

## **APPENDIX E**

### **Initial Study/Negative Declaration for the Bay Area Air Quality Management District Regulation 6, Rule 2: Commercial Cooking Equipment**

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# Chapter 1

## Introduction

### **Purpose of this Document**

This Initial Study/Negative Declaration (IS/ND) assesses the environmental impacts of the proposed adoption of Regulation 6, Rule 2, by the Bay Area Air Quality Management District (BAAQMD or District). This assessment is required by the California Environmental Quality Act (CEQA) and in compliance with the state CEQA Guidelines (Title 14 California Code of Regulations §1400 et seq.). An IS/ND serves as an informational document to be used in the decision-making process for a public agency that intends to carry out a project; it does not recommend approval or denial of the project analyzed in the document. The BAAQMD is the lead agency under CEQA and must consider the impacts of the proposed rule when determining whether to adopt it. The BAAQMD has prepared this IS/ND because no significant adverse impacts would result from the proposed rule.

### **Scope of this Document**

This document evaluates the potential impacts of the proposed amendments on the following resource areas:

- aesthetics,
- agricultural resources,
- air quality,
- biological resources,
- cultural resources,
- geology and soils,
- hazards and hazardous materials
- hydrology and water quality,
- land use planning,
- mineral resources,
- noise,

- population and housing,
- public services,
- recreation,
- transportation and traffic, and
- utilities and service systems.

### **Impact Terminology**

The following terminology is used in this IS/ND to describe the levels of significance of impacts that would result from the proposed rule:

- An impact is considered *beneficial* when the analysis concludes that the project would have a positive effect on a particular resource.
- A conclusion of *no impact* is appropriate when the analysis concludes that there would be no impact on a particular resource from the proposed project.
- An impact is considered *less than significant* if the analysis concludes that an impact on a particular resource topic would not be significant (i.e., would not exceed certain criteria or guidelines established by BAAQMD). Impacts are frequently considered less than significant when the changes are minor relative to the size of the available resource base or would not change an existing resource.
- An impact is considered *less than significant with mitigation incorporated* if the analysis concludes that an impact on a particular resource topic would be significant (i.e., would exceed certain criteria or guidelines established by BAAQMD), but would be reduced to a less than significant level through the implementation of mitigation measures.

### **Organization of This Document**

The content and format of this document, described below, are designed to meet the requirements of CEQA.

- Chapter 1, “Introduction,” identifies the purpose, scope, and terminology of the document.
- Chapter 2, “Description of the Proposed Rule,” provides background information of Regulation 6, Rule 2, describes the proposed rule, and describes the area and facilities that would be affected by the rule.
- Chapter 3, “Environmental Checklist,” presents the checklist responses for each resource topic. This chapter includes a brief setting description for each resource

area and identifies the impact of the proposed rule amendments on the resources topics listed in the checklist.

- Chapter 4, “References Cited,” identifies all printed references and personal communications cited in this report.

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## Chapter 2

# Description of the Proposed Rule

### Background

The Bay Area Air Quality Management District (District) is proposing adoption of Regulation 6, Rule 2 (Rule 6-2): Commercial Cooking Equipment. This proposed rule would control air pollution from charbroilers used in commercial restaurants. The District proposes adoption of Regulation 6, Rule 2 to fulfill a commitment proposed in its Senate Bill (SB) 656 Particulate Matter Implementation Schedule, and in connection with Further Study Measure (FS) 3 in the District's 2005 Ozone Strategy, which proposes evaluation of a rule to control emissions from commercial charbroilers.

Currently, no District rule directly regulates emissions from restaurants although restaurants vent substantial amounts of particulate matter (PM) and volatile organic compounds (VOCs) into the atmosphere. Restaurants, cafeterias, and other food establishments are exempt from obtaining a permit to operate under the District's Regulation 2, Rule 1. Nevertheless, restaurants must comply with District's regulations of general applicability, such as Regulation 6: *Particular Matter and Visible Emissions*, and Regulation 7: *Odorous Substances*.

Proposed Regulation 6, Rule 2 would regulate two types of charbroilers: chain-driven and under-fired. A chain-driven (conveyorized) charbroiler is a semi-enclosed broiler designed to move food mechanically on a grated grill through the device as the food cooks. Food cooks quickly, because chain-driven charbroilers have burners located both above and below the grill. Chain-driven charbroilers are most common in fast food restaurants.

In an under-fired charbroiler, the heat source is positioned at or below the level of the grated grill. Designs of under-fired charbroilers vary widely. Some under-fired broilers use charcoal or wood for fuel, but usually, the broilers are fueled by gas or electricity. In gas under-fired charbroilers, a radiant surface, such as a bed of ceramic briquettes or a metal shield, placed above the burners diffuses heat from the burners. The heating elements of electric charbroilers are often interwoven with, or sheathed inside, the grill. Under-fired charbroilers are common in fine dining and casual restaurants.

Charbroilers produce air pollutants through incomplete combustion of grease and meat additives, such as tenderizers and marinade. The air contaminants are released when grease and meat additives fall onto the heat source, radiant surface, or hot plate, or when grease flares in the drip tray or bubbles at the surface.

The smoke and vapors generated from the process contain VOC and PM that consist of aldehydes, organic acids, alcohol, nitrogen and sulfur compounds, and polycyclic



aromatic hydrocarbons (PAHs). Every day in the Bay Area, cooking operations collectively (commercial and non-commercial) emit an estimated 6.9 tons of PM and 1.1 tons of VOC. VOC reacts with other compounds in the atmosphere to form ground-level ozone, commonly called smog. PM consists of airborne particles. PM can be emitted directly and also can be formed in the atmosphere through chemical reactions between other pollutants, including VOC. Cooking emissions include fine particles that are equal to or less than 10 microns in diameter, commonly referred to as PM<sub>10</sub>. PM<sub>10</sub> generated by cooking appliances passes through the ventilation system and is exhausted into the atmosphere.

Both VOC and PM<sub>10</sub> present public health risks. Ozone produced from chemical reactions involving VOC may damage lung tissues and the respiratory tract. Once inhaled, PM<sub>10</sub> may become lodged in the respiratory tract and lead to wheezing, nose and throat irritation, bronchitis, and lung damage.

In order to determine the emissions from restaurant cooking, the District reviewed several studies sponsored by the South Coast Air Quality Management District and the California Air Resources Board (CARB) to determine the percentage of restaurants that use charbroilers, the amount and type of meat cooked on charbroilers, and the amount of PM<sub>10</sub> and VOC produced from meat cooked on charbroilers. The District relied on these research studies, and on information provided by the health department of each of the nine Bay Area counties, to estimate the amount of PM<sub>10</sub> and VOC emitted from restaurant charbroilers in the Bay Area. The District estimates that there are approximately 14,838 restaurants in the Bay Area, 4,897 of which operate under-fired charbroilers while 554 restaurants operate chain-driven charbroilers. The estimated emissions of VOC and PM<sub>10</sub> by type of appliance are shown in Table 2-1.

**Table 2-1. Emissions from Charbroilers in the Bay Area**

Type of Food	Chain-driven Broiler		Under-Fired Broiler	
	PM10 (tons/day)	VOC (tons/day)	PM10 (tons/day)	VOC (tons/day)
Hamburger	0.23	0.072	0.90	0.37
Steaks	0.069	0.021	0.60	0.25
Poultry with Skin	0.0091	0.0061	0.10	0.092
Poultry without Skin	0.016	0.011	0.12	0.11
Pork	0.0036	0.0024	0.10	0.094
Seafood	0.012	0.010	0.16	0.019
<b>Total Emissions (tons/day)</b>	0.34	0.11	2.0	0.94
<b>Total Emissions (tons/year)</b>	126	41	724	342

In addition to VOC and PM emissions, combustion products from cooking operations include carbon dioxide (CO<sub>2</sub>), a gas contributing to climate change. The District estimates that the average CO<sub>2</sub> emissions for cooking activities per restaurant are

approximately 25,000 pounds annually based on operation of the cooking appliances and associated ventilation equipment.

### **Objectives**

The objective of Rule 6-2 is to reduce PM<sub>10</sub> and VOC emissions from commercial cooking equipment in order to reduce particulate matter and ozone levels in the Bay Area. The Bay Area is not in attainment with the State particulate matter and ozone standards, so further reductions in emissions of PM and ozone precursors are needed.

The Bay Area attains the federal annual PM<sub>10</sub> (particulate matter of 10 microns or less in diameter) and federal annual PM<sub>2.5</sub> (particulate matter of 2.5 microns or less in diameter) standards, but is not in attainment of the California annual PM<sub>10</sub> or PM<sub>2.5</sub> or the California 24-hour PM<sub>10</sub> standard. The Bay Area is unclassified for the federal 24-hour PM<sub>10</sub> or new PM<sub>2.5</sub> standard.

The BAAQMD is not required to produce an attainment plan for particulate matter. However, under the requirements of Senate Bill 656 (SB 656, Sher), adopted in 2003, the District is required to develop a Particulate Matter Implementation Schedule in order to make progress toward attaining state and federal PM standards. The proposed Rule 6-2 was included in the District's PM Implementation Schedule as one of the measures that the BAAQMD could adopt to reduce particulate matter.

The U.S. Environmental Protection Agency (U.S. EPA) has set primary national ambient air quality standards for ozone and other air pollutants to define the levels considered safe for human health. The California Air Resources Board (CARB) has also set California air quality standards. The Bay Area is a non-attainment area for the state one-hour and eight-hour standards and new federal eight-hour standard. Under State law, non-attainment areas must prepare plans showing how they will attain the state standard. The 2005 Ozone Strategy is the most recent planning document for the State one-hour ozone standard. Because the Bay Area is a marginal non-attainment area for the national eight-hour standard, the least severe non-attainment classification, the BAAQMD is not required to prepare an attainment plan for the national standard.

The 2005 Ozone Strategy includes measures to reduce emissions of the pollutants that form ozone, i.e., nitrogen oxides and volatile organic compounds. These measures may be proposals to adopt new regulations or amendments to existing regulations. The 2005 Ozone Strategy also includes further study measures. Further study measures require additional analysis before the District can determine whether to proceed with rulemaking or implementation. Further study measure FS 3 proposed examining potential control of emissions from commercial charbroilers.

### **Proposed Rule**

The District is proposing Regulation 6, Rule 2 to achieve the maximum feasible PM<sub>10</sub> and VOC reduction produced from commercial charbroilers to reduce particulate matter and ground level ozone in the Bay Area.

