in California.
- Distributions of California source income made to domestic nonresident S corporation shareholders, partners and members and allocations of California source income made to foreign partners and members.
- Payments to nonresidents for rents if the payments are made in the course of the withholding agent’s business.
- Payments to nonresidents for royalties with activities in California.

- Distributions of California source income to nonresident beneficiaries from an estate or trust.
- Prizes and winnings received by nonresidents for contests in California.

However, withholding is optional if the total payments of California source income are \$1,500 or less during the calendar year. For more information on withholding get FTB Pub. 1017, Resident and Nonresident Withholding Guidelines. To get a withholding publication see General Information H, Publications, Forms, and Additional Information.

**Backup Withholding** – Beginning on or after January 1, 2010, with certain limited exceptions, payers that are required to withhold and remit backup withholding to the Internal Revenue Service (IRS) are also required to withhold and remit to the FTB. The California backup withholding rate is 7% of the payment. For California purposes, dividends, interests, and any financial institutions release of loan funds made in the normal course of business are exempt from backup withholding. For additional information on California backup withholding, go to [ftb.ca.gov](http://ftb.ca.gov) and search for **backup withholding**.

If a payee has backup withholding, the payee must contact the FTB to provide a valid Taxpayer Identification Number (TIN) before filing a tax return. The following are acceptable TINs: social security number (SSN); individual taxpayer identification number (ITIN); federal employer identification number (FEIN); California corporation number (CA Corp No.); or California Secretary of State (SOS) file number. Failure to provide a valid TIN will result in the denial of the backup withholding credit. For more information go to [ftb.ca.gov](http://ftb.ca.gov) and search for **backup withholding**.

**Who is Excluded from Withholding** – The following are excluded from withholding and completing this form:

- The United States and any of its agencies or instrumentalities
- A state, a possession of the United States, the District of Columbia, or any of its political subdivisions or instrumentalities
- A foreign government or any of its political subdivisions, agencies, or instrumentalities

### C Who Certifies this Form

Form 590 is certified by the payee. An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed certificate on the preprinted form, the

withholding agent may accept as a substitute certificate a letter from the payee explaining why the payee is not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee’s taxpayer identification number. The withholding agent must retain a copy of the certificate or substitute for at least four years after the last payment to which the certificate applies, and provide it upon request to the FTB.

For example, if an entertainer (or the entertainer’s business entity) is paid for a performance, the entertainer’s information must be provided. Do not submit the entertainer’s agent or promoter information.

The grantor of a grantor trust shall be treated as the payee for withholding purposes.

Therefore, if the payee is a grantor trust and one or more of the grantors is a nonresident, withholding is required. If all of the grantors on the trust are residents, no withholding is required. Resident grantors can check the box on Form 590 labeled “Individuals — Certification of Residency.”

### D Who is a Resident

A California resident is any individual who is in California for other than a temporary or transitory purpose or any individual domiciled in California who is absent for a temporary or transitory purpose.

An individual domiciled in California who is absent from California for an uninterrupted period of at least 546 consecutive days under an employment-related contract is considered outside California for other than a temporary or transitory purpose.

An individual is still considered outside California for other than a temporary or transitory purpose if return visits to California do not total more than 45 days during any taxable year covered by an employment contract.

This provision does not apply if an individual has income from stocks, bonds, notes, or other intangible personal property in excess of \$200,000 in any taxable year in which the employment-related contract is in effect.

A spouse/RDP absent from California for an uninterrupted period of at least 546 days to accompany a spouse/RDP under an employment-related contract is considered outside of California for other than a temporary or transitory purpose.

Generally, an individual who comes to California for a purpose which will extend over a long or indefinite period will be considered a resident. However, an individual who comes to perform a particular contract of short duration will be considered a nonresident.

For assistance in determining resident status, get FTB Pub. 1031, Guidelines for Determining Resident Status, and FTB Pub. 1032, Tax Information for Military Personnel, or call the FTB at 800.852.5711 or 916.845.6500.

## E Military Spouse Residency Relief Act (MSRRA)

Generally, for tax purposes you are considered to maintain your existing residence or domicile. If a military servicemember and nonmilitary spouse have the same state of domicile, the MSRRA provides:

- A spouse shall not be deemed to have lost a residence or domicile in any state solely by reason of being absent to be with the servicemember serving in compliance with military orders.
- A spouse shall not be deemed to have acquired a residence or domicile in any other state solely by reason of being there to be with the servicemember serving in compliance with military orders.

Domicile is defined as the one place:

- Where you maintain a true, fixed, and permanent home
- To which you intend to return whenever you are absent

A military servicemember's nonmilitary spouse is considered a nonresident for tax purposes if the servicemember and spouse have the same domicile outside of California and the spouse is in California solely to be with the servicemember who is serving in compliance with Permanent Change of Station orders. Note: California may require nonmilitary spouses of military servicemembers to provide proof that they meet the criteria for California personal income tax exemption as set forth in the MSRRA.

Income of a military servicemember's nonmilitary spouse for services performed in California is not California source income subject to state tax if the spouse is in California to be with the servicemember serving in compliance with military orders, and the servicemember and spouse have the same domicile in a state other than California.

For additional information or assistance in determining whether the applicant meets the MSRRA requirements, get FTB Pub. 1032.

## F What is a Permanent Place of Business

A corporation has a permanent place of business in California if it is organized and existing under the laws of California or if it is a foreign corporation qualified to transact intrastate business by the California SOS. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in California only if it maintains a permanent office in California that is permanently staffed by its employees.

## G Withholding Agent

Keep Form 590 for your records. Do not send this form to the FTB unless it has been specifically requested.

For more information, contact Withholding Services and Compliance, see General Information H.

The payee must notify the withholding agent if any of the following situations occur:

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.
- The partnership ceases to have a permanent place of business in California.
- The LLC ceases to have a permanent place of business in California.
- The tax-exempt entity loses its tax-exempt status.

The withholding agent must then withhold and report the withholding using Form 592, Resident and Nonresident Withholding Statement, and remit the withholding using Form 592-V, Payment Voucher for Resident and Nonresident Withholding. Form 592-B, Resident and Nonresident Withholding Tax Statement, is retained by the withholding agent and a copy is given to the payee.

## H Additional Information

To get additional nonresident withholding information, contact the Withholding Services and Compliance.

WITHHOLDING SERVICES AND COMPLIANCE MS F182  
FRANCHISE TAX BOARD  
PO BOX 942867  
SACRAMENTO CA 94267-0651

Telephone: 888.792.4900  
916.845.4900

Fax: 916.845.9512

You can download, view, and print California tax forms and publications at [ftb.ca.gov](http://ftb.ca.gov).

OR to get forms by mail write to:

TAX FORMS REQUEST UNIT MS F284  
FRANCHISE TAX BOARD  
PO BOX 307  
RANCHO CORDOVA CA 95741-0307

For all other questions unrelated to withholding or to access the TTY/TDD numbers, see the information below.

Internet and Telephone Assistance

Website: [ftb.ca.gov](http://ftb.ca.gov)

Telephone: 800.852.5711 from within the United States  
916.845.6500 from outside the United States

TTY/TDD: 800.822.6268 for persons with hearing or speech impairments

Asistencia Por Internet y Teléfono

Sitio web: [ftb.ca.gov](http://ftb.ca.gov)

Teléfono: 800.852.5711 dentro de los Estados Unidos  
916.845.6500 fuera de los Estados Unidos

TTY/TDD: 800.822.6268 personas con discapacidades auditivas y del habla





United State Environmental Protection Agency  
Washington, DC 20460

## **Certification Regarding Debarment, Suspension, and Other Responsibility Matters**

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statute or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

---

Typed Name & Title of Authorized Representative

---

Signature of Authorized Representative Date

I am unable to certify to the above statements. My explanation is attached.

# ATTACHMENT 6



## CAMPAIGN CONTRIBUTIONS DISCLOSURE

In accordance with California law, bidders and contracting parties are required to disclose, at the time the application is filed, information relating to any campaign contributions made to South Coast Air Quality Management District (SCAQMD) Board Members or members/alternates of the MSRC, including: the name of the party making the contribution (which includes any parent, subsidiary or otherwise related business entity, as defined below), the amount of the contribution, and the date the contribution was made. 2 C.C.R. §18438.8(b).

California law prohibits a party, or an agent, from making campaign contributions to SCAQMD Governing Board Members or members/alternates of the Mobile Source Air Pollution Reduction Review Committee (MSRC) of more than \$250 while their contract or permit is pending before the SCAQMD; and further prohibits a campaign contribution from being made for three (3) months following the date of the final decision by the Governing Board or the MSRC on a donor's contract or permit. Gov't Code §84308(d). For purposes of reaching the \$250 limit, the campaign contributions of the bidder or contractor plus contributions by its parents, affiliates, and related companies of the contractor or bidder are added together. 2 C.C.R. §18438.5.

In addition, SCAQMD Board Members or members/alternates of the MSRC must abstain from voting on a contract or permit if they have received a campaign contribution from a party or participant to the proceeding, or agent, totaling more than \$250 in the 12-month period prior to the consideration of the item by the Governing Board or the MSRC. Gov't Code §84308(c).

The list of current SCAQMD Governing Board Members can be found at the SCAQMD website ([www.aqmd.gov](http://www.aqmd.gov)). The list of current MSRC members/alternates can be found at the MSRC website (<http://www.cleantransportationfunding.org>).

### **SECTION I.**

**Contractor (Legal Name):** \_\_\_\_\_

<input type="checkbox"/> DBA, Name _____, County Filed in _____
<input type="checkbox"/> Corporation, ID No. _____
<input type="checkbox"/> LLC/LLP, ID No. _____

**List any parent, subsidiaries, or otherwise affiliated business entities of Contractor:**  
*(See definition below).*

\_\_\_\_\_  
\_\_\_\_\_

### **SECTION II.**

Has Contractor and/or any parent, subsidiary, or affiliated company, or agent thereof, made a campaign contribution(s) totaling \$250 or more in the aggregate to a current member of the South Coast Air Quality Management Governing Board or member/alternate of the MSRC in the 12 months preceding the date of execution of this disclosure?

Yes     No    **If YES, complete Section II below and then sign and date the form. If NO, sign and date below. Include this form with your submittal.**

**Campaign Contributions Disclosure, *continued*:**

Name of Contributor \_\_\_\_\_

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor \_\_\_\_\_

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor \_\_\_\_\_

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor \_\_\_\_\_

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

**I declare the foregoing disclosures to be true and correct.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**DEFINITIONS**

Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)

- (1) Parent subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation.
- (2) Otherwise related business entity. Business entities, including corporations, partnerships, joint ventures and any other organizations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if any one of the following three tests is met:
  - (A) One business entity has a controlling ownership interest in the other business entity.
  - (B) There is shared management and control between the entities. In determining whether there is shared management and control, consideration should be given to the following factors:
    - (i) The same person or substantially the same person owns and manages the two entities;
    - (ii) There are common or commingled funds or assets;
    - (iii) The business entities share the use of the same offices or employees, or otherwise share activities, resources or personnel on a regular basis;
    - (iv) There is otherwise a regular and close working relationship between the entities; or
  - (C) A controlling owner (50% or greater interest as a shareholder or as a general partner) in one entity also is a controlling owner in the other entity.



South Coast  
 AIR QUALITY MANAGEMENT DISTRICT  
 21865 Copley Dr., Diamond Bar, CA 91765  
 www.aqmd.gov

### Direct Deposit Authorization

**STEP 1: Please check all the appropriate boxes**

- |  |  |
|--|--|
| <input type="checkbox"/> Individual (Employee, Governing Board Member) | <input type="checkbox"/> New Request           |
| <input type="checkbox"/> Vendor/Contractor                             | <input type="checkbox"/> Cancel Direct Deposit |
| <input type="checkbox"/> Changed Information                           |  |

**STEP 2: Payee Information**

Last Name		First Name		Middle Initial	Title
Vendor/Contractor Business Name (if applicable)					
Address				Apartment or P.O. Box Number	
City		State	Zip	Country	
Taxpayer ID Number		Telephone Number		Email Address	

**Authorization**

- I authorize South Coast Air Quality Management District (SCAQMD) to direct deposit funds to my account in the financial institution as indicated below. I understand that the authorization may be rejected or discontinued by SCAQMD at any time. If any of the above information changes, I will promptly complete a new authorization agreement. If the direct deposit is not stopped before closing an account, funds payable to me will be returned to SCAQMD for distribution. This will delay my payment.
- This authorization remains in effect until SCAQMD receives written notification of changes or cancellation from you.
- I hereby release and hold harmless SCAQMD for any claims or liability to pay for any losses or costs related to insufficient fund transactions that result from failure within the Automated Clearing House network to correctly and timely deposit monies into my account.

**STEP 3:**

You must verify that your bank is a member of an Automated Clearing House (ACH). Failure to do so could delay the processing of your payment. You must attach a voided check or have your bank complete the bank information and the account holder must sign below.

**To be Completed by your Bank**

<b>Staple Voided Check Here</b>	Name of Bank/Institution		
	Account Holder Name(s)		
	<input type="checkbox"/> Saving <input type="checkbox"/> Checking	Account Number	Routing Number
	Bank Representative Printed Name	Bank Representative Signature	Date
	ACCOUNT HOLDER SIGNATURE:		Date

## ATTACHMENT 7

**Note to Public: At its May 3, 2013 meeting, the SCAQMD Governing Board is considering all parts of Proposed Amended Rules 445 and 444, except specific provisions related to beach fire rings. Beach fire rings will be considered at the June 7<sup>th</sup> Board meeting.**

BOARD MEETING DATE: May 3, 2013

AGENDA NO. 29

PROPOSAL: Amend Rule 445 – Wood-Burning Devices and Amend Rule 444 – Open Burning

SYNOPSIS: The 2012 Air Quality Management Plan (AQMP) was adopted by the SCAQMD Board in December 2012 and was subsequently approved by CARB in January 2013. AQMP modeling has indicated the benefits of episodic fine particle emission reductions for attaining the federal 24-hour PM<sub>2.5</sub> standard by 2014. The proposed rule amendments are intended to implement 2012 AQMP control measures BCM-01 [Further Reductions from Residential Wood-Burning Devices] and BCM-02 [Further Reductions from Open Burning]. Proposed Amended Rule (PAR) 445 – Wood Burning Devices will lower the threshold for a wintertime wood burning curtailment, establish criteria for a basin-wide curtailment, and set standards for solid-fuel labeling for wood and wood-based products by commercial firewood sellers. Additionally, PAR 444 – Open Burning will incorporate the winter season burn restriction consistent with PAR 445. Other minor amendments to both rules are proposed to improve rule implementation clarity relative to existing requirements. Lastly, a prohibition of opening burning in beach areas will be considered at the June 7 Board Meeting.

COMMITTEE: Stationary Source, March 15, 2013, Reviewed

### RECOMMENDED ACTIONS:

Adopt the attached resolution:

1. Adopting Proposed Amended Rule 445 – Wood Burning Devices; and



2. Adopting Proposed Amended Rule 444 – Open Burning, with the exception of amendments related to beach fire rings, which will be considered at the June 7<sup>th</sup> Governing Board meeting. These provisions include paragraphs (b)(11) and (c)(7), subparagraph (d)(3)(G), and paragraphs (h)(5) and (6).

Barry R. Wallerstein, D.Env.  
Executive Officer

EC:LT:PF:TG:ML

---

### **Background**

Residents of the South Coast Air Basin are exposed to some of the highest ambient concentrations of fine particulate matter (PM<sub>2.5</sub>) in the nation. Although smoke from biomass burning (firewood and open burning) is not the largest source of the region's fine particulate pollution, it is one of the last largely uncontrolled source of particulates, and air quality modeling indicates that significant air quality improvements can be achieved by reducing these emissions on an episodic basis (AQMD, 2012). Studies also continue to show the importance of reducing public exposure to PM, including biomass smoke (U.S. EPA, 2009). This is reflected in the U.S. EPA's recent decision to lower the PM<sub>2.5</sub> annual standard from 15 to 12 µg/m<sup>3</sup> to be more health protective (c.f. 78 FR 3,086-3,287, National Ambient Air Quality Standards for Particulate Matter, dated January 15, 2013<sup>1</sup>). In addition, SCAQMD staff has recently learned of concerns regarding adverse health effects associated with open burning at beaches and proposes consideration of a prohibition on burning of wood and other biomass fuels at beaches effective January 1, 2015. Local governments would be allowed to invoke this prohibition earlier through formal action.

### **Air Quality Management Plan and Legal Mandates**

The 2012 Air Quality Management Plan (AQMP) focused on measures to attain the federal 24-hour PM<sub>2.5</sub> standard of 35 µg/m<sup>3</sup> and thus included control measures intended to further reduce PM emissions from residential wood combustion (BCM-01) and open burning sources (BCM-02).<sup>2</sup> These control measures were developed based on modeling efforts showing significant improvements in air quality associated with episodic control of biomass burning sources. The proposed amendments to Rule 445 (Wood-Burning Devices) and Rule 444 (Open Burning) are intended to implement these 2012 AQMP control measures to aid in achievement of the 24-hour PM<sub>2.5</sub> standard and to protect public health by reducing exposure to potentially high concentrations of wood smoke.

---

<sup>1</sup> <http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf>

<sup>2</sup> Control Measure #2012 BCM-01, <http://www.aqmd.gov/aqmp/2012aqmp/DraftFinal/appIV-A.pdf> - page IV-A-17

## **Public Process**

Three Working Groups (Residential Wood Burning, Agricultural, and Wildland Burning) comprised of representatives of industry, agencies, environmental organizations and interested persons, were convened beginning in November of 2012 to discuss Proposed Amended Rules (PAR) 445 and 444. Subsequent Working Group meetings have been held to discuss ongoing issues. A Public Workshop was held in mid-February 2013 at which time draft rules and a preliminary draft staff report were released. A Public Consultation meeting was also held on March 28, 2013 to present the latest versions of PAR 445 and 444, including a possible prohibition of open burning on beaches.

## **Summary of Proposal**

### PAR 445 – Wood-Burning Devices

The proposed amendments to SCAQMD Rule 445 would lower the PM<sub>2.5</sub> forecast threshold used to declare a mandatory winter burning curtailment from 35 µg/m<sup>3</sup> (current federal PM<sub>2.5</sub> 24-hour standard) to 30 µg/m<sup>3</sup> and would establish a mechanism where curtailments may apply to the entire Basin if a PM<sub>2.5</sub> level of greater than 30 µg/m<sup>3</sup> is forecast for any monitoring station that has recorded violations of the federal 24-hour PM<sub>2.5</sub> standard in either of the previous two three-year design value periods. PAR 445 also requires commercial facilities that sell firewood or other wood-based fuels to notify the public of the SCAQMD's Check Before You Burn program through a labeling program. Sell through provisions have been added to the labeling program to minimize costs to industry.

### PAR 444 – Open Burning

For consistency and to maximize the episodic air quality benefits, Rule 444 burning curtailments are proposed to be aligned with the PAR 445 requirements during the winter season. Accordingly, PAR 444 includes revisions to marginal and permissive burn day definitions that would limit open burning whenever a mandatory winter burning curtailment was called for individual source/receptor areas or the entire Basin under PAR 445. PAR 444 also includes a proposal for Board consideration to prohibit open burning in beach areas beginning January 1, 2015 (to be considered at the June 7, 2013 public hearing). Under PAR 444 a city or county could, through formal action, voluntarily make the prohibition effective sooner than January 1, 2015. No revisions are proposed to the existing requirements for open burning sources above 3,000 feet in elevation or those outside the Basin.

## **Emissions Inventory, Reductions and Cost-Effectiveness**

Emissions from residential wood burning devices result primarily from incomplete combustion and include PM, CO, NO<sub>x</sub>, SO<sub>x</sub>, and VOC, although particulate emissions have been the focus of air district wood and biomass smoke reduction programs. Additionally, incomplete combustion of wood produces polycyclic organic matter, a group of compounds classified as hazardous air pollutants under Title III of the federal

Clean Air Act. The 2008 PM<sub>2.5</sub> emissions inventory for residential wood combustion and open burning has been estimated at approximately 9.4 tons per winter day and 4.6 annual average day, respectively. As many as 857 Basin beach fire rings are estimated to emit up to 0.16 to 0.25 ton per day of PM<sub>2.5</sub> at full utilization.

SCAQMD staff has estimated that the changes to the mandatory burning curtailment program could potentially reduce Basin ambient PM<sub>2.5</sub> emissions on episodic no-burn days by about 7.1 tons per winter day (presuming 75% rule effectiveness). Aligning the Rule 444 open burning restrictions with Rule 445 could potentially reduce Basin PM<sub>2.5</sub> emissions on episodic no-burn days by about 4.6 tons per winter day; however, since the burning would likely be shifted to other days, the total annual emissions would remain the same. Accordingly, no annual emissions reductions are anticipated under PAR 444 for traditional open burning sources (agriculture/prescribed burns), but emissions reductions would be expected to be achieved on individual days where high PM<sub>2.5</sub> levels are forecast, thus reducing public health impacts. The emissions from as many as 857 Basin beach fire rings would be reduced or eliminated under this proposal. It should be noted that while controlling emissions from residential and biomass burning is primarily intended to reduce PM<sub>2.5</sub> emissions, there is an added benefit of also reducing emissions of CO, VOC, NO<sub>x</sub>, SO<sub>x</sub>, hazardous air pollutants.

### **Key Issues**

There are five key issues that have emerged during development of PARs 445 and 444. SCAQMD staff's responses are included in the Attachment D to this Board letter and in the draft final staff report. Some industry representatives have requested that the PAR 445 Mandatory Winter Burning Curtailments apply to a smaller subsection of the Basin's households, perhaps at the County level. Other PAR 445 commentators have requested an amendment to allow a wider range of hearth products in certain areas, that pellet grills not be subject to the curtailment provisions, and a commercial wood-based fuel seller has commented on certain elements of the labeling program. The current version of PAR 444 includes consideration of a prohibition of open burning in beach areas that has resulted in comments both for and against prohibition. Several cities have expressed strong opposition and requested that such a decision be left to the cities to decide for their communities.

### **California Environmental Quality Act (CEQA)**

SCAQMD staff has reviewed the proposed project and determined that the PARs 444 and 445 are exempt from CEQA pursuant to CEQA Guidelines §15308 – Actions by Regulatory Agencies for the Protection of the Environment. The proposed project would reduce air pollution and toxic risk, and not generate significant adverse environmental impacts. A Notice of Exemption will be prepared pursuant to CEQA Guidelines §15063 – Notice of Exemption, and filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties immediately following the adoption of the proposed project.

## **Socioeconomic Assessment**

The proposed amendments would affect commercial firewood sellers and the general public who use wood burning fireplaces and other wood burning devices (including fire rings in beach areas). Commercial firewood sellers belong to the industry of fuel dealers. There are about 86 commercial firewood sellers in the Basin, out of which 31 are located in Los Angeles County, 24 in Orange County, 16 in Riverside County, and the remaining 15 in San Bernardino County.

The cost impacts of Basin-wide curtailment on firewood sellers are expected to be minimal because the number of no-burn days is expected to be very small. The majority of packaged firewood sellers are expected to comply with the labeling requirement of the proposed amendments without significant costs. Bulk firewood sellers are expected to incur a minimal cost of preparing a one-page outreach flyer with the SCAQMD's Check Before You Burn statement. Cost impacts to the general public are also expected to be minimal as wood burning in the SCAQMD is done mainly for aesthetic purposes and there are cost-effective alternatives to burning wood for heating.

