BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BOARD OF DIRECTORS' REGULAR MEETING

December 3, 2008

A meeting of the Bay Area Air Quality Management District Board of Directors will be held at 9:45 a.m. in the 7th floor Board Room at the Air District headquarters, 939 Ellis Street, San Francisco, California.

Questions About an Agenda Item	The name, telephone number and e-mail of the appropriate staff person to contact for additional information or to resolve concerns is listed for each agenda item.
Meeting Procedures	The public meeting of the Air District Board of Directors begins at 9:45 a.m. The Board of Directors generally will consider items in the order listed on the agenda. However, <u>any item</u> may be considered in <u>any order</u>. After action on any agenda item not requiring a public hearing, the Board may reconsider or amend the item at any time during the meeting.

BOARD OF DIRECTORS' REGULAR MEETING
R E V I S E D A G E N D A

WEDNESDAY **BOARD ROOM**
DECEMBER 3, 2008 **7TH FLOOR**
9:45 A.M.

CALL TO ORDER

Opening Comments — Chairperson, Pamela Torliatt
Roll Call — Clerk of the Boards
Pledge of Allegiance

PUBLIC COMMENT PERIOD

Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3
Members of the public are afforded the opportunity to speak on any agenda item. All agendas for regular meetings are posted at District headquarters, 939 Ellis Street, San Francisco, CA, at least 72 hours in advance of a regular meeting. At the beginning of the regular meeting agenda, an opportunity is also provided for the public to speak on any subject within the Board's subject matter jurisdiction. Speakers will be limited to three (3) minutes each.

CONSENT CALENDAR (ITEMS 1 – 4)

Staff/Phone (415) 749-

1. Minutes of November 19, 2008 — **L. Harper/5073** lharper@baaqmd.gov

2. Communications — **J. Broadbent/5052** jbroadbent@baaqmd.gov

   Information only.

3. Proposed Regulatory Agenda for 2009 — **H. Hilken/4642** hhilken@baaqmd.gov

   State law requires each Air District to publish a list of potential regulatory measures for the upcoming year. No regulatory measures can be brought before the Board that is not on the list, with specified exceptions. Consequently, the list contains all measures that ***may*** *come before the Board in 2009.*

4 Consideration of Transmittal of Air District Comment Letter on the Proposed AB 32 Scoping Plan to the California Air Resources Board (ARB) — **J. Broadbent/5052** jbroadbent@baaqmd.gov

   The Board of Directors will consider transmittal of Air District comments on the Proposed AB 32 Scoping Plan to the ARB.

PRESENTATION

5. Update on Recent Actions by the Port of Oakland — **J. Broadbent/5052** jbroadbent@baaqmd.gov

   Staff will brief the Board of Directors on recent actions taken by the Board of Port Commissioners at its meetings of November 19, 2008 and November 20, 2008.

COMMITTEE REPORTS AND RECOMMENDATIONS

6. Report of the **Personnel Committee** Meetings of November 13 and November 24, 2008

CHAIR: H. BROWN **J. Broadbent/5052**
jbroadbent@baaqmd.gov

Action(s): The Committee recommends Board of Directors approval of nine (9) appoints and four (4) reappointments to the Air District's Advisory Council effective January 1, 2009.

7. Report of the **Mobile Source Committee** Meeting of November 19, 2008

CHAIR: T. SMITH **J. Broadbent/5052**
jbroadbent@baaqmd.gov

Action(s): The Committee recommends Board of Directors approval of the following items:

A) Selection of Environmental Engineering Studies, Inc., Pick-N-Pull, and Pick Your Part as the vehicle scrapping contractors for the fiscal year (FY) 2008/2009 Vehicle Buy Back Program; and authorization for the Executive Officer/APCO to execute contracts for vehicle scrapping and related services with Environmental Engineering Studies, Inc., Pick-N-Pull, and Pick Your Part;

B) Staff recommendations for 41,498,544 in funding for eligible projects under the California Goods Movement Bond Projects and authorize the Executive Officer/APCO to enter into all necessary contracts to expend the requested funds; and

C) Receive and file the results of the TFCA Audit Report #10, an audit of TFCA Regional Fund projects, including the auditor's findings and recommendations to improve the administration and fiscal management of the TFCA Program.

8. Report of the **Executive Committee** Meeting of November 24, 2008

CHAIR: P. TORLIATT **J. Broadbent/5052**
jbroadbent@baaqmd.gov

Action(s): The Committee recommends Board of Directors' approval of funding level in the amount of $250,000 for implementation of a Community Grant Program.

PUBLIC HEARING

9. Public Hearing to Consider Adoption of proposed amendments to District Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations and amendments to Regulation 3: Fees, Schedule R: Equipment Registration Fees, and Adoption of a CEQA Negative Declaration **H. Hilken/4642**
hhilken@baaqmd.gov

Proposed amendments to Regulation 8, Rule 45 would reduce emissions from automobile refinishing and motor vehicle and mobile equipment coating by reducing the allowable VOC content in paints and cleaning solvents. The proposed amendments would also require mobile refinishers to register their operations with the District Proposed amendments to Regulation 3 would set registration fees for mobile refinishing operations.

OTHER BUSINESS

10. Report of the Executive Officer/APCO

11. Chairperson's Report

12. Board Members' Comments

Any member of the Board, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2)

13. Time and Place of Next Meeting – 9:45 a.m., Wednesday, December 17, 2008- 939 Ellis Street, San Francisco, CA 94109

14. Adjournment

CONTACT EXECUTIVE OFFICE - 939 ELLIS STREET SF, CA 94109 **(415) 749-5127**
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities. Notification to the Executive Office should be given at least 3 working days prior to the date of the meeting so that arrangements can be made accordingly.
- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's headquarters at 939 Ellis Street, San Francisco, CA 94109, at the time such writing is made available to all, or a majority of all, members of that body. Such writing(s) may also be posted on the Air District's website (www.baaqmd.gov) at that time.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

EXECUTIVE OFFICE:
MONTHLY CALENDAR OF DISTRICT MEETINGS

DECEMBER 2008

TYPE OF MEETING	DAY	DATE	TIME	ROOM
Advisory Council Technical Committee *(Meets 1st Monday of every even Month)* **- CANCELLED**	**Monday**	**1**	**9:30 a.m.**	**Board Room**
Board of Directors Climate Protection Committee Meeting *(Meets 3rd Thursday Every Other Month)* **CANCELLED**	**Monday**	**1**	**9:30 a.m.**	**4th Floor Conf. Room**
Board of Directors Regular Meeting *(Meets 1st & 3rd Wednesday of each Month)*	**Wednesday**	**3**	**9:45 a.m.**	**Board Room**
Advisory Council Air Quality Planning Committee *(Meets 1st Thursday Even Month)* **- CANCELLED**	**Thursday**	**4**	**9:30 a.m.**	**Board Room**
Board of Directors Executive Committee *(At the Call of the Chair)*	**Friday**	**5**	**2:30 p.m.**	**4th Floor Conf. Room**
Advisory Council Public Health Committee – *(Meets 2nd Wednesday Even Month)* **- CANCELLED**	**Wednesday**	**10**	**1:30 p.m.**	**Board Room**
Board of Directors Stationary Source Committee ***(Meets 3rd Monday Quarterly)*** **- CANCELLED**	**Monday**	**15**	**9:30 a.m.**	**Board Room**
Board of Directors Regular Meeting *(Meets 1st & 3rd Wednesday of each Month)*	**Wednesday**	**17**	**9:45 a.m.**	**Board Room**
Board of Directors Legislative Committee *(Meets 4th Monday of the Month)*	**Monday**	**22**	**9:30 a.m.**	**4th Floor Conf. Room**
Board of Directors Budget & Finance Committee *(Meets 4th Wednesday of each month)* **- CANCELLED**	**Wednesday**	**24**	**9:30 a.m.**	**4th Floor Conf. Room**

JANUARY 2009

TYPE OF MEETING	DAY	DATE	TIME	ROOM
Board of Directors Regular Meeting *(Meets 1st & 3rd Wednesday of each Month)*	**Wednesday**	**7**	**9:45 a.m.**	**Board Room**
Advisory Council Retreat *(Meets 2nd Wednesday Every Other Month)*	**Wednesday**	**14**	**10:00 a.m.**	**Board Room**
Board of Directors Regular Meeting/Retreat *(Meets 1st & 3rd Wednesday of each Month)*	**Wednesday**	**21**	**9:45 a.m.**	**To Be Determined**

January 2009 Calendar Continued on Next Page

JANUARY 2009

TYPE OF MEETING	DAY	DATE	TIME	ROOM
Board of Directors Mobile Source Committee – *(Meets 4th Thursday of each Month)*	**Thursday**	**22**	**9:30 a.m.**	**4th Floor Conf. Room**
Board of Directors Legislative Committee *(Meets 4th Monday of the Month)*	**Monday**	**26**	**9:30 a.m.**	**4th Floor Conf. Room**
Board of Directors Budget & Finance Committee *(Meets 4th Wednesday of each month)*	**Wednesday**	**28**	**9:30 a.m.**	**4th Floor Conf. Room**

FEBRUARY 2009

TYPE OF MEETING	DAY	DATE	TIME	ROOM
Board of Directors Regular Meeting *(Meets 1st & 3rd Wednesday of each Month)*	**Wednesday**	**4**	**9:45 a.m.**	**Board Room**
Board of Directors Regular Meeting *(Meets 1st & 3rd Wednesday of each Month)*	**Wednesday**	**18**	**9:45 a.m.**	**Board Room**
Board of Directors Legislative Committee *(Meets 4th Monday of the Month)*	**Monday**	**23**	**9:30 a.m.**	**4th Floor Conf. Room**
Board of Directors Budget & Finance Committee *(Meets 4th Wednesday of each month)*	**Wednesday**	**25**	**9:30 a.m.**	**4th Floor Conf. Room**
Board of Directors Mobile Source Committee – *(Meets 4th Thursday of each Month)*	**Thursday**	**26**	**9:30 a.m.**	**4th Floor Conf. Room**

HL - 11/25/08 (9:10 a.m.)
P/Library/Forms/Calendar/Calendar/Moncal

AGENDA: 1

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Jerry Hill and Members of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2008

Re: Board of Directors' Draft Meeting Minutes

RECOMMENDED ACTION:

Approve attached draft minutes of the Regular Board of Directors' meeting of November 19, 2008.

DISCUSSION

Attached for your review and approval are the draft minutes of the November 19, 2008 Regular Board of Directors' meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

AGENDA: 1

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

DRAFT MINUTES

Board of Directors' Regular Meeting– November 19, 2008

Call To Order

Opening Comments: Chairperson Jerry Hill called the meeting to order at 9:45 a.m.