**Chain-Driven Charbroilers:** Proposed Regulation 6, Rule 2 requires that, within one year of adoption of the rule, chain-driven charbroilers in the District at restaurants that purchase at least 500 lbs. of beef per week be equipped and operated with a District-approved catalytic oxidizer or other certified control, unless the operator can demonstrate that less than 400 lbs. of beef is cooked on the charbroiler per week. The South Coast Air Quality Management District (SCAQMD) has already approved catalytic oxidizers from a variety of manufacturers to meet the same standard that the rule proposes, 1.3 lbs. PM<sub>10</sub> and 0.32 lbs. organic compounds per 1,000 lbs. of beef cooked. SCAQMD-approved oxidizers will be approved for use in the Bay Area. New catalytic oxidizers will be required to be certified to meet the emission standard following the SCAQMD protocol. In the alternative, the proposed rule allows a restaurant operator the flexibility to install an alternative control device, provided the device has been approved by the District for use under the rule and certified by the manufacturer to reduce emissions to no more than 0.74 lbs. of PM<sub>10</sub> per 1,000 lbs. of meat cooked. Before a restaurant operator may install and operate an alternative control, the manufacturer of the control is required to have an independent laboratory certify the performance of the control equipment in accordance with specific procedures prescribed in the rule, to determine the ability of the control to meet the emission standards the rule requires.

**New Under-Fired Charbroilers:** The proposed standard calls for any owner or operator who, starting two years after adoption of this rule, installs any under-fired charbroiler in a restaurant such that the restaurant's under-fired charbroilers, taken together, have a total grill surface area of at least 10 square feet, and when the restaurant purchases at least 1000 lbs of beef per week, to exhaust charbroiler emissions through a control device certified by the manufacturer to limit charbroiler emissions to no more than 1.0 lbs. of PM<sub>10</sub> per 1,000 lbs. of meat cooked. An exemption is provided if the operator can demonstrate that less than 800 lbs. of the beef is charbroiled per week. Owners of an existing restaurant who choose to install one or more additional under-fired charbroiler(s) in the restaurant and thereby become subject to the rule will have to install an approved control device. Alternatively, the restaurant owner may elect to install cooking equipment other than an under-fired charbroiler, such as a clamshell griddle or over-fired charbroiler, that emits much less PM than an under-fired charbroiler, and consequently, is not subject to the regulation.

**Existing Under-Fired Charbroilers:** Starting five years after rule adoption, the proposed rule requires all restaurants with under-fired charbroilers with an aggregate grill surface area of at least 10 square feet that purchase at least 1000 lbs of beef per week to install a control technology certified by the control device manufacturer to emit no more than 1.0 lbs. of PM<sub>10</sub> per 1,000 lbs. of meat cooked unless the operator can demonstrate that less than 800 lbs of the beef per week is charbroiled.

**Administrative Requirements:** All operators of chain-driven charbroilers and under-fired charbroilers subject to the control requirements will be required to register their operation with the District, as specified in the proposed regulation. The District will implement a web-based registration system to simplify the registration process. Controls

that have already been approved for use in the District will be listed on the District web site. Restaurant owners will be assessed an initial registration fee of \$360 and recurring annual fee of \$100 to recover the District's costs of administering and enforcing the proposed rule. The proposed rule also has a recordkeeping provision that requires owners and operators to record the date of installation of, and any maintenance and repairs performed on, the control device. The repair logs will contain the date, time, and description of the work that was performed. The owner or operator must keep the records for at least five years. The purpose of these recordkeeping requirements is to ensure that the control is operated in accordance with the manufacturer's specifications. Finally, the owner or operator must be able to verify the amount of beef cooked on charbroiler at the restaurant, if the restaurant operates under an exemption.

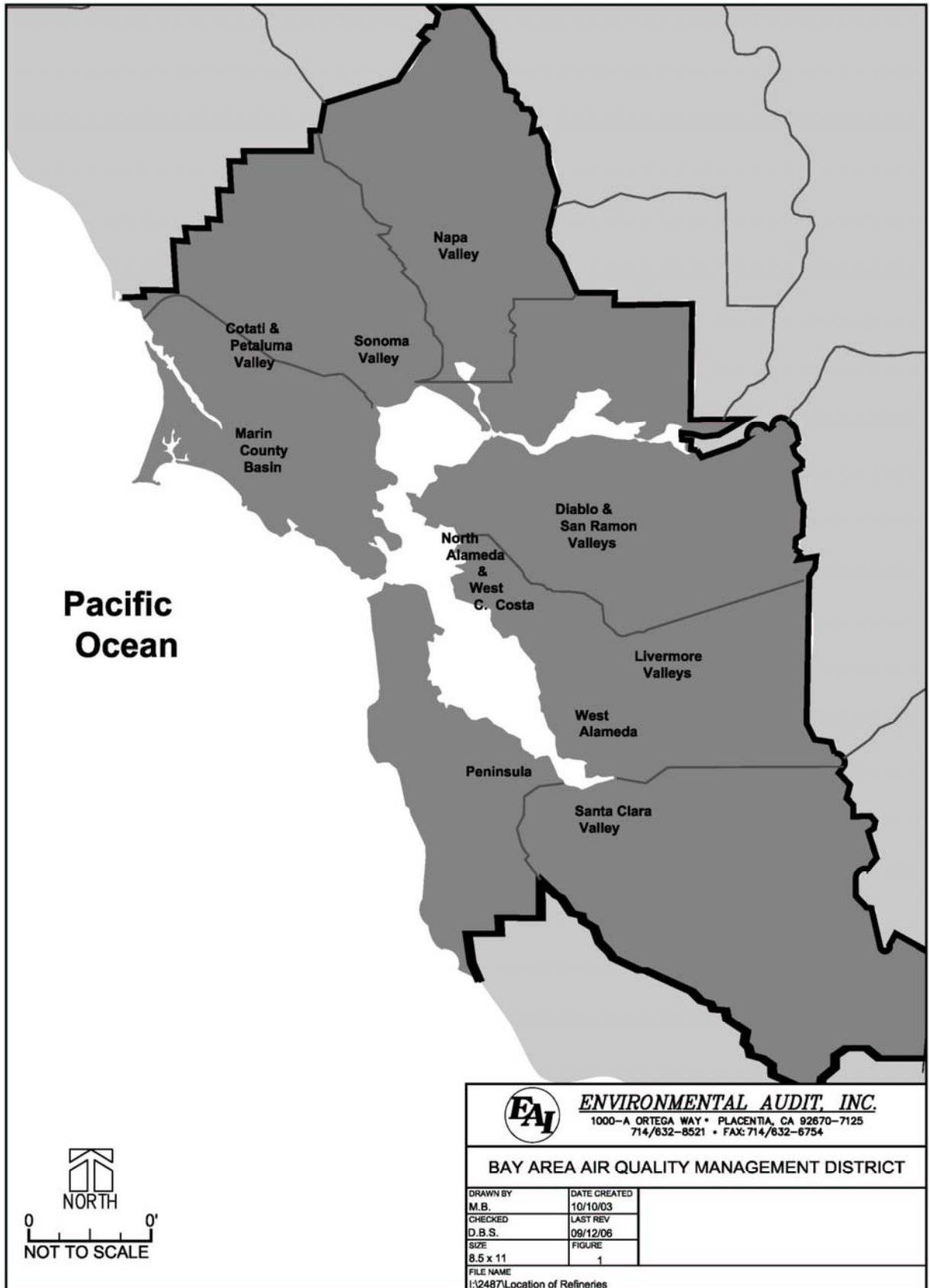
Proposed Regulation 6, Rule 2 is intended to be considered by the Bay Area Air Quality Management District Board of Directors in conjunction with proposed amendments to District Regulation 3: Fees, Schedule R: Equipment Registration Fees; and Regulation 6: Particulate Matter and Visible Emissions. Regulation 3 is a fee regulation; fees are exempt from CEQA pursuant to State CEQA Guidelines, Sections 15061, subd. (b)(3) and 15273. The proposed changes to Regulation 6 renumber and rename the rule; they do not have any substantive effect. There is no possibility that the changes to Regulation 3, Schedule R or to Regulation 6 could have any impact on the environment. This analysis only discusses potential impacts of proposed Regulation 6, Rule 2.

### **Affected Area**

The proposed rule amendments would apply to restaurants within the BAAQMD jurisdiction. The BAAQMD jurisdiction includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma counties (approximately 5,600 square miles). The San Francisco Bay Area is characterized by a large, shallow basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The Basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys, and bays.

The facilities affected by the proposed rule amendments are located within the jurisdiction of the Bay Area Air Quality Management District (see Figure 1).

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## Chapter 3

**Environmental Checklist****ENVIRONMENTAL CHECKLIST FORM**

- 1. Project Title:** Bay Area Air Quality Management District (BAAQMD) Proposed Regulation 6, Rule 2: Commercial Cooking Equipment.
- 2. Lead Agency Name and Address:** Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, California 94109
- 3. Contact Person and Phone Number:** Virginia Lau, Planning, Rules and Research Division  
415/749-4696 or [vlau@baaqmd.gov](mailto:vlau@baaqmd.gov)
- 4. Project Location:** The proposed rule applies to the area within the jurisdiction of the Bay Area Air Quality Management District, which encompasses all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties.
- 5. Project Sponsor's Name and Address:** Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, California 94109
- 6. General Plan Designation:** The proposed rule applies to facilities with commercial cooking equipment that are usually located in commercial areas.
- 7. Zoning** The proposed rule applies to facilities with commercial cooking equipment that are usually located in commercially zoned areas.
- 8. Description of Project** See "Background" in Chapter 2.
- 9. Surrounding Land Uses and Setting** See "Affected Area" in Chapter 2.
- 10. Other Public Agencies Whose Approval Is Required** None

**Environmental Factors Potentially Affected:**

The environmental factors checked below would potentially be affected by this Project (i.e., the project would involve one impact that is a “Potentially Significant Impact”), as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agriculture Resources              | <input type="checkbox"/> Air Quality            |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology/Soils          |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality            | <input type="checkbox"/> Land Use/Planning      |
| <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population/Housing     |
| <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                         | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems     | <input type="checkbox"/> Mandatory Findings of Significance |   |

**Determination:**

On the basis of this initial evaluation:

- I find the proposed project COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
For

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than-Significant Impact	No Impact
<b>I. AESTHETICS.</b>				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses

Many of the facilities with commercial cooking equipment affected by the proposed rule are located in commercial and areas throughout the Bay Area.