Any prohibition of beach burning may result in loss of revenues to the cities and entities which charge beach parking fees. State parks and local businesses could also lose revenues due to reductions in the number of visitors. Beach cities and local municipalities would lose sales tax revenues associated with the beach fire activities.

## **Implementation and Resources**

Existing SCAQMD resources are sufficient to conduct compliance activities and refine the PM2.5 forecasting program. SCAQMD staff resources will be used to continue media outreach and work with stakeholders on education and outreach programs; however, additional funds may be requested to enhance public outreach.

## **Attachments**

- A. Summary of the Proposal
- B. Rule Development Process
- C. Key Contacts List
- D. Key Issues and Staff Responses
- E. Resolution
- F. PAR 445 – Wood-Burning Devices
- G. PAR 444 - Open Burning
- H. Final Draft Staff Report
- I. CEQA Notice of Exemption

## ATTACHMENT A SUMMARY OF PROPOSAL

### Proposed Amended Rule 445 – Wood Burning Devices and Rule 444 – Open Burning

The key elements of Proposed Amended Rule 445 are summarized as follows:

- Clarifies rule applicability to wood-based fuels and wood-fired cooking devices.
- Requires commercial wood-based fuel sellers to label products for sale to inform the public of the *Check Before You Burn* program.
  - Two year sell through provisions added
- Lowers the threshold used for the mandatory winter burning curtailment program from 35 to 30  $\mu\text{g}/\text{m}^3$ .
- Establishes a mechanism whereby the mandatory winter burning curtailment program would apply Basin-wide if a no burn day is forecast for a source receptor area that exceeds the 24-hour PM<sub>2.5</sub> standard.

The key elements of Proposed Amended Rule 444 are summarized below:

- Adds a definition for product testing and clarifies product testing exemption.
- Establishes a winter season burn restriction consistent with SCAQMD Rule 445.
  - Not applicable to mountain or desert areas
- Prohibits open burning in beach areas beginning January 1, 2015. A city or county could, through formal action, make the prohibition effective sooner than January 1, 2015

## ATTACHMENT B

### RULE DEVELOPMENT PROCESS

2012 Air Quality Management Plan (AQMP), which was approved by the SCAQMD Board December 2012 and submitted into the SIP January 2013, included control measure [BCM 01 – Further Reductions from Wood Burning] and BCM-02 [Further Reductions from Open Burning] to reduce PM emissions from biomass burning.

**Working Group, Public Workshop, Public Consultation Meeting and Board Committee/Advisory Group Meetings**

#### **Approximately 1,900 Notices Mailed for Public Workshop/Consultation Meetings**

Public Workshop held on February 13, 2013

Working Group meetings held: Rule 444 – Wildland/Prescribed Burns (November 30, 2012 and February 7, 2013), Rule 444 – Agricultural Burning (January 30, 2013) and Rule 445 – Residential Wood Combustion (January 24 and March 6, 2013)

Stationary Source Committee meeting held on March 15, 2013

Public Consultation Meeting held on March 28, 2013

Local Government, Small Business Asst. Advisory Group on April 12, 2013

#### CEQA

The proposed project was determined to reduce air pollution and toxic air contaminant health risk and wouldn't have a significant adverse effect on the environment, so it is exempt from CEQA pursuant to state CEQA Guidelines §15308 – Actions by Regulatory Agencies for the Protection of the Environment.

#### Socioeconomic

Draft analysis released April 3, 2013.

Set Public Hearing: April 5, 2013

Public Hearing: May 3, 2013(except beach burning)

Public Hearing: June 7, 2013(beach burning only)

**Approximately 8 months spent in rule development.**

**ATTACHMENT C**  
**KEY CONTACTS LIST**  
**(April 26, 2013)**

**Governmental Agencies**

U.S. Environmental Protection Agency  
U.S. Forest Service  
California Air Resources Board  
California Coastal Commission  
California State Parks – Orange County District  
State, county and local fire agencies  
State, county and local governments  
County Farm Bureau  
County Agricultural Commissioners  
City of Huntington Beach  
City of Newport Beach

**Regulated Industries/Others**

Building Industry of Southern California (BIA/SC)  
California Association of Realtors  
Duraflame  
Hearth, Patio, and Barbeque Association (HPBA)  
REALTORS Committee on Air Quality  
The Gas Company

**ATTACHMENT D  
KEY ISSUES AND SCAQMD STAFF RESPONSES**

<b>PROPOSED RULE 445</b>	
<b>Issue</b>	<b>Response</b>
<p>A Basin-wide curtailment program may be very difficult to enforce and may confuse the public if the intent is to reduce emissions at peak, inland Basin monitoring sites.</p>	<p>The Basin-wide winter burning curtailment provisions are an important component of the adopted 2012 AQMP residential wood-burning control measure because modeling showed that 60 percent of the concentration captured at the peak PM2.5 monitoring site (Mira Loma) originates from outside the adjoining source receptor areas. The Basin-wide curtailment is needed for both attainment demonstration and contingency measure requirement as committed to in the 2012 AQMP.</p>
<p>The hearth product industry has worked closely with the U.S. EPA to develop Phase 2 Qualified fireplaces and retrofit devices. The SCAQMD should recognize these accomplishments and Rule 445 text should specifically state that U.S. EPA Phase 2 Qualified retrofit kits can be installed into homes with existing wood-burning fireplaces. Rule 445 should be amended to allow U.S. EPA Phase 2 Qualified fireplaces to be installed in new or existing developments in certain areas such as mountain communities above 3,000 feet elevations.</p>	<p>SCAQMD staff has developed additional guidance documents to clarify that U.S. EPA Phase 2 Qualified fireplace retrofit devices can be installed into homes constructed before March 9, 2009. (See Appendix B of draft final staff report).</p> <p>The request to allow the installation of U.S. EPA <u>Phase 2 Qualified</u> fireplaces into new and existing developments above an elevation of 3,000 feet is more complicated as the current Rule 445 provisions only allow U.S. EPA <u>Phase II-Certified</u> wood heaters (i.e., stoves and inserts) for new development in these areas. These two types of devices are inherently different and are subject to difference emissions measurement methodologies. Because of the fundamental differences between the two types of devices and the potential increase in emissions associated with allowing U.S. EPA Phase 2 Qualified devices to be installed in new and existing mountain community developments SCAQMD staff does not recommend inclusion of the requested Rule amendment.</p> <p>In addition, were emission rates to be compared, staff does not believe the Phase 2 Qualified devices to be equivalent to Phase-II certified devices.</p>



**ATTACHMENT D**  
**KEY ISSUES AND SCAQMD STAFF RESPONSES (cont.)**

<b>PROPOSED RULE 445</b>	
<b>Issue</b>	<b>Response</b>
<p>Mandatory Winter Burning Curtailment provisions should not apply to wood-fired cooking devices. A pellet-fueled cooking appliance is presumed to have an emissions rate that is similar to charcoal grills which are not subject to curtailment provisions. It is recommended that efforts to control emissions during a Mandatory Winter Burning Curtailment should focus on the device or appliance used rather than the fuel.</p>	<p>Staff is unaware of any evidence to show wood pellets are as low emitting as charcoal. Furthermore, Rule 445 provisions are currently based on appliance type and this has resulted in confusion as appliances are periodically changing. SCAQMD staff believes that specifying applicability based on fuel type provides a clear public message as to the days when certain products are not to be used (i.e., No-Burn Day – Do Not Burn Wood).</p> <p>Establishing curtailment applicability based on fuel type also clarifies the rule intent by not allowing a person burning wood during a mandatory winter burning curtailment to claim that the fire was intended for cooking purposes.</p>
<p>The labeling provisions will create additional expenses for industry and there is no evidence of increased rule compliance resulting from product labeling.</p>	<p>SCAQMD staff believes that public education and outreach is a vital component to inform the public of the Check Before You Burn program. To that end, the PAR 445 labeling provisions are intended to inform a targeted audience, wood-based fuel consumers. Sell through provisions have been added to PAR 445 that would allow the sale of existing packaged material with labels for up to two years. It should be noted that the labeling requirements are intentionally similar to that of existing Bay Area AQMD requirements to lessen the potential impacts to industry.</p>

**ATTACHMENT D  
KEY ISSUES AND SCAQMD STAFF RESPONSES (cont.)**

<b>PROPOSED RULE 444</b>	
<b>Issue</b>	<b>Response</b>
<p>The PAR 444 provision to prohibit open burning at beach areas has generated significant comments on either side of the issue. Some have expressed support for the proposal due to odor and health effects from wood smoke. Others have stated that the proposal is unneeded as emissions from beach burning are very minor. Several cities have voiced strong opposition and believe the rule is unnecessary. A number of parties have urged a policy that allows cities to decide for themselves whether beach fires should be allowed. Local governments and businesses in communities with beach fire rings are anticipating a loss of revenue from a reduction in beach fees and product sales.</p>	<p>PAR 444 beach burning provisions would protect the public health of beach goers and the surrounding community by reducing the exposure to wood smoke. These provisions would not apply to the use of charcoal, gaseous, or liquid fuels. A demonstration project is under consideration to identify a low emission open burning alternative that would allow continued use of beach fire rings beyond the January 1, 2015 wood burning prohibition.</p>

**ATTACHMENT E**

**RESOLUTION NO.**

**A Resolution of the Governing Board of the South Coast Air Quality Management District (SCAQMD) certifying the Notice of Exemption for Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning.**

**A Resolution of the SCAQMD Governing Board adopting Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning.**

**WHEREAS**, the SCAQMD Governing Board has determined with certainty that Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning, is a “project” pursuant to the California Environmental Quality Act (CEQA); however, South Coast Air Quality Management District staff reviewed the proposed project and because the proposed project in question would reduce air pollution and toxic air contaminant health risk, and would not have a significant adverse effect on the environment, it was determined that the proposed project is exempt from CEQA pursuant to CEQA Guidelines §15308 – Actions by Regulatory Agencies for the Protection of the Environment; and

**WHEREAS**, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code section 21080.5 and has conducted CEQA review pursuant to such program (AQMD Rule 110); and

**WHEREAS**, SCAQMD staff has prepared a Notice of Exemption (NOE) for Rules 445 and 444, as proposed to be amended, that is completed in compliance with CEQA Guidelines §15002 (k)(1) - Three Step Process and §15061(b)(3) – Review for Exemption (General Rule Exemption); and

**WHEREAS**, a Mitigation Monitoring Plan pursuant to Public Resources Code Section 21081.6, has not been prepared since no significant impact and no feasible mitigation measures are necessary; and

**WHEREAS**, the SCAQMD Governing Board voting on Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning, has reviewed and considered the NOE; and

**WHEREAS**, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment for Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning is consistent with the March 17, 1989 and October 14, 1994 Board Socioeconomic Resolution for rule adoption; and

**WHEREAS**, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment is consistent with the provisions of Health and Safety Code § 40440.5, 40440.8, and 40728.5; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning as proposed would result in foreseeable cost impacts as described in the Staff Report; and

**WHEREAS**, the SCAQMD Governing Board has actively considered the Socioeconomic Impact Assessment and has made a good faith effort to minimize such impacts; and

**WHEREAS**, the SCAQMD Governing Board has determined that a need exists to adopt Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning to implement control measures BCM-01 and -02 from the 2012 Air Quality Management Plan. A need also exists to adopt PAR 445 and 444 to further protect the public from harmful exposure to wood smoke; and

**WHEREAS**, the SCAQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from California Health and Safety Code § 39002, 40000, 40001, 40702, 40725 through 40728, inclusive and 41700; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning as proposed is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning as proposed is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or federal or state regulations; and

**WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning as proposed does not impose the same requirements as any existing State or federal regulations and the proposed rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the AQMD; and

**WHEREAS**, the SCAQMD Governing Board in adopting this regulation, references the following statutes which the AQMD hereby implements, interprets or makes specific: California Health and Safety Code § 40001 (rules to achieve ambient air quality standards), 40440 (rules to carry out the Air Quality Management Plan), and 41700 (prohibition of nuisance); and

**WHEREAS**, the SCAQMD Governing Board finds and determines, taking into consideration the factors in §(d)(4)(D) of the Governing Board Procedures, that the modifications which have been made to Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning since notice of public hearing was published do not significantly change the meaning of the proposed project within the meaning of Health and Safety Code §40726; and

**WHEREAS**, the SCAQMD specifies the Assistance Deputy Executive officer for Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed rule is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

**WHEREAS**, the SCAQMD Governing Board has determined that there is a problem that Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning as proposed will help alleviate (including attainment of State and federal ambient air quality standards and protection of public health from harmful exposure to wood smoke); and

**WHEREAS**, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code § 40725; and

**WHEREAS**, the SCAQMD Board has held a public hearing in accordance with all provisions of law.

**NOW, THEREFORE, BE IT RESOLVED**, that because no significant adverse environmental impacts were identified as a result of implementing Proposed Amended Rule 445 – Wood-Burning Devices and Proposed Amended Rule 444 – Open Burning, Findings, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan are not required;

**BE IT FURTHER RESOLVED** that the Governing Board of the SCAQMD does hereby amend, pursuant to the authority granted by law, Proposed Amended Rule 445 – Wood-Burning Devices, as set forth in the attached, and incorporated herein by this reference;

**BE IT FURTHER RESOLVED** that the Governing Board of the SCAQMD does hereby amend, pursuant to the authority granted by law, Proposed Amended Rule 444 – Open Burning, as set forth in the attached, and incorporated herein by this reference. *(Note: The portions of PAR 444 amendments related to beach fire rings have been continued to the June 7, 2013 Governing Board meeting. These provisions include paragraphs (b)(11) and (c)(7), subparagraph (d)(3)(G), and paragraphs (h)(5) and (6).)*

DATE: \_\_\_\_\_

\_\_\_\_\_  
CLERK OF THE BOARDS

# ATTACHMENT F

Adopted March 7, 2008  
*(PAR 445 April 24, 2013 Version)*

## **PROPOSED AMENDED RULE 445. WOOD-BURNING DEVICES**

- (a) Purpose  
The purpose of this rule is to reduce the emission of particulate matter from wood-burning devices.
- (b) Applicability  
The provisions of this rule shall apply to specified persons or businesses within the South Coast Air Basin portion of the South Coast Air Quality Management District:
- (1) Any person that manufactures, sells, ~~or~~ offers for sale, or installs a wood-burning device;
  - (2) Any commercial firewood seller facility that sells, offers for sale, or supplies wood or other wood-based fuels intended for burning in a wood-burning-device or portable outdoor wood-burning device; and
  - (3) Any property ~~land~~ owner or ~~land~~ tenant occupier that operates a wood-burning device or portable outdoor wood-burning device.
- (c) Definitions
- (1) COMMERCIAL WOOD-BASED FUEL SELLER FIREWOOD FACILITY means any operation that has a business license that sells, or offers for sale, or supplies; packaged, bundled or bulk firewood, manufactured firelogs, or wood pellets.
  - (2) COOKSTOVE means any wood or wood-based fuel-fired device that is designed and used primarily for cooking food and has the following characteristics as defined in Title 40 of the Code of Federal Regulations Section 60.531, February 28, 1988, or any subsequent revision ~~ed~~:
    - (A) An oven, with a volume of 0.028 cubic meters (1 cubic foot) or greater, and an oven rack;
    - (B) A device for measuring oven temperatures;
    - (C) A flame path that is routed around the oven;
    - (D) A shaker grate;
    - (E) An ash pan;
    - (F) An ash clean-out door below the oven; and

- (G) The absence of a fan or heat channels to dissipate heat from the appliance.
- (3) DEDICATED GASEOUS-FUELED FIREPLACE means any indoor or outdoor fireplace, including, but not limited to, a gas log fireplace, either constructed on-site, or factory built, fueled exclusively with a gaseous fuel such that the burner pan and associated equipment are affixed to the masonry or metal base of the fireplace.
- (4) FIREPLACE means any permanently installed indoor or outdoor masonry or factory-built device used for aesthetic or space-heating purposes and designed to operate with an air-to-fuel ratio greater than or equal to 35-to-1.
- (5) LOW INCOME HOUSEHOLD means any household that receives financial assistance through reduced electric or gas bills from an electric or natural gas utility based on household income levels.
- (6) MANDATORY WINTER ~~WOOD~~ BURNING CURTAILMENT DAY ~~means~~
- (A) Means any calendar day or consecutive calendar days during the wood burning season so declared to the public by the Executive Officer when ambient levels of particulate matter of 2.5 microns in size or less (PM2.5) is forecast to exceed 30 35  $\mu\text{g}/\text{m}^3$  for a specific source/receptor area.
- (B) Applies to the entire South Coast Air Basin whenever a PM2.5 level of greater than 30  $\mu\text{g}/\text{m}^3$  is predicted for a source receptor area containing a monitoring station that has recorded a violation of the federal 24-hour PM2.5 National Ambient Air Quality Standard for either of the two previous three-year design value periods. The design value is the three-year average of the annual 98<sup>th</sup> percentile of the 24-hour values of monitored ambient PM2.5 data.
- (7) MANUFACTURED FIRELOG means a commercial product expressly manufactured for use to simulate a wood burning fire in a wood-burning device.
- (8) MASONRY HEATER means any permanently installed device that meets the definition of a masonry heater in ASTM E 1602-03.
- (9) NEW DEVELOPMENT means residential or commercial, single or multi-building unit, which begins construction on or after March 9, 2009. For the purposes of this definition, construction has begun when the building

permit has been approved or when the foundation for the structure is started, whichever occurs first.

- (10) PELLET-FUELED WOOD-BURNING HEATER means any wood-burning heater that is operated on any pellet fuel, and is either U.S. EPA Phase II-certified or exempted under U.S. EPA requirements as defined in Title 40 Code of Federal Regulations, Part 60, Subpart AAA, February 28, 1988, or any subsequent revisions.
- (11) PERMANENTLY INSTALLED means any device built or installed in such a manner that the device is attached to the ground, floor, or wall, and is not readily moveable. A free standing stove that is attached to an exhaust system that is built into or through a wall is considered permanently installed.
- (12) PORTABLE OUTDOOR WOOD-BURNING DEVICE means any portable outdoor device burning any ~~solid~~ wood-based fuel for aesthetic or space heating purposes including, but not limited to, fireplaces, burn bowls, and chimineas located on property zoned for residential uses.
- (13) SEASONED WOOD means wood of any species that has been sufficiently dried so as to contain 20 percent or less moisture content by weight as determined by
  - (A) ASTM Test Method D 4442-92, Standard Test Method for Use and Calibration of Hand-Held Moisture Meters; or
  - (B) A ~~or~~ a hand-held moisture meter operated in accordance with ASTM Test Method D 4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters; or
  - (C) An ~~an~~ alternative method approved by the Executive Officer, the California Air Resources Board, and the U.S. Environmental Protection Agency.
- (14) SOLE SOURCE OF HEAT means the only permanent source of heat that is capable of meeting the space heating needs of a household.
- (15) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County as defined in California Code of Regulations, Title 17, Section 60104.
- (16) TREATED WOOD means wood of any species that has been chemically impregnated, painted, coated or similarly modified to improve resistance to insects, wood rot and decay, or weathering.



- (17) U.S. EPA ~~PHASE II~~-CERTIFIED WOOD-BURNING HEATER means any device certified by the U.S. EPA to meet the performance and emission standards as defined in Title 40 Code of Federal Regulations, Part 60, Subpart AAA, February 28, 1988, or any subsequent revisions.
- (18) WOOD-BASED FUEL means any wood, wood-based product, or non-gaseous or non-liquid fuel, including but not limited to manufactured firelogs, wood or pellet products. For the purpose of this rule, charcoal is not considered a wood-based fuel.
- (~~19~~ 18) WOOD-BURNING DEVICE means any fireplace, wood-burning heater, ~~or~~ pellet-fueled wood burning heater, or any similarly open or enclosed, permanently installed, indoor or outdoor device burning any wood-based solid fuel for aesthetic purposes, which has a heat input of less than one million British thermal units per hour (Btu/hr).
- (~~20~~ 19) WOOD-BURNING HEATER means an enclosed, wood-burning device capable of space heating that meets all the criteria defined in Title 40 Code of Federal Regulations Section 60.531, February 28, 1988, or any subsequent revisions including, but not limited to, wood stoves and wood-burning fireplace inserts.
- (~~21~~ 20) WOOD BURNING SEASON means the consecutive entire months of November, December, January, and February.
- (22) WOOD-FIRED COOKING DEVICE means any cookstove, wood-fired oven or grill, or any device designed for burning any wood-based fuel for cooking purposes.
- (d) Requirements
- (1) No person shall ~~install a~~ permanently installed a wood-burning device into any new development.
- (2) Notwithstanding the requirements of paragraph (d)(1), ~~effective September 8, 2008,~~ no person shall sell, offer for sale, supply, or install, a new or used permanently installed indoor or outdoor wood-burning device or gaseous-fueled device unless it is one of the following:
- (A) A U.S. EPA ~~Phase II~~-Certified wood-burning heater; or
- (B) A pellet-fueled wood-burning heater; or
- (C) A masonry heater; or
- (~~D~~) ~~A wood-burning device or fireplace determined to meet the U.S. EPA particulate matter emission standard established by Title 40~~

~~Code of Federal Regulations, Part 60, Subpart AAA, February 28, 1988 or subsequent revisions; or~~

~~(D E)~~ A dedicated gaseous-fueled fireplace.

(3) No person shall burn any product not intended for use as fuel in a wood-burning device including, but not limited to, garbage, treated wood, particle board, plastic products, rubber products, waste petroleum products, paints, coatings or solvents, or coal.

(4) A commercial firewood seller facility shall only sell seasoned wood from July 1 through the end of February the following year. Any commercial firewood seller facility may sell seasoned as well as non-seasoned wood during the remaining months.

(5) Labeling and Sell-Through Provision

(A) Effective (six months from the date of adoption), no commercial firewood seller shall sell, offer for sale, or supply wood-based fuel without first attaching a permanently affixed indelible label to each package or providing written notice to each buyer at the time of purchase of bulk firewood that at a minimum states the following:

Use of this and other solid fuel products may be restricted at times by law. Please check (Toll-Free Number) or (Web Address) before burning.

(i) Alternative language, toll-free telephone number or web address for the information specified in subdivision (g) may be used, subject to Executive Officer approval.

(ii) The Executive Officer shall specify guidelines for the aforementioned labeling requirements.

(B) Any wood-based fuel packaged prior to (the date of implementation as specified in paragraph (d)(5)(A)) may be sold, offered for sale or supplied up to (two years from date of implementation as specified in paragraph (d)(5)(A)).

(e) Mandatory Winter Wood Burning Curtailment Program (effective during the months of November, December, January, and February)

~~Effective beginning November 1, 2011, a~~ No person shall operate an indoor or outdoor wood-burning device, or portable outdoor wood-burning device, or wood-fired cooking device during the wood burning season when a mandatory

winter wood burning curtailment day is forecast for the specific region where the device is located, or on a Basin-wide basis as defined in paragraph (c)(6). ~~within the South Coast Air Basin.~~

(f) Exemptions

- (1) The provisions of this rule shall not apply to wood-fired cooking devices designed and used for commercial purposes ~~woodstoves~~.
- (2) The provisions of paragraph (d)(1) shall not apply to new developments where there is no existing infrastructure for natural gas service within 150 feet of the property line or those 3,000 or more feet above mean sea level.
- (3) The provisions of paragraph (d)(2) shall not apply to an indoor or outdoor wood-burning device that is permanently installed and included in the sale or transfer of any existing development.
- (4) The provisions of (d)(2) shall not apply to properties that are registered as a historical site, or are contributing structures located in a Historic Preservation Overlay Zone, as determined by the applicable, federal, State, or local agency. Contributing structures are those buildings which are examples of the predominate styles of the area, built during the time period when the bulk of the structures were built in the Historic Preservation Overlay Zone.
- (5) The provisions of (d)(3) shall not apply to manufactured firelogs.
- (6) The provisions of (d)(5) shall not apply to wood-based fuel intended for the cooking, smoking, or flavoring of food.
- (7) (6) The provisions of subdivision (e) shall not apply under the following circumstances:
  - (A) Residential or commercial properties where a wood-burning device is the sole source of heat; or
  - (B) A low income household; or
  - (C) Residential or commercial properties where there is no existing infrastructure for natural gas service within 150 feet of the property line; or
  - (D) Residential or commercial properties located 3,000 or more feet above mean sea level; or
  - (E) Ceremonial fires exempted under Rule 444 - Open Burning.