Roll Call: Present: Jerry Hill, Chair, Directors Harold Brown, Chris Daly, Dan Dunnigan, Erin Garner, Yoriko Kishimoto, Carol Klatt, Liz Kniss, Janet Lockhart, Jake McGoldrick, Nate Miley, Mark Ross, Michael Shimansky, John Silva, Tim Smith, Pam Torliatt, Gayle Uilkema, Brad Wagenknecht

Absent: Tom Bates, John Gioia, Scott Haggerty, Ken Yeager

Pledge of Allegiance: The Board of Directors recited the Pledge of Allegiance.

Public Comment Period:

Bradley Angel, Green Action, voiced concern about pollution in West Berkeley, specifically the Russell City Power Plant and its burden on communities.

Gabe Meyers, Global Community Property, spoke of the need to change the process at Pacific Steel Casting in how it is regulated and evaluated, and he asked for a comprehensive study of wind direction and tracing of emissions.

Piper Snow, Healthy Air Coalition, voiced concerns with asthma and the odor management plan at Pacific Steel Casting.

Carole Marospovic, Healthy Air Coalition, spoke of non-disclosure of a letter by Pacific Steel Casting and cited discrepancies and delay in inspectors handling complaints.

Niels Traynor, Healthy Air Coalition, cited continued odor problems from Pacific Steel Casting, spoke of asthma and illnesses and delay in response times to complaints.

Audrey LePell, President of Cap Systems Against Pollution (CAP), voiced concerns with pollution from Russell City Energy and noted they were forming a petition.

Laurie Price, Citizens Against Pollution, believed that the Russell City Plan is a serious environmental justice issue, spoke of increased risks for minorities, and requested the plant be thoroughly reviewed.

Andy Wilson, CAP, spoke of aviation and thermal plumes and said there are no laws or alerts dealing with emissions and hazardous materials releases for air traffic.

Ernest Pacheco, Citizens Against Pollution / Health SSO Communities, spoke of pollution caused by the Russell City Plant, stating the project will negate all gains made by the CARE Program, and asked the District to cease and desist all actions.

Wafaa Aborashed, CAP and Health 880 Communities, voiced disappointment in the outreach process, spoke of exceedances caused by the power plant, requested additional inspectors, believed many of the guidelines were lacking and felt that many rules and regulations are not enforceable.

Sean Cameron, Citizens Against Pollution, requested the Board undo the draft permit and cited the need for proper noticing.

Angela Higginbotham, CAP, spoke of the Environmental Appeals Board ruling which set best available control technology limits for CO2, which she believed should further the goal of protecting public health.

Rob Simpson spoke of the successful remand order from the EPA regarding the Russell City Power Plant, reported that another appeal was pending, and voiced concerns over public noticing requirements.

Mr. Broadbent reported that one of two plants being proposed is a 600 megawatt plant in Hayward; however, the second plant may no longer be moving through the process. He stated that "the California Energy Commission is the licensing authority for plants operating at 50 megawatts or greater and that the Air District must follow a prescriptive process." In following guidelines about how to properly notice for the permit for PSD aspects, the EAB found in favor of the appellants that the District did not fully follow all procedures in terms of public noticing. He further stated that EAB's findings were not air quality related in terms of emissions, but rather public noticing requirements. Therefore, the Air District is re-noticing the PSD permit and there will be a meeting in mid-January in Hayward at which time public input would be taken. Mr. Broadbent suggested providing the Stationary Source Committee an update in January regarding the facility, as well as the custom alloy recycling facility.

District Counsel, Brian Bunger added that preliminary determination of compliance and final determinations are not mutually exclusive and are two separate issues. Following a noticing program, the Air District is going through a separate noticing process for those federal permits and is continuing to work through these issues.

Consent Calendar (Items 1 – 4):

Director Kniss referred to Item 3 and briefly discussed the span of control for the number of supervisors to employees.

1. Minutes of November 5, 2008

2. Communications
   Information only.

3. Consideration and Approval to Establish a New Classification of Supervising Human Resource Analyst with a Salary Set at Pay Range 142
   The Board of Directors considered approval to establish a new job classification of Supervising Human Resources Analyst with an annual salary range starting at $88,251 and ending at $107,270.

4. Consideration and Approval of Contractor to Assist with Updating and Revising the Air District's California Environmental Quality Act (CEQA) Guidelines
   The Board of Directors will consider approval of a contract with EDAW, Inc. to assist with the update and revision of the Air District's CEQA Guidelines for the purpose of providing guidance to local lead agencies on evaluating and mitigating air quality impacts of projects and plans, in an amount not to exceed $94,690.

Board Action: Director Brown moved approval of Consent Calendar Items 1, 2, 3 and 4; seconded by Director Wagenknecht; carried unanimously without opposition.

5. Report of the **Ad Hoc Committee on Port Emissions** Meeting of November 17, 2008

Committee Chair Miley gave the report of the Ad Hoc Committee on Port Emissions and said the Committee met on Monday, November 17, 2008 and approved the minutes of July 2, 2008.

The Committee received an overview of the Port of Oakland's Maritime Air Quality Improvement Plan (MAQIP). Goals of the plan are to reduce health risks from Port sources by 85% by the year 2020, as well as adoption of funding mechanisms to fund air emissions reduction measures. The Port is committed to a three-fold emissions reduction strategy which will target emissions reductions earlier than required by regulations, support enforcement of regulations, and target emissions reductions above and beyond those required by law. Next steps will include review of the MAQIP and the container fee by the Port Commission Maritime Committee on November 20th, and the Port Commission's review on December 2nd.

The Committee then received a report on developments of the potential Comprehensive Truck Management Plan (CTMP) at the Port of Oakland, which is a solution for the future of the trucking industry to provide security, operations, truck routes, parking, community involvement, local jobs and air quality improvements. The CTMP schedule is slated for

adoption by Port Commissioners in September of 2009. Staff summarized the upcoming Mobile Source Committee item regarding projects recommended for funding totaling $41,498,544, the majority of which are for truck retrofits and replacements. Outstanding issues include:

- The availability of 2009 NOx-compliant ARB certified retrofit devices;
- Confusion for drivers because the CTMP is not in place; and
- Port of Los Angeles having a CTMP that requires "employee drivers"

A number of public speakers voiced concerns about independent truck drivers' inability to pay for the costs of retrofit/replacements, health impacts, enforcement of regulations, the Port's responsibility to pass a comprehensive plan, and the deadline for CARB requirements. The Air District will work with CARB to amend their guidelines to allow trucks to continue to be utilized in the Bay Area as a whole.

The Committee then considered staff's recommendation for Board of Directors approval of the "San Francisco Bay Area Green Ports Initiative – Program Description and Plan, which is an initiative intended to reduce emissions using regulations and grants at Bay Area Ports. Three program elements of the initiative include: 1) Enforcement of ARB regulations on Port mobile sources; 2) grants for earlier or greater emission reductions than required by regulations; and 3) targeting and evaluation of efforts through inventories, monitoring and outreach.

The Air District expects to apply for another $35 million for the next fiscal year with a large portion devoted to truck replacements.

The Committee recommends that the Board of Directors approve the Green Ports Initiative program description and plan with the inclusion of a timeline of documents and agreements that need to be in place during the coming year. The next meeting of the Committee is at the call of the Chair.

I move that the Board of Directors approve the report and recommendation of the Ad Hoc Committee on Port Emissions.

Board Action: Director Miley made a motion to approve the San Francisco Bay Area Green Ports Initiative–Program Description Plan; seconded by Director Smith; carried unanimously without opposition.

Directors briefly discussed with Mr. Broadbent the progress regarding the Port of Oakland, proposed adoption of the MAQIP, user fee, electrification at berths, and issues relating to an employer model for independent truckers.

PUBLIC HEARING:

13. Public Hearing to Consider Adoption of proposed amendments to Air District Regulation 8, Rule 20: Graphic Arts Printing and Coating Operations, amendments to Regulation 2, Rule 1: Permits, and amendments to Regulation 3: Fees, Schedule R: Equipment Registration Fees, and Adoption of a CEQA Negative Declaration.

Proposed amendments to Regulation 8, Rule 20 would reduce emissions from printing presses by reducing the allowable volatile organic compound (VOC) content in flexographic ink on porous substrates and in press cleaning products for all presses, and by subjecting lower-emitting printing facilities to the requirements of the rule. The lower-emitting facilities would be required to register with the District but would not need a permit. Proposed amendments to Regulation 2, Rule 1 would align the permitting requirements with the applicability limits in Regulation 8, Rule 20 and amendments to Regulation 3 would set registration fees for these facilities

Air Quality Specialist II, William Thomas Saltz, gave an overview of the proposed amendments to Regulation 8, Rule 20: Graphic Arts Printing and Coating Operations. At the November 5, 2008, a minor change in the text of the Rule was omitted from the final Rule amendment. Having not published this sentence, the Health and Safety Code requires the item be brought forward for adoption at this public hearing. The text is now correctly incorporated, comments have been received since the last meeting, but no other changes are proposed to the Rule.

Public Comments:

Burt Kallander, Bradbury and Bradbury Wallpapers, Benicia, said he had attended the November 5th meeting and has since learned that their small business will not be impacted by the Rule and he supported its approval.

The public hearing was closed.

Board Action: Director Wagenknecht made a motion to adopt the proposed amendments to Regulation 8: Organic Compounds, Rule 20: Graphic Arts Printing and Coating Operations, including a revision to Section 8-20-306; Adopt proposed amendments to Regulation 3: Fees, Schedule R: Equipment Registration Fees; Adopt proposed amendments to Regulation 2: Permits, Rule 1: General Requirements; and Adopt a California Environmental Quality Act (CEQA) Negative Declaration; seconded by Director Kishimoto; which was carried by the following roll call vote: (15-0-7) Ayes: Daly, Dunnigan, Garner, Kishimoto, Klatt, Kniss, McGoldrick, Ross, Shimansky, Silva, Smith, Torliatt, Uilkema, Wagenknecht and Hill. Noes: None; Absent: Gates, Brown, Gioia, Haggerty, Lockhart, Miley and Yeager.

PROCLAMATION/COMMENDATION

Incoming Chairperson Pamela Torliatt, on behalf of the entire Board of Directors, recognized outgoing Chairperson Jerry Hill for his dedicated leadership and service to air quality in the Bay Area. She cited accomplishments of adoption and implementation of a landmark greenhouse gas fee schedule, the acquisition of $1.3 million in fees, adoption of the wood-burning device regulation, historic partnerships with CARB and the Port of Oakland, and significant efforts in cleaning up air pollution at the Port and in and around the Bay Area. She then presented him with a crystal gavel, base and service plaque, as well as a framed photograph of the Board of Directors with articles from the New York Times and Contra Costa Times on the Wood Smoke Rule. The Board congratulated outgoing Chairperson Hill and wished him continued success and happiness as Assembly member-elect.