## Regulatory Background

Visual resources are generally protected by the City and/or County General Plans through land use and zoning requirements.

## Discussion of Impacts

I a-d. The proposed Regulation 6, Rule 2 (Rule 6-2) would further reduce PM and VOC emissions from commercial cooking equipment in order to reduce ozone levels and particulate matter in the Bay Area. The catalytic oxidizer system is semi-enclosed and situated above the restaurant charbroiler which is located inside a facility. The installation of the catalytic oxidizer will not create any noticeable changes in the visual characteristics of commercial cooking facilities. Under-fired charbroilers are expected to be controlled by use of a roof-mounted



control device such as a HEPA filter or electrostatic precipitator. These devices are expected to be integrated into the existing ducting and would not rise significantly above the level of existing ductwork and exhaust fans.

Likewise, additional light or glare would not be created since the proposed rule would not require additional light generating equipment. Therefore, no adverse significant aesthetic impacts are expected due to the proposed project.

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**II. AGRICULTURE RESOURCES.**

In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. Some of these agricultural lands are under Williamson Act contracts.

The facilities with commercial cooking equipment affected by the proposed rule are located in commercial areas throughout the Bay Area. Agricultural resources are generally not located in the vicinity of commercial areas.

## Regulatory Background

Agricultural resources are generally protected by the City and/or County General Plans, Community Plans through land use and zoning requirements, as well as any applicable specific plans, ordinances, local coastal plans, and redevelopment plans.

## Discussion of Impacts

II a-c. The proposed Rule 6-2 would further reduce PM and VOC emissions from commercial cooking equipment in order to reduce particulate matter and ozone levels in the Bay Area. Installation of catalytic oxidizers or equivalent control devices on chain-driven charboilers or control devices integrated into the ductwork to control under-fired charbroilers would not result in increasing the size of the commercial cooking facilities or result in additional construction activities outside of the confines of the current commercial cooking facility, with the exception of work on the roof to install roof-mounted control devices. Further, commercial cooking facilities are generally located in commercially zone areas, so no impact on agricultural resources is expected. Therefore, no adverse significant impacts to agricultural resources are expected due to the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### III. AIR QUALITY

When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) | Create objectionable odors affecting a substantial number of people?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Setting

### Meteorological Conditions

The summer climate of the West Coast is dominated by a semi-permanent high centered over the northeastern Pacific Ocean. Because this high pressure cell is quite persistent, storms rarely affect the California coast during the summer. Thus the conditions that persist along the coast of California during summer are a northwest air flow and negligible precipitation. A thermal low pressure area from the Sonoran-Mojave Desert also causes air to flow onshore over the San Francisco Bay Area much of the summer.

In winter, the Pacific High weakens and shifts southward, upwelling ceases, and winter storms become frequent. Almost all of the Bay Area’s annual precipitation takes place in the November through April period. During the winter rainy periods, inversions are weak or nonexistent, winds are often moderate and air pollution potential is very low. During winter periods when the Pacific high becomes dominant, inversions become strong and often are surface based; winds are light and pollution potential is high. These periods are characterized by winds that flow out of the Central Valley into the Bay Area and often include fog.

### Topography

The San Francisco Bay Area is characterized by complex terrain consisting of coastal mountain ranges, inland valleys and bays. Elevations of 1,500 feet are common in the higher terrain of this area. Normal wind flow over the area becomes distorted in the lower elevations, especially when the wind velocity is not strong. This distortion is reduced when stronger winds and unstable air masses move over the areas. The distortion is greatest when low level inversions are present with the surface air, beneath the inversion, flowing independently of the air above the inversion.

### Winds

In summer, the northwest winds to the west of the Pacific coastline are drawn into the interior through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately to the south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more nearly from the west as they stream through the Golden Gate. This channeling of the flow through the Golden Gate produces a jet that sweeps eastward but widens downstream producing southwest winds at Berkeley and northwest winds at San Jose; a branch curves eastward through the Carquinez Straits and into the Central Valley. Wind speeds may be locally strong in regions where air is channeled through a narrow opening such as the Carquinez Strait, the Golden Gate, or San Bruno Gap.

In winter, the Bay Area experiences periods of storminess and moderate-to-strong winds and periods of stagnation with very light winds. Winter stagnation episodes are characterized by outflow from the Central Valley, nighttime drainage flows in coastal valleys, weak onshore flows in the afternoon and otherwise light and variable winds.

### Temperature

In summer, the distribution of temperature near the surface over the Bay Area is determined in large part by the effect of the differential heating between land and water surfaces. This process produces a large-scale gradient between the coast and the Central Valley as well as small-scale local gradients along the shorelines of the ocean and bays. The winter mean temperature high and lows reverse the summer relationship; daytime variations are small while mean minimum nighttime temperatures show large differences and strong gradients. The moderating effect of the ocean influences warmer minimums along the coast and penetrating the Bay. The coldest temperatures are in the sheltered valleys, implying strong radiation inversions and very limited vertical diffusion.

### Inversions

A primary factor in air quality is the mixing depth, i.e., the vertical dimension available for dilution of contaminant sources near the ground. Over the Bay Area the frequent occurrence of temperature inversions limits this mixing depth and consequently limits the availability of air for dilution. A temperature inversion may be described as a layer or layers of warmer air over cooler air.

### Precipitation

The San Francisco Bay Area climate is characterized by moderately wet winters and dry summers. Winter rains (December through March) account for about 75 percent of the average annual rainfall; about 90 percent of the annual total rainfall is received in November to April period; and between June and September, normal rainfall is typically less than 0.10 inches. Annual precipitation amounts show greater differences in short distances. Annual totals exceed 40 inches in the mountains and are less than 15 inches in the sheltered valleys.

### Pollution Potential

The Bay Area is subject to a combination of physiographic and climatic factors which result in a low potential for pollutant buildups near the coast and a high potential in sheltered inland valleys. In summer, areas with high average maximum temperatures tend to be sheltered inland valleys with abundant sunshine and light winds. Areas with low average maximum temperatures are exposed to the prevailing ocean breeze and experience frequent fog or stratus. Locations with warm summer days have a higher pollution potential than the cooler locations along the coast and bays.

In winter, pollution potential is related to the nighttime minimum temperature. Low minimum temperatures are associated with strong radiation inversions in inland valleys that are protected from the moderating influences of the ocean and bays. Conversely, coastal locations experience higher average nighttime temperatures, weaker inversions, stronger breezes and consequently less air pollution potential.

## **Air Quality**

### Criteria Pollutants

It is the responsibility of the BAAQMD to ensure that State and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), particulate matter less than 10 microns in diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>) and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards. California has also established standards for sulfate, visibility, hydrogen sulfide, and vinyl chloride.

The State and national ambient air quality standards for each of these pollutants and their effects on health are summarized in Table 3-1. The BAAQMD monitors levels of various criteria pollutants at 26 monitoring stations. The 2006 air quality data from the BAAQMD's monitoring stations are presented in Table 3-2.

Air quality conditions in the San Francisco Bay Area have improved since the Air District was created in 1955. Ambient concentrations of air pollutants and the number of days on which the region exceeds air quality standards have fallen dramatically (see Table 3-3). The Air District is in attainment of the State and federal ambient air quality standards for CO, nitrogen dioxide (NO<sub>2</sub>), and sulfur dioxide (SO<sub>2</sub>). The Air District is not considered to be in attainment with the State PM<sub>10</sub> and PM<sub>2.5</sub> standards, and is unclassified for the new federal 24-hour PM<sub>2.5</sub> standard.

The 2006 air quality data from the BAAQMD monitoring stations are presented in Table 3-2. All monitoring stations were below the standard and federal ambient air quality standards for CO, NO<sub>2</sub>, and SO<sub>2</sub>. The federal eight-hour standard was exceeded on 12 days in the District in 2006. The Bay Area is designated as a non-attainment area for the California one-hour ozone standard. The State one-hour ozone standard was exceeded in the District on 18 days in 2006; most frequently in the Eastern District (Livermore) (see Table 3-2).

All monitoring stations were in compliance with the federal PM<sub>10</sub> standards. The California PM<sub>10</sub> standards were exceeded on 15 days in 2006, most frequently in San Jose. The Air District exceeded the federal PM<sub>2.5</sub> standard on 10 days in 2006, also most frequently in San Jose (see Table 3-2).

**TABLE 3-1  
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS**

AIR POLLUTANT	STATE STANDARD CONCENTRATION/ AVERAGING TIME	FEDERAL PRIMARY STANDARD CONCENTRATION/ AVERAGING TIME	MOST RELEVANT EFFECTS
Ozone	0.09 ppm, 1-hr. avg. > 0.070 ppm, 8-hr	0.08 ppm, 8-hr avg. >	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage
Carbon Monoxide	9.0 ppm, 8-hr avg. > 20 ppm, 1-hr avg. >	9 ppm, 8-hr avg.> 35 ppm, 1-hr avg.>	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.25 ppm, 1-hr avg. >	0.053 ppm, ann. avg.>	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg.> 0.25 ppm, 1-hr. avg. >	0.03 ppm, ann. avg.> 0.14 ppm, 24-hr avg.>	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM10)	20 µg/m <sup>3</sup> , annarithmic mean > 50 µg/m <sup>3</sup> , 24-hr average>	50 µg/m <sup>3</sup> , annual arithmetic mean > 150 µg/m <sup>3</sup> , 24-hr avg.>	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Suspended Particulate Matter (PM2.5)	12 µg/m <sup>3</sup> , annual arithmetic mean>	15 µg/m <sup>3</sup> , annual arithmetic mean> 35 µg/m <sup>3</sup> , 24-hour average>	Decreased lung function from exposures and exacerbation of symptoms in sensitive patients with respiratory disease; elderly; children.
Sulfates	25 µg/m <sup>3</sup> , 24-hr avg. >=		(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead	1.5 µg/m <sup>3</sup> , 30-day avg. >=	1.5 µg/m <sup>3</sup> , calendar quarter>	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to give an extinction coefficient >0.23 inverse kilometers (visual range to less than 10 miles) with relative humidity less than 70%, 8-hour average (10am – 6pm PST)		Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent

**TABLE 3-2  
BAY AREA AIR POLLUTION SUMMARY - 2006**

MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM <sub>10</sub>				PM <sub>2.5</sub>					
	Max 1-hr	Cal Days	Max 8-hr	Nat Days	Cal Days	3-Yr Avg	Max 1-hr	Max 8-hr	Nat/Cal Days	Max 24-hr	Ann Avg	Nat/Cal Days	Max 24-hr	Ann Avg	Nat/Cal Days	Ann Avg	Max 24-hr	Nat Days	Cal Days	Max 24-hr	Nat Days	3-Yr Avg	Ann Avg	3-Yr Avg	
<b>North Counties</b>	(ppb)						(ppm)			(ppb)			(ppb)			(µm <sup>3</sup> )				(µm <sup>3</sup> )					
Napa	96	1	72	0	2	60	3.5	2.8	0	3.5	11	0	-	-	-	21.9	52	0	1	-	-	-	-	-	-
San Rafael	89	0	58	0	0	50	2.6	1.5	0	2.6	14	0	-	-	-	18.1	68	0	1	-	-	-	-	-	-
Santa Rosa	77	0	58	0	0	47	2.4	1.7	0	2.4	11	0	-	-	-	18.8	90	0	2	59.0	1	28.7	9.2	8.3	
Vallejo	80	0	69	0	0	57	3.7	2.9	0	3.7	12	0	4	1.0	0	19.8	50	0	0	42.2	1	35.6	9.8	10.2	
<b>Coast/Central Bay</b>																									
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	6	1.6	0	-	-	-	-	-	-	-	-	-	-
San Francisco	53	0	46	0	0	45	2.7	2.1	0	107	16	0	6	1.3	0	22.9	61	0	3	54.3	3	30.9	9.7	9.7	
San Pablo	61	0	50	0	0	48	2.5	1.4	0	55	13	0	5	1.6	0	21.3	62	0	2	-	-	-	-	-	
<b>Eastern District</b>																									
Bethel Island	116	9	90	1	14	73	1.3	1.0	0	44	8	0	7	2.1	0	19.4	84	0	1	-	-	-	-	-	
Concord	117	8	92	4	14	74	1.7	1.3	0	47	11	0	7	0.8	0	18.5	81	0	3	62.1	5	35.0	9.3	9.7	
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	8	1.8	0	-	-	-	-	-	-	-	-	-	
Fairfield	106	3	87	1	8	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Livermore	127	13	101	5	15	80	3.3	1.8	0	64	14	0	-	-	-	21.8	69	0	3	50.8	3	33.5	9.8	9.7	
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	7	1.9	0	-	-	-	-	-	-	-	-	-	
Pittsburg	105	3	93	1	10	70	3.3	1.9	0	52	11	0	9	2.4	0	19.9	59	0	2	-	-	-	-	-	
<b>South Central Bay</b>																									
Fremont	102	4	74	0	3	60	2.9	1.8	0	63	15	0	-	-	-	20.0	57	0	1	43.9	2	30.3	10.3	9.6	
Hayward	101	2	71	0	1	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Redwood City	85	0	63	0	0	53	5.5	2.4	0	69	14	0	-	-	-	19.8	70	0	2	75.3	1	29.4	9.6	9.2	
San Leandro	88	0	66	0	0	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Santa Clara Valley</b>																									
Gilroy	120	4	101	2	8	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Los Gatos	116	7	87	4	11	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Jose Central	118	5	87	1	5	63	4.1	2.9	0	74	18	0	-	-	-	21.0	73	0	2	64.4	6	38.5	10.8	11.4	
San Jose, Tully Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.0	106	0	13	30.6	0	-	-	-	
San Martin	123	7	105	5	11	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sunnyvale	106	3	78	0	1	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Total Days over Standard</b>		<b>18</b>		<b>12</b>	<b>22</b>				<b>0</b>			<b>0</b>			<b>0</b>			<b>0</b>	<b>15</b>			<b>10</b>			

(ppm) = parts per million, (µg/m<sup>3</sup>) =micrograms per cubic meter, (ppb) = parts per billion

3-10

**TABLE 3-3**  
**BAY AREA AIR QUALITY SUMMARY**  
**Days over standards**

YEAR	OZONE			CARBON MONOXIDE				NO <sub>x</sub>	SULFUR DIOXIDE		PM10		PM2.5
	1-Hr		8-Hr	1-Hr		8-Hr		1-Hr	24-Hr		24-Hr*		24-Hr**
	Nat	Cal	Nat	Nat	Cal	Nat	Cal	Cal	Nat	Cal	Nat	Cal	Nat
1996	8	34	-	0	0	0	0	0	0	0	0	3	-
1997	0	8	-	0	0	0	0	0	0	0	0	4	-
1998	8	29	16	0	0	0	0	0	0	0	0	5	-
1999	3	2	9	0	0	0	0	0	0	0	0	12	-
2000	3	12	4	0	0	0	0	0	0	0	0	7	1
2001	1	15	7	0	0	0	0	0	0	0	0	10	5
2002	2	16	7	0	0	0	0	0	0	0	0	6	5
2003	1	19	7	0	0	0	0	0	0	0	0	6	0
2004	0	7	0	0	0	0	0	0	0	0	0	7	1
2005	0	9	1	0	0	0	0	0	0	0	0	6	0
2006	18	12	0	0	0	0	0	0	0	0	0	15	15

\* PM10 is sampled every sixth day – actual days over standard can be estimated to be six times the numbers listed.

\*\* 2000 is the first full year for which the Air District measured PM2.5 levels.

Toxic Air Pollutants

The BAAQMD maintains a network of monitoring stations to monitor certain toxic air contaminants (TACs) in ambient air. In addition, the California Air Resources Board (CARB) maintains several monitoring stations in the Bay Area as part of a statewide toxics monitoring effort. Table 3-4 shows the maximum, minimum and mean concentration of toxic air contaminants at 22 of the 23 separate sites at which samples were collected. Data from the Fort Cronkhite “clean-air” background site were not included.



**TABLE 3-4**  
**SUMMARY OF BAY AREA AMBIENT AIR TOXIC AIR CONTAMINANT MONITORING**  
**DATA - 2002<sup>1</sup>**

COMPOUND	Level of Detection (ppb)	% of Samples < LOD	Maximum Conc. (ppf)	Minimum Conc. (ppb)	Mean Conc. (ppb)
Benzene	0.10	0	2.20	<0.10	0.47
Carbon Tetrachloride (CCl4)	0.01	0	0.36	<0.01	0.11
Chloroform (CHCl3)	0.02	65	0.12	<0.02	0.02
Methylene Chloride (DCM)	0.50	85	8.70	<0.50	0.38
Ethylene Dibromide	0.02	100	<0.02	<0.02	0.01
Ethylene Dichloride	0.10	100	<0.10	<0.10	0.05
Methyl Tert-Butyl Ether (MTBE)	0.50	44	4.60	<0.50	0.75
Perchloroethylene	0.01	24	0.30	<0.01	0.05
1,1,1-Trichloroethane (TCA)	0.05	47	2.69	<0.05	0.11
Trichloroethylene	0.08	96	0.84	<0.08	0.04
Toluene	0.10	0	24.9	0.10	1.48
Vinyl Chloride	0.30	100	<0.30	<0.30	0.15

(1) BAAQMD, Toxic Air Contaminant, 2002 Annual Report, June 2004.

## Regulatory Background

### Criteria Pollutants

At the federal level, the Clean Air Act (CAA) Amendments of 1990 give the U.S. EPA additional authority to require states to reduce emissions of ozone precursors and particulate matter in non-attainment areas. The amendments set attainment deadlines based on the severity of problems. At the state level, CARB has traditionally established state ambient air quality standards, maintained oversight authority in air quality planning, developed programs for reducing emissions from motor vehicles, developed air emission inventories, collected air quality and meteorological data, and approved state implementation plans. At a local level, California’s air districts, including the BAAQMD, are responsible for overseeing stationary source emissions, approving permits, maintaining emission inventories, maintaining air quality stations,

overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA.

The BAAQMD is governed by a 22-member Board of Directors composed of publicly-elected officials apportioned according to the population of the represented counties. The Board has the authority to develop and enforce regulations for the control of air pollution within its jurisdiction. The BAAQMD is responsible for implementing emissions standards and other requirements of federal and state laws. It is also responsible for developing air quality planning documents required by both federal and state laws.

### Toxic Air Contaminants

TACs are regulated in the District through federal, state, and local programs. At the federal level, TACs are regulated primarily under the authority of the CAA. Prior to the amendment of the CAA in 1990, source-specific National Emission Standards for Hazardous Air Pollutants (NESHAPs) were promulgated under Section 112 of the CAA for certain sources of radionuclides and Hazardous Air Pollutants (HAPs).

Title III of the 1990 CAA amendments requires U.S. EPA to promulgate NESHAPs on a specified schedule for certain categories of sources identified by U.S. EPA as emitting one or more of the 189 listed HAPs. Emission standards for major sources must require the maximum achievable control technology (MACT). MACT is defined as the maximum degree of emission reduction achievable considering cost and non-air quality health and environmental impacts and energy requirements. All NESHAPs were to be promulgated by the year 2000. Specific incremental progress in establishing standards must be made by the years 1992 (at least 40 source categories), 1994 (25 percent of the listed categories), 1997 (50 percent of remaining listed categories), and 2000 (remaining balance). The 1992 requirement was met; however, many of the four-year standards were not promulgated as scheduled. Promulgation of those standards has been rescheduled based on court ordered deadlines, or the aim to satisfy all Section 112 requirements in a timely manner.

Many of the sources of TACs that have been identified under the CAA are also subject to the California TAC regulatory programs. CARB developed three regulatory programs for the control of TACs. Each of the programs is discussed in the following subsections.

**Control of TACs Under the TAC Identification and Control Program:** California's TAC identification and control program, adopted in 1983 as Assembly Bill 1807 (AB 1807) (California Health and Safety Code §39662), is a two-step program in which substances are identified as TACs, and airborne toxic control measures (ATCMs) are adopted to control emissions from specific sources. Since adoption of the program, CARB has identified 18 TACs, and CARB adopted a regulation designating all 189 federal HAPs as TACs.

**Control of TACs Under the Air Toxics "Hot Spots" Act:** The Air Toxics Hot Spot Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code §39656) establishes a state-wide program to inventory and assess the risks from facilities that emit TACs and to notify the public about significant health risks associated with those emissions. Inventory reports must be updated every four years under current state law. The BAAQMD uses a maximum individual cancer risk of 10 in one million, or an ambient concentration above a non-cancer reference exposure level, as the threshold for notification.