(g) Administrative Requirements

The Executive Officer will provide public notice of a mandatory ~~wood~~ winter burning curtailment through one or more of the following methods:

- (1) A recorded telephone message;
- (2) Messages posted on the South Coast Air Quality Management District web site;
- (3) Electronic mail messages to persons or entities that have requested such ~~electronic~~ notice;
- (4) Notifying broadcast and print media operating within the boundaries of the South Coast Air Basin; and
- (5) Any additional method that the Executive Officer determines is appropriate.

(h) Penalties

Any person that violates the provisions of subdivision (e) is subject to the following:

- (1) For first time violators during each wood burning season, completion of a wood smoke awareness course that has been approved by the Executive Officer or payment of a penalty of \$50;
- (2) For second time violators during each wood burning season, payment of a penalty of \$150 or submission of proof of installation of a dedicated gaseous-fueled fireplace within 90 days after receiving the ~~n~~Notice of ~~v~~Violation; and
- (3) For third time violators during each wood burning season, payment of a penalty of \$500 or implementation of an environmentally beneficial project as derived through the mutual settlement process.

(i) Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances.

## ATTACHMENT G

(Adopted October 8, 1976)(Amended October 2, 1981)  
(Amended October 2, 1987)(Amended December 21, 2001)  
(Amended November 7, 2008)  
(PAR 444, April 24, 2013 Version)

### **PROPOSED AMENDED RULE 444.      OPEN BURNING**

(a) Purpose

The purpose of this rule is to ensure open burning in the District is conducted in a manner that minimizes emissions and impacts, and that smoke is managed consistent with state and federal law in order to protect public health and safety.

(b) Applicability

The provisions of this rule shall apply to any person conducting or allowing any open burning including, but not limited to:

- (1) Agricultural burning
- (2) Disposal of Russian thistle (*Salsola kali* or “tumbleweed”)
- (3) Prescribed burning
- (4) Fire prevention/suppression training
- (5) Open detonation or use of pyrotechnics
- (6) Fire hazard removal
- (7) Disposal of infectious waste, other than hospital waste
- (8) Research of testing materials, equipment or techniques
- (9) Disposal of contraband
- (10) Residential burning
- (11) Beach burning

(c) Definitions

- (1) AGRICULTURAL BURNING means open burning of vegetative materials produced wholly from the growing and harvesting of crops in agricultural operations, including the burning of grass and weeds in fence rows, ditch banks and berms in non-tillage orchard operations, fields being prepared for cultivation, agricultural wastes, and the operation or maintenance of a system for the delivery of water for agricultural operations.
- (2) AGRICULTURAL OPERATIONS means any business occurring on a ranch or farm directly related to:

- (A) Growing of crops
  - (B) Raising of fowl or other animals for the primary purpose of making a profit or for a livelihood
  - (C) Conducting agricultural research or instruction by an educational institution
- (3) **AGRICULTURAL WASTES** means unwanted or unsalable materials produced wholly from agricultural operations directly related to the growing of crops or raising of animals for the primary purpose of making a profit or for a livelihood. Agricultural wastes do not include items such as plastic, rubber, ornamental or landscape vegetation, chemically treated wood, shop wastes, construction and demolition material, material containing asbestos, garbage, oil filters, tires, tar paper, pesticide and fertilizer containers, broken boxes, pallets, sweat boxes, packaging material, packing boxes or any other material produced in the packaging or processing of agricultural products. Orchard or vineyard waste or any other material, generated as a result of land use conversion to nonagricultural purposes is not agricultural waste.
- (4) **AIR QUALITY INDEX (AQI)** is a value established by the federal Environmental Protection Agency (EPA) to measure the level of the five major air pollutants regulated by the Clean Air Act. The values range from 0 to 500 and are divided into six categories; higher values indicate greater levels of pollution and greater associated health concerns. The following summarizes the AQI:
- (A) 50 or below is Good
  - (B) 51 through 100 is Moderate
  - (C) 101 through 150 is Unhealthy for Sensitive Groups
  - (D) 151 through 200 is Unhealthy
  - (E) 201 through 300 is Very Unhealthy
  - (F) Over 300 is Hazardous
- (5) **APPROVED IGNITION DEVICES** means those instruments or materials that will ignite agricultural waste without the production of black smoke. This would include such devices using liquid petroleum gas, butane, propane, or diesel oil burners and flares where the device produces a flame and the flame is then used for ignition.

- (6) APPROVED IGNITION FUELS means pipeline quality natural gas, liquefied petroleum gas, or a petroleum liquid having an API gravity of at least 30.
- (7) ~~BEACH BURNING~~ means any recreational, ceremonial or open burning conducted in any public coastal area, marked by an accumulation of sand, stone, or gravel that has been deposited by the tide or ocean waves, including any adjacent areas used for beach access or recreation. For the purposes of this rule, beach burning does not include the use of charcoal or gaseous or liquid fuels, in the preparation or warming of food for human consumption.
- (8) ~~7~~ BURN AUTHORIZATION NUMBER is the number that is assigned to a burn project upon being granted approval by the Executive Officer.
- (9) ~~8~~ BURN MANAGEMENT PLAN means a document prepared by an agricultural operator for a project which provides a description of the project, and other information as required under subparagraph (d)(7)(D).
- (10) ~~9~~ BURN PROJECT means an active or planned prescribed burn, agricultural burn, fire prevention/suppression training, a naturally ignited wildland fire managed for resource benefits, or any other burn approved by the Executive Officer.
- (11) ~~10~~ EMERGENCY BURN PLAN means a document prepared by an agricultural operator for open burning as an emergency measure to protect crops from freezing which provides a description of the project, and other information as required under subparagraph (h)(4)(C).
- (12) ~~11~~ FIELD CROP means crop, other than fruit or vegetable, which is grown for agricultural purposes.
- (13) ~~12~~ FIRE HAZARD means a hazardous condition involving combustible, flammable, or explosive material that could present a substantial threat to life or property, as declared by a fire protection agency.
- (14) ~~13~~ FIRE PREVENTION/SUPPRESSION TRAINING means the instruction of employees in the methods of preventing or suppressing fires.
- (15) ~~14~~ FIRE PROTECTION AGENCY means any public agency with the responsibility and authority to protect people, property, and the environment from fire, within its respective area of jurisdiction.
- (16) ~~15~~ HEAVY FUELS means materials that burn slowly, sustain heat, and are difficult to extinguish. Heavy fuels include large downed woody materials such as logs and branches.

- (17 16) **IMMINENT FIRE HAZARD** means a fire hazard that presents an immediate danger to property or the health and/or safety of a person or persons and for which direct abatement by fire is necessary as directed by a fire protection agency. An imminent fire hazard is distinguished from a prescribed burn by the immediate or urgent action needed to alleviate a threat.
- (18 17) **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.
- (19 18) **LIGHT FUELS** means materials that burn quickly with a short period of intense heat such as grass and field crops.
- (20) MANDATORY WINTER BURNING CURTAILMENT means a period of time during the consecutive months of November through February where the burning of solid fuels is restricted for portions of the South Coast Air Basin at elevations below 3,000 feet above Mean Sea Level (MSL) based on the air quality criteria contained in AQMD Rule 445 (Wood-Burning Devices).
- (21 19) **MARGINAL BURN DAY** means a day in an air basin when open burning for individual projects is restricted to designated source/receptor areas and is not otherwise prohibited by the California Air Resources Board (CARB) or the Executive Officer of the District. A marginal burn day is declared when:
- (A) At least one of the meteorological criteria for an air basin is predicted to be met;
  - (B) The AQI throughout the basin is predicted to be 150 or less; ~~and~~
  - (C) The AQI in the designated source/receptor area(s) is predicted to be 100 or less; and
  - (D) The designated source/receptor area(s) is not further restricted by a mandatory winter burning curtailment pursuant to AQMD Rule 445 (Wood-Burning Devices).
- (22 20) **METEOROLOGICAL CRITERIA** defines the daily predicted meteorological conditions that need to be satisfied to permit open burning for an air basin. The criteria are as follows:
- (A) Burn Area 40: South Coast Air Basin (at least one criterion must be satisfied):



- (i) Near 6:00 a.m., the expected height of the inversion base, if any, at Los Angeles International Airport is 1,500 feet above mean sea level or higher.
  - (ii) The expected maximum mixing height during the day is 3,500 feet above the surface.
  - (iii) The expected mean surface wind between 6:00 a.m. and noon is greater than five miles per hour.
- (B) Burn Area 53: Mojave Desert Air Basin (all criteria must be satisfied):
- (i) Near the time of day when the surface temperature is at a minimum, the temperature at 3,000 feet above the surface is not warmer than the surface temperature by more than 13 degrees Fahrenheit.
  - (ii) The expected temperature at 3,000 feet above the surface is colder than the expected surface temperature by at least 11 degrees Fahrenheit for 4 hours.
  - (iii) The expected daytime wind speed at 3,000 feet above the surface is at least 5 miles per hour.
- (C) Burn Area 55: Salton Sea Air Basin (at least three criteria must be satisfied):
- (i) Near the time of day when the surface temperature is at a minimum, the temperature at 3,000 feet above the surface is not warmer than the surface temperature by more than 13 degrees Fahrenheit.
  - (ii) The expected temperature at 3,000 feet above the surface is colder than the expected surface temperature by at least 11 degrees Fahrenheit for 4 hours.
  - (iii) The expected daytime wind speed at 3,000 feet above the surface is at least 5 miles per hour.
  - (iv) The expected daytime wind direction in the mixing layer is not southeasterly.

(23 24)NO BURN DAY means a day in an air basin during ~~on~~ which open burning is prohibited by the CARB or Executive Officer of the District. A no burn day is declared when:

- (A) None of the meteorological criteria for an air basin are met, or

- (B) The AQI in any area of the basin is predicted to be greater than 150.
- (24 22) OPEN BURNING COMBUSTION/OPEN DETONATION means the ignition and subsequent burning, or ignition, rapid decomposition and subsequent burning of solid, liquid, or gaseous materials, outside of a combustion chamber with or without a visible flame and not directed through a chimney or flue.
- (25 23) PERMISSIVE BURN DAY means a day in an air basin during ~~on~~ which open burning is not prohibited by the CARB or Executive Officer of the District. A permissive burn day is declared when:
- (A) At least one of the meteorological criteria for an air basin is predicted to be met, ; and
- (B) The AQI throughout the basin is predicted to be 100 or less- and
- (C) The designated source/receptor area(s) is not further restricted by a mandatory winter burning curtailment pursuant to AQMD Rule 445 (Wood-Burning Devices).
- (26 24) PRESCRIBED BURNING means planned open burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, identified on lands selected in advance for removal of:
- (A) Vegetation from land predominantly covered with chaparral, trees, grass, or standing brush.
- (B) Forest vegetation or debris for the purposes of forest protection.
- (C) Brush, weeds, arundo, or other plant matter to promote a healthier environment for plant or animal species or to re-establish native plant species.
- (D) Disease and pest prevention.
- (E) Fire prevention/suppression training consuming greater than 10 acres.
- (27) PRODUCT TESTING means the evaluation of commercial products designed to detect the presence of flame or smoke or intended to prevent equipment damage due to flame.
- (28 25) RESIDENTIAL BURNING means open burning for the purposes of disposing of combustible or flammable solid waste, excluding Russian thistle, from a specific residence on its premises.

(29 26) SENSITIVE RECEPTOR LOCATIONS include schools, daycare centers, hospitals, and convalescent homes, and other locations where children, chronically ill individuals, or other sensitive persons could be exposed.

(30 27) SMOKE MANAGEMENT PLAN means a document prepared for each open burning event or project by land managers that provides information and procedures to minimize smoke impacts.

(31 28) SOURCE/RECEPTOR AREAS. A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are measured. Any ~~of the~~ areas can be a source area, a receptor area, or both a source and receptor area. The source/receptor areas are delineated on the attached map (Attachment 1).

(32 29) WILDLAND means:

(A) “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.

(B) For the California Department of Forestry and Fire Protection 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.

(d) Requirements and Prohibitions

(1) A person shall not conduct or allow open burning unless all of the following are met:

(A) The Executive Officer has declared the day a permissive burn day or a marginal burn day on which burning is permitted in the

applicable source/receptor area and such burning is not prohibited by the applicable public fire protection agency.

- (B) The Executive Officer or the applicable fire protection agency has issued a written permit for the burn. For disposal of Russian thistle, subject to paragraph (d)(2)(C), a permit may also be issued by the Director of Forestry and Fire Protection or a County Agricultural Commissioner, pursuant to California Health and Safety Code Section 41809.
- (C) The Executive Officer has authorized the burn by issuing a Burn Authorization Number for each day for each open burning event.
  - (i) The Executive Officer has received the Burn Authorization Number request by 4:00 p.m. on the day prior to the burn.
  - (ii) The Executive Officer may delay issuing a Burn Authorization Number until such time that an inspection of the proposed Burn Project can be conducted, in order to determine whether the open burning event complies with the provisions of the rule.
- (D) All site-specific permit conditions are met, pursuant to Rule 208 – Permit and Burn Authorization for Open Burning.
- (2) The Executive Officer may authorize open burning for:
  - (A) Agricultural burning
  - (B) Prescribed burning
  - (C) Disposal of Russian thistle
  - (D) Abatement of a fire hazard that a fire protection agency determines cannot be abated by an economically, ecologically and logistically viable option
  - (E) Disposal of waste infected with an agricultural pest or disease hazardous to nearby agricultural operations and upon the order of the County Agricultural Commissioner
  - (F) Disposal of infectious waste, other than hospital waste, upon the order of the County Health Officer to abate a public health hazard
  - (G) Use of pyrotechnics for the creation of special effects during filming of motion pictures, videotaping of television programs or other commercial filming or video production activities provided untreated wood, charcoal or Approved Ignition Fuels are used

- (H) Disposal of contraband in the possession of public law enforcement personnel provided they demonstrate that open burning is the only reasonably available method for safely disposing of the material
  - (I) Fire prevention/suppression training exercises, provided notifications and compliance with all requirements of Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities shall be required when applicable
  - (J) Researching or testing fire retardant properties of materials (or enclosures) or the efficacy of fire suppression techniques or devices
- (3) A person is prohibited from open burning for:
- (A) Residential burning
  - (B) Disposal of waste, except as specified in (d)(2) above, including hospital waste
  - (C) Disposal of materials generated as a result of land use conversion for non-agricultural purposes
  - (D) Disposal of materials from the production or storage of military ordnance, propellants, or pyrotechnics unless a fire protection agency, law enforcement agency or governmental agency having jurisdiction determines that onsite burning or detonation in place is the only reasonably available method for safely disposing of the material
  - (E) Suppression of wildland fires, except those set by fire protection agencies, for the purpose of saving life or property
  - (F) Complete burning of existing structures for fire prevention/suppression training exercises
  - (G) Beach burning, on and after January 1, 2015. However, a city or county may, through formal action of a city council or board of supervisors, make this prohibition effective sooner than January 1, 2015.
- (4) A person shall not commence:
- (A) Open burning for agricultural field crops before 10:00 a.m. or later than 5:00 p.m.
  - (B) Open burning, other than for agricultural field crops, except as authorized in an approved Smoke Management Plan:

- (i) Earlier than one hour after sunrise
  - (ii) Later than two hours before sunset, with no new ignition, or fuels added to an existing fire
- (5) A person shall use only approved ignition devices to ignite open burning.
- (6) A person shall not transport vegetative waste for the purpose of open burning from one property to another, unless it is necessary to avoid burning within 1,000 feet of a sensitive receptor.
- (7) Additional requirements for agricultural burning:
  - (A) A person shall not conduct or allow the open burning of agricultural waste unless it has been allowed to dry for the following minimum times:
    - (i) Trees and large branches (3 in. or greater): 6 weeks
    - (ii) Prunings and small branches (1 in. to less than 3 in. diameter): 4 weeks
    - (iii) Wastes from field crops that are cut in a green condition: 4 weeks
    - (iv) Fine fuels (0.25 in. to less than 1 in. diameter): 3 weeks
    - (v) Very fine fuels (less than 0.25 in.): 10 days
  - (B) A person shall not conduct or allow the open burning of agricultural waste unless it is free of dirt, soil, and visible moisture.
  - (C) A person shall ignite rice, barley, oat and wheat straw only by strip-firing or by backfiring into the wind unless a fire protection agency declares such actions would constitute a fire hazard.
  - (D) A person shall not conduct or allow the open burning of agricultural waste unless a Burn Management Plan is approved in writing by the Executive Officer for any project greater than 10 acres or a project that produces more than one ton of particulate matter emissions, as determined using EPA AP-42 or equivalent emissions factors approved by the Executive Officer, CARB, and EPA. At a minimum, the Burn Management Plan shall contain the following information:
    - (i) Location, types, and amounts of material to be burned
    - (ii) Expected duration of the fire from ignition to extinction
    - (iii) Identification of responsible personnel, including telephone contacts

- (iv) Identification and location of all smoke sensitive areas
- (v) Calculation of the particulate emissions tonnage, when the particulate emissions tonnage is selected as the criteria for determining the project size
- (E) A person shall not conduct or allow the open burning of agricultural waste unless the burn is located farther than 1,000 feet from a sensitive receptor location.
- (8) Additional requirements for prescribed burning:
  - (A) A person shall conduct or allow prescribed burning only when the fires are set by, under the jurisdiction of, or pursuant to the orders or requirements of a fire protection agency.
  - (B) A person shall not conduct or allow prescribed burning unless a Smoke Management Plan is approved in writing by the Executive Officer for any project greater than 10 acres or that produces more than one ton of particulate matter emissions, as determined using EPA AP-42 or equivalent emissions factors approved by the Executive Officer, CARB, and EPA. Smoke Management Plans shall be updated annually. At a minimum, the Smoke Management Plan shall contain the following information:
    - (i) Location, types, and amounts of material to be burned
    - (ii) Expected duration of the fire from ignition to extinction
    - (iii) Identification of responsible personnel, including telephone contacts
    - (iv) Identification and location of all smoke sensitive areas
    - (v) Calculation of the particulate emissions tonnage
  - (C) A person shall not conduct or allow prescribed burning unless a Smoke Management Plan is approved in writing by the Executive Officer for any project greater than 100 acres or that produces more than 10 tons of particulate matter emissions, as determined using EPA AP-42 or equivalent emissions factors approved by the Executive Officer, CARB, and EPA. Smoke Management Plans shall be updated annually. At a minimum, the Smoke Management Plan shall contain the information required by subparagraph (d)(8)(B) and the following information:
    - (i) Identification of meteorological conditions necessary for burning

- (ii) Smoke management criteria the land manager will use for making burn ignition decisions
  - (iii) Projections, including a map, of where the smoke from burns is expected to travel both day and night
  - (iv) Specific contingency actions (such as fire suppression or containment) that will be taken if smoke impacts occur or meteorological conditions deviate from those specified in the Smoke Management Plan
  - (v) Evaluation of and consideration of emission reduction techniques including environmentally, economically, and logistically viable alternatives to burning
  - (vi) Discussion of public notification procedures
  - (D) The Executive Officer shall prioritize burn authorization requests based upon:
    - (i) The level of training of the person conducting the burn as identified in the Burn Management Plan and Smoke Management Plan.
    - (ii) The measures identified in the Smoke Management Plan proposed to reduce emissions.
  - (E) Notwithstanding subparagraph (d)(1)(A), the Executive Officer may allow prescribed burning on marginal burn days, provided a Smoke Management Plan has been approved.
- (e) The Executive Officer may allow the Maximum Daily Burn Acreage for Agricultural Burning and Prescribed Burning as follows:
- (1) For all areas within the District jurisdiction, excluding the Coachella Valley:
    - (A) 175 acres for prescribed wildland and range burning; and
    - (B) 175 acres for agricultural burning;
  - (2) For the Coachella Valley:
    - (A) 6 acres for prescribed wildland and range burning; and
    - (B) 41 acres for agricultural burning; and
  - (3) The provisions of this subdivision, limiting the maximum daily acreage, shall not apply to prescribed burning when a land manager has:
    - (A) Demonstrated that the prescribed burn is required to reduce a fire hazard that jeopardizes public health or safety; and



- (B) Submitted a satisfactory Smoke Management Plan that has been approved by the Executive Officer.
  
- (f) Administrative Requirements
  - (1) An Annual Post Burn Evaluation Report shall be submitted on or before January 31<sup>st</sup> of each calendar year for any open burn projects that require a Smoke Management Plan or a Burn Management Plan. The Report shall include, but not be limited to, the following:
    - (A) The type of material burned
    - (B) The total acreage permitted to burn
    - (C) The total acreage burned
    - (D) The total tons of material burned
    - (E) The estimated fuel loading in tons per acre
    - (F) The total of the estimated PM emissions
  - (2) Fire Protection Agencies within the District must submit copies of written burn permits to the Executive Officer quarterly.
  
- (g) Fees

If required by District Rule 306, any person conducting or allowing any open burning shall accompany the submittals required by subparagraphs (d)(7)(D), (d)(8)(B), (d)(8)(C), (h)(4)(C), and paragraph (f)(1) with applicable filing and evaluation fees pursuant to District Rule 306.
  