Outgoing Chairperson Hill thanked the Board and spoke briefly of his public service career involving air quality and improvements. He then recognized Executive Officer/APCO Jack Broadbent for his 5 years of service, citing his vision and accomplishments, and welcomed incoming Chairperson Torliatt.

CLOSED SESSION

7. **Conference with Legal Counsel – Existing Litigation**
Pursuant to Government Code Section 54956.9(a), a need exists to meet in closed session with legal counsel to consider the following case(s):

Peter Rogosin v. Bay Area AQMD, et al., San Francisco Superior Court Case No. CGC 08 478154

OPEN SESSION

Report of Closed Session: District Counsel Brian Bunger reported that the Board of Directors had met in Closed Session, received advice from Counsel and reached an agreement to waive some conflict of interests.

8. **Report of the Executive Officer/APCO**

Mr. Broadbent gave the following report:

- Tonight is a Spare the Air Night. The Air District is anticipating higher levels of wood smoke and staff is employing outreach and enforcement resources;
- A successful and well-attended meeting was held on Saturday from 10:00 AM to 1:00 PM with Air District staff and Bayview-Hunters Point representatives, and a pilot home filter program was discussed for implementation;
- Mr. Broadbent thanked Chairperson Hill for his outstanding leadership, and on behalf of the Air District, presented him with a framed picture of San Mateo's clean air.

9. **Chairperson's Report** - None

10. **Board Member's Comments**

Director Shimansky discussed upcoming scheduled Board and Committee meetings. Director Garner announced his wife will be replacing him on the Board of Directors, as she recently won election to the City of Monte Sereno City Council.

11. **Time and Place of Next Meeting –** 9:45 a.m., Wednesday, December 3, 2008, 939 Ellis Street, San Francisco, CA 94109.

12. **Adjournment -** The meeting adjourned at 11:23 a.m.

Lisa Harper
Clerk of the Board

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Pamela Torliatt and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2008

Re: Board Communications Received from November 19, 2008 through December 2, 2008

RECOMMENDED ACTION

Receive and file.

DISCUSSION

A list of Communications directed to the Board of Directors' received by the Air District from November 19, 2008 through December 2, 2008, if any, will be at each Board member's place at the November 3, 2008, Regular Board meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

AGENDA: 3

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Pamela Torliatt and Members of the Board of Directors

From: Jack P. Broadbent
Executive Officer / APCO

Date: November 24, 2008

Re: 2009 Regulatory Agenda

RECOMMENDED ACTION

Receive and file.

DISCUSSION

Each year, the District is required by Health and Safety Code section 40923 to publish a list of regulatory measures scheduled or tentatively scheduled for consideration during the next calendar year. If a measure is not on this list, it may not be brought before the Board of Directors unless it is necessary (1) to satisfy federal requirements, (2) to abate a substantial endangerment to public health or welfare, (3) to comply with state toxic air contaminant requirements, (4) to comply with an ARB requirement that the District adopt contingency measures due to inadequate progress towards attainment, (5) to preserve an existing rule's "original intent," or (6) to allow for alternative compliance under an existing rule.

The attached list includes all measures that may come before the Board in 2009. Some of the measures fall within exceptions listed above but are nevertheless included for completeness. Control measures from the 2005 Ozone Strategy are included. There is no expectation that all of the measures on the list will be enacted during the calendar year. Rules are listed in numerical order as they appear in the District Rules and Regulations.

All new rules and rule amendments must be adopted at a public hearing conducted by the District's Board of Directors. Public comment is accepted at these hearings. Public notice of hearings is provided as required by law. In addition, the District conducts public workshops and provides opportunities for oral and written comments before scheduling a rule for public hearing. Information on workshops, hearings, and other rule development issues may be obtained from the District website at www.baaqmd.gov/pln/ruledev/index.asp or by calling the Planning, Rules and Research Division at (415) 749-4664.

BUDGET CONSIDERATION/FINANCIAL IMPACTS

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer / APCO

Prepared by: Daniel Belik
Approved by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
2009 REGULATORY MEASURES LIST

Control Measure [1]	Regulation, Rule	Title	Objective [2]
	Reg. 1	General Provisions and Definitions	Clarify and enhance District policies
	Reg. 2, Rule 1	General Requirements (Permits)	EPA, CARB policy; State law, clarifications
	Reg. 2, Rule 2	New Source Review	EPA policy, State law
	Reg. 2, Rule 4	Emissions Banking	Clarifications
	Reg. 2, Rule 5	New Source Review for Toxic Air Contaminants	Clarifications
	Reg. 2, Rule 6	Major Facility Review (Title V)	EPA policy, clarifications
	Reg. 2, Rule 9	Interchangeable Emission Reduction Credits	Clarifications
FS-18	Reg. 3	Fees	Cost recovery
	Reg. 5	Open Burning	Clarifications
	Reg. 6, Rule 3	Wood Burning Devices	Clarifications
	Reg. 7	Odorous Substances	Clarifications
	Reg. 8, All	General Provisions	Applicability, VOC definition
	Reg. 8, Rule 2	Miscellaneous Operations	Clarifications
FS-2	Reg. 8, Rule 3	Architectural Coatings	Reduce emissions
FS-8	Reg. 8, Rule 4	General Solvent and Surface Coating Operations	Reduce emissions
	Reg. 8, Rule 6	Organic Liquid Bulk Terminals and Bulk Plants	Clarifications
	Reg. 8, Rule 7	Gasoline Dispensing Facilities	Reduce emissions
FS-8	Reg. 8, Rule 16	Solvent Cleaning Operations	Clarifications, reduce emissions
	Reg. 8, Rule 17	Petroleum Dry Cleaning Operations	Reduce missions
FS-12	Reg. 8, Rule 18	Equipment Leaks	Reduce emissions
SS-2	Reg. 8, Rule 20	Graphic Arts Operations	Clarifications, reduce emissions, EPA policy
	Reg. 8, Rule 22	Valves and Flanges at Chemical Plants	Clarifications
	Reg. 8, Rule 28	Episodic Releases from Pressure Relief Devices at Petroleum Refineries and Chemical Plants	Clarifications, flexibility
SS-5	Reg. 8, Rule 32	Wood Products Coatings	Reduce emissions
SS-7	Reg. 8, Rule 33	Gasoline Bulk Terminals and Gasoline Delivery Vehicles	Reduce emissions, clarifications
	Reg. 8, Rule 34	Solid Waste Disposal Sites	Incorporate ARB guidance, reduce emissions
	Reg. 8, Rule 37	Natural Gas and Crude Oil Production Facilities	Reduce emissions
SS-7	Reg. 8, Rule 39	Gasoline Bulk Plants and Gasoline Delivery Vehicles	Reduce emissions, clarifications
	Reg. 8, Rule 40	Aeration of Contaminated Soil and Removal of Underground Storage Tanks	Clarifications
SS-1	Reg. 8, Rule 45	Motor Vehicle and Mobile Equipment Coating Operations	Reduce emissions

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
2009 REGULATORY MEASURES LIST

Control Measure [1]	Regulation, Rule	Title	Objective [2]
	Reg. 8, Rule 49	Aerosol Paint Products	Consistency with ARB standards
SS-4	Reg. 8, Rule 50	Polyester Resin Operations	Reduce emissions
FS-1	Reg. 8, Rule 51	Adhesive and Sealant Products	Reduce emissions
	Reg. 8, Rule 52	Polystyrene, Polypropylene and Polyethylene Foam Product Mfg Ops.	Clarifications
SS-3	Reg. 8, Rule TBD	High Emitting Spray Booths	Reduce emissions
FS-4	Reg. 8, Rule TBD	Composting Operations	Reduce emissions
FS-6	Reg. 8, Rule TBD	Livestock Waste	Reduce emissions
	Reg. 8, Rule TBD	Episodic Controls	Reduce emissions
FS-9	Reg. 8, Rule TBD	Cooling Towers	Reduce emissions
FS-11	Reg. 8, Rule TBD	Vacuum Trucks	Reduce emissions
FS-13	Reg. 8, Rule TBD	Wastewater from Coke Cutting	Reduce emissions
	Reg. 9, Rule 1	Sulfur Dioxide	Monitoring, recording requirements
	Reg. 9, Rule 2	Hydrogen Sulfide	Monitoring, recording requirements
	Reg. 9, Rule 4	NOx from Fan Type Residential Central Furnaces	Reduce emissions
	Reg. 9, Rule 6	NOx from Natural Gas-Fired Water Heaters	Clarifications
FS-14	Reg. 9, Rule 10	NOx and CO From Boilers, Steam Generators And Process Heaters in Petroleum Refineries	Clarifications, reduce emissions
	Reg. 9, Rule TBD	NOx from Large Residential and Commercial Space Heating	Reduce emissions
	Reg. 9, Rule TBD	NOx from Kilns, Ovens and Furnaces	Reduce emissions
	Reg. 11	Hazardous Air Pollutants	Reference federal standards
	Reg. 11, Rule 1	Lead	Clarifications, reference federal standards
	Reg. 11, Rule 2	Asbestos Demolition, Renovation and Manufacturing	Clarifications
	Reg. 11, Rule 14	Asbestos-Containing Serpentine	Clarifications
	Reg. 11, Rule 16	Perchloroethylene and Synthetic Solvent Dry Cleaning Operations	Incorporate CARB rule
	Reg. 12, Rule 11	Flare Monitoring at Petroleum Refineries	Clarifications
FS-18	Reg. and Rule TBD	Indirect Source Mitigation	Reduce emissions
FS-20	Reg. and Rule TBD	Episodic Controls	Reduce emissions
	MOP, Volume I	Enforcement Procedures	Clarification, improve data submittals
	MOP, Volume II	Engineering Permitting Procedures	Consistency with EPA requirements, clarifications
	MOP, Volume III	Laboratory Methods	New and improved analytical procedures

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
2009 REGULATORY MEASURES LIST

Control Measure [1]	**Regulation, Rule**	**Title**	**Objective** [2]
	MOP, Volume IV	Source Test Methods	New and improved analytical procedures
	MOP, Volume V	Continuous Emission Monitoring	New and improved analytical procedures
	MOP, Volume VI	Ground Level Monitoring	Consistency with EPA requirements

[1] Control measure numbers given are from the Bay Area 2005 Ozone Strategy.
SS = stationary source control measure, FS = further study measure.

[2] Objectives are listed for information only and are subject to change. Rule development efforts for a rule are not limited to listed objectives.

AGENDA: 4

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Torliatt and Members of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2008

Re: Consideration of Transmittal of Air District Comment Letter on the Proposed AB 32 Scoping Plan to the California Air Resources Board

RECOMMENDED ACTION

Approve transmittal of Air District comments on Proposed AB 32 Scoping Plan.