Senate Bill (SB) 1731, enacted in 1992 (California Health and Safety Code §44390 et seq.), amended AB 2588 to include a requirement for facilities with significant risks to prepare and implement a risk reduction

plan which will reduce the risk below a defined significant risk level within specified time limits. At a minimum, such facilities must, as quickly as feasible, reduce cancer risk levels that exceed 100 per one million. The BAAQMD adopted risk reduction requirements for perchloroethylene dry cleaners to fulfill the requirements of SB 1731.

**Targeted Control of TACs Under the Community Air Risk Evaluation Program:** In 2004, BAAQMD established the Community Air Risk Evaluation (CARE) program to identify locations with high emissions of toxic air contaminants (TAC) and high exposures of sensitive populations to TAC and to use this information to help establish policies to guide mitigation strategies that obtain the greatest health benefit from TAC emission reductions. For example, BAAQMD will use information derived from the CARE program to develop and implement targeted risk reduction programs, including grant and incentive programs, community outreach efforts, collaboration with other governmental agencies, model ordinances, new regulations for stationary sources and indirect sources, and advocacy for additional legislation.

## Discussion of Impacts

III a. The objective of the proposed Rule 6-2 is to reduce PM and VOC emissions from commercial cooking equipment in order to reduce particulate matter and ozone levels in the Bay Area. The District is proposing Regulation 6, Rule 2, in accordance with the District's SB 656 Particulate Matter Implementation Schedule and in connection with FS 3 in the District's 2005 Ozone Strategy, as a means to reduce restaurant emissions of PM and VOCs in the Bay Area. Therefore, the proposed regulation is in compliance with and will implement a portion of local air quality strategies. No significant adverse impacts are expected.

III b, c, d, and f. The District is proposing Regulation 6, Rule 2, in accordance with the District's SB 656 Particulate Matter Implementation Schedule and in connection with FS 3 in the District's 2005 Ozone Strategy, as a means to reduce restaurant emissions of PM and VOCs in the Bay Area. VOCs are ozone precursors, and also contribute to indirect or secondary PM. SB 656 requires that all air districts in California adopt an implementation schedule that prioritizes appropriate measures for reducing PM emissions. The District's Particulate Matter Implementation Schedule proposes to adopt Regulation 6, Rule 2 as a measure to reduce direct and indirect PM emissions in the Bay Area. Implementation of proposed Regulation 6, Rule 2 would require catalytic oxidizers to be installed on high-emitting chain-driven (conveyorized) charbroilers, but allow alternative certified controls to be installed if the control can reduce emissions to no more than 0.74 lbs of PM10 and 0.23 lbs of organic compounds per 1,000 lbs of meat cooked (effective PM10 reduction of 90 percent). The catalytic oxidizers are expected to be fitted to the top of a chain-driven charbroiler, where it will burn grease and gases from the cooking process, turning them into carbon dioxide and water. Heat from the cooking process activates the device such that an external fuel source is not required. Regulation 6, Rule 2 would also require controls on the highest emitting restaurants with under-fired charbroilers, restaurants that purchase 1000 lbs of beef per week and grill at least 800 lbs of beef. Controls for under-fired charbroilers are more likely to be mounted in the exhaust ventilation on the restaurant roof, and are expected to be electrostatic precipitators (ESPs) or HEPA filters. Based on the air quality analysis, proposed Rule 6-2 is expected to result in reductions in PM and VOC emissions and, thus, provide air quality benefits. No significant adverse impacts to air quality are expected.

III e. Proposed Rule 6-2 requires a reduction PM and VOC emissions from some commercial cooking equipment. Facilities are expected to comply with the required installation of control devices. Once

installed, the control devices are not expected to result in any physical changes to the facilities and would not be expected to generate any additional odors. Catalytic oxidizers installed to control emissions from conveyORIZED charbroilers will reduce odors and controls on under-fired charbroilers will also reduce odors to some extent. The rule is not expected to generate any additional odors at the affected facilities.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**IV. BIOLOGICAL RESOURCES.** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. A wide variety of biological resources are located within the Bay Area.

The facilities affected by the proposed rule are located in the Bay Area-Delta Bioregion (as defined by the State's Natural Communities Conservation Program). This Bioregion is comprised of a variety of natural communities, which range from salt marshes to chaparral to oak woodland. The facilities affected by the proposed rule are located in commercial areas throughout the Bay Area. The affected facilities have been graded to develop the various commercial structures and are typically, surrounded by other commercial facilities. Native vegetation, other than landscape vegetation, has generally been removed from operating portions of the commercial facilities to minimize safety and fire hazards.

## Regulatory Background

Biological resources are generally protected by the City and/or County General Plans through land use and zoning requirements which minimize or prohibit development in biologically sensitive areas. Biological resources are also protected by the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service and National Marine Fisheries Service oversee the federal Endangered Species Act. Development permits may be required from one or both of these agencies if development would impact rare or endangered species. The California Department of Fish and Game administers the California Endangered Species Act which prohibits impacting endangered and threatened species. The U.S. Army Corps of Engineers and the U.S. EPA regulate the discharge of dredge or fill material into waters of the United States, including wetlands.

## Discussion of Impacts

IV a – f. No impacts on biological resources are anticipated from the proposed rule which would apply to existing and new facilities with commercial cooking equipment. The restaurants are located within the confines of commercial facilities. The net effect of implementing proposed Rule 6-2 will be improved air quality resulting from reduction of restaurant emissions which is expected to be beneficial for both plant and animal life. Installation of control devices would not result in any physical changes outside of the confines of the existing commercial cooking facilities and would not affect any biological resources in the area. Therefore, no adverse significant impacts to biological resources are expected due to the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES. Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural and open space uses. Cultural resources are defined as buildings, sites, structures, or objects which might have historical architectural, archaeological, cultural, or scientific importance.

The Carquinez Strait represents the entry point for the Sacramento and San Joaquin Rivers into the San Francisco Bay. This locality lies within the San Francisco Bay and the west end of the Central Valley archaeological regions, both of which contain a rich array of prehistoric and historical cultural resources. The areas surrounding the Carquinez Strait and Suisun Bay have been occupied for millennia given their abundant combination of littoral and oak woodland resources.

The facilities with commercial cooking equipment affected by the proposed rule generally are located in commercial areas throughout the Bay Area. The sites have been graded to develop the various commercial structures and are typically surrounded by other commercial and industrial facilities. Cultural resources are generally not located within the operating portions of commercial facilities.

## Regulatory Background

The State CEQA Guidelines define a significant cultural resource as a “resource listed or eligible for listing on the California Register of Historical Resources” (Public Resources Code Section 5024.1). A project would have a significant impact if it would cause a substantial adverse change in the significance of a historical resource (State CEQA Guidelines Section 15064.5(b)). A substantial adverse change in the significance of a historical resource would result from an action that would demolish or adversely alter the physical characteristics of the historical resource that convey its historical significance and that qualify the resource for inclusion in the California Register of Historical Resources or a local register or survey that meets the requirements of Public Resources Code Sections 50020.1(k) and 5024.1(g).

## Discussion of Impacts

V a – d. No impacts on cultural resources are anticipated from the proposed rule that would apply to existing facilities with commercial cooking equipment. The equipment already exists and is located within the confines of existing facilities. Catalytic oxidizers are expected to be fitted to the top of a chain-driven charbroilers, and therefore, would not result in any physical changes outside of the confines of the existing commercial cooking facilities. Also, although buildings that are considered cultural resources may have restaurants, it is unlikely that the restaurants would be fitted with conveyorized charbroilers or under-fired charbroilers large enough to trigger the requirements in the rule. If restaurants did have a charbroiler subject to the proposed rule, alternative lower-emitting cooking equipment could be used in lieu of installation of a control device. Therefore, no adverse significant impacts to cultural resources are expected due to the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### VI. GEOLOGY AND SOILS.

Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Strong seismic ground shaking?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- Landslides?
- b) Result in substantial soil erosion or the loss of topsoil?
- c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. The facilities affected by the proposed rule are located in the commercial areas throughout the Bay Area.

The affected facilities with commercial cooking equipment are located in the natural region of California known as the Coast Ranges geomorphic province. The province is characterized by a series of northwest trending ridges and valleys controlled by tectonic folding and faulting, examples of which include the Suisun Bay, East Bay Hills, Briones Hills, Vaca Mountains, Napa Valley, and Diablo Ranges.

Regional basement rocks consist of the highly deformed Great Valley Sequence, which include massive beds of sandstone inter-fingered with siltstone and shale. Unconsolidated alluvial deposits, artificial fill, and estuarine deposits, (including Bay Mud) underlie the low-lying region along the margins of the Carquinez Straight and Suisun Bay. The estuarine sediments found along the shorelines of Solano County are soft, water-saturated mud, peat and loose sands. The organic, soft, clay-rich sediments along the San Francisco and San Pablo Bays are referred to locally as Bay Mud and can present a variety of engineering challenges due to inherent low strength, compressibility and saturated conditions. Landslides in the region occur in weak, easily weathered bedrock on relatively steep slopes.

The San Francisco Bay Area is a seismically active region, which is situated on a plate boundary marked by the San Andreas Fault System. Several northwest trending active and potentially active faults are included with this fault system. Under the Alquist-Priolo Earthquake Fault Zoning Act, Earthquake Fault Zones were established by the California Division of Mines and Geology along “active” faults, or faults along which surface rupture occurred in Holocene time (the last 11,000 years). In the Bay area, these faults include the



San Andreas, Hayward, Rodgers Creek-Healdsburg, Concord-Green Valley, Greenville-Marsh Creek, Seal Cove/San Gregorio and West Napa faults. Other smaller faults in the region classified as potentially active include the Southampton and Franklin faults.

Ground movement intensity during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geological material. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill. Earthquake ground shaking may have secondary effects on certain foundation materials, including liquefaction, seismically induced settlement, and lateral spreading.

## **Regulatory Background**

Construction is regulated by the local City or County building codes that provide requirements for construction, grading, excavations, use of fill, and foundation work including type of materials, design, procedures, etc. which are intended to limit the probability of occurrence and the severity of consequences from geological hazards. Necessary permits, plan checks, and inspections are generally required.

The City or County General Plan includes the Seismic Safety Element. The Element serves primarily to identify seismic hazards and their location in order that they may be taken into account in the planning of future development. The Uniform Building Code is the principle mechanism for protection against and relief from the danger of earthquakes and related events.

In addition, the Seismic Hazard Zone Mapping Act (Public Resources Code §§2690 – 2699.6) was passed by the California legislature in 1990 following the Loma Prieta earthquake. The Act required that the California Division of Mines and Geology (DMG) develop maps that identify the areas of the state that require site specific investigation for earthquake-triggered landslides and/or potential liquefaction prior to permitting most urban developments. The act directs cities, counties and state agencies to use the maps in their land use planning and permitting processes.