- (h) Exemptions
  - (1) The provisions of paragraphs (d)(1) and (d)(4) of this rule shall not apply in the case of an imminent fire hazard, as defined in this Rule.
  - (2) The provisions of subparagraphs (d)(1)(A), (d)(1)(B), (d)(1)(D) and clause (d)(1)(C)(ii) shall not apply to fire prevention/suppression training exercises or research, conducted by fire protection agencies, provided that:
    - (A) For training exercises not conducted within existing structures:
      - (i) Each training fire is limited to no more than 30 minutes duration,
      - (ii) The total cumulative burn time in a 24-hour period does not exceed:
        - (a) Four (4) hours for Light Fuel
        - (b) Six (6) hours for Heavy Fuels or a mixture of Light and Heavy Fuels

- (iii) Only Authorized Ignition Fuels are used.
  - (B) For training exercises conducted within existing structures, each training fire is limited to no more than 30 minutes in duration.
- (3) The provisions of subparagraphs (d)(1)(A), (d)(1)(B), (d)(1)(D) and clause (d)(1)(C)(ii) shall not apply to fire prevention/suppression training exercises or to product testing conducted by non-fire protection agencies provided that:
  - (A) Each fire is limited to no more than 30 minutes in duration,
  - (B) The total burn time does not exceed four (4) hours in a 24-hour period, and
  - (C) Only Authorized Ignition Fuels are used.
- (4) The provisions of subparagraphs (d)(1)(A) and (d)(7)(E) of this rule shall not apply to open burning as an emergency measure to protect crops from freezing provided that:
  - (A) Open burning is the most immediate or only option available;
  - (B) The temperature at the time of the requested open burning is reasonably anticipated to be below 40° Fahrenheit;
  - (C) An Emergency Burn Plan submitted by the person seeking to conduct open burning is approved by the Executive Office prior to conducting the burn. The Plan shall include, but not be limited to, the following:
    - (i) Location, types, and amounts of material to be burned
    - (ii) Type of crop being protected
    - (iii) Estimate of potential economic loss
    - (iv) Expected dates, time, and duration of the fire from ignition to extinction
    - (v) Identification of responsible personnel, including telephone contacts
    - (vi) Identification and location of all smoke sensitive areas
  - (D) All site-specific conditions imposed by the Executive Officer as part of the approved Emergency Burn Plan are met; and
  - (E) The person conducting the open burn shall notify the Executive Officer no more than 24 hours following the authorized burn to report the total amount of agricultural material burned.
- (5) The provisions of this rule shall not apply to:

- ~~(A) Recreational fires or ceremonial fires, including fires conducted pursuant to United States Code, Title 4, Chapter 1, Section 8.~~
- ~~(B) Open burning of natural gas, propane, untreated wood, or charcoal for the purpose of:
  - ~~(i) Preparation or warming of food for human consumption; or~~
  - ~~(ii) Generating warmth at a social gathering.~~~~
- (A) (C) Open burning located on islands 15 miles or more from the mainland coast.
- (B) (D) Fireworks displays.
- (C) (E) Pyrotechnics used for creation of special effects at theme parks.
- (D) (F) Detonation of explosives during:
  - (i) Quarry or mining operations
  - (ii) Bomb disposal by a law enforcement agency
  - (iii) Demolition of buildings or structures
- (E) (G) The use of pyrotechnics, detonation of explosives, or fire effects for creation of special effects during theatrical productions, filming of motion pictures, videotaping of television programs or other commercial filming or video production activities provided that:
  - (i) Each fire effect is limited to no more than 30 minutes in duration, and
  - (ii) The fuel is untreated wood, charcoal, or Authorized Ignition Fuels.

(6) Except for the requirements of subparagraph (d)(3), the provisions of this rule shall not apply to:

- (A) Recreational fires or ceremonial fires, including fires conducted pursuant to United States Code, Title 4, Chapter 1, Section 8.
- (B) Open burning of natural gas, propane, untreated wood, or charcoal for the purpose of:
  - (i) Preparation or warming of food for human consumption; or
  - (ii) Generating warmth at a social gathering.

(i) Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances.



## ATTACHMENT H

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

---

### **Draft Final Staff Report**

**Proposed Amended Rule 445 – Wood-Burning Devices  
Proposed Amended Rule 444 – Open Burning**

**May ~~April~~ 2013**

#### **Deputy Executive Officer**

Planning, Rule Development and Area Sources  
Elaine Chang, DrPH

#### **Assistant Deputy Executive Officer**

Planning, Rule Development and Area Sources  
Laki Tisopoulos, Ph.D., P.E.

#### **Assistant Deputy Executive Officer**

Science and Technology Advancement  
Philip Fine, Ph.D.

---

#### AUTHORS:

Michael Laybourn - Air Quality Specialist  
Tracy A. Goss, P.E., Program Supervisor

#### Technical Assistance:

Shah Dabirian - Air Quality Specialist  
James Koizumi - Air Quality Specialist

#### REVIEWED BY:

John Olvera - Principal Deputy District Counsel  
Megan Lorenz – Senior Deputy District Counsel

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
GOVERNING BOARD**

Chairman: DR. WILLIAM A. BURKE  
Speaker of the Assembly Appointee

Vice Chairman: DENNIS YATES  
Mayor, Chino  
Cities of San Bernardino County

**MEMBERS:**

MICHAEL D. ANTONOVICH  
Supervisor, Fifth District  
County of Los Angeles

BEN BENOIT  
Councilmember, Wildomar  
Cities of Riverside County

JOHN J. BENOIT  
Supervisor, Fourth District  
County of Riverside

MICHAEL A. CACCIOTTI  
Councilmember, South Pasadena  
Cities of Los Angeles County/Eastern Region

JOSIE GONZALES  
Supervisor, Fifth District  
County of San Bernardino

JOSEPH K. LYOU, Ph. D.  
Governor's Appointee

JUDITH MITCHELL  
Mayor Pro Tem, Rolling Hills Estates  
Cities of Los Angeles County/Western Region

SHAWN NELSON  
Supervisor, Fourth District  
County of Orange

DR. CLARK E. PARKER, SR.  
Senate Rules Appointee

JAN PERRY  
Councilwoman, 9<sup>th</sup> District  
City of Los Angeles Representative

MIGUEL A. PULIDO  
Mayor, Santa Ana  
Cities of Orange County

**EXECUTIVE OFFICER:**

BARRY R. WALLERSTEIN, D.Env.

## TABLE OF CONTENTS

<b>Executive Summary</b> .....	1
<b>Background</b> .....	2
<b>Description of Source Category</b> .....	3
<b>Summary of Public Process</b> .....	6
<b>Air Quality Standards</b> .....	6
<b>PM2.5 Air Quality in the South Coast Air Basin</b> .....	7
<b>Health Effects from Fine Particulate Matter</b> .....	8
<b>Purpose and Applicability</b> .....	10
<b>Legal Authority</b> .....	11
<b>Summary of Proposed Amendments to Rule 445</b> .....	11
<b>Summary of Proposed Amendments to Rule 444</b> .....	14
<b>Emissions Inventory</b> .....	15
<b>Emission Reductions</b> .....	15
<b>Cost Effectiveness</b> .....	16
<b>California Environmental Quality Act</b> .....	16
<b>Socioeconomic Assessment</b> .....	17
<b>Post Rule Adoption Outreach</b> .....	18
<b>Findings Under the Health and Safety Code</b> .....	19
<b>Conclusions and Recommendations</b> .....	20
<b>References</b> .....	22
<b>APPENDIX A – List of Comments and Responses</b> .....	A-1
<b>APPENDIX B – Rule 445 Frequently Asked Questions</b> .....	B-1
<b>List of Figures</b>	
<b>Figure 1 – Relative Emissions from Various Heating Sources</b> .....	5
<b>Figure 2 – PM2.5 Monitoring Stations</b> .....	7
<b>Figure 3 – PM2.5 Seasonal Variation, 2011</b> .....	8
<b>Figure 4 – South Coast Air Basin Boundaries</b> .....	11
<b>List of Tables</b>	
<b>Table 1 – Beach Fire Pits</b> .....	5
<b>Table 2 – Summary of Particulate Standards</b> .....	7
<b>Table 3 – Average Winter Emissions from Residential Wood Combustion</b> ...15	
<b>Table 4 – Average Annual Emissions from Open Burning Sources</b> .....	15
<b>Table 5 – Comparison of PAR 445/444 and Other AQMD Rules</b> .....	22

*Note to Reader:*

*Changes made to Draft Staff Report released on April 3, 2013  
are denoted with double underline and double ~~strike out~~.*

## **EXECUTIVE SUMMARY**

Residents of the South Coast Air Basin (Basin) are exposed to some of the highest ambient concentrations in the nation of PM<sub>10</sub> and PM<sub>2.5</sub>, collectively referred to as particulate matter or PM. Although smoke from biomass burning (firewood and open burning) is not the largest source of the region's fine particulate pollution, it is one of the last largely uncontrolled source of particulates, and air quality modeling indicates that significant air quality improvements can be achieved by reducing these emissions on an episodic basis (AQMD, 2012). Studies also continue to show the importance of reducing public exposure to PM, including biomass smoke (U.S. EPA, 2009). This is reflected in the U.S. EPA's recent decision to lower the PM<sub>2.5</sub> annual standard from 15 to 12  $\mu\text{g}/\text{m}^3$  to be more health protective (c.f. 78 FR 3,086-3,287, National Ambient Air Quality Standards for Particulate Matter, dated January 15, 2013<sup>1</sup>). Based on these air quality conditions and state and federal mandates, the 2012 Air Quality Management Plan (AQMP) focused on measures to attain the federal 24-hour PM<sub>2.5</sub> standard of 35  $\mu\text{g}/\text{m}^3$  and thus included control measures intended to further reduce PM emissions from residential wood combustion (BCM-01) and open burning sources (BCM-02).<sup>2</sup> The proposed amendments to Rule 445 (Wood-Burning Devices) and Rule 444 (Open Burning) are intended to implement these 2012 AQMP control measures to aid in achievement of the 24-hour PM<sub>2.5</sub> standard and to protect public health by reducing exposure of potentially high concentrations of wood smoke. In addition, AQMD staff has recently learned of resident's concern regarding adverse health effects and loss of enjoyment associated with open burning at beaches and proposes to prohibit burning of wood and other biomass fuels at beaches effective January 1, 2015. Under PAR 444 a city or county could, though formal action, make the prohibition effective sooner than January 1, 2015.

### **PAR 445**

One element of the 2012 AQMP residential wood combustion control measure BCM-01 included proposed changes to the threshold used to forecast no burn days. Specifically, proposed amended rule (PAR) 445 lowers the PM<sub>2.5</sub> forecast threshold used to declare a mandatory winter burning curtailment from 35  $\mu\text{g}/\text{m}^3$  (current federal PM<sub>2.5</sub> 24-hour standard) to 30  $\mu\text{g}/\text{m}^3$ . Similar thresholds are used in the Bay Area and Sacramento Metropolitan AQMD's wood smoke policies and regulations, and the lower value provides a margin of safety given the uncertainties associated with air quality forecasts. PAR 445 would also establish a Basin-wide winter burning curtailment whenever a PM<sub>2.5</sub> level of greater than 30  $\mu\text{g}/\text{m}^3$  is forecast at any monitoring station which has recorded violations of the federal 24-hour PM<sub>2.5</sub> standard in either of the previous two years. PAR 445 also requires commercial firewood or other wood-based fuel sellers to notify the public of the AQMD's Check Before You Burn program through a labeling program. Additional Rule 445 amendments are proposed to increase rule clarity.

It is anticipated that there may be an increase of up to 20 no-burn days with this lower threshold, although continued air quality improvements will reduce the frequency and

---

<sup>1</sup> <http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf>

<sup>2</sup> Control Measure #2012 BCM-01, <http://www.aqmd.gov/aqmp/2012aqmp/DraftFinal/appIV-A.pdf> - page IV-A-17



geographical extent of no-burn days as the Basin approaches and reaches attainment. The 2012 control measure represents a State Implementation Plan (SIP) commitment to reduce PM emissions from wood burning devices by up to seven tons per episodic winter day by the year 2014. Cost impacts are expected to be minimal as wood burning in this area is done primarily for aesthetic purposes and there are cost-effective alternatives to burning wood for heat. An incentive program for cleaner hearth appliances is ongoing and is proposed to be enhanced in conjunction with adoption of PAR 445 to encourage the public to switch to cleaner hearth products, including gaseous-fueled devices that are exempt from burning curtailments.

#### **PAR 444**

For consistency and to maximize the episodic air quality benefits, the 2012 AQMP open burning control measure BCM-02 proposed that the Rule 444 prohibitions should be aligned with the PAR 445 requirements during the winter season. Accordingly, PAR 444 includes revisions to marginal and permissive burn day definitions that would limit open burning whenever a mandatory winter burning curtailment was called for individual source/receptor areas or the entire Basin under PAR 445. No revisions are proposed for open burning sources above 3,000 feet in elevation. A new definition is proposed to clarify an exemption for the testing of fire detection/suppression systems. A new definition is also added for beach burning and the existing exemptions for open burning for recreational, ceremonial and warming purposes are proposed to be amended to exclude beach burning. Additional Rule 444 amendments are proposed to increase rule clarity.

Although it is anticipated that there will be a slight increase in the number of no-burn days under PAR 444, there are no annual emissions reductions as the burning that would have occurred during winter months would likely be switched to other, non-episodic times of the year. Cost impacts are anticipated to be minimal as prohibited open burning would likely be shifted to other days and the Rule's existing exemptions for fire suppression and training exercises are unchanged. Relative to beach burning, quantification of emissions, and the anticipated reductions, are difficult as the amount of wood use varies and fires tend to include other materials, such as trash and waste wood. However, based on assumptions concerning a presumable wood burning rate of two to three bundles of packaged wood per fire ring per night in summer months and assuming full utilization of all fire rings, the approximately as many as 857 840 Basin fire rings are estimated to emit up to 0.16 to 0.25 ton per day of PM2.5. The change in estimated number of beach fire rings is based on results from field verification of fire rings that would be subject to PAR 444 provisions. It is anticipated that there would be a loss of revenue to the entities that charge for parking in areas where beach fires are conducted.

## **BACKGROUND**

#### **PAR 445**

Control Measure #BCM-03 (Emission Reductions from Wood-Burning Fireplaces and Stoves)<sup>3</sup> from the 2007 AQMP was implemented in March 2008 through adoption of AQMD Rule 445 - Wood Burning Devices (AQMD, 2008). Under the existing Rule provisions, only gaseous-fueled hearth devices are allowed to be installed in new developments. For existing residential and commercial developments (additions, remodels, etc.), Rule 445 requires wood

---

<sup>3</sup> 2007 AQMP, Appendix IV-A, [http://www.aqmd.gov/aqmp/07aqmp/aqmp/Appendix\\_IV-A.pdf](http://www.aqmd.gov/aqmp/07aqmp/aqmp/Appendix_IV-A.pdf)

burning devices sold or installed to be U.S. EPA certified or equivalent. Rule 445 prohibits the burning of any product not intended for use as a fuel (e.g., trash) in a wood burning device and requires commercial firewood sellers to only sell seasoned firewood (20% or less moisture content) from July through February. Rule 445 also includes a mandatory winter burning curtailment program that extends from November 1 through the end of February each winter season. During a mandatory winter burning curtailment period (first implemented in the 2011/2012 winter season), the public is required to refrain from both indoor and outdoor wood-based fuel burning in specific areas where PM<sub>2.5</sub> air quality is forecast to exceed 35 µg/m<sup>3</sup> (federal 24-hour standard). The District has also implemented the Healthy Hearths™ program that includes a comprehensive education and outreach effort as well as financial incentives to encourage the public to switch to cleaner, gaseous-fueled hearth products. (<http://www.aqmd.gov/healthyhearths/index.htm>).

#### **PAR 444**

Rule 444 – Open Burning, was originally adopted in 1976 and is intended to reduce visible emissions and minimize public nuisance from smoke emissions. Currently, Rule 444 allows open burning on permissive burn days, provided that a permit and event authorization is obtained, and that such burning events are not prohibited by a fire protection agency. A permissive burn day is declared by the District when certain meteorological conditions are met in one or more of the defined source/receptor areas. Rule 444 also includes general requirements (i.e., burning time window and ignition device) for open burning, as well as particular requirements, such as moisture level and firing methods for agricultural burning, and a Smoke Management Plan for prescribed burning. In addition, Rule 444 sets District-wide maximum daily burn acreage for agricultural and prescribed burning with less restrictive requirements for training burns if the duration is less than 30 minutes and clean fuel is utilized.

The most recent Rule 444 amendments were adopted in 2008 to strengthen the rule provisions to be more health protective and update the rule to be based on the Air Quality Index (AQI) for forecasting “marginal”, “permissive”, and “no burn” days. The 2008 proposal also included several new requirements for agricultural burning and fire prevention/suppression training and prohibited agricultural burns within 1,000 feet of sensitive receptor locations. In order to partially recover the cost associated with running the open burn program, the 2008 proposal also established fees to be assessed for the filing and evaluation of the required plans and reports.

## **DESCRIPTION OF SOURCE CATEGORY**

#### **Rule 445**

The following background information was obtained from CARB<sup>4</sup> and U.S. EPA<sup>5</sup> documents.

The types of devices that burn wood in a typical residence are: 1) fireplaces, 2) fireplace inserts, and 3) wood burning stoves (includes subcategories). The most common wood burning device in a home is the traditional, open-hearth (uncontrolled) fireplace. A fireplace is an inefficient method of heating a house and in some cases can have a negative heating

---

<sup>4</sup> ARB (California Air Resources Board), Area Source Methodology, Section 7.1, Residential Wood Combustion, July 1997

<sup>5</sup> EPA, AP-42, Section 1.9, Residential Fireplaces, October 1996.

efficiency if the inside air is used as combustion air. Fireplace inserts are essentially wood-stove type devices that fit into a fireplace hearth. Wood stoves are stand alone devices that vent flue gas through an existing chimney or flue. They are enclosed wood heaters that control burning or burn time by restricting the amount of air that can be used for combustion.

Figure 1 presents a relative comparison of fine particulate emissions from various heating sources.

In recent years, hearth product manufacturers have initiated efforts to reduce emissions from wood-burning fireplaces. These efforts have included, but are not limited to, products developed under the U.S. EPA Phase 2 Qualified Fireplace Program.<sup>6</sup> According to the referenced web site, this program is a voluntary effort to encourage manufacturers to improve air quality through developing and distributing cleaner, more efficient wood-burning appliances. There are two general types of fireplace products under the program: Phase 2 Qualified Fireplaces and Phase 2 Qualified Fireplace Retrofit Devices. Phase 2 qualified fireplaces are stand alone hearth devices intended to be installed in new developments or room additions, while retrofit fireplace devices are intended to be installed into existing wood burning fireplaces. Rule 445 provisions do not allow the installation of U.S. EPA Phase 2 Qualified Fireplaces; however, U.S. EPA Phase 2 Qualified Fireplace Retrofit Devices are not prohibited by Rule 445 and therefore can be installed in existing wood-burning fireplaces; that is, residential fireplaces constructed before March 9, 2009. Appendix B has a list of answers to Frequently Asked Questions (FAQs) and the underlined text has been proposed to further clarify the types of devices, including U.S. EPA Phase 2 Qualified Retrofit Devices that can be installed into existing households. Changes to the list of FAQs may be made in the future to help answer implementation questions.

#### **Rule 444**

This rule currently prohibits various types of opening burning activities and sets forth the conditions under which certain activities may take place. Two key activities are those of agricultural and prescribed burning. However, the existing rule exempts recreational, ceremonial, and other open burning activities. Recently it has been proposed that Rule 444's exemptions should not include beach burning. Table 1 presents an inventory of beach fire pits based on available data. The change in the estimated total number of beach fire rings is from the results of a field verification of beach fire rings that are subject to PAR 444 provisions. Agricultural burning is open burning of vegetative materials produced from the growing and harvesting of crops, as well as field preparation in agricultural operations. Prescribed burning is a planned open burn of vegetative materials, usually conducted by a fire protection agency and/or department of forestry, to promote a more healthful habitat for plants and animals, to prevent plant disease and pests, and to reduce the likelihood of wildfires and associated damages. Training burns are hands-on trainings conducted by fire protection agencies on methods of preventing and/or suppressing fires.

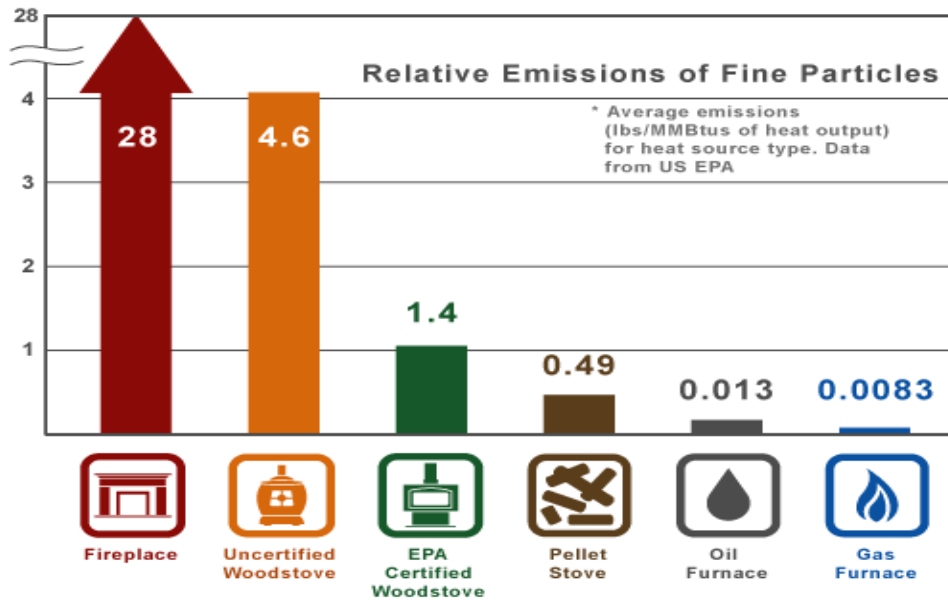
---

<sup>6</sup><http://www.epa.gov/burnwise/participation.html> <http://www.epa.gov/burnwise/fireplacelist.html>

**Table 1**  
**Estimated Fire Pit Locations**

Beach Name	City	No. of Fire Pits
<b>LOS ANGELES COUNTY</b>		
Dockweiler State Beach	Playa del Rey	<del>90</del> <u>73</u>
<del>Wilder Annex (Pt. Fermin Park)</del>	<del>San Pedro</del>	<del>3</del>
Cabrillo Beach	San Pedro	6
<del>Leo Carrillo State Beach</del>	<del>Malibu</del>	<del>140</del>
		Total = <del>99</del> <u>79</u>
<b>ORANGE COUNTY</b>		
Bolsa Chica State Beach	Huntington Beach	<del>182</del> <u>178</u>
Huntington City Beach	Huntington Beach	<del>83</del> <u>112</u>
Huntington State Beach	Huntington Beach	<del>200</del> <u>240</u>
Balboa Beach	Balboa/Newport Beach	33
Corona Del Mar State Beach	Newport Beach	27
Aliso Beach County Park	South Laguna	7
Doheny State Beach	Dana Point	<del>32</del> <u>163</u>
Capistrano Beach Park	Capistrano	4
North Beach	San Clemente	<del>4</del> <u>5</u>
San Clemente City Beach	San Clemente	9
<del>San Clemente State Beach</del>	<del>San Clemente</del>	<del>160</del>
		Total = <del>741</del> <u>778</u>

**Figure 1**  
**Relative Emissions from Various Heating Sources<sup>7</sup>**



<sup>7</sup> <http://www.epa.gov/airprog/oar/woodstoves/refp.html>

## SUMMARY OF PUBLIC PROCESS

In addition to the extensive control measure outreach efforts associated with the 2012 AQMP adopted in December of 2012, three Working Groups comprised of representatives of industry, agencies, environmental organizations and interested persons were convened beginning in November of 2012 to discuss key aspects of proposed amendments to Rules 445 and 444. The name of the various Working Groups and a list of meetings to date follows. Subsequent meetings will be held on an as needed basis.