BACKGROUND

Pursuant to AB 32, the California Global Warming Solution Act of 2006, on June 26, 2008, the California Air Resources Board released a Draft Scoping Plan outlining measures for California to achieve the AB 32 target for reducing greenhouse gas emissions to 1990 levels by 2020. After collecting and reviewing public comment on the Draft Scoping Plan, ARB subsequently released the Proposed Scoping Plan on October 3, 2008. The ARB Board heard testimony on the Proposed Scoping Plan on November 20, 2008, and it will be considered for adoption by ARB on December 11, 2008.

DISCUSSION

Air District staff has collaborated with staff from other air districts to submit written CAPCOA comments to ARB on the Proposed Scoping Plan. The Executive Officer also testified at ARB's November 20, 2008 public hearing on the Proposed Scoping Plan. Staff also proposes that Chair Torliatt submit comments to ARB on behalf of the District. The proposed letter is attached. The comments recommend that ARB:

- Recognize the appropriateness of local air districts to implement greenhouse gas reduction rules applying to sources within their jurisdiction;
- Acknowledge the establishment of cost recovery mechanisms by implementing agencies;
- Expand the breadth of protocols under development and designate resources to accelerate protocol development in a collaborative and transparent manner;
- Clearly articulate a collaborative process with local air districts to develop a workplan for local air district participation in AB 32 implementation; and

- Increase of the anticipated reduction from local land use planning beyond the 5 MMT currently identified and include clearly defined resources from the state to support local climate protection efforts.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Abby Young
Reviewed by: Henry Hilken

December 3, 2008

Mary Nichols, Chairman
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Chairman Nichols:

ALAMEDA COUNTY
Tom Bates
(Secretary)
Scott Haggerty
Janet Lockhart
Nate Miley

CONTRA COSTA COUNTY
John Gioia
Mark Ross
Michael Shimansky
Gayle B. Uilkema

MARIN COUNTY
Harold C. Brown, Jr.

NAPA COUNTY
Brad Wagenknecht
(Vice-Chairperson)

SAN FRANCISCO COUNTY
Chris Daly
Jake McGoldrick
Gavin Newsom

SAN MATEO COUNTY

Carol Klatt

SANTA CLARA COUNTY
Erin Garner
Yoriko Kishimoto
Liz Kniss
Ken Yeager

SOLANO COUNTY
John F. Silva

SONOMA COUNTY
Tim Smith
Pamela Torliatt
(Chairperson)

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

The Bay Area Air Quality Management District (Air District) commends the California Air Resources Board (ARB) for the significant achievement it has made in preparing a far-reaching and aggressive Climate Change Proposed Scoping Plan for AB 32 implementation. It is clear that a great deal of thoughtful effort and collaboration has gone into the development of the Plan and we praise you and ARB staff on this tremendous effort.

Global climate change is arguably one of the greatest challenges faced by humankind in the twenty-first century. In the Bay Area we will be facing rising temperatures that make it ever more difficult to attain compliance with state and federal clean air standards, reduced snowpack that limits our water supplies, and rising sea levels that will threaten existing public and private infrastructure. Since establishing its Climate Protection Program in 2005, the Air District has made climate protection a top priority. The Air District seeks to support and complement current climate protection programs in the state and the region, stimulate additional emission reduction efforts through public education, outreach, and technical assistance to local governments and other interested parties, and promote collaboration among stakeholders. It is in this spirit of collaboration that the Air District shares the following recommendations with ARB to strengthen the Proposed Scoping Plan implementation.

1) Recognizing that local air districts already have established relationships with stationary sources of greenhouse gas emissions, and programs in place to permit, regulate and verify emissions from those sources, the Air District recommends that ARB recognize the appropriateness of local air districts to implement greenhouse gas reduction rules applying to sources within their jurisdiction.

2) Due to the costs associated with rule development, administration and enforcement activities, the Air District recommends that ARB acknowledge the establishment of cost recovery mechanisms by implementing agencies. Such mechanisms may include direct fees or upstream funding provided by the state.

3) The Air District has participated in ARB's protocol development and recommends that ARB expand the breadth of protocols under development and designate resources to accelerate protocol development in a collaborative and transparent manner.

4) Given the clear role local air districts play in regulating stationary sources of criteria pollutants, toxic air contaminants and greenhouse gas emissions, through rule development, permitting and compliance, the Air District recommends that ARB clearly articulate a collaborative process with local air districts to develop a workplan for local air district participation in AB 32 implementation.

5) Finally, the Air District recommends that the Scoping Plan lay out a stronger role for local land use planning in the overall emission reduction strategy. This should be reflected in a significant increase of the anticipated reduction from local land use planning from the 5 MMT figure currently listed in the Plan. In order to empower local governments to accelerate their implementation of emission-reducing policies and projects, the Air District recommends that the Scoping Plan include clearly defined resources from the state to support local efforts, such as increased funding and financing, additional quantification protocols, and targeted technical assistance. The attached principles from the Air District's Advisory Council address these and other issues.

The Air District supports the resolution language submitted by CAPCOA (attached) as a mechanism for addressing these Scoping Plan implementation issues.

On behalf of the Bay Area Air Quality Management District, I applaud the work that you and your staff have done to date on the Scoping Plan. The Air District looks forward to continued collaboration and partnership with ARB in implementing the strongest climate protection strategy in the country.

Sincerely,

Pamela Torliatt
Chair, Board of Directors
Bay Area Air Quality Management District

Attachment(s)

Advisory Council Principles
CAPCOA Resolution

Bay Area Air Quality Management District
Advisory Council Principles on the AB 32 Scoping Plan

Adopted October 1, 2008

1. Climate protection actions can and should reinforce current efforts to reduce criteria and toxic air contaminants. Other benefits include lower heating and cooling costs, reduced water use and improvements in energy efficiency and public health;
2. Given that the transportation sector contributes approximately 40% of all global warming emissions in California, the Scoping Plan needs to include more aggressive emission reduction targets for land use and transportation. The plan should encourage efficient, non-auto dependent growth and compact development close to resources, jobs and transit;
3. By taking a strong leadership role now, California will realize compounded and co-occurring benefits from future land use and transportation planning undertaken now. Actions not taken will cost all Californians more in the future;
4. Given that bus and train ridership is at an all-time high in California and that transit agencies are chronically underfunded, the Scoping Plan needs to address crucial transit investments and promote transportation efficiency to give Californians better transportation options, including biking and walking;
5. The California Air Resources Board (CARB) should set firm targets for regions but authorize regions and localities to choose from a flexible set of policy tools to achieve the targets. Targets need to be set using a transparent, justifiable methodology, and once set progress should be measured in the same process and reviewed in shorter timeframes in order for it to be consistent over the years;
6. The Air District supports the adoption of a series of key policy tools currently under consideration, including the Indirect Source Rule, Pay-As-You Drive Insurance, Congestion Pricing and incentive programs. Other innovative measures could include alternative parking management practices (e.g. the “SFPark Program), speed reduction measures and new carbon fees to assist and reward jurisdictions successful in meeting planned targets;
7. The plan should make it a top priority to invest in and sustain public transportation and programs to improve transportation efficiency and reduce congestion. In many cases, the state, regions, and local agencies can simply redirect funds they are already going to spend. For instance, the statewide plan should encourage metropolitan planning organizations to re-examine committed funds in their long-term transportation plans;
8. Cities, counties and regions should be given incentives to develop in less fire-prone areas, manage vegetation and conserve forests and agriculture in order to sequester carbon and improve air quality.

CAPCOA Recommended Additions to the Adopting Resolution for the Proposed Scoping Plan

WHEREAS, the CARB Board wishes to ensure efficient and effective implementation of the Scoping Plan and its implementing regulations and programs; and

WHEREAS, the CARB Board believes the existing air pollution control program provides a sound platform for state direction and oversight of local implementation and enforcement of greenhouse gas requirements for stationary sources; and

WHEREAS, the CARB Board wishes to promote integration of requirements for stationary sources across criteria, toxic, and greenhouse gas air pollution programs, and to minimize duplication, redundancy, and costs;

THEREFORE BE IT RESOLVED, that the CARB Board directs staff that as state rules are developed for sources that are under local air district permitting and/or compliance programs that enable permitting and enforcement of these rules at the local level to maximize administrative efficiency and take advantage of the expertise and resources that are available; and

BE IT FURTHER RESOLVED, that the CARB Board directs staff to propose in each rule, a mechanism for cost recovery where local air districts would collect fees for rules that they are implementing, and pass a portion of the fees on to CARB, as appropriate, and to provide local air districts the option to adjust their portion of the fees, if needed; and

BE IT FURTHER RESOLVED, that the CARB Board directs staff to devote resources to work with CAPCOA on development of additional emission quantification protocols and to review and consider approval of the protocols in a timely manner; and

BE IT FURTHER RESOLVED, that the CARB Board directs staff to work with CAPCOA to develop a workplan for air district participation in AB 32 implementation (i.e., permitting, enforcement, protocol development, emission inventory, local government outreach, and other applicable areas) and bring the workplan to the CARB Board for review and approval in Spring 2009.

AGENDA: 5

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Pamela Torliatt and Members of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 24, 2008

Re: Update on Recent Actions by the Port of Oakland

RECOMMENDED ACTION:

Staff recommends that the Board of Directors adjust the recommendation of the Mobile Source Committee regarding grants for drayage truck retrofits and replacements to reduce the level of funding by $5 million, given the action by the Port Board of Commissioners on November 19, 2008.

BACKGROUND

At the November 19, 2008 meeting of the Board of Directors, the Board received a report of the November 17th meeting of the Ad Hoc Committee on Port Emissions. The report included updates on the Port of Oakland Maritime Air Quality Improvement Plan (MAQIIP), the Air District Green Ports Initiative, and the Port of Oakland Comprehensive Truck Management Plan. The report and the ensuing discussion indicated that the Port of Oakland Board of Commissioners would be meeting on November 19th (in the afternoon) to discuss the Port's clean truck program, and the Port Maritime Committee would be meeting on November 20th to discuss the MAQIP and user (or container) fees. This report provides an update on the actions taken by the Port at these two meetings.

DISCUSSION

At the Board of Port Commissioners' meeting on November 19th, the Port Board decided to postpone the $5 million in funding for drayage truck retrofits that the Port had already committed to the Air District via a Memorandum of Understanding.

Additionally, at the Port Maritime Committee meeting on November 20th, the Committee pulled the items regarding the MAQIP and the user fee from consideration at this time.

Given the Board of Port Commissioners' inaction at this time, an adjustment to the Mobile Source Committee recommendations regarding Port drayage truck funding will be needed to reduce the level of funding by $5 million. With this change, staff

recommends that the Board approve the Mobile Source Committee grant recommendations in order to reduce the health risks in the West Oakland community. In the near future, the Air District will have to consider the ramifications of the lack of user fee revenues from the Port of Oakland for emission reduction projects to reduce health risks in the West Oakland community.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

No impact on the Air District budget; however, the recommendation for grant funding from the Mobile Source Committee will need to be reduced by $5 million due to the postponement of the Port's contribution.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Pamela Torliatt and Members of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2008

Re: Report of the Personnel Committee Meetings of November 13 and 24, 2008

RECOMMENDED ACTION

Approve Committee recommendation of nine (9) appointments and four (4) reappointments to the Air District's Advisory Council. The appointments will be effective January 1, 2009 and end December 31, 2011.