Local governments are responsible for implementing the requirements of the Seismic Hazards Mapping Act. The maps and guidelines are tools for local governments to use in establishing their land use management policies and in developing ordinances and review procedures that will reduce losses from ground failure during future earthquakes.

## **Discussion of Impacts**

VI a. No impacts on geology and soils are anticipated from the proposed rule that would apply to existing operations at affected facilities. The cooking equipment already exists and is located within the confines of existing facilities. Catalytic oxidizers are expected to be fitted to the top of a chain-driven charbroiler. Installation of HEPA filters or electrostatic precipitators to control under-fired charbroilers would occur in existing exhaust ducting. In some cases, restaurant roof supports may need to be strengthened to accommodate the new equipment, however, alternative lower-emitting cooking equipment could be used that would not be subject to the rule's requirements.. New control equipment may require building permits from the local jurisdiction and compliance with the Uniform Building Codes. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code

is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage. The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site.

The new control equipment may be required to obtain building permits, if applicable. The issuance of building permits from the local agency will assure compliance with the Uniform Building Code requirements which include requirements for building within seismic hazard zones. No significant impacts from seismic hazards are expected since the project will be required to comply with the Uniform Building Codes. Therefore no people or structures are expected to be exposed to potential substantial adverse effects, including the risk of loss, injury, or death due to rupture of a known earthquake fault, strong seismic ground shaking or seismic-related ground failure, including liquefaction landslides. Therefore, no adverse significant impacts related to seismic activity are expected due to the proposed rule.

VII b – e. No impacts on geology and soils are anticipated from the proposed rule that would apply to existing operations at affected facilities. Installation of catalytic oxidizers or equivalent control devices on chain-driven charboilers would not result in any physical changes to the facilities. Installation of control equipment for under-fired charbroilers would occur on existing roofs. Therefore, construction activities associated with the proposed rule is not expected to result in substantial soil erosion or the loss of topsoil. The facilities already exist and no construction activities outside the confines of the existing commercial cooking facilities are expected. Likewise, no new structure is expected to be constructed on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. Construction would not affect soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater. Therefore, no adverse significant impacts to geology and soils are expected due to the proposed rule.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VII. HAZARDS AND HAZARDOUS**

**MATERIALS.** Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) | Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Be located within an airport land use plan or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) | Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) | Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Setting

The risks posed by operations at each facility are unique and determined by a variety of factors. The facilities affected by the proposed amendments tend to be located in commercial areas. For all affected facilities, risks to the public are reduced if there is a buffer zone between industrial processes and residences or other sensitive land uses, or the prevailing wind blows away from residential areas and other sensitive land uses. The hazards associated with commercial cooking operations are generated limited to fire hazards associated with cooking activities.

## Regulatory Background

There are many federal and state rules and regulations that affected facilities must comply with which serve to minimize the potential impacts associated with hazards at these facilities.

Under the Occupational Safety and Health Administration (OSHA) regulations [29 Code of Federal Regulations (CFR) Part 1910], facilities which use, store, manufacture, handle, process, or move highly

hazardous materials must prepare a fire prevention plan. In addition, 29 CFR Part 1910.119, Process Safety Management (PSM) of Highly Hazardous Chemicals, and Title 8 of the California Code of Regulations, General Industry Safety Order §5189, specify required prevention program elements to protect workers at facilities that handle toxic, flammable, reactive, or explosive materials. Prevention program elements are aimed at preventing or minimizing the consequences of catastrophic releases of the chemicals and include process hazard analyses, formal training programs for employees and contractors, investigation of equipment mechanical integrity, and an emergency response plan.

Section 112 (r) of the Clean Air Act Amendments of 1990 [42 U.S.C. 7401 et. Seq.] and Article 2, Chapter 6.95 of the California Health and Safety Code require facilities that handle listed regulated substances to develop Risk Management Programs (RMPs) to prevent accidental releases of these substances, U.S. EPA regulations are set forth in 40 CFR Part 68. In California, the California Accidental Release Prevention (CalARP) Program regulation (CCR Title 19, Division 2, Chapter 4.5) was issued by the Governor's Office of Emergency Services (OES). RMPs consist of three main elements: a hazard assessment that includes off-site consequences analyses and a five-year accident history, a prevention program, and an emergency response program. Refineries are also required to comply with the U.S. EPA's Emergency Planning and Community Right-to-Know Act (EPCRA).

California Assembly Bill 2185 requires local agencies to regulate the storage and handling of hazardous materials and requires development of a plan to mitigate the release of hazardous materials. Businesses that handle any of the specified hazardous materials must submit to government agencies (i.e., fire departments), an inventory of the hazardous materials, an emergency response plan, and an employee training program. The business plans must provide a description of the types of hazardous materials/waste on-site and the location of these materials. The information in the business plan can then be used in the event of an emergency to determine the appropriate response action, the need for public notification, and the need for evacuation.

## Discussion of Impacts

VII a - c. The proposed rule is expected to reduce emissions from existing commercial cooking equipment at affected facilities thus reducing PM and VOC emissions. The rule will not require or change the use or storage of any hazardous material. The catalytic oxidizer required by the rule will not cause any hazard impacts or introduce any additional fire hazards, as it contains a catalyst bed made up of an inert ceramic material. With open flame equipment, most restaurant kitchens already have a potential for fire hazards. Installation of a catalytic oxidizer is not expected to increase fire hazards because they do not require an additional combustion source. Further, installation of the catalytic oxidizer is expected to reduce natural gas usage by up to seven percent, thus slightly reducing existing fire hazards. Cleaning the catalyst does not generate hazardous wastewater effluent and is not expected to create additional health hazards or result in exposing people to existing sources of potential health hazards. Similarly, cleaning electrostatic precipitator plates does not generate hazardous wastewater effluent and is not expected to create additional health hazards. Therefore, no significant adverse impacts on releases of hazardous materials into the environment are expected.

VII d. No impacts on hazardous material sites are anticipated from the proposed rule that would apply to existing commercial cooking operations. The proposed rule would have no affect on hazardous materials nor would the rule create a significant hazard to the public or environment. The cooking equipment already

exists and is located within the confines of existing commercial facilities. The proposed rule neither requires, nor is likely to result in, activities that would affect hazardous materials or existing site contamination. Therefore, no significant adverse impacts on hazards are expected.

VII e – f. No impacts on airports or airport land use plans are anticipated from the proposed rule, which would apply to operations at existing facilities. The cooking equipment already exists and is located within the confines of existing facilities. Installation of catalytic oxidizers or equivalent control devices on chain-driven charbroilers would not result in any physical changes to the facilities and would not affect the environment outside of affected facilities. Therefore, no significant adverse impacts on hazards at airports are expected.

VII g. No impacts on emergency response plans are anticipated from the proposed rule that would apply to existing facility operations. Installation of catalytic oxidizers or equivalent control devices on chain-driven charbroilers and is not expected to result in any changes to emergency response plans. Therefore, no significant adverse impacts on emergency response plans are expected.

VII h. No increase in hazards related to wildfires is anticipated from implementation of the proposed rule. The cooking equipment already exists and is located within the confines of existing facilities. Installation of catalytic oxidizers or equivalent control devices on chain-driven charbroilers is not expected to result in any physical changes that would increase wildfire hazards. Vegetation surrounding commercial facilities has generally been removed, with the exception of landscape vegetation. Therefore, no significant adverse impacts on fire hazards are expected.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VIII. HYDROLOGY AND WATER QUALITY.**

Would the project:

- |    |  |                          |                          |                                     |                                     |
|----|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) | Violate any water quality standards or waste discharge requirements?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) | Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) | Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Otherwise substantially degrade water quality?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and affected environment vary substantially throughout the area and include commercial, industrial, residential, agricultural, and open space uses.

The facilities affected by the proposed rule are located in the commercial areas throughout the Bay Area. Affected facilities are generally surrounded by other commercial. Reservoirs and drainage streams are located throughout the area and discharge into the Bays. Marshlands incised with numerous winding tidal channels containing brackish water are located throughout the Bay Area.

The affected facilities are located within the San Francisco Bay Area Hydrologic Basin. The primary regional groundwater water-bearing formations include the recent and Pleistocene (up to two million years old) alluvial deposits and the Pleistocene Huichica formation. Salinity within the unconfined alluvium appears to increase with depth to at least 300 feet. Water of the Huichica formation tends to be soft and relatively high in bicarbonate, although usable for domestic and irrigation needs.

## Regulatory Background

The Federal Clean Water Act of 1972 primarily establishes regulations for pollutant discharges into surface waters in order to protect and maintain the quality and integrity of the nation's waters. This Act requires industries that discharge wastewater to municipal sewer systems to meet pretreatment standards. The regulations authorize the U.S. EPA to set the pretreatment standards. The regulations also allow the local treatment plants to set more stringent wastewater discharge requirements, if necessary, to meet local conditions.

The 1987 amendments to the Clean Water Act enabled the U.S. EPA to regulate, under the National Pollutant Discharge Elimination System (NPDES) program, discharges from industries and large municipal sewer systems. The U.S. EPA set initial permit application requirements in 1990. The State of California, through the State Water Resources Control Board, has authority to issue NPDES permits, which meet U.S. EPA requirements, to specified industries.

The Porter-Cologne Water Quality Act is California's primary water quality control law. It implements the state's responsibilities under the Federal Clean Water Act but also establishes state wastewater discharge requirements. The RWQCB administers the state requirements as specified under the Porter-Cologne Water Quality Act, which include storm water discharge permits. The water quality in the Bay Area is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board.

In response to the Federal Act, the State Water Resources Control Board prepared two state-wide plans in 1991 and 1995 that address storm water runoff: the California Inland Surface Waters Plan and the California Enclosed Bays and Estuaries Plan. Enclosed bays are indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. San Francisco Bay, and its constituent's parts, including Carquinez Strait and Suisun Bay, fall under this category.

The San Francisco Bay Basin Plan identifies the: (1) beneficial water uses that need to be protected; (2) the water quality objectives needed to protect the designated beneficial water uses; and (3) strategies and time schedules for achieving the water quality objectives. The beneficial uses of the Carquinez Strait that must be protected which include water contact and non-contact recreation, navigation, ocean commercial and sport fishing, wildlife habitat, estuarine habitat, fish spawning and migration, industrial process and service supply, and preservation of rare and endangered species. The Carquinez Strait and Suisun Bay are included on the 1998 California list as impaired water bodies due to the presence of chlordane, copper, DDT, diazinon, dieldrin, dioxin and furan compounds, mercury, nickel, PCBs, and selenium.