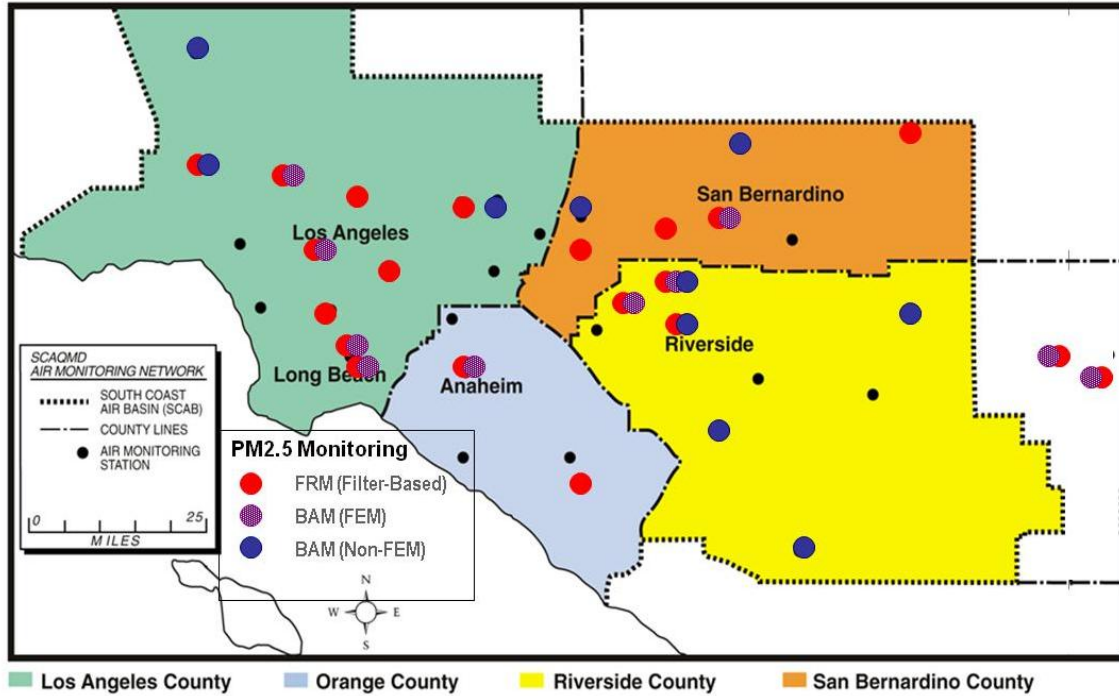
Rule (Source)	Meeting Dates	Members
PAR 445	January 24, 2013 March 6, 2013	General Public, Industry Representatives, Realtors, Firewood Sellers
PAR 444 – Wildland	November 30, 2012 February 7, 2013	Fire Protection Agencies, Prescribed Fire Agencies (U.S. Forest Service), State and County Representatives
PAR 444 – Agriculture	January 30, 2013	County Agricultural Commissioners, Resource Agencies, Agricultural Producers

A PAR 445/444 Public Workshop was held on February 13, 2013 and staff requested comments on the proposal no later than March 8, 2013. A Public Consultation Meeting was held on March 28, 2013 and comments were due by April 4, 2013.

## AIR QUALITY STANDARDS

The District monitors ambient air quality for criteria pollutants (ozone, carbon monoxide, particulate matter, nitrogen dioxide, sulfur dioxide, and lead) at 36 locations throughout the Basin. PM<sub>2.5</sub> is monitored at a subset of those monitoring stations (see Figure 2).

**Figure 2**  
**South Coast Air Quality Management District**  
**Ambient Air Monitoring Stations in 2011**



As of 2013, the Basin is not in attainment with the 24-hour or annual average National Ambient Air Quality Standard (NAAQS) for PM<sub>2.5</sub>. The following table presents a summary of the federal NAAQS and State of California air quality standards for particulate matter.

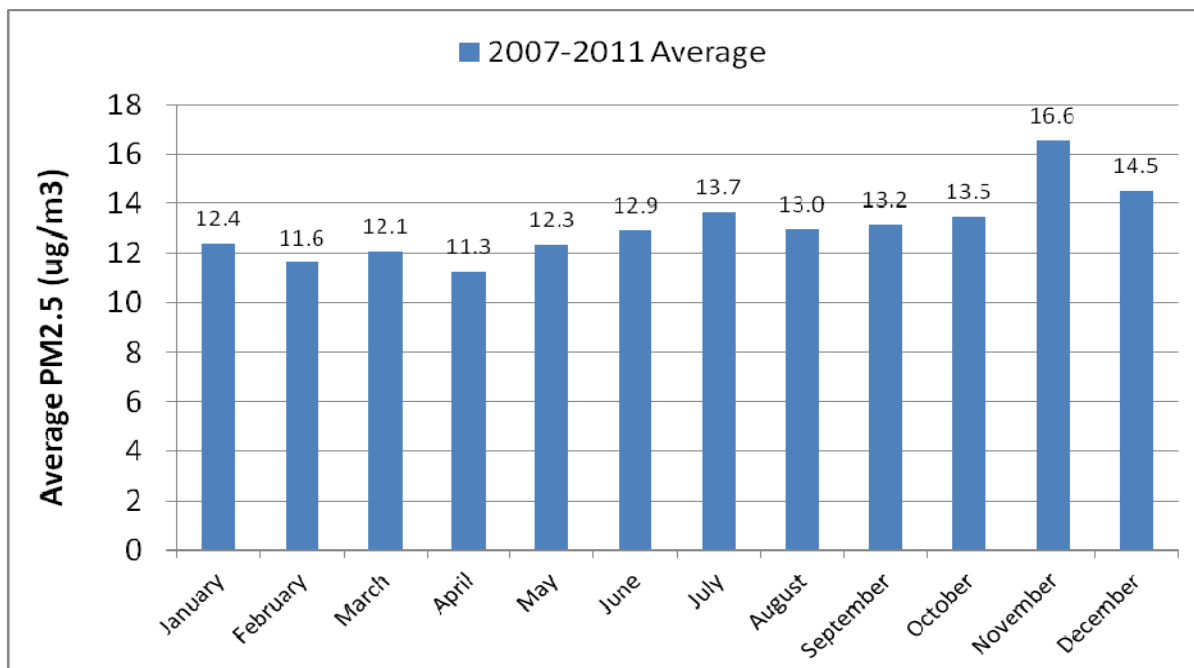
**Table 2**  
**Summary of Particulate Standards (µg/m<sup>3</sup>)**

Jurisdiction	PM10		PM2.5	
	Annual	24-Hour	Annual	24-Hour
Federal	--	150	12	35
California	20	50	12	--

## PM<sub>2.5</sub> AIR QUALITY IN THE SOUTH COAST AIR BASIN

PM<sub>2.5</sub> is monitored at various sites throughout the District. Unlike ozone that has a predictable summertime increase; ambient PM<sub>2.5</sub> measurements tend to be higher in the third and fourth quarters of the year. Figure 3 shows the Basin’s 2007 to 2011 average PM<sub>2.5</sub> concentrations on a monthly basis.

**Figure 3**  
**PM2.5 Seasonal Variation, 2007 to 2011**  
**Monthly Average Concentration in the Basin ( $\mu\text{g}/\text{m}^3$ )**



## HEALTH EFFECTS FROM FINE PARTICULATE MATTER

The following is an excerpt from Chapter 2, Air Quality and Health Effects, from the 2012 Air Quality Management Plan (page 2-13).

A significant body of peer-reviewed scientific research, including studies conducted in Southern California, points to adverse impacts of particulate matter air pollution on both increased illness (morbidity) and increased death rates (mortality). The 2009 U.S. EPA *Integrated Science Assessment for Particulate Matter* describes these health effects and discusses the state of the scientific knowledge (U.S EPA, 2009). A summary of health effects information and additional references can also be found in the 2012 AQMP, Appendix I.

There was considerable controversy and debate surrounding the review of particulate matter health effects and the consideration of ambient air quality standards when U.S. EPA promulgated the initial PM2.5 standards in 1997 (Vedel, 1997). Since that time, numerous additional studies have been published (Kaiser, 2005). In addition, some of the key studies supporting the 1997 standards were closely scrutinized and the analyses repeated and extended. These reanalyses confirmed the initial findings associating adverse health effects with PM2.5 exposures.

Several studies have found correlations between elevated ambient particulate matter levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions in different parts of the United States and in various areas around the world. In recent years, studies have reported an association



between long-term exposure to PM<sub>2.5</sub> and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM<sub>2.5</sub> concentration levels have also been related to increased mortality due to cardiovascular or respiratory diseases, hospital admissions for acute respiratory conditions, school and kindergarten absences, a decrease in respiratory function in normal children, and increased medication use in children and adults with asthma. Long-term exposure to PM has been found to be associated with reduced lung function growth in children. The elderly, people with pre-existing respiratory and/or cardiovascular disease, and children appear to be more susceptible to the effects of PM<sub>10</sub> and PM<sub>2.5</sub>.

### **Health Effects from Wood Smoke**

Wood smoke is generally in the fine fraction of PM with most particles having an aerodynamic diameter of 2.5 microns or less. Wood smoke is primarily comprised of organic compounds (including polycyclic organic hydrocarbons), trace elements, and soot (elemental carbon). Wood smoke is usually released near ground level in populated areas and thus is especially likely to increase the PM<sub>2.5</sub> exposure of nearby residents. The health effects of household and neighborhood wood smoke have been studied extensively. The greatest health effect from wood smoke originates from the fine particles that can cause health problems ranging from minor irritations such as burning eyes and runny noses to chronic illnesses such as bronchitis. Fine particles also can aggravate chronic heart and lung diseases and are linked to premature deaths in people with these conditions. Persons that may be more susceptible to health effects from wood smoke include those with existing heart or lung disease (congestive heart failure, angina, chronic obstructive pulmonary disease, emphysema or asthma), the elderly, and the young.<sup>8</sup>

A literature search of available studies (Boman, et al, 2003) also recently concluded that there is no reason to assume that the effects of particulate matter in areas polluted with higher levels of wood smoke are weaker than elsewhere [e.g., areas with similar ambient PM concentrations but with less wood smoke]. Conclusions in a more recent health effects study included a statement that there is no persuasive evidence that wood smoke particles are significantly less dangerous for respiratory disease than other major categories of combustion-derived particles in the same size range (Naeher, et al, 2007). The same study did acknowledge, however, that there is too little evidence available to make a judgment concerning the relative toxicity of wood smoke particles with respect to cardiovascular or cancer outcomes.

A review of all-cause cardiovascular and respiratory mortality data was also recently completed in Australia after a 2001 wood smoke reduction program resulted in a 40 percent improvement in wintertime particulate pollution (British Medical Journal, 2013). The study found that decreased air pollution from ambient biomass smoke was associated with reduced annual mortality in males and with reduced cardiovascular and respiratory mortality during the winter months.

Smoke particles are a significant source of ambient levels of particulate matter in the area. On an annual average basis, about 1 to 3% of PM<sub>2.5</sub> is made up of particles from wood or biomass combustion in the South Coast Air Basin (SCAQMD, 2008). During winter months biomass burning contributions have been found to range on average from 1 to nearly 4  $\mu\text{g}/\text{m}^3$  (Manchester-Neesvig, 2003).

---

<sup>8</sup> US EPA Fact Sheet, Health Effects of Wood Smoke, <http://www.epa.gov/woodstoves/healtheffects.html>



In October 2003, a series of large wildfires occurred in Southern California, with plumes of smoke covering a large area for several days. This afforded an opportunity to assess the effects of biomass burning emissions over a large population. In the University of Southern California Children's Health Study, it was found that respiratory symptoms such as eye, nose and throat irritation, cough, bronchitis, wheezing, and asthma attacks, were associated with individually reported smoke exposures. Medication usage and physician visits were also reported to have increased. Risks for these effects increased with the number of reported smoky days. (Kunzli, 2006).

In another report, the relationship of hospital admissions and particulate exposures during smoky days during the October 2003 fires was examined. Associations of respiratory admissions with particulate exposures during the fires were higher than before or after the fires. The strongest associations were noted among those over 65 years of age, and those 1-4 years of age. (Delfino, 2009).

### **Fireplace Wood Smoke Toxic Emissions**

The following is an excerpt from U.S. EPA AP-42 regarding toxicity of wood smoke emissions from fireplaces (U.S. EPA, 1996).

Hazardous air pollutants (HAPs) are a minor, but potentially important, component of wood smoke. A group of HAPs known as polycyclic organic matter (POM) includes potential carcinogens such as benzo(a)pyrene (BaP). POM results from the combination of free radical species formed in the flame zone, primarily as a consequence of incomplete combustion. Under reducing conditions, radical chain propagation is enhanced, allowing the buildup of complex organic material such as POM. The POM is generally found in or on smoke particles, although some sublimation into the vapor phase is probable.

These findings are further supported in a 2007 publication in *Inhalation Toxicology* entitled "Wood Smoke Health Effects: A Review" (*Inhalation Toxicology*, 19:67-106, 2007).

Due to the potential health effects of wood smoke, just as with cigarette smoke, packaging of firewood and other wood-based products (e.g., manufactured firelogs) requires a Prop. 65 notice of potential health hazard.

## **PURPOSE AND APPLICABILITY**

The purpose of these rule amendments would be to seek further PM emissions reductions from residential wood burning and open burning sources on episodic days within the South Coast Air Basin. Figure 4 shows the Basin boundaries in relation to other jurisdictions in Southern California. PAR 445 would impact the general public that burns wood, people that sell and install wood-burning devices, and commercial firewood facilities that sell wood-based fuel for use in hearth devices. PAR 444 would impact resource agencies involved in prescribed burns and agricultural operations that use open burning. Effective January 1, 2015, the amendments to Rule 444 would also create a new prohibition for beach burning activities by the general public to protect public health by reducing exposure of potentially high concentrations of wood smoke, although a city or county could expedite that date.

**Figure 4**  
**South Coast Air Basin Boundaries**



## LEGAL AUTHORITY

The AQMD obtains authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 40000, 40001, 40702 and 40725 - 40728.

## SUMMARY OF PROPOSED RULE 445 AMENDMENTS

### Subdivision (b) – Applicability

The text describing a commercial firewood seller has been amended to include wood or “other wood-based fuels” to ensure commercial enterprises that sell manufactured logs or pellet fuels would be subject to the labeling requirements in Paragraph (d)(5).

### Subdivision (c) - Definitions

The definition for a commercial firewood seller is proposed to be amended as follows to ensure that the proposed labeling requirements in paragraph (d)(5) would apply to all packaged wood and manufactured wax/sawdust logs sold at all store types.

- (1) COMMERCIAL WOOD-BASED FUEL SELLER FIREWOOD FACILITY means any operation that has a business license that sells, or offers for sale, or supplies, packaged, bundled or bulk firewood, manufactured firelogs, or wood pellets.

The definition for a cookstove is proposed to be amended as follows to clarify the specific device characteristics. As described below under the Exemptions heading [Subdivision (f)] an amendment to paragraph (f)(1) is also proposed to clarify that the cookstove exemption is only applicable to commercial cooking.

- (2) COOKSTOVE means any wood or wood-based fuel-fired device that is designed and used primarily for cooking food and has the following characteristics as defined in Title 40 of the Code of Federal Regulations Section 60.531, February 28, 1988, or any subsequent revision ed:
- (A) An oven, with a volume of 0.028 cubic meters (1 cubic foot) or greater, and an oven rack;
  - (B) A device for measuring oven temperatures;
  - (C) A flame path that is routed around the oven;
  - (D) A shaker grate;
  - (E) An ash pan;
  - (F) An ash clean-out door below the oven; and
  - (G) The absence of a fan or heat channels to dissipate heat from the appliance.

In conjunction with the amendments to the mandatory winter burning curtailment provisions in subdivision (e), definition (c)(6) is proposed to be amended as follows to lower the current forecast threshold from 35 to 30  $\mu\text{g}/\text{m}^3$ , and to outline the parameters when a mandatory curtailment would be applicable to the entire Basin below an elevation of 3,000 feet.

- (6) MANDATORY WINTER WOOD BURNING CURTAILMENT DAY means
- (A) Means any calendar day or consecutive calendar days during the wood burning season so declared to the public by the Executive Officer when ambient levels of particulate matter of 2.5 microns in size or less (PM2.5) is forecast to exceed 30  $\mu\text{g}/\text{m}^3$  for a specific source/receptor area.
  - (B) Applies to the entire South Coast Air Basin whenever a PM2.5 level of greater than 30  $\mu\text{g}/\text{m}^3$  is predicted for a source receptor area containing a monitoring station that has recorded a violation of the federal 24-hour PM2.5 National Ambient Air Quality Standard for either of the two previous three-year design value periods. The design value is the three-year average of the annual 98<sup>th</sup> percentile of the 24-hour values of monitored ambient PM2.5 data.

A new definition is proposed for wood-based fuel to ensure consistency with other portions of the proposed amendments.

- (18) WOOD-BASED FUEL means any wood, wood-based product, or non-gaseous or non-liquid fuel, including but not limited to manufactured firelogs, wood or pellet products. For the purpose of this rule, charcoal is not considered a wood-based fuel.

As described below under the Exemptions heading [Subdivision (f)] a new exemption [paragraph (f)(6)] has also been added to ensure that the proposed paragraph (d)(5) labeling requirements do not apply to wood-based fuel that is intended for cooking food since such products are less widely used and represent an unnecessary cost to the packaging industry.

The definition for a wood-burning device is proposed to be amended to include open or enclosed devices. The result of this change would prohibit the permanent installation of a wood-burning fire pit on residential properties under the provisions of subdivision (d).

(19 18) WOOD-BURNING DEVICE means any fireplace, wood-burning heater, or pellet fueled wood heater, or any similarly open or enclosed, permanently installed, indoor or outdoor device burning any wood-based fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour (Btu/hr).

A new definition is proposed for a wood-fired cooking device to clarify applicability under a mandatory winter burning curtailment.

(22) WOOD-FIRED COOKING DEVICE means any cookstove, wood-fired oven or grill, or any device designed for burning any wood-based fuel for cooking purposes.

### **Subdivision (d) – Requirements**

#### **Subparagraph (d)(2)(D) – Equivalency Determinations for Fireplaces**

The current rule allows the installation of a wood-burning device or fireplace into an existing development if it can be demonstrated that the device achieves an emissions rate that is at least as clean as an EPA certified wood heater (e.g., stove or insert). This provision is proposed to be removed because the test methods for wood heaters (stoves or inserts) and fireplaces are different and are therefore non-comparable. Additionally, the March 2008 Rule 445 AQMD Governing Board adoption resolution directed staff to consider devices developed under the U.S EPA Voluntary Low Emissions (Phase 2 Qualified) Fireplace program to be acceptable for installation in new developments only if determined to be as low emitting as a gaseous-fueled device (AQMD, 2008). As previously mentioned, U.S. EPA Phase 2 Qualified Fireplace Retrofit Devices can be installed into existing (installed before March 9, 2009).wood-burning fireplaces under current Rule 445 provisions.

#### **Paragraph (d)(5) – Commercial Firewood Sellers**

A new requirement is proposed that would require commercial firewood sellers to attach a label to wood-based fuel products for sale to inform the public of the AQMD Check Before You Burn program. Under PAR 445, the effective date of this requirement to include the text below on the wood-based fuel product sales would be six months after adoption of the amendments.

<p><u>Use of this and other solid fuel products may be restricted at times by law. Please check (Toll-Free Number) or (Web Address) before burning.</u></p>
---

Similar labeling provisions are already in place in the Bay Area. The toll free number (1-877-4NO-BURN) and website ([www.8774NOBURN.ORG](http://www.8774NOBURN.ORG)) used by Bay Area AQMD presently have links to the South Coast AQMD Check Before You Burn program. AQMD staff has committed, to the extent feasible, to incorporate the same labeling requirements as

other California air districts in an attempt to lessen the regulatory burden on impacted industries. Paragraph (d)(5) also allows the use of alternative labeling text subject to Executive Officer approval and establishes sell through provisions that would allow commercial firewood sellers to continue to sell already packaged firewood for up to two years after the labeling requirements implementation date (six months after rule adoption).

### **Subdivision (e) – Mandatory Winter Burning Curtailment Program**

The existing provisions related to the mandatory winter burning curtailment program have been modified to reflect that future curtailments would apply to specific source receptor areas or to the entire Basin if the forecast threshold is exceeded in a source receptor area that contains a monitoring station that has recorded a violation of the federal PM<sub>2.5</sub> 24-hour standard during either of the two previous three-year design value days. These requirements would continue to apply to any permanent indoor/outdoor or portable outdoor wood-burning device, but the proposed amendments also clarify the inclusion of wood-fired cooking devices on residential properties.

### **Subdivision (f) – Exemptions**

The existing exemption for cookstoves is proposed to be amended as follows.

- (1) The provisions of this rule shall not apply to cookstoves designed and used for commercial purposes.

A new exemption is proposed in paragraph (f)(6) to clarify that the proposed amended rule's labeling requirements do not apply to wood-based fuels intended for cooking food since such products are less widely used and represent an unnecessary cost to the packaging industry.

- (6) The provisions of (d)(5) shall not apply to wood-based fuel intended for the cooking, smoking, or flavoring of food.

## **SUMMARY OF PROPOSED RULE 444 AMENDMENTS**

As mentioned above, Rule 444 presently includes a system where forecasts are made for No Burn Days, Marginal Burn Days, and Permissive Burn Days. PAR 444 would add a new definition for a Mandatory Winter Burning Curtailment that is consistent with the forecast procedures specified by AQMD Rule 445. PAR 444 also amends the definitions for Marginal and Permissive Burn Days to prohibit burning during a Mandatory Winter Burning Curtailment in areas below an elevation of 3,000 feet. A new definition is also included in PAR 444 for Product Testing that would clarify an exemption proposed for commercial companies that evaluate products designed to detect the presence of flame or smoke, or products intended to prevent equipment damage due to flame. No changes are proposed for open burning activities conducted on properties above an elevation of 3,000 feet.

A new definition is added for “beach burning” which is prohibited beginning January 1, 2015 under this amendment. However, using charcoal and liquid/gaseous fuels ~~for cooking~~ at beaches is still permitted. Other types of recreational, ceremonial, or open burning remain exempt, such as those at regional parks and camp grounds not covered by the new definition. However, the exemption change will prohibit the burning of trash and other materials as listed in paragraph (d)(3) for those activities that are allowed to continue. Under PAR 444 a

city or county could, though formal action, make the prohibition effective sooner than January 1, 2015.

## EMISSIONS INVENTORY

Emissions from biomass burning result primarily from incomplete combustion and include PM, CO, NO<sub>x</sub>, SO<sub>x</sub>, and VOC, although particulate emissions have been the primary focus of air district smoke reduction programs. Studies have shown that the particulate emissions from these sources are generally in the fine ( $\leq 2.5$  microns) size range (Jacob, et.al., 2000). Additionally, incomplete combustion of biomass and firewood produces polycyclic organic matter, a group of compounds classified as hazardous air pollutants under Title III of the federal Clean Air Act.

### Rule 445

Table 3 shows 2012 AQMP winter day residential wood burning emissions inventory for the base year (2008) and future years.

**Table 3**  
**Average PM<sub>2.5</sub> Winter Day Emissions from Residential Wood Combustion (tons/day)**

Emissions (Tons/Day)	2008	2014	2019
Average Winter Day:	10.6	9.4	9.4

### Rule 444

Table 4 shows 2012 AQMP annual average PM<sub>2.5</sub> emissions inventory for open burning sources.

**Table 4**  
**Annual Average PM<sub>2.5</sub> Emissions from Open Burning Sources (tons/day)**

Emissions (Tons/Day)	2008	2014	2019
Annual Average Day:	4.6	4.6	4.6

Note: The emissions inventory does not include emissions from beach burning activities due to large uncertainties in the amount of activity.

## EMISSION REDUCTIONS

### Rule 445

Based on historical data from 2009 to 2011, it is estimated that decreasing the existing Rule 445 curtailment threshold from 35 to 30  $\mu\text{g}/\text{m}^3$  could result in an approximate 50% increase in the number of no-burn days (approximately 20 days total) during the November through February winter season. Lowering the mandatory winter burning curtailment threshold and applying the curtailment to the entire Basin when triggered could potentially reduce Basin-

wide ambient PM<sub>2.5</sub> concentrations on these episodic no-burn days by about 7.1 tons per winter day (assuming 75% rule effectiveness). It should be noted that while controlling emissions from residential wood burning is primarily intended to reduce PM<sub>2.5</sub> emissions, there is an added benefit of also reducing emissions of CO, VOC, NO<sub>x</sub>, SO<sub>x</sub>, and hazardous air pollutants.