BACKGROUND

The Personnel Committee met on November 13 and 24, 2008 to conduct interviews of candidates to fill expired terms of office and to consider the appointment and reappointment of incumbent members to the Air District's Advisory Council. Based on the Committee's review of candidates' background and responses to interview questions, the Personnel Committee recommends approval of the following candidates for appointment:

Jennifer Bard	Conservation Organization
Benjamin Bolles	General Contractor
Stanley Hayes	General Public
Rosanna Lerma	Registered Professional Engineer
Jane Martin	Public Health Agency
Sarah Martin-Anderson	Public Health Agency
Neal Osborne	Community Planning
Jonathan Ruel	Agriculture
Dorothy Vura-Weis	Public Health Agency

The Personnel Committee recommends approval of the following candidates for re-appointment:

Robert Bornstein	Colleges & Universities
John Holtzclaw	Conservation Organization
Robert T.P. Huang	Public Member
Louise Wells Bedsworth	Transportation

Attached are the staff reports submitted to the Personnel Committee for the November 13 and 24, 2008 meetings.

Chairperson Brown will provide an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACTS:

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Kristianna Ledsema
Reviewed by: Mary Ann Goodley

Attachment(s)

AGENDA: 4

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Harold Brown and
Members of the Personnel Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 3, 2008

Re: Conduct Interviews and Consider Recommending Board of Directors' Approval of Candidates for Appointment to the Air District's Advisory Council

RECOMMENDED ACTION:

Conduct interviews and consider recommending Board of Directors' approval of appointment of candidates to fill twelve (12) Advisory Council positions.

BACKGROUND:

Pursuant to Section 40261 of the California Health and Safety Code the District is required to maintain an Advisory Council consisting of 20 members. Further, section 40262 requires that the member categories consist of at least three representatives of public health agencies; at least four representatives of private organizations active in conservation or protection of the environment within the bay district; at least one representative of colleges or universities in the state; and at least one representative of each of the following groups within the bay district: regional park district, park and recreation commissions or equivalent agencies of any city, public mass transportation system, agriculture, industry, community planning, transportation, registered professional engineers, general contractors, architects, and organized labor. To the extent that suitable persons cannot be found for each of the specified categories, council members may be appointed from the general public. The new terms would expire on December 31, 2010.

DISCUSSION:

The terms of office for the following categories will expire on December 31, 2008: agriculture, architect, colleges & universities, community planning, conservation organization, general contractor, public, public health agency, registered professional engineer, and transportation. Of the twelve positions with terms expiring, six incumbents have expressed an interest in re-appointment. After extensive recruitment and outreach efforts, a total of thirteen non-incumbents applied. The Human Resources Office has screened each candidate's experience and education relative to the position for which the candidate applied and has selected twelve candidates with the most relevant experience to interview with the Personnel Committee.

Interviews of the twelve non-incumbent candidates will take place on Thursday, November 13, 2008 and will begin at 10:50 am. The length of each interview will be approximately fifteen minutes. The application materials of the eleven candidates are included for your review.

Incumbent candidates (those seeking re-appointment) will not be scheduled for an interview, but information on their attendance and leadership roles is included for your review.

The candidates to be interviewed are listed below, along with the position they seek. The name of the current incumbent is shown in bolded letters.

Agriculture	Jonathan Ruel **(William Hanna)**
Community Planning	Stanley Hayes Neal Osborne **(Linda Weiner)**
Conservation Organization	Jennifer Bard Keith Park **(Irvin Dawid)**
General Contractor	Benjamin Bolles Neil Rauschhuber **(Fred Glueck)**
Public Health Agency	Jane Martin Sarah Martin-Anderson Dr. Dorothy Vura-Weis **(Brian Zamora)**
Registered Professional Engineer	Veronica Jacobi Rosanna Lerma **(Sam Altshuler)**

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

AGENDA: 4

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Brown and
Members of the Personnel Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 17, 2008

Re: Conduct an Interview and Consider Recommending Board of Directors' Approval of a candidate for the General Contractor Category on the Advisory Council

RECOMMENDED ACTION:

Conduct an interview and consider recommending Board of Directors' approval of a candidate for the General Contractor Category on the Advisory Council.

BACKGROUND

At the November 13, 2008 meeting of the Personnel Committee, the Committee interviewed candidates for vacancies on the Advisory Council. For the category of General Contractor, the Committee interviewed one candidate, Benjamin Bolles. A second candidate in that category, Neal Rauschubber, was scheduled to be interviewed but left before the interview began because of other commitments. Since there is a possibility that Mr. Bolles may not accept the position, the Committee was asked to reschedule Mr. Rauschubber for an interview.

DISCUSSION

Mr. Rauschubber is scheduled to be interviewed Monday, November 24, 2008 at 11:00 AM, at the Personnel Committee Meeting which will take place immediately following the Legislative Committee Meeting on the same date. The length of the interview will be approximately fifteen minutes. The application materials for Mr. Rauschubber are included for your review.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

AGENDA: 7

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Jerry Hill and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2008

Re: Report of the Mobile Source Committee Meeting of November 19, 2008

RECOMMENDED ACTIONS

The Committee recommends Board of Directors' approval of the following items:

A) Selection of Environmental Engineering Studies, Inc., Pick-N-Pull, and Pick Your Part as the vehicle scrapping contractors for the fiscal year (FY) 2008/2009 Vehicle Buy Back Program; and authorization for the Executive Officer/APCO to execute contracts for vehicle scrapping and related services with Environmental Engineering Studies, Inc., Pick-N-Pull, and Pick Your Part, which will distribute, on a monthly reimbursement basis, up to approximately $7 million that was allocated to the VBB Program in FY 2008/2009.

B) Staff recommendations for 41,498,544 in funding for eligible projects under the California Goods Movement Bond Projects and authorize the Executive Officer/APCO to enter into all necessary contracts to expend the requested funds.

C) Receive and file the results of the TFCA Audit Report #10, an audit of TFCA Regional Fund projects, including the auditor's findings and recommendations to improve the administration and fiscal management of the TFCA Program.

DISCUSSION

The Mobile Source Committee met on Wednesday, November 19, 2008. The Committee considered and received the following reports and recommendations:

A) Consideration of Contractor Selection for the Vehicle Buy-Back Program;

B) Consideration of $41,498,544 in California Goods Movement Bond Funding Projects; and

C) Audit of the Transportation Funds for Clean Air (TFCA) Regional Fund.

Attached are the staff reports presented in the Mobile Source Committee packet.

Chairperson, Tim Smith will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

A) None. Funds to implement the FY 2008/2009 VBB Program are included in the Air District's approved FY 2008/2009 budget.

B) None. The I-Bond Program distributes funds from ARB to the District and then to eligible equipment owners. Staff costs for the administration of the Program are included under Programs 321 "California Goods Movement Bond - Early Grants" and 323 "California Goods Movement Bond Grants" in the FY 2008/2009 budget.

The District may use motor vehicle surcharge revenues to match a portion of the eligible projects recommended for funding that qualify. As such, any matching funds allocated will have no impact on the Air District's budget.

C) None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Lisa Harper
Reviewed by: Mary Ann Goodley

Attachment(s)

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Smith and
Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 10, 2008

Re: Consideration of Contractor Selection for the Vehicle Buy-Back Program

RECOMMENDED ACTION

Recommend Board of Directors approval of:

1) Environmental Engineering Studies, Inc., Pick-N-Pull, and Pick Your Part as the vehicle scrapping contractors for the fiscal year (FY) 2008/2009 Vehicle Buy Back Program; and

2) Authorization for the Executive Officer/APCO to execute contracts for vehicle scrapping and related services with Environmental Engineering Studies, Inc., Pick-N-Pull, and Pick Your Part, which will distribute, on a monthly reimbursement basis, up to approximately $7 million that was allocated to the VBB Program in FY 2008/2009.

BACKGROUND

The Vehicle Buy Back Program (VBB) Program is a voluntary program that takes older, higher-polluting vehicles off the road. The Bay Area Air Quality Management District (Air District) contracts with vehicle dismantlers to pay Bay Area vehicle owners $650 in return for their operating and registered, 1987 and older, vehicles. The VBB Program is funded primarily through the Air District's Mobile Source Incentive Fund (MSIF), with some support from the Transportation Fund for Clean Air (TFCA) and Carl Moyer Program. Since the inception of the VBB Program in 1995, the Air District has scrapped more than 44,000 vehicles at a cost of approximately $36 million.

DISCUSSION

On September 17, 2008, the Air District issued a Request for Proposals (RFP) seeking scrapping contractors for the VBB Program. The scope of work contained in the RFP conforms to the California Air Resources Board-adopted Voluntary Accelerated Light-Duty Vehicle Retirement (VAVR) Regulation that went into effect in December 17, 2006, and the current Carl Moyer Program Guidelines. The RFP was mailed to 29 companies and posted on the Air District website. Responses to the RFP were due on October 17, 2008.

The Air District received four proposals in response to the RFP. The proposals were submitted by All Auto Dismantlers, Inc., Environmental Engineering Studies, Inc., Pick-N-Pull Auto Dismantlers, and Pick Your Part Auto Recycling.

Air District staff evaluated the proposals using five criteria set forth in the RFP and the results are summarized in the table below.

Criteria	Pick-N-Pull	Pick Your Part	Environmental Engineering Studies, Inc.	All Auto Dismantlers
Responsiveness of Proposal	10.00	10.00	10.00	7.33
Available Resources/Customer Relations	18.33	18.00	17.33	16.67
Coverage/Availability	14.33	12.67	15.00	5.67
Cost	41.33	41.33	35.00	44.33
Advertising	5.00	3.67	5.00	-
TOTAL SCORE	**89.00**	**85.67**	**82.33**	**74.00**

Staff is recommending Pick-N-Pull, Pick-Your-Part and Environmental Engineering for approval as scrapping contractors. All Auto Dismantlers, Inc.'s proposal ranked lowest. All Auto Dismantlers, Inc. has only one center, which is located within three blocks of an existing center. All Auto Dismantlers, Inc. also did not submit an advertising plan and instead would rely solely on the Air District's outreach efforts. For these reasons, All Auto Dismantlers, Inc. is not recommended for selection.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

Funds to implement the FY 2008/2009 VBB Program are included in the Air District's approved FY 2008/2009 budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Sylvia Wee and Michael Neward
Reviewed by: Jack M. Colbourn

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Smith and
Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 19, 2008

Re: Consideration of $41,498,544 in California Goods Movement Bond Funding Projects.