## Discussion of Impacts

VIII a. No significant adverse impacts on hydrology/water quality resources are anticipated from implementation of the proposed rule, which would apply to existing commercial facilities. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other control devices and to maintain the equipment in good working order to effectively reduce PM and VOC emissions. Standard maintenance procedure involves soaking the catalyst in water to remove the residue build-up. The frequency of maintenance to maintain proper working order depends upon the individual usage of the charbroiler. Frequency of clean-up (soaking in soapy water) ranges from every three to six months. This removes residue that has built-up on the catalyst bed. Due to the small size of the catalyst bed and the

frequency of the needed soaking, the amount of salt removed per cleaning is expected to be negligible. The resulting wastewater, which also may contain grease and particles, will require minimal treatment from publicly owned treatment works prior to discharge. Under-fired charbroilers that use ESPs for control may choose to install an automatic wash system. The automatic wash system is individually designed for each unit depending on the amount of meat cooked. Frequency of clean up could be as often as daily, but is more likely twice per week. As with cleaning of catalysts, wastewater would require minimal treatment from publically owned treatment works prior to discharge.

The San Francisco Public Utilities Commission (PUC) is a department of the City and County of San Francisco that provides water, wastewater, and municipal power services to San Francisco. Under contractual agreement with 29 wholesale water agencies, the SFPUC also supplies water to 1.6 million additional customers within three Bay Area counties. The San Francisco PUC treats and discharges approximately 84 million gallons per day of treated wastewater during dry weather to the San Francisco Bay and Pacific Ocean. During wet weather, with additional facilities and increased operations, the plants can treat approximately 465 million gallons of combined flows per day ([www.sfwater.org](http://www.sfwater.org)). Since only a small increase in salt is expected due to cleaning activities, no violation of any water quality standards or waste discharge requirements is expected.

VIII b. The cooking equipment affected by the proposed rule already exists and are located within the confines of existing restaurants and facilities. The proposed rule does not require the installation of new large pieces of equipment or require new public services. According to current users of catalytic oxidizers, the frequency of clean-up ranges from every three to six months. If soaked once every three months in 10 gallons of soapy water, the 443 catalysts in the district would increase the district water demand by approximately 49 gallons per day (17,885 gallons per year) [(10 gallons/3 months) x (443 catalysts) x (month/30 day)]. Cleaning electrostatic precipitators would use -a variable amount of water depending on how many systems used an automatic wash system. An automatic wash system uses, on average, 240 gallons of water per cleaning. If all the under-fired broiler restaurants affected installed ESPs and half installed an auto-wash system, and washed the ESP twice per week, the total water used would be 6838 gallons per day (2,496,000 gallons per year) [(2 cleanings/week) x (100 ESPs) x (52 weeks/year)]. The use of catalytic oxidizers, electrostatic precipitators or HEPA filters, however, would tend to keep exhaust fans and downstream ductworks cleaner, requiring less water usage for periodic duct cleaning. The 2005 Ozone Strategy addressed the impacts of the proposed control measures on water demand. Although FS-3 was not part of the control strategy, the analysis did consider water supply impacts of other rules involving similar controls. The potential water demand was determined to be within the capacity of water supplied from various sources in the Bay Area (estimated water demand of about 1.88 trillion gallons per year in 2010) (BAAQMD, 2005) and is not considered significant compared with current and projected future demand and supply. While there are projected drought-year shortages in some regions of California, these shortages would occur regardless of the proposed control measures. The use of other control technologies, such as water scrubbers or HEPA filters, could require more or less water use. The proposed rule is not expected to deplete groundwater supplies or interfere with groundwater recharge. Therefore, no significant impacts on groundwater supplies or are expected due to the proposed implementation of Rule 6-2.

VIII c - f. No significant adverse impacts on hydrology/water quality resources are anticipated from implementation of the proposed rule, which would apply to existing commercial restaurant facilities and only require alternations to the existing cooking facilities. Therefore the proposed rule is not expected to alter the existing drainage or drainage patterns of the site, result in erosion or siltation, alter of the course of a stream



or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite. Nor is the proposed rule expected to create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. The proposed rule is not expected to degrade water quality. Therefore, no significant adverse impacts are expected.

VIII g – i. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other emission control devices on conveyORIZED charbroilers and electrostatic precipitators, HEPA filters or some other control devices on large under-fired charbroilers. The proposed rule is not expected to place any additional structures within 100-year flood zones or other areas subject to flooding. Therefore, no significant adverse impacts due to flooding are expected.

VIII j. Owners/operators of facilities affected by the proposed rule would be required to install emission control devices on existing equipment. The rule is not expected to place any additional structures within areas subject to inundation by seiche, tsunami or mudflow. Therefore, no significant adverse impacts on hydrology/water due to seiche, tsunami or mudflow are expected.

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**IX. LAND USE AND PLANNING.** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to a general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. The facilities affected by the proposed rule are located in the commercial areas throughout the Bay Area.

## Regulatory Background

Land uses are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

## Discussion of Impacts

IX a-c. Owners/operators of facilities affected by the proposed rule would be required to install emission control devices on existing equipment in commercial areas for restaurants that operate conveyerized charbroilers or large under-fired charbroilers. Installation of the control equipment is not expected to result in any physical changes that would require construction outside of the confines of the existing facilities or alter existing land use. Therefore, no adverse significant land use impacts are expected due to the proposed project.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**X. MINERAL RESOURCES.** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The facilities affected by the proposed rule are located in commercial areas throughout the Bay Area.

## Regulatory Background

Mineral resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

## Discussion of Impacts

X a-b. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other emission control devices on coverized charbroilers and electrostatic precipitators, HEPA filters or other emission control devices on under-fired charbroilers in restaurants in commercial areas. Installation of the control equipment is not expected to result in any action that would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. A catalytic oxidizer will generate radiant heat back into the cooking equipment, that in turn will require less natural gas or electricity consumption to operate. The use of a HEPA filter or electrostatic precipitator to control an under-fired charbroiler will require more electricity, however, the District has determined that the additional power usage on a per restaurant basis is not significant compared to the power the restaurant uses to operate cooking, heating, cooling, and ventilation equipment. New installations of under-fired charbroilers will be required to install listed hoods. The use of listed hoods, even with the additional power usage caused by the control device, should result in a net reduction of electrical power usage compared to a new, unabated restaurant without a listed hood. Therefore, no significant impacts on mineral resources are expected.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### XI. NOISE. Would the project:

a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Expose persons to or generate of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?
- f) Be located within the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The facilities affected by the proposed rule are located in commercial areas throughout the Bay Area. Most affected facilities are surrounded by other commercial facilities.

## Regulatory Background

Noise issues related to construction and operation activities are addressed in local General Plan policies and local noise ordinance standards. The General Plan and noise ordinances generally establish allowable noise limits within different land uses including residential areas, other sensitive use areas (e.g., schools, churches, hospitals, and libraries), commercial areas, and industrial areas.

## Discussion of Impacts

XI a-f. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other emission control devices on existing equipment in commercial areas. Installation of the control equipment, whether atop a cooking device or roof-mounted, is not expected to result in any physical changes to the facilities that would generate additional noise. The control devices are not expected to result in noise increases over the current noise levels of existing commercial cooking facilities. Therefore, no adverse significant impacts to noise are expected due to the proposed project.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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## XII. POPULATION AND HOUSING. Would the project:

- a) Induce substantial population growth in an area

either directly (e.g., by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?

- b) Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?
- c) Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The facilities affected by the proposed rule are located in commercial areas throughout the Bay Area.

## Regulatory Background

Population and housing growth and resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

## Discussion of Impacts

XII a. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other emission control devices on conveyORIZED charbroilers and electrostatic precipitators or HEPA filters on certain restaurants in commercial areas. Installation activities would involve minor changes to existing cooking equipment or to roof-mounted exhaust systems. Installation of the control equipment is not expected to result in any physical changes to the facilities and would not affect population or housing. The minor installation activities are expected to be completed by existing workers or contractors. No additional workers are expected to be required at the affected facilities; therefore no adverse significant impacts to population or housing are expected due to the proposed project.

XII b-c. The commercial cooking equipment already exists and is located within the confines of existing facilities within commercial areas. No housing would be impacted or removed by the proposed rule and no displacement of housing would occur. Therefore, no significant adverse impacts on population/housing are expected.

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIII. PUBLIC SERVICES.** Would the project:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The facilities affected by the proposed rule are located in commercial areas throughout the Bay Area.

Given the large area covered by the BAAQMD, public services are provided by a wide variety of local agencies. Fire protection and police protection/law enforcement services within the BAAQMD are provided by various districts, organizations, and agencies. There are several school districts, private schools, and park departments within the BAAQMD. Public facilities within the BAAQMD are managed by different county, city, and special-use districts.

## Regulatory Background

City and/or County General Plans usually contain goals and policies to assure adequate public services are maintained within the local jurisdiction.

## Discussion of Impacts

XIII a. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other emission control devices on conveyORIZED charbroilers and electrostatic precipitators or HEPA filters on under-fired charbroilers in certain restaurants in commercial areas. Installation activities would involve minor changes to existing cooking equipment. Catalytic oxidizers used to control conveyORIZED charbroilers would reduce the chance of fire from accumulation of grease in the ductwork and exhaust system, a common source of restaurant fires. Electrostatic precipitators, if not properly maintained, could potentially create a fire hazard that does not currently exist. Building permits to install this equipment would require periodic cleaning and fire suppression systems, and proposed Rule 6-2 also requires that control equipment be cleaned and maintained as per manufacturers' instructions. Proper cleaning and maintenance prevents an increased fire safety risk as well as ensures the control equipment reduces air pollutants as intended. Consequently, no significant impacts on the need for fire or police protection are expected. The proposed rule is not expected to require additional workers at the facilities or result in population growth so no impacts on schools or parks are expected. Therefore, no significant adverse impacts on public services are expected.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### XIV. RECREATION. Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that there are numerous areas for recreational activities. The facilities affected by the proposed rule are located in commercial areas throughout the Bay Area. Public recreational land uses are generally not located within the confines of commercial facilities.

## Regulatory Background

Recreational areas are generally protected and regulated by the City and/or County General Plans at the local level through land use and zoning requirements. Some parks and recreation areas are designated and protected by state and federal regulations.