#### **Rule 444**

Enhancing the open burning restrictions with this revised threshold criteria and applying a curtailment to the entire Basin could potentially reduce Basin-wide ambient PM<sub>2.5</sub> concentrations on episodic no-burn days by about 4.6 tons per winter day. However, since the burning would likely be shifted to other days, the total annual emissions would remain the same. Accordingly, no annual emissions reductions are anticipated under PAR 444, but emissions reductions would be expected to be achieved on individual days where high PM<sub>2.5</sub> levels are forecast, thus reducing public health impacts. Relative to beach burning, as noted in Table 4, the emissions inventory does not include beach burning. Quantification of these emissions and the anticipated reductions are difficult to determine as the amount of wood use varies widely. However, assuming a wood burning rate of two to three bundles of packaged wood per fire ring per night in the summer months and assuming full utilization of all beach fire rings in the Basin, ~~the approximately as many as 857~~ 840 Basin fire rings are estimated to potentially emit up to 0.16 to 0.25 ton per day of direct PM<sub>2.5</sub> at full utilization. The change in the estimated number of beach fire rings is based a field survey of beach fire rings that are subject to PAR 444 provisions. In addition to these reductions, the prohibition on beach fires is expected to result in significant PM<sub>2.5</sub> exposure reductions for those in close proximity to the fires, such as beach goers and nearby residents.

## **COST EFFECTIVENESS**

The cost effectiveness of these proposed rule amendments has not been determined. Increasing the number of Rule 445 curtailment days would result in relatively little cost increases to the impacted community as there are cost-effective alternatives to burning wood such as gaseous-fueled or electrical heating appliances. Additionally, the proposed amendments do not change existing mandatory curtailment exemptions provided for low income households or those not serviced by natural gas. Costs to firewood sellers are also expected to be low as some already label products to comply with other California air district regulations and sell through provisions have been added to PAR 445. Moreover, AQMD staff has committed, to the extent feasible, to develop PAR 445 labeling requirements consistent with those required by other California air districts. Cost impacts for an increase in Rule 444 burn restrictions are also estimated to be low because it is believed that the open burning will be shifted to other, permissive burn days. Revenue impacts could occur to beach communities with fire rings that charge for parking.

## **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

SCAQMD staff has reviewed the proposed project and determined that the PARs 444 and 445 are exempt from CEQA pursuant to CEQA Guidelines §15308 – Actions by Regulatory Agencies for the Protection of the Environment. The proposed project would reduce air pollution and toxic risk; and not generate ~~secondary~~ significant ~~incremental~~ adverse

environmental impacts. A Notice of Exemption will be prepared pursuant to CEQA Guidelines §15063 – Notice of Exemption, and filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties immediately following the adoption of the proposed project.

## **SOCIOECONOMIC ASSESSMENT**

The proposed amendments to Rule 445 would lower from 35 to 30  $\mu\text{g}/\text{m}^3$  the  $\text{PM}_{2.5}$  threshold that is used to declare a mandatory winter burning curtailment. The South Coast Basin residents are required to curtail burning wood whenever a  $\text{PM}_{2.5}$  level of greater than 30  $\mu\text{g}/\text{m}^3$  is forecasted for a monitoring station not yet attaining the federal 24-hour  $\text{PM}_{2.5}$  standard. The proposed amendments would also require commercial facilities that sell firewood or other wood-based fuel to notify the public of the AQMD's Check Before You Burn program through a labeling program.

The proposed amendments to Rule 444 would limit open burning whenever a mandatory winter burning curtailment under Rule 445 is called for. In addition, the proposal would prohibit open burning at beaches effective January 1, 2015.

### **Affected Industries**

The proposed amendments would affect commercial firewood sellers and the general public who use wood burning fireplaces and other wood burning devices (including fire rings on beaches). Commercial firewood sellers belong to the industry of fuel dealers [North American Industrial Classification System (NAICS) 45431]. Based on a District survey, there are about 86 commercial firewood sellers in the Basin, out of which 31 are located in Los Angeles County, 24 in Orange County, 16 in Riverside County, and the remaining 15 in San Bernardino County. The District's survey did not include firewood sold at grocery stores.

### **Compliance Cost**

The proposed amendments would increase the number of no-burn days in the Basin and could potentially result in the loss of sales by the affected firewood sellers. However, the increase in number of no-burn days is expected to be very small (10 to 15 days) and is anticipated to decrease as  $\text{PM}_{2.5}$  air quality improves and the Basin meets the federal 24-hour  $\text{PM}_{2.5}$  standard (expected in 2014). As a result, the cost impacts of curtailment on firewood sellers are expected to be minimal.

Currently the majority of packaged firewood sellers use labels to notify the public of complying with the Bay Area AQMD's regulation on burning curtailment and, therefore, should be able to comply with the labeling requirement of the SCAQMD's Proposed Amended Rule 445 (PAR 445) without significant costs. Additionally, a two year sell through provision has been added to allow packaged wood sellers to continue to sell materials that have already been packaged prior to the adoption of PAR 445 requirements.

Bulk firewood sellers are expected to incur a minimal cost of preparing a one-page outreach flyer with the SCAQMD's Check Before You Burn statement. SCAQMD staff will prepare a sample material for the one-page flyer to reduce development costs for bulk firewood sellers.

Cost impacts to the general public are also expected to be minimal as wood burning in the SCAQMD is done mainly for aesthetic purposes and there are cost-effective alternatives to



burn wood for heating. The general public could also use incentives provided by the SCAQMD and switch to cleaner burning alternatives to wood burning fireplaces such as gaseous-fueled devices.

The prohibition of beach burning may result in loss of revenues to the cities and entities which charge for parking in areas where beach fires are conducted. State parks and local businesses could also lose revenues due to reductions in number of visitors. Beach cities and local municipalities would lose sales tax revenues associated with the beach fire activities. According to the estimates provided by the Orange Coast District of State Parks Department and the City of Huntington Beach, each affected local beach jurisdiction could lose up to \$1 million annually in revenue due to the prohibition of beach burning.<sup>9</sup>

### **Rule Adoption Relative to the Cost-Effectiveness Schedule**

On October 14, 1994, the Governing Board adopted a resolution that requires staff to address whether proposed rules being considered for adoption are in ranking order of cost-effectiveness in the Air Quality Management Plan (AQMP). PAR 445 implements Control Measure BCM-01 (Further Reductions from Residential Wood Burning Devices) and PAR 444 implements Control Measure BCM-02 (Further Reductions from Open Burning) from the 2012 AQMP. BCM-01 and BCM-02 are the only two measures with emission reductions to attain the federal standard and provide excess reductions as contingency measures if needed. The cost-effectiveness of these control measures was not assessed in the 2012 AQMP, and thus the ranking order of cost-effectiveness is not applicable here. The prohibition of beach fire ring wood burning was added at a later stage and is primarily intended for localized health protection.

## **POST RULE ADOPTION PUBLIC OUTREACH EFFORTS**

### **PAR 445**

The ongoing education/outreach effort will continue as part of the Healthy Hearth™ program (<http://www.aqmd.gov/healthyhearths/index.htm>) since the proposal affects the general public and will likely result in an increase in the number of households subject to no-burn days. This is especially true given the fact that the no-burn days may apply to the entire Basin under the proposed amendments, whereas previously only specific source receptor areas were subject to the no-burn day forecasts. In recent years new efforts have been developed to inform the public of mandatory curtailment days including a dedicated toll-free phone line (866.966.3293) and list serve (<http://aqmd.enviroflash.info/>) by which e-mails are sent to subscribers when a no-burn day is forecast for their particular area.

Additional public education/outreach information on the Healthy Hearths™ website includes videos, answers to frequently asked questions, links to other web sites (CARB and U.S. EPA), and a description of health effects of wood smoke. Efforts to increase public awareness of the District's wood smoke reduction program may include, but are not limited to, outreach to local governments, interested organizations, and homeowner associations.

---

<sup>9</sup> (Retrieved from <http://www.coronadeltoday.com/34939/home/huntington-beach-officials-say-fire-ring-ban-could-cost-that-city-1-million/> and [http://www.google.com/#hl=en&q=California+State+Park+opposing+removal+of+Fire+rings&oq=California+State+Park+opposing+removal+of+Fire+rings&gs\\_l=serp.3...14500.23844.0.24703.29.29.0.0.0.125.2549.22j7.29.0...0.0...1c.1.8.serp.HYTdXtt0Ut0&bav=on.2.or.&fp=e46c04486c441ada&biw=1024&bih=644](http://www.google.com/#hl=en&q=California+State+Park+opposing+removal+of+Fire+rings&oq=California+State+Park+opposing+removal+of+Fire+rings&gs_l=serp.3...14500.23844.0.24703.29.29.0.0.0.125.2549.22j7.29.0...0.0...1c.1.8.serp.HYTdXtt0Ut0&bav=on.2.or.&fp=e46c04486c441ada&biw=1024&bih=644)).

The District has also recently partnered with local media outlets to help inform the public of the Check Before You Burn program and local air quality. Appendix B has a list of answers to Frequently Asked Questions (FAQs) and the underlined text has been proposed to further clarify the types of devices that can be installed into existing households. Changes to the list of FAQs may be made in the future to help answer implementation questions.

District staff will develop and distribute information to those affected by the subparagraph (d)(5) labeling requirements immediately after Rule adoption. As mentioned, sell through provisions have been added that would allow those entities two years after the implementation date of the labeling requirements to sell previously packaged product. Additionally, some of the larger commercial firewood facilities may already be subject to labeling requirements in other parts of the State. In fact, some packaged products sold locally currently have labels that are required by other California air districts.

#### **PAR 444**

Activities subject to existing Rule 444 requirements for agricultural burning and prescribed burns presently check AQMD burn forecasts through the AQMD web site or through the AQMD's toll free number [(800) CUT-SMOG]. Those mechanisms will be updated subsequent to adoption of PAR 444. Additional outreach efforts will be implemented to work with jurisdictions responsible for public beach areas regarding the new PAR 444 restrictions. A Request for Proposals (RFP) is also under consideration to hire a contractor(s) to conduct a demonstration project for a low emission outdoor open burning beach type fire pit ring.

## **FINDINGS UNDER THE HEALTHY AND SAFETY CODE**

Health and Safety Code Section 40727 requires the AQMD to adopt written findings of necessity, authority, clarity, consistency, non-duplication and reference.

#### **Necessity**

A need exists to adopt PAR 445 and 444 to implement the 2012 AQMP control measures BCM-01 and BCM-02 in order to assist in the attainment of State and federal PM standards for the South Coast Air Basin, in particular the federal 24-hour PM<sub>2.5</sub> standard. A need also exists to adopt PAR 445 and 444 to further protect the public from harmful exposure to wood smoke ~~and discomfort or damage to property.~~

#### **Authority**

The AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from California Health & Safety Code Sections 39002, 40000, 40001, 40702, and 40725 through 40728, inclusive and 41700.

#### **Clarity**

The proposed amended rules have been written or displayed so that their meaning can be easily understood by persons directly affected by them.

#### **Consistency**

The proposed amended rules are in harmony with and not in conflict with or contrary to, existing statutes, court decisions or state or federal regulations.

### **Non-Duplication**

The proposed amended rules do not impose the same requirements as any state or federal regulations. The amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, AQMD.

### **Reference**

By adopting the proposed rule amendments, the AQMD Governing Board will be implementing, interpreting, and making specific the provisions of the California Health & Safety Code Section 40001 (rules to achieve ambient air quality standards), 40440 (rules to carry out the Air Quality Management Plan) and 41700 (prohibition of nuisance).

**Alternative Control Measures** - Health and Safety Code Section 40440.5, subsection (c)(3) requires an analysis of alternative control measures. One alternative is to not adopt the proposed rule amendments; however, the emission reductions are necessary as part of the AQMD's proposal to meet State and federal air quality standards, in particular the federal 24-hour PM<sub>2.5</sub> standard, and are necessary to further protect public health. A possible PAR 444 alternative would be for the beach burning prohibition to become effective immediately upon adoption.

**Incremental Cost-Effectiveness** – Health and Safety Code Section 40920.6 (a)(3) requires the District to perform an incremental cost effectiveness analysis prior to adopting rules to meet the requirements for a Best Available Retrofit Control Technology (BARCT) rule, or to implement feasible measures pursuant to use of an alternative emission reduction strategy under Health and Safety Code Section 40914 which does not apply to particulate matter. PAR 445/444 is not being adopted to meet a BARCT requirement nor is it being adopted as a feasible measure pursuant to an alternative reduction strategy under Health and Safety Code Section 40914. Therefore, an incremental cost-effectiveness analysis is not needed.

**Comparative Analysis** - Health and Safety Code §40727.2 requires a written analysis comparing the proposed rule with existing federal, State and District regulations. Health and Safety Code §40727.2, subsection (c) and (d) further require the analysis to review averaging provisions, operating parameters, work practice requirements, and monitoring, reporting and recordkeeping requirements associated with existing applicable rules and proposed regulations.

As mentioned, the U.S. EPA has previously adopted performance standards for new wood heaters (wood stoves and fireplace inserts) sold since 1992.<sup>10</sup> PAR 445 is consistent with these requirements as wood burning units that meet the U.S. EPA performance standards would be allowed to be installed and operated in remodels. PAR 445 is also complementary to the federal program as it also prohibits the sale of used wood burning heaters that do not meet U.S. EPA performance standards. In addition, Rule 445 is consistent with EPA guidance regarding the use of proper fuels, such as seasoned wood of less than 20 percent moisture content. PAR 444 is consistent with federal guidance documents on open burning and efforts to improve visibility. Table 5 below identifies other State and AQMD rules that apply to the sources subject to PAR 445/444. Footnotes explain the differences between Proposed Amended Rules 445/444 and the other State and AQMD rules where relevant.

---

<sup>10</sup> 4.1 grams PM per hour for catalytic heaters and 7.5 grams per hour for non-catalytic heaters

## **CONCLUSIONS AND RECOMMENDATIONS**

The Basin is not in attainment with State and federal annual average and 24-hour air quality standards for PM<sub>2.5</sub>. The 2012 AQMP, approved by the AQMD Governing Board on December 7, 2012 and the CARB Board on January 25, 2013, included control measures to reduce fine particulate emissions from wood burning devices and open burning sources that will result in attainment of the federal 24-hour PM<sub>2.5</sub> standard. As part of the adoption resolution, the CARB Board directed that the relevant portions of the 2012 AQMP be submitted to U.S. EPA as a SIP revision to meet federal Clean Air Act requirements. Accordingly, AQMD staff recommends adoption of PAR 445 and 444 as part of an effort to protect public health during air quality episodes and as part of a comprehensive effort to attain State and federal air quality standards.

The prohibition of beach burning activities, excluding charcoal or gaseous/liquid fuels will protect public health by reducing exposure of potentially high concentrations of wood smoke for beach goers and the surrounding communities.

The existing gas log incentive program is anticipated to continue in the near-term and would be extended as additional funds can be identified. Efforts to develop a wood stove change out program for U.S. EPA certified wood stoves are currently being explored and will be implemented to the extent that additional funding can be secured. As part of or in addition to the wood stove change out program, AQMD staff will be proposing additional incentives for other wood burning alternatives or cleaner technologies for households not subject to wood burning restrictions (e.g., mountain communities, low income, no natural gas service, etc.). AQMD staff is also considering implementation of a voucher program that would allow the public additional options for choosing low emission hearth devices. A companion proposal will go before the AQMD Governing Board for its consideration.

**Table 5  
Comparison of PAR 445/444 and Other AQMD Rules**

<b>Rule</b>	<b>Source</b>	<b>Emission Reductions / Limits (footnotes provide comparison with PAR 445/444 requirements)</b>	<b>Averaging Procedures, Work Practices, Operating Provisions</b>	<b>Monitoring, Recordkeeping, Reporting, Test Methods</b>
State H&S Code 41701	Applicable to any source.	Prohibits discharge of excessive visible emissions. <sup>11</sup>	40 percent opacity cannot be exceeded three minutes in any hour, cumulatively.	Test methods - based on opacity as determined by Ringlemann chart or U.S. EPA Method 9.
AQMD 401 (Visible Emissions)	Any single source of emissions; would include exhaust stack emissions.	Prohibits excess visible emissions. <sup>12</sup>	20 percent opacity cannot be exceeded three minutes in any hour, cumulatively.	Test methods -based on opacity as determined by Ringlemann chart or U.S. EPA Method 9.
AQMD 402 (Nuisance)/Health & Safety Code Section 41700	Applicable to any source.	Prohibits public nuisance caused by emissions of air contaminants. <sup>13</sup>	None.	None specified.
AQMD 404 (Particulate Matter – Concentration)	Applicable to any source.	Prohibits discharge of particulate matter in excess of certain rates. <sup>14</sup>	Based on grains per cubic foot of air stream.	None specified.
AQMD 405 (Solid Particulate Matter – Weight)	Applicable to any source.	Prohibits discharge of particulate matter weight in excess of specified rates. <sup>15</sup>	Establishes maximum discharge rate (lbs/hr) based on weight per hr.	None specified.

## REFERENCES

Boman, Christopher, et al., Adverse Health Effects from Ambient Air Pollution in Relation to Residential Wood Combustion in Modern Society, Scandinavian Journal of Work and Environmental Health, 2003, Volume 29, pages 251-260.

<sup>11</sup> Health and Safety Code § 41701 provisions are implemented primarily in response to public complaints. PAR 445/444 requirements are applicable regardless of whether public complaints are filed.

<sup>12</sup> Rule 401 requirements are based in response to public complaints and visual observations. PAR 445/444 requirements are applicable regardless of whether public complaints are filed.

<sup>13</sup> Rule 402 provisions are implemented primarily in response to public complaints. PAR 445/444 requirements are applicable regardless of whether public complaints are filed.

<sup>14</sup> This Rule is used in conjunction with the AQMD’s permitting system for point sources of air pollution. Wood burning sources are not subject to AQMD permits. Area sources, such as PAR 444 open burning operations are subject to a separate permitting program.

<sup>15</sup> Under Rule 405, point source emissions are addressed through the permit evaluation process. PAR 445 sources are not subject to the AQMD’s permitting system. Area sources, such as PAR 444 open burning operations are subject to a separate permitting program.

British Medical Journal, Evaluation of Interventions to Reduce Air Pollution from Biomass Smoke on Mortality in Launceston, Australian: Retrospective Analysis of Daily Mortality, 1994-2007, 2013, edition 8446.

CARB (California Air Resources Board), Area Source Methodology, Section 7.1, Residential Wood Combustion, July 1997.

Delfino, Ralph J, Sean Brummel, Jun Wu, Hal Stern, Bart Ostro, Michael Lipsett, Arthur Winer, Donald H Street, Lixia Zhang, Thomas Tjoa and Daniel L Gillen. The relationship of respiratory and cardiovascular wildfires of 2003 hospital admissions to the southern California. *Occup. Environ. Med.* 66:189-197, 2009.

Houck, James E., and Eagle, Brian E. Technical Memorandum 4 (Final Report) Control Analysis and Documentation for Residential Wood Combustion in the MANE-VU Region. Prepared for the Mid-Atlantic Regional Air Management Association. October 5, 2006.

Jacob, D., et al, Fine Particle and Gaseous Emissions Rates from Residential Wood Combustion, *Environmental Science and Technology*, 2000. Volume 34, Pages 2080-2091.

Kaiser, J. Mounting Evidence Indicts Fine-Particle Pollution. *Science*, 307:1858-1861, 2005.

Kunzli, Nino, Ed Avol, Jun Wu, W. James Gauderman, Ed Rappaport, Joshua Millstein, Jonathan Bennion, Rob McConnell, Frank D. Gilliland, Kiros Berhane, Fred Lurmann, Arthur Winer, and John M. Peters. Health Effects of the 2003 Southern California Wildfires on Children. *Am J Respir Crit Care Med* Vol 174. pp 1221–1228, 2006

Manchester-Neesvig, Jon B., James J. Schauer, Glen R. Cass. The Distribution of Particle-Phase Organic Compounds in the Atmosphere and Their Used for Source Apportionment during the Southern California Children’s Health Study. *J. Air & Waste Management Assoc.* 53: 1065-1079.

Naeher, Luke, et al, Woodsmoke Health Effects: A Review, *Inhalation Toxicology*, 19:67-106, 2007.

South Coast Air Quality Management District, 2012 Air Quality Management Plan (AQMP), December 2012.

South Coast Air Quality Management District Governing Board Adoption Resolution for Proposed Rule 445, March 2008. <http://www.aqmd.gov/hb/2008/March/080337a.html>.

South Coast Air Quality Management District, Draft Final Staff Report Rule 445 (Wood-Burning Devices), March 2008.

South Coast Air Quality Management District, 2007 Air Quality Management Plan (AQMP), June 2007.

SCAQMD. Multiple Air Toxics Exposure Study in the South Coast Air Basin. MATES III. South Coast Air Quality Management District, 2008.

U.S. EPA. Integrated Science Assessment for Particulate Matter (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/139F, 2009.

U.S. EPA, AP-42, Section 1.9, Residential Fireplaces, October 1996.

U.S. EPA Fact Sheet, Health Effects of Wood Smoke, <http://www.epa.gov/woodstoves/healtheffects.html>

U.S. EPA, Compilation of Emission Factors, AP-42, Section 1.9 Residential Fireplaces.  
Vedal, S. Critical Review. Ambient Particles and Health: Lines that Divide. JAMA,  
47(5):551-581, 1997

## Appendix A Public Comments and Responses

### U.S. EPA/CARB COMMENTS AND RESPONSES

The following comments were received from the U.S. EPA, Region IX and are followed by AQMD staff responses.

Comment 1: New draft paragraph (f)(2) exempts property zoned for commercial uses. Would this language inadvertently exempt residential property within an area that is zoned for mixed-use of both residential and commercial?

*Staff Response:* After further internal discussions the proposed exemption has been removed and the existing cookstove exemption in paragraph (f)(1) has been modified to apply to “wood-fired cooking devices designed and used for commercial purposes.”

Comment 2: Existing section (h) establishes penalties for violations of the rule. While it is understood why it might be desirable to publicly clarify such guidelines, they are not appropriate to include in the State Implementation Plan. Please remove these provisions from any rule versions submitted to EPA for inclusion in the SIP. Other California Districts (e.g., Bay Area and San Joaquin) appear to include similar penalty guidelines in separate implementation guidance instead of in their analogous rules.

*Staff Response* The subdivision (h) penalty provisions will not be included in the Rule forwarded to the U.S. EPA as part of a SIP submittal.

### PUBLIC COMMENTS AND RESPONSES

A PAR 445/444 public workshop was held on February 13, 2013. A public consultation meeting was subsequently held on March 28, 2013. In addition to the oral comments at the meetings, staff received written comment letters specific to PAR 445/444 during a comment period that originally closed on March 8, 2013 but was extended until April 4, 2012 in conjunction with the public consultation meeting. Many of the comments on PAR 445/444, the preliminary draft staff report, or the revised preliminary draft staff report concerned issues brought up by more than one commentator. The following are general responses to these comments. Following these general responses is a summary of individual oral and written comments, followed by AQMD staff responses.