RECOMMENDED ACTION

- Staff is requesting that the Committee recommend Board of Directors approval of $41,498,544 in California Goods Movement Bond Projects and the authorization for the Executive Officer/APCO to execute contracts to expend this funding.

BACKGROUND

In November 2006, California voters authorized the Legislature to appropriate $1 billion in bond funding to the California Air Resources Board (ARB) to quickly reduce air pollution emissions and health risk from freight movement along California's priority trade corridors. On February 28, 2008, ARB approved an allocation of $140 million for the Bay Area trade corridor ($35 million per year over the next four years.)

Under the guidelines for the program, the District was then required to submit an application to ARB on April 4, 2008, for the first year of program funding ($31.1 million - less an early grant amount ($3.4 million) and administrative costs). ARB staff accepted the District's application and funding was approved by the ARB Board of Directors on May 22, 2008.

In order to expend these funds, staff opened a call for projects for Port trucks on May 16, 2008. This call for projects ended on August 15, 2008. As a result of an extensive outreach effort, the District received over $63 million in subscriptions, approximately double the $31 million available. Eligible projects have since been evaluated by staff and are presented in this document to the Committee for recommendation to the Board of Directors

DISCUSSION

Over the past weeks, staff has been working with prospective grantees to gather any remaining necessary information in order to determine eligibility and rank projects under the I-Bond guidelines. The following table is a summary of staff's recommendations for funding of projects by I-Bond category:

Table 1 - Summary of I-Bond Recommendation by Category

Category	Number of Projects Recommended	Dollar Amount Requested
Port Drayage Truck Retrofits	754	$11,310,000*
Port Drayage Truck Replacements	191	$9,579,044**
Other Goods Movement Truck Retrofits	115	$575,000
Other Goods Movement Truck Replacements	336	$16,802,500
Locomotives	4	$2,900,000
Marine Harbor Craft	2	$322,000
Total	**1,396**	**$41,498,544**

* Includes $5 million dollars in Transportation Fund for Clean Air (TFCA) and $5 million in Port of Oakland Funds
**Includes I-Bond funds transferred from Locomotive and Marine categories, TFCA and Port of Oakland Funds

A complete table of the prospective 1,396 grantees is provided in Attachment 1. Attachment 2 contains a listing of 664 projects that are also eligible for funding but did not rank high enough to be considered in this year's program. In the event that any of the projects from Attachment 1 do not proceed, they will be replaced in order with the highest-ranking projects from Attachment 2.

Upon Board of Directors approval, staff will begin pre-inspections of affected equipment per the I-Bond program guidelines and then enter into funding agreements with successful grantees.

Contingencies

While the list of projects recommended for funding is consistent with the requirements for the I-Bond program, grantees seeking retrofits are having significant problems in obtaining compliant devices. This is due to an upcoming ARB regulation which requires the retrofit devices installed to reduce nitrogen oxides (NOx) as well as diesel particulate matter (DPM) from January 1, 2009.

At present, there are only five certified devices which meet these requirements. However, many of these devices are not available through local dealerships or alternatively are impractical for the trucking industry because they require electrical plug in for cleaning.

Staff therefore proposes to give retrofit applicants until January 31, 2009 to demonstrate that they can locate and install compliant retrofit devices. On that date, staff will evaluate information received and execute contracts with grantees for all compliant retrofit devices. At that stage, any remaining funds, including TFCA and Port funds, would be applied to truck replacements.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None. The I-Bond Program distributes funds from ARB to the District and then to eligible equipment owners. Staff costs for the administration of the Program are included under Programs 321 "California Goods Movement Bond - Early Grants" and 323 "California Goods Movement Bond Grants" in the FY 2008/2009 budget.

The District may use motor vehicle surcharge revenues to match a portion of the eligible projects recommended for funding that qualify. As such, any matching funds allocated will have no impact on the Air District's budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Damian Breen
Reviewed by: Jack M. Colbourn

Attachment 1 - Other Trucks Recommended for Replacement Funding

Applicant Name	County	Project Name	Project	State Investment ($)
Nunley Engineering, Inc.	Sonoma	519-1	Replacement	$50,000
Mozzetti Trucking, Inc.	Alameda	1025-2	Replacement	$50,000
Mozzetti Trucking, Inc.	Alameda	1025-1	Replacement	$50,000
Mozzetti Trucking, Inc.	Alameda	1025-4	Replacement	$50,000
Mozzetti Trucking, Inc.	Alameda	1025-3	Replacement	$50,000
SSI Express, Inc.	San Bernardino	694-1	Replacement	$50,000
Scyence Inc., dba Echo Landscape	Alameda	1195-2	Replacement	$50,000
Jorge Barajas	Santa Barbara	426-1	Replacement	$50,000
Sergio Reyes dba S&S Transport	Santa Barbara	425-1	Replacement	$50,000
Scyence Inc., dba Echo Landscape	Alameda	1194-1	Replacement	$50,000
Cochran Landscape Materials, Inc.	Alameda	499-1	Replacement	$50,000
J&S Paper Company	Contra Costa	498-1	Replacement	$50,000
David A. Beador (Beador Construction Company, Inc.	Riverside	758-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-17	Replacement	$50,000
Gary Bale Ready Mix Concrete	Orange	1093-1	Replacement	$50,000
Omar Bobadilla	Yolo	390-1	Replacement	$50,000
Villa Park Trucking, Inc.	San Bernardino	946-1	Replacement	$50,000
Heitz Trucking, Inc.	Alameda	292-1	Replacement	$50,000
Jaime Barajas dba Barajas Transport	Santa Barbara	395-1	Replacement	$50,000
Heitz Trucking, Inc.	Alameda	292-2	Replacement	$50,000
Customer Truck	Humboldt	1157-1	Replacement	$50,000
Donald Clift (Villa Park Trucking)	Orange	939-1	Replacement	$50,000
Monaghan Enterprises, Inc. dba Cross City Express	Alameda	653-2	Replacement	$50,000
Kevin Robinson (Robinson Construction)	Sonoma	1179-1	Replacement	$50,000
Jesse Amaral	Sonoma	1146-7	Replacement	$50,000
Customer Truck	Humboldt	1157-2	Replacement	$50,000
Adolfo Padilla dba Eagles Trucking	Santa Clara	509-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-31	Replacement	$50,000
Jesse Amaral	Sonoma	1146-3	Replacement	$50,000
Jesse Amaral	Sonoma	1146-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-30	Replacement	$50,000
Jesse Amaral	Sonoma	1146-6	Replacement	$50,000
J&S Paper Company	Contra Costa	498-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-11	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-1	Replacement	$50,000
Jesse Amaral	Sonoma	1146-4	Replacement	$50,000
Jesse Amaral	Sonoma	1146-8	Replacement	$50,000
Rock Transport, Inc.	Alameda	1089-2	Replacement	$50,000
Jesse Amaral	Sonoma	1146-2	Replacement	$50,000
Sulakhan Singh (H & H Transportation	Alameda	1013-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-54	Replacement	$50,000
Kevin Robinson (Robinson Construction)	Sonoma	1179-2	Replacement	$50,000
Jorge Aguayo (La Perla Del Pacifico, Inc.)	Monterey	941-4	Replacement	$50,000
Parmjit Singh (Binda Trucking)	Contra Costa	944-1	Replacement	$50,000
Michael Dusi Trucking, Inc.	San Luis Obispo	1073-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-12	Replacement	$50,000
Parmjit Singh (Binda Trucking)	Contra Costa	944-2	Replacement	$50,000
Sulakhan Singh (H & H Transportation	Alameda	1013-2	Replacement	$50,000
Sulakhan Singh (H & H Transportations)	Alameda	1012-1	Replacement	$50,000
Juan A. Navarrete (St. John's Transport)	Contra Costa	636-5	Replacement	$50,000
Jesse Amaral	Sonoma	1146-5	Replacement	$50,000
Jorge Aguayo (La Perla Del Pacifico, Inc.)	Monterey	941-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-10	Replacement	$50,000
Juan A. Navarrete (St. John's Transport)	Contra Costa	636-3	Replacement	$50,000
Juan A. Navarrete (St. John's Transport)	Contra Costa	636-1	Replacement	$50,000
Jorge Aguayo (La Perla Del Pacifico, Inc.)	Monterey	941-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-20	Replacement	$50,000

Attachment 1 - Other Trucks Recommended for Replacement Funding

Applicant Name	County	Project Name	Project	State Investment ($)
CamKal Industrial Transport, LLC(Aleta Bryant J.D)	San Francisco	844-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-16	Replacement	$50,000
Cochran Landscape Materials, Inc.	Alameda	499-3	Replacement	$50,000
Expressway Transport Inc.	Sonoma	1151-1	Replacement	$50,000
Jose Diaz Tamayo/Martha Diaz (Gepetto's Trucking)	Contra Costa	400-1	Replacement	$50,000
KVS Inc.	Mendocino	1158-12	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-13	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-7	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-46	Replacement	$50,000
Pete Skikos (SS Skikos Trucking, Inc.)	Sonoma	658-1	Replacement	$50,000
Doaba Enterprises, LLC	Santa Clara	548-1	Replacement	$50,000
KVS Inc.	Mendocino	1158-4	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-19	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-45	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-18	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-51	Replacement	$50,000
David A. Beador (Beador Construction Company, Inc.	Riverside	758-2	Replacement	$50,000
Reuser Inc.	Sonoma	1150-1	Replacement	$50,000
Michael Dusi Trucking, Inc.	San Luis Obispo	1073-1	Replacement	$50,000
Donald Clift (Villa Park Trucking)	Orange	939-2	Replacement	$50,000
Cochran Landscape Materials, Inc.	Alameda	499-4	Replacement	$50,000
Rock Transport, Inc.	Alameda	1089-1	Replacement	$50,000
Monaghan Enterprises, Inc. dba Cross City Express	Alameda	653-3	Replacement	$50,000
Eighteen Trucking, Inc.	San Francisco	1181-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-15	Replacement	$50,000
Watsonville Coast Produce, Inc.	Santa Cruz	307-1	Replacement	$50,000
Sapinder S. Grewal (SMG Trucking)	Alameda	471-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-48	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-52	Replacement	$50,000
Michael Dusi Trucking, Inc.	San Luis Obispo	948-1	Replacement	$50,000
William Proctor	Alameda	1152-1	Replacement	$50,000
KVS Inc.	Mendocino	1158-11	Replacement	$50,000
Juan A. Navarrete (St. John's Transport)	Contra Costa	636-6	Replacement	$50,000
Cochran Landscape Materials, Inc.	Alameda	499-2	Replacement	$50,000
Scyence Inc., dba Echo Landscape	Alameda	1195-3	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-32	Replacement	$50,000
KVS Inc.	Mendocino	1158-10	Replacement	$50,000
Michael Dusi Trucking, Inc.	San Luis Obispo	948-2	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-1	Replacement	$50,000
Reuser Inc.	Sonoma	1150-3	Replacement	$50,000
Pablo Rocha Miranda	Santa Clara	165-1	Replacement	$50,000
KVS Inc.	Mendocino	1158-8	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-43	Replacement	$50,000
KVS Inc.	Mendocino	1158-2	Replacement	$50,000
Eighteen Trucking, Inc.	San Francisco	1181-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-55	Replacement	$50,000
David Garza	Santa Clara	1154-1	Replacement	$50,000
Pete Skikos (SS Skikos Trucking, Inc.)	Sonoma	658-3	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-10	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-24	Replacement	$50,000
Robert Ramorino (Roadstar Trucking, Inc.)	Alameda	659-4	Replacement	$50,000
KVS Inc.	Mendocino	1158-5	Replacement	$50,000
Robert Ramorino (Roadstar Trucking, Inc.)	Alameda	659-5	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-39	Replacement	$50,000
L. Serpa Trucking, Inc.	Contra Costa	315-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-35	Replacement	$50,000
KVS Inc.	Mendocino	1158-3	Replacement	$50,000