## Discussion of Impacts

XIV a-b. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other emission control devices on conveyORIZED charbroilers and electrostatic precipitators or HEPA filters on under-fired charbroilers in certain restaurants in commercial areas. Installation activities would involve minor changes to existing cooking equipment. Installation of the control equipment is not expected to result in any physical changes to the facilities. The proposed rule is not expected to require additional workers at the facilities or result in population growth so no impacts on recreation are expected. Therefore, no significant adverse impacts on recreation are expected

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### XV. TRANSPORTATION/TRAFFIC. Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards because of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



- g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles). Transportation systems located within the Bay Area include railroads, airports, waterways, and highways. The Port of Oakland and three international airports in the area serve as hubs for commerce and transportation. The transportation infrastructure for vehicles and trucks in the Bay Area ranges from single lane roadways to multilane interstate highways. The Bay Area contains over 19,600 miles of local streets and roads, and over 1,400 miles of state highways. In addition, there are over 9,040 transit route miles of services including rapid rail, light rail, commuter, diesel and electric buses, cable cars, and ferries. The Bay Area also has an extensive local system of bicycle routes and pedestrian paths and sidewalks. At a regional level, the share of workers driving alone was about 68 percent in 2000. The portion of commuters that carpool was about 12.9 percent in 2000. About 3.2 percent of commuters walked to work in 2000. In addition, other modes of travel (bicycle, motorcycle, etc.), account for 2.2 percent of commuters in 2000 (MTC, 2004).

Cars, buses, and commercial vehicles travel about 143 million miles a day (2000) on the Bay Area Freeways and local roads. Transit serves about 1.7 million riders on the average weekday (MTC, 2004).

The region is served by numerous interstate and U.S. freeways. On the west side of San Francisco Bay, Interstate 280 and U.S. 101 run north-south. U.S. 101 continues north of San Francisco into Marin County. Interstates 880 and 660 run north-south on the east side of the Bay. Interstate 80 starts in San Francisco, crosses the Bay Bridge, and runs northeast toward Sacramento. Interstate 80 is a six-lane north-south freeway which connects Contra Costa County to Solano County via the Carquinez Bridge. State Routes 29 and 84, both highways that allow at-grade crossings in certain parts of the region, become freeways that run east-west and across the Bay. Interstate 580 starts in San Rafael, crosses the Richmond-San Rafael Bridge, joins with Interstate 80, runs through Oakland, and then runs eastward toward Livermore. From the Benicia-Martinez Bridge, Interstate 680 extends north to Interstate 80 in Cordelia. Caltrans constructed a second freeway bridge adjacent and east of the existing Benicia-Martinez Bridge. The new bridge consists of five northbound traffic lanes. The existing bridge was re-striped to accommodate four lanes for southbound traffic. Interstate 780 is a four lane, east-west freeway extending from the Benicia-Martinez Bridge west to I-80 in Vallejo.

## Regulatory Background

Transportation planning is usually conducted at the county level. Each Bay Area County has a Congestion Management Agency. The Congestion Management Agency is responsible for transportation planning and administration of improvement projects in each county and in some cases, shares these responsibilities with the county departments. County development agencies conduct and oversee the transportation and planning

for new development projects while the Congestion Management Agency implements the transportation programs and projects.

## Discussion of Impacts

XV a-b. Owners/operators of facilities affected by the proposed rule would be required to install emission control devices on conveyORIZED charbroilers and large under-fired charbroilers in commercial areas. Installation activities would involve minor changes to existing cooking equipment or roof-mounted equipment in exhaust systems. Installation of the control equipment is not expected to result in any physical changes to the facilities. The proposed rule does not require the installation of pieces of equipment large enough to affect traffic or affect access of any emergency service. No impacts on the need for fire or police protection are expected. The proposed rule is expected to be conducted by existing workers or existing contractors so that no additional vehicle trips are expected to be required. No changes to traffic patterns or levels of service at local intersections are expected. Therefore, no adverse significant impacts to traffic are expected.

XV c. The proposed rule includes minor modifications to the cooking equipment of existing restaurant facilities. The project will not involve the delivery of materials via air so no increase and no adverse impacts in air traffic are expected.

XV d - e. The proposed rule is not expected to increase traffic hazards or create incompatible uses at or adjacent to the site. Emergency access provided at the facilities, will continue to be maintained and will not be impacted by the proposed rule.

XV f. The commercial cooking equipment affected by the proposed rule already exists and is located within the confines of existing facilities within commercial areas. The proposed rule does not require the installation of new pieces of equipment large enough to significantly affect parking capacity, except temporarily during installation, at which time the restaurant would not be operational and would therefore likely have adequate parking onsite. Parking required for installation contractors would be provided onsite. No increase in permanent workers is expected. Therefore, the proposed rule will not result in significant adverse impacts on parking.

XV g. The proposed rule will result in fewer PM and VOC emissions from affected facilities. The proposed rule is not expected to conflict with adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, bicycle racks).

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than- Significant Impact	No Impact
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## XVI. UTILITIES AND SERVICE SYSTEMS.

Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements needed?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area.

Given the large area covered by the BAAQMD, public utilities are provided by a wide variety of local agencies. The affected facilities have wastewater and storm water treatment facilities and discharge treated wastewater under the requirements of NPDES permits.

Water is supplied to affected facilities by several water purveyors in the Bay Area. Solid waste is handled through a variety of municipalities, through recycling activities and at disposal sites.

There are no hazardous waste disposal sites within the jurisdiction of the BAAQMD. Hazardous waste generated at area facilities, which is not reused on-site, or recycled off-site, is disposed of at a licensed in-state hazardous waste disposal facility. Two such facilities are the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Safety-Kleen facility in Buttonwillow (Kern County). Hazardous waste can also be transported to permitted facilities outside of California. The nearest

out-of-state landfills are U.S. Ecology, Inc., located in Beatty, Nevada; USPCI, Inc., in Murray, Utah; and Envirosafe Services of Idaho, Inc., in Mountain Home, Idaho. Incineration is provided at the following out-of-state facilities: Aptus, located in Aragonite, Utah and Coffeyville, Kansas; Rollins Environmental Services, Inc., located in Deer Park, Texas and Baton Rouge, Louisiana; Chemical Waste Management, Inc., in Port Arthur, Texas; and Waste Research & Reclamation Co., Eau Claire, Wisconsin.

## Regulatory Background

City and/or County General Plans usually contain goals and policies to assure adequate utilities and service systems are maintained within the local jurisdiction.

## Discussion of Impacts

XVI a, b, d and e. The commercial cooking equipment affected by the proposed rule already exists and is located within the confines of existing facilities within commercial areas. The proposed rule does not require the installation of new large pieces of equipment or require new public services. Facilities are expected to comply by installing control technology consisting of catalytic oxidizers (in the case of conveyORIZED charbroilers) or electrostatic precipitators or HEPA filters (in the case of under-fired charbroilers). Once the equipment is installed, the rule is not expected to result in any physical changes to the facilities. The cleaning of equipment may result in a slight increase in water consumption; however, the wastewater generated will be processed by the restaurants' grease traps and additional grease will not be introduced into existing wastewater treatment facilities. The 2005 Ozone Strategy addressed the impacts of the proposed control measures on water demand. Although FS-3 was not part of the control strategy, the analysis did consider water supply impacts of other rules involving similar controls. The potential water demand was determined to be within the capacity of water supplied from various sources in the Bay Area (estimated water demand of about 1,880 billion gallons per year in 2010) (CARB, 2000) and is not considered significant compared with current and projected future demand and supply. While there are projected drought-year shortages in some regions of California, these shortages would occur regardless of the proposed control measures. Based upon the above considerations, no significant adverse impacts on water demand were expected due to implementation of the control measures within the 2005 Ozone Strategy. Therefore, no significant impacts on water use or wastewater discharges are expected due to proposed Rule 6-2. No significant adverse impacts on utilities and service systems are anticipated from the proposed rule would apply to existing facilities with commercial cooking equipment.

XVI c. Owners/operators of facilities affected by the proposed rule would be required to install catalytic oxidizers or other emission control devices on existing equipment in commercial areas. Installation activities would involve minor changes to existing cooking equipment or roof-mounted exhaust systems. Installation of the control equipment is not expected to result in any physical changes to the facilities. Therefore, no changes to or increases in storm water are expected due to the proposed rule.

XVI f. Restaurants generate grease from cooking operations, that is collected in grease traps and professionally disposed of in landfills or composted. The proposed rule is expected to generate an additional amount of additional grease, due to the capture of the grease within control equipment rather than release onto the restaurant roof or into the environment. The amount generated would be less than significant. Under-fired charbroilers would likely comply by the use of an electrostatic precipitator or HEPA filter. HEPA filters are not likely to be the more popular option; however, the filters themselves would have to be

replaced periodically, and the used filters disposed of. This would generate solid waste that the restaurant would not otherwise generate. HEPA filters would constitute a small addition to the waste that a restaurant already generates. Consequently, any additional increase on waste generation is expected to be less than significant.

XVI g. The proposed rule would not affect the ability of facilities to comply with federal, state, and local statutes and regulations related to solid waste. No significant impacts on waste generation are expected from the proposed rule.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XVII. MANDATORY FINDINGS OF SIGNIFICANCE.**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion of Impacts**

XVII a. The proposed rule does not have the potential to degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory, as discussed in the previous sections of the CEQA checklist. The proposed rule is expected to

result in emission reductions from facilities with commercial cooking equipment thus providing a beneficial air quality impact and improvement in air quality. No significant adverse impacts are expected.

XVII b. Proposed Rule 6-2 is expected to result in emission reductions of VOC and PM from affected facilities with commercial cooking equipment, thus providing a beneficial air quality impact and improvement in air quality. The proposed rule is part of a long-term plan to bring the Bay Area into compliance with the state ambient air quality standards for ozone and reduce emissions of particulate matter. The proposed rule does not have adverse environmental impacts that are limited individually, but cumulatively considerable when considered in conjunction with other regulatory control projects. The proposed rule is not expected to have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. No significant adverse impacts are expected.

XVII c. The proposed rule is expected to result in emission reductions from affected facilities, thus providing a beneficial air quality impact and improvement in air quality. The proposed rule is part of a long-term plan to bring the Bay Area into compliance with the state ambient air quality standards for ozone and reduce emissions of particulate matter, thus reducing the potential health impacts due to these pollutants. The proposed rule is not expected to have significant adverse effects (either directly or indirectly) to human beings.

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