#### General Comments and Responses

##### PAR 445

**GR-1: The hearth product industry has worked closely with the U.S. EPA to develop Phase 2 Qualified retrofit devices and fireplaces. The AQMD should recognize these accomplishments and Rule 445 text should specifically state that U.S. EPA Phase 2 Qualified retrofit kits can be installed into homes with existing wood-burning fireplaces. Rule 445 should be amended to allow U.S. EPA Phase 2 Qualified Fireplaces to be installed in new or existing developments in certain areas such as mountain communities.**

*Staff Response:* AQMD staff is aware of the U.S. EPA program for Phase 2 Qualified Fireplace Retrofit Devices and Phase 2 Qualified Fireplaces. As mentioned in the staff



report, U.S. EPA Phase 2 Qualified Retrofit Devices can currently be installed into existing households constructed prior to March 9, 2009. Appendix B has a list of answers to Frequently Asked Questions (FAQs) and the underlined text has been proposed to further clarify the types of devices, including U.S. EPA Phase 2 Qualified Retrofit Devices that can be installed into existing households. AQMD staff believes that a specific Rule exemption for EPA Phase 2 Qualified Retrofit devices is not warranted due to the inclusion of the aforementioned statements in AQMD guidance documents. The updated FAQ will be posted on the HealthyHearths.org website.

The request to allow the installation of U.S. EPA Phase 2 Qualified fireplaces into new and existing developments above an elevation of 3,000 feet is more complicated as the current Rule 445 provisions only allow U.S. EPA Phase II-Certified wood heaters (i.e., stoves and inserts) in these areas. According to the U.S. EPA Burn Wise website U.S. EPA Phase II-Certified wood heaters are appliances that are usually made of cast iron, steel, or stone that burn wood for fuel and can be used as a primary or secondary source of heat. Fireplace inserts are similar in function and performance to free-standing wood stoves, but are designed to be installed within the firebox of an existing masonry or metal fireplace. These heating devices are different than the two major types of wood-burning fireplaces: traditional masonry fireplaces that are typically built of brick or stone and are constructed on site by a mason; and “low mass” fireplaces that are engineered and pre-fabricated in a manufacturing facility prior to installation. Most fireplaces, whether masonry or low mass, are not used as a primary source of heat; their function is primarily for ambiance and secondary heating<sup>16</sup> In addition to the inherent differences between wood heaters and fireplaces described above the devices are subject to two different emissions measurement methodologies. Because of these differences it is very difficult to make a comparison of heating efficiency and emissions between these two general categories of hearth devices. These differences are acknowledged on the U.S. EPA Burn Wise web site through the statement below:

\*The wood-burning appliances that are "qualified" under the EPA's Voluntary Fireplace Program are not "certified" per EPA's Wood Heater New Source Performance Standard.

Contact your state or local air quality agency for clarification on the type of wood-burning appliances, if any, that may legally be installed in your area.<sup>17</sup>

Because of the fundamental differences between the two types of devices and the potential increase in emissions associated with allowing U.S. EPA Phase 2 Qualified devices to be installed in new and existing mountain community developments AQMD staff does not recommend the requested Rule amendment.

**GR-2: Outreach and public education is a key element of an effective wood smoke reduction program. These outreach efforts should include more information from the U.S. EPA's Burn Wise program including the installation of low emission retrofit kits for existing wood burning households. All public outreach activities should be conducted in multiple languages to make sure the message is understood. Funding for outreach and incentive programs should be part of the AQMD Governing Board approval process for PAR 445.**

*Staff Response:* AQMD staff agrees. An extensive public education and outreach program has been a vital component of the Healthy Hearths initiative since 2008 and efforts have been ongoing to increase public outreach capabilities. For example, AQMD recently

---

<sup>16</sup> <http://www.epa.gov/burnwise/appliances.html#woodstoves>

<sup>17</sup> <http://www.epa.gov/burnwise/fireplacelist.html#fireplaces>

partnered with local media outlets to educate the public on the Check Before You Burn program <http://www.aqmd.gov/hb/attachments/2011-2015/2012Sep/2012-Sep7-004.pdf> This is in addition to the existing education and outreach efforts included on the AQMD Healthy Hearths™ website.<sup>18</sup> Additional efforts will be explored to further enhance the Rule 445 education and outreach program prior to the 2013/14 winter season.

AQMD staff has reviewed the U.S. EPA Burnwise website and believes that the AQMD Healthy Hearths™ web site can be enhanced by including additional information including, but not limited to, a description of the U.S. EPA Phase 2 Qualified Retrofit Device program, messaging techniques tailored to households that burn wood for heat, and additional information for consumers. The information could be crafted to provide a description of options to reduce emissions for households that presently burn wood and plan to continue to burn wood in the future. Specifically, the web update could specify that installation of a U.S. EPA Phase 2 Qualified fireplace retrofit kit is an option for existing households and not prohibited under Rule 445. The message would have to be clear, however, that no solid fuel burning is allowed during a mandatory winter burning curtailment and that the AQMD is not promoting any particular device. The Healthy Hearths™ web site is currently translated in Spanish and efforts will continue to provide the information in the languages of the affected communities. Staff will be seeking Board approval for the allocation of up to \$500,000 or more in funds to help with wood smoke reduction outreach and incentive activities.

**GR-3: There are too many exemptions included in existing rule 445 and the goal should be to end wood burning for unnecessary, aesthetic purposes.**

*Staff Response:* Air pollution regulations are typically based on the most stringent measures adopted by other agencies for regions with similar air pollution sources and pollution levels and due to the needs of the region in terms of protecting public health and seeking necessary emissions reductions. Staff is unaware of any air pollution control district or state agency that has a regulation that bans the indoor or outdoor burning of wood in wood burning devices, aesthetic or otherwise, except during periods of poor air quality. Restrictions do, however, include limitations on wood burning devices in newer residential developments. The existing Rule 445 provisions were developed after a detailed review of other California air district regulations and include exemptions considered appropriate for this region. PAR 445 would strengthen the existing rule requirements to further protect public health during days of anticipated poor air quality during winter months. It should be noted that PM2.5 is the primary health effects driver during the winter for which wood burning curtailments are effective.

**GR-4: The public education and outreach program should also provide the public with financial incentives to install a variety of low emission hearth products, including retrofit devices for existing wood burning fireplaces. The existing gas log incentive is a good option for many households but not feasible for households without natural gas service or those without a gas line serving the fireplace.**

*Staff Response:* AQMD staff concurs that incentive programs are an effective way to encourage the public to switch to low emission products. As an example, the existing gas log buy down program has resulted in the installation of more than 102,000 gas log sets in Basin households. AQMD staff is exploring additional sources of funds to enhance the incentive program and is considering a larger list of low emission hearth devices for consumers, especially in areas that are not subject to the curtailment provisions (i.e., areas above 3,000 feet in elevation, areas without natural gas service and low income households). The types of

---

<sup>18</sup> <http://www.aqmd.gov/healthyhearths/index.htm>

low emission hearth devices under consideration for an enhanced incentive program include natural gas fireplace inserts, alcohol-fueled burners and appliances, U.S. EPA Phase II-certified wood heaters (stoves/inserts), U.S. EPA Phase 2 Qualified Retrofit Devices, manufactured logs and other devices intended to reduce emissions from residential hearth products. The incentive program could also be targeted to areas that typically experience peak PM<sub>2.5</sub> concentrations or to low income households that burn wood for heat.

**GR-5: A Basinwide curtailment program may be very difficult to enforce and may confuse the public if the intent is to reduce emissions at peak, inland Basin monitoring sites. Moreover, curtailment days are typically called during periods of stagnation so it would seem unlikely that emissions from coastal or northwestern Basin communities could ever impact inland Basin monitoring sites. Implementing a curtailment program on a county-wide as opposed to Basin-wide basis may be more effective to target areas where elevated PM<sub>2.5</sub> levels are forecast and may be more supported by the public. The exemption provided for low income households would allow wood burning in communities that currently experience peak PM<sub>2.5</sub> concentrations.**

*Staff Response:* The Basinwide winter burning curtailment provisions are an important component of the adopted 2012 AQMP residential wood-burning control measure because modeling showed that 60 percent of emissions captured at the peak PM<sub>2.5</sub> monitoring sites originate from outside the adjoining source receptor areas. While it is acknowledged that wood smoke emissions are less likely to migrate during extreme stagnation conditions, the emissions that occur during these periods do not dissipate quickly and can be entrained to distant monitoring sites when the inversion has eased. Therefore, prevention of coastal and near coastal wood smoke emissions will have benefits to inland monitoring sites, even under stagnate conditions. Emissions from low income households that invoke existing exemptions and plan to burn wood on mandatory curtailment days is a difficult challenge experienced by all air districts. The intent is to balance the need for improved air quality while not impacting a person's right to warmth and comfort during winter months. To that end, the District will seek to develop a targeted incentive program to encourage low income households that burn wood for heat to switch to cleaner, low emission heating devices or hearth products. This may involve larger incentive amounts than what is currently provided to the general public. Please also refer to the incentive discussions under GR-2 and 4.

**GR-6: The applicability of the Mandatory Winter Burning Curtailment provisions to wood-fired cooking devices but not charcoal grills is unsupportable. A pellet-fueled appliance consists of a highly efficient fan forced, balanced, carbureted fire which is presumed to have an emissions rate that is similar to a charcoal grill. It is recommended that efforts to control emissions during a Mandatory Winter Burning Curtailment should focus on the device or appliance used rather than the fuel.**

*Staff Response:* As mentioned, the definition of wood based fuels includes wood, wood-based product, or non-gaseous or non-liquid fuel, including but not limited to manufactured firelogs, wood or pellet products and does not include charcoal. Rule 445 provisions are currently based on appliance type and this has resulted in confusion as appliances are periodically changing. AQMD staff believes that specifying applicability based on fuel type provides a clear public message as to the days when certain products are not to be used (i.e., No-Burn Day – Do Not Burn Wood). Charcoal use is also excluded from the mandatory winter burn curtailment provisions as emissions from a charcoal cooking fire are believed to be lower than that of a wood-based cooking fire as charcoal is previously burned wood that has already been subject to the initial high emission wood burn rate. This statement is supported by the U.S. EPA's AP-42 (Compilation of Emissions Factors) document that

indicates that after an initial wood burning phase there is a “charcoal stage” of the burn cycle characterized by a slower burn rate and decreased emissions (EPA, 1996). Establishing curtailment applicability based on fuel type also clarifies the rule intent by not allowing a person burning wood during a mandatory winter burning curtailment to claim that the fire was intended for cooking purposes. Charcoal, as opposed to wood-based products, is specifically designed for cooking food and it is therefore more likely that the person using charcoal during a mandatory winter burning curtailment is genuinely cooking food.

#### PAR 444

**GR-7: Smoke and odor coming from coastal fire pits is a nuisance for the area’s residents and visitors. The emissions can impact many properties including those located inland from the beach. Some users of fire rings burn scrap wood (including painted wood) and garbage (reflected by remnants the following day). Burning painted wood or garbage generates toxic emissions.**

*Staff Response:* Staff agrees and this is the genesis for this proposed amendment. In addition to the prior response, the fuel mentioned exacerbates the potential health effects from exposure, even if from a short distance. PAR 444 provisions related to beach burning are intended to address residents’ and beach goers’ concerns regarding adverse health effects and loss of enjoyment associated with open burning at beaches.

**GR-8: The beach fire rings are not a significant source of air pollution and should not be regulated. There are many other sources of air pollution that should be regulated. The fire rings are a southern California tradition and should be preserved for future generations.**

*Staff Response:* As noted in the staff report, wood smoke poses a potential health exposure risk to beach goers and nearby residents. Wood smoke from beach fires can affect the public health and is a local exposure risk to the surrounding community. This is further magnified as many of those using the fire rings have been observed burning materials other than fire wood. Federal, State, and local air pollution regulations have been implemented for all forms of particulate pollution and every effort continues to be made to address emissions from all source categories. Low emission alternatives, such as use of gaseous fuels, may be a potential solution that would allow the continued use of fire rings in southern California.

### **Individual Comments and Responses**

#### **PAR 445**

##### **Targeted Incentive Programs**

Comment 1: The incentive program should first be implemented in peak PM2.5 areas as a means to achieve the PM2.5 standard thereby alleviating the need for Basinwide curtailment days.

*Staff Response:* As mentioned in the draft staff report the incentive program is under development and, based on AQMD Governing Board direction, may be targeted to areas that currently experience peak PM2.5 concentrations. Please also refer to GR-4.

##### **U.S EPA Phase 2 Qualified Retrofit Kits for Existing Wood-Burning Fireplaces**

Comment 2: The vast majority of wood-burning emissions come from the Basin’s estimated 1.2 million open hearth fireplaces. Industry has developed retrofit devices that are

considered U.S. EPA Phase 2 Qualified Devices that can be installed for a relatively small cost and greatly reduce emissions from these sources. The district should fulfill their legal and ethical obligations under the Clean Air Act and under California State Law to review all Reasonably Available Control Technologies (RACT) and Best Available Control Measures (BACM) for wood burning fireplaces by implementing a program to require the installation of U.S. EPA Phase 2 Qualified fireplace retrofit devices upon the sale or transfer of real property.

*Staff Response:* As noted in the draft staff report, U.S. EPA's Phase 2 Qualified Fireplace Program is a voluntary effort to encourage manufacturers to improve air quality through developing and distributing cleaner, more efficient wood-burning appliances. There are two general types of fireplace products under the program: Phase 2 Qualified Fireplaces and Phase 2 Qualified Fireplace Retrofit Devices. Phase 2 qualified fireplaces are stand alone hearth devices intended to be installed in new developments or room additions, while retrofit fireplace devices are intended to be installed into existing wood burning fireplaces. Rule 445 provisions do not allow the installation of U.S. EPA Phase 2 Qualified Fireplaces; however, U.S. EPA Phase 2 Qualified Fireplace Retrofit Devices are not prohibited by Rule 445 and therefore can be installed in existing wood-burning fireplaces; that is, residential fireplaces constructed before March 9, 2008. As noted above, EPA's Phase 2 Qualified Fireplace Program is voluntary program.

### **Solid Fuel Labeling Requirements**

Comment 3: The labeling provisions will create additional expenses for industry and there is no evidence of increased rule compliance resulting for product labeling.

*Staff Response:* AQMD staff believes that public education and outreach is a vital component to inform the public on the Check Before You Burn program. To that end, the PAR 445 labeling provisions are intended to inform a targeted audience, wood-based fuel consumers. Contacts with Bay Area AQMD staff indicated 300,000 calls to the 877-4NO-BURN line during the 2011/12 winter season and nearly 200,000 contacts this past 2012/13 season. While it is acknowledged that it is not possible to tell the number of 877-4NO-BURN calls attributable to the labeling program AQMD staff believes that it is an important part of a comprehensive wood smoke education and outreach program.

Comment 4: Industry has worked closely with other air districts to comply with labeling requirements for wood-based fuel products. The district should utilize the same labeling requirements (e.g., toll free number [1-877-4NO-BURN] and website [[www.8774NOBURN.ORG](http://www.8774NOBURN.ORG)]) to minimize costs to industry.

*Staff Response:* As mentioned in the staff report AQMD commits to minimize impacts to solid fuel sellers by providing a guidance document that provides a list of compliance options to meet the PAR 445 labeling requirements. The options allowed under PAR clause (d)(5)(A)(i) include the labeling requirements used by the Bay Area Air Quality Management District as well as other alternatives subject to approval of the AQMD Executive Officer. At a minimum, this would include the toll free and website information mentioned above but would also include South Coast AQMD-specific information for use by local bulk wood sellers. The compliance options would also ensure the continuance of the South Coast AQMD program in the unlikely event that the [1-877-4NO-BURN] and website [[www.8774NOBURN.ORG](http://www.8774NOBURN.ORG)] options are removed or amended in the future by the Bay Area AQMD.

Comment 5: A one year effective date is too short for implementation of the labeling requirements as products not sold during one winter season may be stored for future sales. A two-year phase in period, based on the date of implementation of the labeling provisions, is requested to account for products that were already packaged for sale.

*Staff Response:* PAR 445 has been amended to establish a six month effective date for product labeling but the net change is not considered significant as this requirement will primarily be applicable to bulk wood sellers that would be required to hand out a one page flyer to customers during the 2013/2014 winter burning season. Sellers of packaged wood-based products will also be subject to the same six-month effective date but sell through provisions have been added in subparagraph (d)(5)(B) that would allow the sale of any product for up to two years after the six month implementation period of the PAR 445 labeling provisions.

Comment 6: There are wood pellets, mesquite and other wood-based products that are sold for cooking purposes. These products cannot be used during a mandatory winter burning curtailment. Why are these wood-based fuels exempt from the labeling requirements if they are prohibited from use during a mandatory winter burning curtailment?

*Staff Response:* The labeling requirements do not apply to wood-based fuel that is used or intended for cooking food since such products are less widely used and represent an unnecessary cost to the packaging industry.

#### **Rule 445 applicability to cooking devices**

Comment 7: Does Rule 445 apply to wood-fired cooking devices?

*Staff Response:* Wood-fired cooking devices designed and used for commercial purposes are exempt from all Rule 445 provisions. A wood-fired cooking device can be bought, sold, or installed on residential properties under PAR 445 provisions but cannot be used during a Mandatory Winter Burning Curtailment.

#### **Mandatory Winter Burning Curtailment Duration**

Comment 8: The previous version of Rule 445 specified that a mandatory curtailment would occur on specified days but PAR 445 states that the curtailments would apply to unspecified period of time which may be confusing to the public.

*Staff Response:* The PAR 445 Mandatory Winter Burning Curtailment definition has been modified to be applicable to any “calendar day or consecutive calendar days”.

#### **Definition for Existing Structures**

Comment 9: Rule 445 presently includes a definition for New Developments but a similar definition is not included for Existing Structures. This has lead to confusion at local jurisdiction building departments as to what can and cannot be installed by residents. A new definition for an Existing Structures may help clarify the rule intent and improve compliance.

*Staff Response:* AQMD staff concurs that a clear and consistent message to local government building department staff is necessary to ensure rule compliance and that the intended emissions reductions are achieved. In addition to presentations made to local governments AQMD staff has developed and made available a list of answers to Frequently Asked Questions (FAQs) through the Healthy Hearths™ web site.<sup>19</sup> The FAQ web site

---

<sup>19</sup> [http://aqmdstage/rules/doc/r445/Builders\\_FAQ.pdf](http://aqmdstage/rules/doc/r445/Builders_FAQ.pdf)



information is divided into two sections: 1) requirements for New Developments (projects on vacant land, and 2) requirements for Existing Developments (room additions, remodels, etc.).

A copy of the current FAQ page as well as proposed changes in underline and strike-out are included as Appendix B. As noted in the appendix, changes have been made to clarify that Existing Developments are those where construction has ended before March 9, 2009. Additionally, a new section has been added to clarify that U.S. EPA Phase 2 Qualified Retrofit Devices can be installed into an existing wood-burning fireplace in an existing development. Please also refer to GR-1.

Additions to the FAQ page will be based on implementation issues but as noted in the appendix rule interpretations will be based on the adopted Rule 445 text.

### **Firewood Moisture Content**

Comment 10: Efforts should be made to ensure that existing Rule 445 firewood moisture content levels provisions (e.g., 20 percent or less from July through February) are enforced. Ensuring that only seasoned wood is sold and used during winter months will reduce emissions and may help alleviate the need for curtailment days. Industry representatives are very familiar with methodologies and techniques to measure moisture content and can serve as a partner to ensure the sale of properly seasoned wood in accordance with existing Rule 445 provisions.

*Staff response:* AQMD staff has consulted with other air districts to assist with wood smoke reduction compliance programs but would be pleased to receive information from industry representatives. Dry seasoned wood is relatively easy for buyers to distinguish from green, unseasoned wood, in that it has a hollow sound when hit together. Tips on identifying seasoned firewood have been provided to the public as part of the Healthy Hearths™ outreach materials. As mentioned in response to comment GR-2 AQMD staff will explore linking video information, including information on proper firewood selection, from the U.S. EPA Burnwise web site to the Healthy Hearths™ website.

## **PAR 444**

### **Fire Suppression Training Exercises**

Comment 11: Fire suppression training exercises are exempt from the current version of PAR 444 if certain conditions are met. Do the proposed Rule 444 amendments change those existing exemption provisions during the newly established Mandatory Winter Burning Curtailment period? Could this be clarified in the draft staff report?

*Staff Response:* There are no changes to the exemptions previously provided for fire suppression training exercises. The staff report discussion under the heading, Executive Summary – PAR 444 has been clarified.

### **444 Beach Fires Applicability**

Comment 12: How would the PAR 444 provisions apply to beach pit fires on beaches?

*Staff Response:* PAR 444 includes a definition for beach burning. Beach pit fires would be prohibited under the proposed amendments beginning January 1, 2015. Under PAR 444 a city or county could, though formal action, make the prohibition effective sooner than January 1, 2015

Comment 13: When would the beach fire prohibition be implemented?

*Staff Response:* PAR 444 provisions would be effective beginning January 1, 2015. Under PAR 444 a city or county, through formal action, could make the prohibition effective sooner than January 1, 2015.

Comment 14: There are beach fire rings in close proximity to residential or commercial uses but in some instances there are no inhabited structures. Why would the prohibitions apply in these areas?

*Staff Response:* Wood smoke not only presents an exposure concern to those involved with the beach burning, but it can also pose a health risk to those some distance away. Depending on the weather condition, high concentrations can travel and cause distress for anyone with respiratory or cardiovascular ailments.

Comment 15: PAR 444 would prohibit open burning in beach areas. Would it also apply to camp fires? Why are beach fires targeted when backyard burning is not targeted?

*Staff Response:* As mentioned no changes are proposed for the existing exemptions for recreational/ceremonial burning, cooking fires, and fires for warmth at social gatherings for all activities other than beach burning. However, extending the prohibition to the other open burning activities, including camp fires, is currently under consideration. Residential fireplaces as well as bBackyard burning devices and the use of such devices are subject to AQMD Rule 445 provisions.

Comment 16: It appears the PAR 444 beach burning prohibitions would apply to public coastal areas. Do the provisions also apply to open burning on private beaches?

*Staff Response:* Open burning activities conducted on beaches not open to the public are considered similar to residential backyard burning and would be subject to AQMD Rule 445 provisions. As mentioned in the draft final staff report, under PAR 445 provisions the definition for a wood-burning device would include open or enclosed devices. As a result of this change, installation of a permanent wood-burning fire pit on residential properties would be prohibited under the provisions of subdivision (d).

Comment 17 6: Would a Smoke Management Plan approved by the AQMD Executive Officer be required before any community allows or continues to allow recreational burning?

*Staff Response:* With the exception of paragraph (d)(3), which includes a prohibition on of specific burning activities (including beach burning), the Rule 444 exemptions for recreational/ceremonial burning, cooking fires, and fires for warmth at social gatherings remain in effect for all activities.

Comment 18 7: Is a highly used recreational area like a park or a beach considered a Sensitive Receptor Area given the significant number of children or other sensitive persons that could be exposed to smoke, PM2.5, or other noxious compounds?

*Staff Response:* AQMD Rule 1470 defines a Sensitive Receptor as any residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

Comment 19 8: What is considered a beach area? Would a bluff area overlooking the ocean be considered a beach area?



*Staff Response:* Paragraph (c)(7) of PAR 444 includes a definition of beach burning. As noted below, coastal bluffs ~~may would not~~ be considered beach areas if they are adjacent and used for beach access or recreation.

BEACH BURNING means any recreational, ceremonial or open burning conducted in any public coastal area, marked by an accumulation of sand, stone, or gravel that has been deposited by the tide or ocean waves, including any adjacent areas used for beach access or recreation. For the purposes of this rule, beach burning does not include the use of charcoal or a gaseous or liquid fuels in the preparation or warming of food for human consumption.