Attachment 1 - Other Trucks Recommended for Replacement Funding

Applicant Name	County	Project Name	Project	State Investment ($)
Cattrac Construction Co., Inc.	San Bernardino	947-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-14	Replacement	$50,000
Mark Scheckla	Shasta	1148-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-8	Replacement	$50,000
SSI Express, Inc.	San Bernardino	695-1	Replacement	$50,000
Watsonville Coast Produce, Inc.	Santa Cruz	307-2	Replacement	$50,000
Vinet Lal Singh	Alameda	1095-1	Replacement	$50,000
Santa Clara Motor Transport	Santa Clara	520-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-28	Replacement	$50,000
John Ilejay (Ilejay Trucking)	Los Angeles	940-1	Replacement	$50,000
Robert Ramorino (Roadstar Trucking, Inc.)	Alameda	659-3	Replacement	$50,000
Reuser Inc.	Sonoma	1150-2	Replacement	$50,000
G/R Schultz Family LLP	Santa Clara	532-1	Replacement	$50,000
Monaghan Enterprises, Inc. dba Cross City Express	Alameda	653-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-53	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-22	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-25	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-56	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-42	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-76	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-59	Replacement	$50,000
Villa Park Trucking, Inc.	San Bernardino	946-2	Replacement	$50,000
CamKal Industrial Transport, LLC(Aleta Bryant J.D)	San Francisco	844-1	Replacement	$50,000
Mauro Alvarez (JM Hauling Company)	Santa Clara	959-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-86	Replacement	$50,000
KVS Inc.	Mendocino	1158-9	Replacement	$50,000
MAG Trucking Inc.	Alameda	912-4	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-58	Replacement	$50,000
Audberto Nevarez (A N Trucking)	Alameda	312-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-36	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-64	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-37	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-7	Replacement	$50,000
Nunley Engineering, Inc.	Sonoma	519-2	Replacement	$50,000
Doaba Enterprises, LLC	Santa Clara	548-3	Replacement	$50,000
Doaba Enterprises, LLC	Santa Clara	548-2	Replacement	$50,000
MAG Trucking Inc.	Alameda	912-3	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-3	Replacement	$50,000
A/E Unlimited dba Quick Mix Concrete	San Mateo	1082-1	Replacement	$50,000
Kenneth Combs/Vicki Combs	Los Angeles	427-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-33	Replacement	$50,000
Mark Scheckla	Shasta	1148-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-27	Replacement	$50,000
James Atkins (Jimmy Atkins Transportation)	Santa Clara	942-1	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-8	Replacement	$50,000
Robert Ramorino (Roadstar Trucking, Inc.)	Alameda	659-1	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-6	Replacement	$50,000
MAG Trucking Inc.	Alameda	912-7	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-5	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-79	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-3	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-4	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-47	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-50	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-87	Replacement	$50,000
Maykel Romero	Alameda	518-1	Replacement	$50,000
Galletti & Sons, Inc.	Contra Costa	656-1	Replacement	$50,000

Attachment 1 - Other Trucks Recommended for Replacement Funding

Applicant Name	County	Project Name	Project	State Investment ($)
Gamberg Metals Co., Inc.	Los Angeles	424-2	Replacement	$50,000
Carlos Amaya	Alameda	914-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-40	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-62	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-9	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-11	Replacement	$50,000
Galletti & Sons, Inc.	Contra Costa	656-4	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-6	Replacement	$50,000
Robert Ramorino (Roadstar Trucking, Inc.)	Alameda	659-2	Replacement	$50,000
Charles King	Contra Costa	901-1	Replacement	$50,000
Rock Transport, Inc.	Alameda	1089-3	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-63	Replacement	$50,000
Don White (Don's Trucking)	Alameda	1030-1	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-3	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-38	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-41	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-77	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-29	Replacement	$50,000
Gene Kelly	San Mateo	1092-1	Replacement	$50,000
Salvation Army	Los Angeles	618-18	Replacement	$50,000
Salvation Army	Los Angeles	618-3	Replacement	$50,000
Galletti & Sons, Inc.	Contra Costa	656-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-78	Replacement	$50,000
Pozas Brothers Trucking, Inc.	Alameda	431-1	Replacement	$50,000
Arborguard, Inc. dba Arborwell, Inc.	Alameda	491-1	Replacement	$50,000
MAG Trucking Inc.	Alameda	912-5	Replacement	$50,000
MAG Trucking Inc.	Alameda	912-2	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-6	Replacement	$50,000
B & B Paving	Contra Costa	1149-4	Replacement	$50,000
Michael Whimple dba Road Warrier Trucking	San Mateo	690-1	Replacement	$50,000
B & B Paving	Contra Costa	1149-2	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-14	Replacement	$50,000
Stockton Enterprise SLS Inc.	San Joaquin	945-1	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-9	Replacement	$50,000
B & B Paving	Contra Costa	1149-3	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-5	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-7	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-57	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-8	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-3	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-5	Replacement	$50,000
F S Trucking Co. Inc.	Santa Clara	463-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-26	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-61	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-4	Replacement	$50,000
Gap Equipment LLC	Los Angeles	423-1	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-10	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-73	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-6	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-5	Replacement	$50,000
Keith Dick or Lorraine Dick	Santa Clara	1080-1	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-11	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-4	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-17	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-16	Replacement	$50,000
Gamberg Metals Co., Inc.	Los Angeles	424-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-21	Replacement	$50,000

Attachment 1 - Other Trucks Recommended for Replacement Funding

Applicant Name	County	Project Name	Project	State Investment ($)
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-9	Replacement	$50,000
KVS Inc.	Mendocino	1158-7	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-8	Replacement	$50,000
E. M. Blair Trucking	Contra Costa	702-1	Replacement	$50,000
Susan Jones	Alameda	1156-1	Replacement	$50,000
Ed Anglemyer/Sons, Inc. (Anglemyer Crane Rental)	Los Angeles	489-1	Replacement	$50,000
A/E Unlimited dba Quick Mix Concrete	San Mateo	1082-2	Replacement	$50,000
Donald Clift (Villa Park Trucking)	Orange	939-3	Replacement	$50,000
Delta Steel Erectors	Solano	394-1	Replacement	$50,000
Santa Clara Motor Transport	Santa Clara	520-1	Replacement	$50,000
Los Altos Garden Supply	Santa Clara	298-1	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-10	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-2	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-9	Replacement	$50,000
Ed Anglemyer/Sons, Inc. (Anglemyer Crane Rental)	Los Angeles	489-2	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-65	Replacement	$50,000
Salvation Army	Los Angeles	618-15	Replacement	$50,000
A&E Unlimited Lse dba QuickMixConcrete	San Mateo	605-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-44	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-68	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-70	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-69	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-85	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-2	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-4	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-71	Replacement	$50,000
Salvation Army	Los Angeles	618-20	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-7	Replacement	$50,000
Salvation Army	Los Angeles	618-2	Replacement	$50,000
Salvation Army	Los Angeles	618-1	Replacement	$50,000
Salvation Army	Los Angeles	618-17	Replacement	$50,000
Monaghan Enterprises, Inc. dba Cross City Express	Alameda	653-5	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-12	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-74	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-67	Replacement	$50,000
Salvation Army	Los Angeles	618-14	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-14	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-13	Replacement	$50,000
Diversified CPC International, Inc.	Orange	487-1	Replacement	$50,000
CA Roofing/Building Supply dba CA Shingle & Shake	Contra Costa	516-3	Replacement	$50,000
MAG Trucking Inc.	Alameda	912-1	Replacement	$50,000
BD&G Sandblasting	Los Angeles	488-3	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-60	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-2	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-1	Replacement	$50,000
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-15	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-83	Replacement	$50,000
Vaughn Royal	Alameda	913-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-82	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-75	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-80	Replacement	$50,000
Monaghan Enterprises, Inc. dba Cross City Express	Alameda	653-4	Replacement	$50,000
Pete Skikos (SS Skikos Trucking, Inc.)	Sonoma	658-4	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-13	Replacement	$50,000
Ed Anglemyer/Sons, Inc. (Anglemyer Crane Rental)	Los Angeles	489-3	Replacement	$50,000
Frank C. Alegre Trucking, Inc.	San Joaquin	1190-12	Replacement	$50,000
CA Roofing/Building Supply dba CA Shingle & Shake	Contra Costa	516-5	Replacement	$50,000

Attachment 1 - Other Trucks Recommended for Replacement Funding

Applicant Name	County	Project Name	Project	State Investment ($)
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-81	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-66	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-72	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-84	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-49	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-34	Replacement	$50,000
Walsh Vineyards Management, Inc.	Napa	655-2	Replacement	$50,000
BD&G Sandblasting	Los Angeles	488-2	Replacement	$50,000
CA Roofing/Building Supply dba CA Shingle & Shake	Contra Costa	516-4	Replacement	$50,000
Walsh Vineyards Management, Inc.	Napa	655-1	Replacement	$50,000
CA Roofing/Building Supply dba CA Shingle & Shake	Contra Costa	516-1	Replacement	$50,000
MAG Trucking Inc.	Alameda	912-6	Replacement	$50,000
Peninsula Building Materials	Santa Clara	289-1	Replacement	$50,000
Michael Dusi Trucking, Inc.	San Luis Obispo	948-3	Replacement	$50,000
BD&G Sandblasting	Los Angeles	488-4	Replacement	$50,000
BD&G Sandblasting	Los Angeles	488-1	Replacement	$50,000
Gardner Trucking Lse (CascadeSierra)	San Joaquin	854-23	Replacement	$50,000
CA Roofing/Building Supply dba CA Shingle & Shake	Contra Costa	516-2	Replacement	$50,000
F S Trucking Co. Inc.	Santa Clara	463-2	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-8	Replacement	$50,000
DCS Trucking, Inc.	Santa Clara	643-2	Replacement	$50,000
Silvino Rodrigues (SJ Rodrigues Transportation)	Contra Costa	943-1	Replacement	$50,000
Noah Concrete Corporation	Santa Clara	852-2	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-2	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-3	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-4	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-5	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-6	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-7	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-8	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-10	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-11	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-13	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-19	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-20	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-22	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-23	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-24	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-25	Replacement	$50,000
Sloan Transport Inc. / Antioch Building Materials	Contra Costa	910-1	Replacement	$50,000
John Grifall (Grifall Trucking, Inc.)	Santa Clara	856-1	Replacement	$50,000
John Grifall (Grifall Trucking, Inc.)	Santa Clara	856-2	Replacement	$50,000
John Grifall (Grifall Trucking, Inc.)	Santa Clara	856-3	Replacement	$50,000
John Grifall (Grifall Trucking, Inc.)	Santa Clara	856-4	Replacement	$50,000
John Grifall (Grifall Trucking, Inc.)	Santa Clara	856-5	Replacement	$50,000
Shumate Enterprises, LLC	San Francisco	1085-3	Replacement	$50,000
Robert M. Grifall (Grifall Trucking, Inc.)	Santa Clara	858-1	Replacement	$50,000
Right Away Redy Mix	Alameda	285-2	Replacement	$50,000
DIMCO, Inc.	San Mateo	1020-1	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-7	Replacement	$50,000
Galletti & Sons, Inc.	Contra Costa	656-3	Replacement	$50,000