### **Beach Fire Access**

Comment 20 19: Proponents of removing the fire rings argue that this would deprive them of “access” to burning wood as a low-cost activity they enjoy. But the real “accessibility” issue is that many people are prevented from accessing and using the beaches due to wood smoke’s caustic, deadly fumes. The Americans with Disabilities Act (ADA) is basic civil rights law that requires cities to remove barriers to the access and use of public spaces. To those with breathing or cardiac disabilities, wood smoke presents a true “physical barrier” to use of the beach areas where wood burning is allowed.

*Staff Response:* Thank you for your comment. The purpose of prohibiting beach fires is precisely to eliminate health exposure risk to beach goers and the nearby residences originating from such activities. To the extent the commentator has a concern with the Americans with Disability Act, the commentator should raise that concern with the city or county where the fire rings are located.

### **Loss of revenue from beach fire prohibition**

Comment 21 0: The City of Huntington Beach estimates a loss in revenue of one million dollars due to a reduction in fees collected for parking after 3 PM. OC State Parks estimates a loss of \$21,000 in revenue from firewood sales during the third quarter.

*Staff Response:* Staff acknowledges a reduction in parking revenues. Prohibition of beach burning would reduce PM emissions and public exposure to harmful pollutants.

Comment 22 1: Hotels, stores and other businesses in the area would be impacted by a reduction in beach goers that specifically travel to the areas to use beach fire rings. A local hotel sells between \$50 and 60 thousand dollars per year in kits to make campfire smores and the hotel staff has indicated that some clients specifically stay at that hotel due to the proximity to the beach fire rings and the ease of access to a nighttime activity.

*Staff Response:* While it is acknowledged that there may be a reduction in business revenues from persons that specifically travel to the beach to use beach fires rings, the goal of the proposed Rule 444 revisions is to reduce PM emissions and protect public health. Additionally, during the rule development process there have been commentors that have indicated that they do not go to the beach or surrounding areas due to the presence of smoke from beach fires. The proposed amendments would also allow the use of charcoal, gaseous, or liquid fuels at beach areas.

### **Alternative Controls for Beach Fires**

Comment 23 2: There are other alternatives to reduce emissions from beach fires and removal of all the rings is not necessary. For example, the number of rings could be reduced

or they could be moved to be farther away from sensitive land uses. Education programs could be developed to ensure that the public was informed on the health effects from burning garbage. Better enforcement could be used to ensure than only clean dry wood is used. Beach fire burning could be prohibited only on high pollutions days.

*Staff Response:* Reducing the number of fire rings or improved enforcement of fuel type usage could reduce emissions but the source would still contribute to exceedance of State and federal air quality standards and public exposure to harmful pollutants. As mentioned at the public consultation meeting AQMD staff is exploring the possible use of liquid or other clean fuels to dramatically reduce emissions from beach fire rings. The proposed amendment would also allow the use of charcoal or liquid or gaseous fuels.

Comment 24 3: Please consider that each jurisdiction is different with respect to potential impacts from wood burning smoke. For instance, some cities have residential units within close proximity to their beaches. That is not the case with Huntington Beach. The decision should be left up to the local jurisdiction.

*Staff Response:* Although it is recognized that the proximity of fire rings to residential land uses varies in southern California AQMD staff has received comments from residents of both the Cities of Newport Beach and Huntington Beach on their concerns about smoke emissions from beach fires.

### **Timing, Outreach and Available Data**

Comment 25 4: There hasn't been enough time for the public to consider the proposal and there should be meetings in beach communities to get more public input. More information is needed on emissions and health effects from beach fire burning. Special studies need to be conducted during summer months to clearly identify the extent of pollution from beach fires. Affected jurisdictions were not properly notified of the March 28, 2013 public consultation meeting. Additional time is requested so that impacted parties can provide additional input and suggestions.

*Staff Response:* The effective date of the PAR 444 beach burning proposal is January 1, 2015. The health effects from wood smoke exposure are well understood and have been summarized in the draft staff report. AQMD staff continues to review and evaluate public input and the public is able to provide additional comments to AQMD Governing Board members at the public hearing. AQMD data collection is ongoing and will be presented to the public as part of the rule development process. The public consultation meeting notification was mailed to each jurisdiction in the South Coast Air Basin and was published in the Los Angeles Times, Press Enterprise, Los Angeles Daily Journal, San Bernardino County Sun and Orange County Register newspapers on March 18, 2013. The meeting notice was also published on the SCAQMD calendar page at: <http://www.aqmd.gov/calendar/calev.html> and also on our proposed rule web page at: [http://www.aqmd.gov/rules/proposed.html#445\\_444](http://www.aqmd.gov/rules/proposed.html#445_444). Efforts to improve outreach to affected communities continue. Per AQMD Board resolution, the public hearing for PAR 444 provisions related to open burning beach areas was rescheduled from May 3<sup>rd</sup> to June 7<sup>th</sup>, 2013.

### **Magnitude of Beach Fire Emissions**

Comment 26: The draft staff report does not provide details on how the estimate of 0.16 to 0.25 ton of PM<sub>2.5</sub> from the Basin's beach fires was estimated. Based on an emission rate of 5.3 grams per kilogram and a lower, more realistic wood burning rate the annualized

average emissions from the Basin's fire rings can be estimated to be an order of magnitude lower than the information provided by AQMD.

Staff Response: As described in the draft staff report, the PM2.5 emissions estimate was based on two to three bundles of wood (~17 pounds per bundle) burned at each of the Basin's fire rings per night. The PM2.5 emission factor (22.7 pounds per ton) used is from a California Air Resources Board (CARB) emissions inventory report and represents estimated emissions from burning cord wood bundles. For reference, the U.S. EPA AP-42 (Compilation of Emissions Factors) PM10 emission factor for burning cord wood in a fireplace is 34.6 pounds per ton (17.3 grams per kilogram). The emission rate quoted by the commentator is from a research project analyzing the chemical characterization of wood grown in the northeastern United States. Use of an emissions inventory emission factor is more appropriate than emission rates contained in research papers. AQMD staff believes that an average wood burning rate of two to three bundles is appropriate and accounts for very large, long duration fires. A lower average wood burning rate estimate would reduce the emissions estimates. As previously noted, the total number of fire rings has been increased to as many as 857.

Comment 27: Emissions from beach fire rings have a negligible effect on air quality or public health. The localized significance threshold (LST) for sensitive receptors and/or EPA's New Source Review (NSR) limits should be used to determine the significance of emissions from beach fire rings.

Staff Response: It is acknowledged that beach fire emissions are not a large contributor in terms of regional emissions but the PAR 444 beach burning provisions would have been proposed to address localized impacts. The LST threshold is used by AQMD staff for individual sources but not for rule development/amendment projects. NSR is used in conjunction with the permitting of stationary sources not for analyzing potential impacts from area sources such as open burning. Results of air quality sampling downwind from beach areas is a more appropriate indicator of potential public health impacts.

Comment 28: What is the amount of wood burned in beach fire rings compared to residential wood-burning fireplaces? In the draft staff report, if beach fire emissions are not included in the Table 4 (Open Burning) PM2.5 emissions inventory what are the other sources? Does Table 4 include fireplace emissions? Beach fire emissions are very small when compared with the emissions from residential wood combustion (Draft Staff Report Table 3) and open burning (Draft Staff Report Table 4).

Staff Response: As noted in response to comment number 27, beach fire emissions are a smaller source when compared to residential wood combustion and open burning but the PAR 444 beach burning prohibitions would reduce emissions and protect public health by reducing exposure of potentially high concentrations of wood smoke. The Open Burning inventory presented in Table 4 of the Final Draft Staff report includes emissions from agricultural and prescribed burning activity. Emissions estimates from residential wood combustion (fireplaces) are included in Table 3.

### **Safety of Alternatives to Traditional Open Beach Burning**

Comment 29: There have been discussions about use of natural gas- or propane-fueled devices on the Basin's beaches. A fire agency expressed concern about potential safety concerns about allowing the public to bring their own gaseous-fueled devices to the beach. Maintenance and safety concerns were also expressed if the devices were provided by the local jurisdiction.

Staff Response: PAR 444 would not require the installation of gaseous fueled devices. Any decision to install such devices would be at local jurisdiction discretion and the local jurisdiction could include any parameters necessary to ensure public safety. As mentioned, a RFP is under consideration to be released to fund a demonstration project for a low emission outdoor open burning beach fire pit ring. Securing the applicable permits and ensuring public safety are a key components of the demonstration project and the selected contractor(s) would be expected to design and install a prototype system that will meet or exceed industry standards and will be compliant with all applicable building, fire and electrical codes. It is also anticipated that local jurisdictions would be involved in the demonstration project(s) and can provide input on potential safety concerns.

**Comparison of Emissions Wood-Based Versus Gaseous Fuels for Beach Burning**

Comment 30: Propane produces gaseous emissions such as NOx and carbon monoxide. This proposal seems in conflict with SCAQMD’s plan to reduce NOx emissions. No information has been provided regarding differences in the particulate or gaseous emissions from wood burning versus propane therefore the public cannot make informed comments whether or not the proposal outweighs the expense.

Staff Response: As mentioned in the draft staff report the primary goal of the PAR 445 and 444 amendments is to reduce fine particulate emissions. For reference, a 2006 study included emission rates for aesthetic appliances based on various fuel types (Houck, 2006). The table below provides a comparison of NOx, PM and CO emission rates for wood and propane-fueled devices used for aesthetics. As shown in the table the NOx, PM and CO emission rates for propane (LPG) are less than those for cord wood.

<u>Aesthetic Appliance/Fuel Category</u>	<u>Pollutant Emission Rates (g/hr)</u>		
	<u>PM</u>	<u>CO</u>	<u>NOx</u>
<u>Cordwood Fireplace Used for Aesthetics</u>	<u>64.3</u>	<u>313</u>	<u>6.09</u>
<u>Vented Gas Log Set - LPG</u>	<u>.354</u>	<u>.246</u>	<u>2.29</u>

NOx is total nitrogen oxides, reported as NO<sub>2</sub>

**Public Hearing Notice**

Comment 31: The public hearing notice was released one day before the AQMD Governing Board voted to set the May 3, 2013 public hearing. The issuance of the public hearing notice was premature and future meetings should be scheduled with appropriate due process.

Staff Response: Under Health and Safety Code provisions, a public hearing notice and documents must be made available to the public 30-days in advance of the public hearing. There are times such as what occurred with PAR 445/444 when the AQMD Governing Board set hearing meeting (April 5, 2013) is less than 30-days prior to the adoption hearing (May 3, 2013). Accordingly, the public hearing notice had to be released on April 3, 2013 to meet statutory requirements. As mentioned in response to comment number 25 the public hearing for PAR 444 provisions related to open burning on beaches was rescheduled from May 3<sup>rd</sup> to June 7<sup>th</sup>, 2013.

## Appendix B

### **Rule 445 – Wood Burning Devices Local Government, Builder, Contractor, Architect Answers to Frequently Asked Questions (FAQs)**

**(April ~~December~~ 2013 ~~12~~)**

The following information has been prepared to assist in answering questions on AQMD Rule 445 – Wood Burning Devices. It should be noted that compliance determinations will be based on the specific Rule 445 language that can be viewed or downloaded at the following web site: <http://www.aqmd.gov/rules/reg/reg04/r445.pdf>

#### **REQUIREMENTS FOR NEW DEVELOPMENTS**

##### **When do the standards for new developments become effective?**

The requirement to only install gaseous-fueled fireplaces and stoves is applicable to any new residential or commercial development that **begins construction on or after March 9, 2009**.

The date that **construction has begun** is when the building permit is approved or when the foundation for the structure is started, whichever is first.

##### **What kind of fireplace or stove can be installed in new developments?**

Any gaseous-or liquid fueled fireplace, fireplace insert or stove can be installed in new developments. This includes any fireplace that is either factory-built or constructed on-site that is fueled exclusively with a gaseous fuel such that the burner pan and associated equipment are affixed to the metal or masonry base of the fireplace.

Gaseous-fueled devices include those fueled by either natural gas, ~~or~~ propane (i.e., liquefied petroleum gas) or alcohol.

##### **Do these new development requirements apply to both indoor and outdoor fireplaces?**

The requirements are applicable to any **permanently installed** device. **Permanently installed** is defined as built or installed such that it is attached to the ground, floor or wall and is not readily moveable. A free standing stove attached to an exhaust system that is built into or through a wall is considered permanently installed.

##### **Are there any exemptions to the requirements for new developments?**

There are two separate conditions where a cleaner wood burning device can be installed in a new development:

1. properties 3,000 or more feet in elevation; and
2. properties where there is no existing infrastructure for natural gas service within 150 feet of the property line.

The cleaner wood burning devices that could be installed under either of these two conditions include:

- ✓ U.S. EPA Phase II-certified wood heaters ~~or equivalent devices~~;
- ✓ pellet-fueled heaters; and
- ✓ masonry heaters (not masonry fireplaces).

If you would like additional details on the hearth products defined as cleaner wood burning devices under Rule 445, please refer to the discussion under the heading, “Requirements for Existing Developments”

## **REQUIREMENTS FOR EXISTING DEVELOPMENTS**

### **What is considered an existing development?**

An existing development is a residential or commercial property where construction had finished prior to March 9, 2009. Construction is considered finished as of the date of issuance of a use and occupancy permit.

### **When do the standards for existing developments become effective and ~~W~~ what can be built as a new hearth device in existing developments?**

Beginning September 8, 2008, The the devices in three cleaner wood burning categories listed below (and any gaseous-fueled device) can be sold, offered for sale, or installed in existing developments.

1. U.S. EPA Phase II-certified wood heater (fireplace inserts or stoves)  
U.S EPA Phase II-certified devices have an identification label on the unit and the model name and number are also listed on the following web site:  
<http://www.epa.gov/Compliance/resources/publications/monitoring/caa/woodstoves/certifwood.pdf>
2. Pellet-fueled heater  
Pellet-fueled heaters can be operated on any pellet fuel including, but not limited to, ground, dried wood and other biomass wastes compressed into pellets and corn. Additional information on pellet heaters can be obtained from the U.S. EPA at the following web site: <http://www.epa.gov/burnwise/pelletstoves.html>
3. Masonry heater (not an open hearth fireplace)  
Technically listed as any device that meets the definition included in ASTM E 1602-03, a masonry heater is a site-built or site-assembled solid-fueled heating device, consisting of a firebox, a large masonry mass, and a maze of heat exchange channels. These devices are rare in warm climates such as Southern California but additional information can be obtained from the following U.S. EPA web site:  
<http://www.epa.gov/burnwise/appliances.html#masonryheaters>

### **What can be installed as a retrofit into an existing wood-burning fireplace in an existing development?**

There are essentially no Rule 445 restrictions as to what can be installed as a retrofit into a fireplace in an existing development. Residents may opt to install a gaseous-fueled, electric or visual product intended to simulate or replace wood burning or there may be other options. Residents that wish to continue burning wood but are interested in attempting to reduce emissions may opt to install a variety of products including a U.S. EPA Phase 2 Qualified Retrofit Device. Additional information on these products can be found at the web site below.

<http://www.epa.gov/burnwise/fireplacelist.html#retrofits>

Please note that local governments may have special codes or provisions when installing devices in fireplaces at existing developments. Also, please remember that all wood-based fuel burning is prohibited during a Mandatory Winter Burning Curtailment. This includes wood-based fuels used in indoor and outdoor devices.

### **Do the requirements for existing developments apply to both indoor and outdoor fireplaces?**

The requirements apply to any **permanently installed** device either indoors or outdoors.

**Permanently installed** is defined as built or installed such that it is attached to the ground, floor or wall and is not readily moveable. A free standing stove attached to an exhaust system that is built into or through a wall is considered permanently installed.

**What if I need to repair my existing fireplace?**

An existing wood-burning fireplace can be repaired or replaced and would not be subject to the Rule 445 requirements for existing developments provided that the repair or replacement occurs within the same footprint as the existing wood-burning fireplace. If a home or chimney inspection documents the need for replacement of an existing wood-burning fireplace, however, installation of a gaseous-fueled hearth device is encouraged and may be required by a local government or other regulation.

**Can a U.S. EPA Phase 2-Qualified open hearth wood-burning fireplace be installed as a new hearth device in an existing development?**

No. The only wood-burning devices allowed to be installed in existing developments are EPA Certified inserts/stoves, pellet heaters and masonry heaters (not open hearth fireplaces). Additional information on the U.S. EPA Phase 2-qualified program is available at <http://www.epa.gov/burnwise/fireplaces.html> As noted on the U.S. EPA web page:

*“The wood-burning appliances that are “qualified” under the EPA’s Voluntary Fireplace Programs are not “certified” per EPA’s Wood Heater New Source Performance Standard”.*

**Can I install a wood-burning pizza oven or other wood-based cooking device at my home?**

Yes but such devices would be subject to the Mandatory Winter Burning Curtailment provisions. Wood-fired cooking devices designed and used for commercial purposes are exempt from all Rule 445 provisions. Fireplace retrofit kits can also be installed into any fireplace constructed prior to March 9, 2009.

~~Rule 445 contains an exemption for cook stoves on residential properties. Title 40 of the Code of Federal Regulations (CFR) Section 60.531, February 28, 1988 as a wood fired appliance that is designed primarily for cooking food and has the following characteristics:~~

- ~~(1) An oven, with a volume of 0.028 cubic meters (1 cubic foot) or greater, and an oven rack,~~
- ~~(2) A device for measuring oven temperatures,~~
- ~~(3) A flame path that is routed around the oven,~~
- ~~(4) A shaker grate,~~
- ~~(5) An ash pan,~~
- ~~(6) An ash clean-out door below the oven, and~~
- ~~(7) The absence of a fan or heat channels to dissipate heat from the appliance.~~

~~Any device that meets all CFR specifications above is exempt from Rule 445 requirements.~~

~~Rule 445 does not apply to any wood fired or other solid fuel cooking device on commercial properties.~~

**Are there any exemptions to the requirements for existing developments?**

There are no retrofit or replacement requirements under Rule 445 when buying or selling a home with an existing wood burning fireplace or stove.

Additionally, properties that are registered as a historical site, or are contributing structures located in a Historic Preservation Overlay Zone are exempt from paragraph (d)(2) provisions. Refer to your local city or county agency to determine if your property is within a Historic Protection Overlay Zone.



ATTACHMENT I



**South Coast  
Air Quality Management District**

21865 Copley Drive, Diamond Bar, CA 91765-4182  
(909) 396-2000 • www.aqmd.gov

**SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

**PROJECT TITLE: PROPOSED AMENDED RULE 444 - OPEN BURNING, AND PROPOSED AMENDED RULE 445 – WOOD BURNING DEVICES**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and will prepare a Notice of Exemption for the project identified above.

Proposed amended Rule (PAR) 445 would clarify rule applicability to solid fuel cooking devices, require commercial firewood facilities to label solid fuel products for sale to inform the public of the Check Before You Burn program, lower the PM<sub>2.5</sub> concentration threshold used for the mandatory winter burning curtailment program from 35 to 30 µg/m<sup>3</sup>, and establish a mechanism whereby the mandatory winter burning curtailment program would apply Basin-wide if a no burn day is forecast for a source receptor area that exceeds the PM<sub>2.5</sub> concentration threshold. PAR 444 would add a definition for product testing, establish an exemption from PAR 444 for product testing, establish a winter season burn restriction consistent with PAR 445, and prohibit beach burning.

SCAQMD staff has reviewed the proposed project pursuant to the CEQA Guidelines §15308 – Actions Taken by Regulatory Agencies for Protection of the Environment. Based on SCAQMD staff's review, proposed amended Rules (PARs) 444 and 445 would have no potential for generating significant adverse environmental impacts because PAR 444 incorporates the winter season burn restriction consistent with PAR 445 and prohibits open burning in beach areas; and PAR 445 prohibits sub-regionally burning in indoor or outdoor burning devices when PM<sub>2.5</sub> concentration exceeds 30 µg/m<sup>3</sup> and prohibits Basin-wide if exceeded at a monitoring station, which has recorded violations of the PM<sub>2.5</sub> standard in either of the previous two years. The proposed project would reduce air pollution and toxic air pollutant health risk and not generate significant adverse environmental impacts. Upon adoption, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to me (c/o Planning, Rule Development & Area Sources) at the above address. I can also be reached at (909) 396-2706.

**Date:** May 3, 2013

**Signature:** 

Michael Krause  
CEQA Program Supervisor  
Planning, Rule Development &  
Area Sources

**Reference: California Code of Regulations, Title 14**

## NOTICE OF EXEMPTION

---

<b>To:</b> County Clerks of Los Angeles, Orange, Riverside, San Bernardino	<b>From:</b> South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765
--	---

---

**Project Title:**

Proposed Amended Rule 444 - Open Burning and Proposed Amended Rule 445 – Wood Burning Devices

---

**Project Location:**

South Coast Air Quality Management District (SCAQMD) area of jurisdiction consisting of the four-county South Coast Air Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin and the Mojave Desert Air Basin.

---

**Description of Nature, Purpose, and Beneficiaries of Project:**

Proposed amended Rule (PAR) 445 would clarify rule applicability to solid fuel cooking devices, require commercial firewood facilities to label solid fuel products for sale to inform the public of the Check Before You Burn program, lower the PM2.5 concentration threshold used for the mandatory winter burning curtailment program from 35 to 30 µg/m<sup>3</sup>, and establish a mechanism whereby the mandatory winter burning curtailment program would apply Basinwide if a no burn day is forecast for a source receptor area that exceeds the PM2.5 concentration threshold. PAR 444 would add a definition for product testing, establish an exemption from PAR 444 for product testing, establish a winter season burn restriction consistent with PAR 445 and prohibit beach burning.

---

**Public Agency Approving Project:**

South Coast Air Quality Management District

**Agency Carrying Out Project:**

South Coast Air Quality Management District

---

**Exempt Status:**

Actions Taken by Regulatory Agencies for Protection of the Environment Exemption [CEQA Guidelines §15308]

---

**Reasons why project is exempt:**

The SCAQMD has reviewed proposed amended Rules (PARs) 444 and 445 and determined that it is exempt pursuant to CEQA Guidelines §15308 – Actions Taken by Regulatory Agencies for Protection of the Environment because the proposed project would reduce air pollution and toxic air pollutant health risk and would not generate significant adverse environmental impacts. PARs 444 and 445 have no potential for generating significant adverse environmental impacts because PAR 444 incorporates the winter season burn restriction consistent with PAR 445 and prohibits open burning in beach areas; and PAR 445 prohibits sub-regionally burning in indoor or outdoor burning devices when PM2.5 concentration exceeds 30 µg/m<sup>3</sup> and prohibits Basin-wide if exceeded at a monitoring station, which has recorded violations of the PM2.5 standard in either of the previous two years.

---

**Certification Date:**

SCAQMD Governing Board Hearing: May 3, 2013, 9:00 a.m.; SCAQMD Headquarters

---

**CEQA Contact Person:**

Mr. Michael Krause

**Phone Number:**

(909) 396-2706

**Fax Number:**

(909) 396-3324

**Email:**

mkrause@aqmd.gov

---

**Rule Contact Person:**

Mr. Michael Laybourn

**Phone Number:**

(909) 396-3066

**Fax Number:**

(909) 396-3324

**Email:**

mlaybourn@aqmd.gov

---

Date Received for Filing \_\_\_\_\_

Signature \_\_\_\_\_ *Signed upon certification*

Michael Krause  
CEQA Program Supervisor  
Planning, Rule Development  
and Area Sources