Attachment 1 - Other Trucks Recommended for Replacement Funding

Applicant Name	County	Project Name	Project	State Investment ($)
	Total Dollars	Total PM Benefits (lbs)	Total NOX Benefits (lbs)	Total Emission Benefits (NOx + PM*20) (lbs)
Total - 336 replacements	$16,800,000	310,541	4,585,185	10,796,003

Attachment 1 - Other Trucks Recommended for Retrofit

Applicant Name	County	Project Name	Project	State Investment ($)
Mike Campbell & Associates	San Bernardino	651-16	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-21	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-20	Level 3 PM Retrofit	$5,000
Sukhwinder S. Kang dba Kang Trucking	Solano	1198-1	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-13	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-23	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-22	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-24	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-12	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-9	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-14	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-6	Level 3 PM Retrofit	$5,000
Dhandwar Bros. Trucking Inc.	Alameda	318-1	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-7	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-15	Level 3 PM Retrofit	$5,000
Liwei Xue (BBC Trucking)	Alameda	351-1	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-8	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-4	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-11	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-10	Level 3 PM Retrofit	$5,000
Jose A. Chicas	Contra Costa	1022-1	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-5	Level 3 PM Retrofit	$5,000
Mario J. Ramos	Contra Costa	1021-1	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-3	Level 3 PM Retrofit	$5,000
Sloan Transport	Contra Costa	1099-4	Level 3 PM Retrofit	$5,000
Sloan Transport	Contra Costa	1099-3	Level 3 PM Retrofit	$5,000
Sloan Transport	Contra Costa	1099-2	Level 3 PM Retrofit	$5,000
Sloan Transport	Contra Costa	1099-5	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-3	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-66	Level 3 PM Retrofit	$5,000
S&W Transportation, Inc.	San Mateo	691-3	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-8	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-7	Level 3 PM Retrofit	$5,000
S&W Transportation, Inc.	San Mateo	691-1	Level 3 PM Retrofit	$5,000
Joseph Bezzi	Alameda	384-1	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-1	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-28	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-27	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-57	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-6	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-5	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-71	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-70	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-67	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-65	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-35	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-34	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-32	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-2	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-4	Level 3 PM Retrofit	$5,000
Barrett Trade/Finance Lsr/Russo Envronmtl Svc Lse	Contra Costa	648-5	Level 3 PM Retrofit	$5,000
Barrett Trade/Finance Lsr/Russo Envronmtl Svc Lse	Contra Costa	648-3	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-12	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-11	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-10	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-9	Level 3 PM Retrofit	$5,000

Attachment 1 - Other Trucks Recommended for Retrofit

Applicant Name	County	Project Name	Project	State Investment ($)
Gardner Trucking/Dirksen Transportation	San Joaquin	650-8	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-7	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-6	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-60	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-59	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-58	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-29	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-18	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-17	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-16	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-15	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-14	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-13	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-37	Level 3 PM Retrofit	$5,000
Barrett Trade/Finance Lsr/Russo Envronmtl Svc Lse	Contra Costa	648-2	Level 3 PM Retrofit	$5,000
Mike Campbell & Associates	San Bernardino	651-19	Level 3 PM Retrofit	$5,000
Barrett Trade/Finance Lsr/Russo Envronmtl Svc Lse	Contra Costa	648-1	Level 3 PM Retrofit	$5,000
Duran & Dimas Trucking Inc.	Santa Clara	1196-2	Level 3 PM Retrofit	$5,000
Kawahara Nurseries	Santa Clara	1097-5	Level 3 PM Retrofit	$5,000
Kawahara Nurseries	Santa Clara	1097-4	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-62	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-61	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-22	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-21	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-20	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-19	Level 3 PM Retrofit	$5,000
Duran & Dimas Trucking Inc.	Santa Clara	1196-3	Level 3 PM Retrofit	$5,000
Victor Salazar Pena	Stanislaus	619-1	Level 3 PM Retrofit	$5,000
Barrett Trade/Finance Lsr/Russo Envronmtl Svc Lse	Contra Costa	648-4	Level 3 PM Retrofit	$5,000
Sloan Transport	Contra Costa	1099-1	Level 3 PM Retrofit	$5,000
The Salvation Army	San Diego	1199-1	Level 3 PM Retrofit	$5,000
Antioch Building Materials	Contra Costa	1100-3	Level 3 PM Retrofit	$5,000
Galletti & Sons, Inc.	Contra Costa	657-3	Level 3 PM Retrofit	$5,000
Noah Concrete Corporation	Santa Clara	853-1	Level 3 PM Retrofit	$5,000
Noah Concrete Corporation	Santa Clara	853-2	Level 3 PM Retrofit	$5,000
Walsh Vineyards Management, Inc.	Napa	654-2	Level 3 PM Retrofit	$5,000
LaDonna Elam (L&D Elam Ag. Enterprise)	Santa Clara	547-1	Level 3 PM Retrofit	$5,000
Dena Elam (L&D Elam Ag. Enterprise)	Santa Clara	546-1	Level 3 PM Retrofit	$5,000
Dena Elam (L&D Elam Ag. Enterprise)	Santa Clara	546-2	Level 3 PM Retrofit	$5,000
Galletti & Sons, Inc.	Contra Costa	657-6	Level 3 PM Retrofit	$5,000
Walsh Vineyards Management, Inc.	Napa	654-3	Level 3 PM Retrofit	$5,000
Mike Vallerga (Vallerga Trucking)	Napa	620-1	Level 3 PM Retrofit	$5,000
Dewane Durocher	Santa Clara	704-1	Level 3 PM Retrofit	$5,000
Guan H. Wu	Alameda	345-1	Level 3 PM Retrofit	$5,000
Nguyen Tam Minh (US Duong, Inc.)	Santa Clara	413-1	Level 3 PM Retrofit	$5,000
Kaiting Jin (BBC Trucking)	Alameda	352-1	Level 3 PM Retrofit	$5,000
Hector Del Cid (HDC Trucking)	San Mateo	368-1	Level 3 PM Retrofit	$5,000
Allan L. Verino	San Mateo	386-1	Level 3 PM Retrofit	$5,000
Jose Galvan dba Galvan Trucking	San Mateo	639-1	Level 3 PM Retrofit	$5,000
Kawahara Nurseries	Santa Clara	1097-3	Level 3 PM Retrofit	$5,000
Sloan Transport	Contra Costa	1099-6	Level 3 PM Retrofit	$5,000
Jasmer Singh (Simran Trucking)	Santa Cruz	1019-1	Level 3 PM Retrofit	$5,000
Masood Ahmadzai	Sacramento	1023-1	Level 3 PM Retrofit	$5,000
Masood Ahmadzai	Sacramento	1023-2	Level 3 PM Retrofit	$5,000
Gardner Trucking/Dirksen Transportation	San Joaquin	650-30	Level 3 PM Retrofit	$5,000
Duran & Dimas Trucking Inc.	Santa Clara	1196-1	Level 3 PM Retrofit	$5,000

Attachment 1 - Other Trucks Recommended for Retrofit

Applicant Name	County	Project Name	Project	State Investment ($)
Walsh Vineyards Management, Inc.	Napa	654-1	Level 3 PM Retrofit	$5,000
S&W Transportation, Inc.	San Mateo	691-2	Level 3 PM Retrofit	$5,000
SN Sands Corp. dba S&S Trucking	Alameda	517-1	Level 3 PM Retrofit	$5,000

	Total Dollars	Total PM Benefits (lbs)	Total NOX Benefits (lbs)	Total Emission Benefits (NOx + PM*20) (lbs)
Total - 115 retrofits	$575,000	30,341	310,389	917217

Attachment 2 - Other Trucks Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Bay Cities Crane & Rigging dba Bragg Crane Service	Contra Costa	501-18	Replacement	$50,000
Gurdev Singh dba Thandi Trucking	Santa Clara	410-1	Replacement	$50,000
Bhinda Singh dba RST Trucking	Santa Clara	411-1	Replacement	$50,000
Sausalito Moving & Storage, Inc.	Sonoma	414-1	Replacement	$50,000
Jaswant Singh	San Joaquin	521-1	Replacement	$50,000
Zhidong Cui	Sacramento	524-1	Replacement	$50,000
Sierra Pacific Ready Mix	Alameda	544-1	Replacement	$50,000
Sierra Pacific Ready Mix	Alameda	544-2	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-3	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-4	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-5	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-6	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-9	Replacement	$50,000
New Bern Transport Corp.	Marin	430-2	Replacement	$50,000
New Bern Transport Corp.	Marin	430-3	Replacement	$50,000
Express Freight Systems	Alameda	432-1	Replacement	$50,000
Express Freight Systems	Alameda	432-2	Replacement	$50,000
Express Freight Systems	Alameda	432-3	Replacement	$50,000
Express Freight Systems	Alameda	432-4	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-24	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-25	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-26	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-27	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-28	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-29	Replacement	$50,000
The Diamond Freight System	San Francisco	377-1	Replacement	$50,000
The Diamond Freight System	San Francisco	377-2	Replacement	$50,000
D&N Trucking, Inc.	Alameda	481-1	Replacement	$50,000
Martin Cazares (Cazares Trucking)	Napa	497-1	Replacement	$50,000
Martin Cazares (Cazares Trucking)	Napa	497-2	Replacement	$50,000
Juan A. Navarrete (St. John's Transport)	Contra Costa	636-7	Replacement	$50,000
Salvation Army	Los Angeles	618-4	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-30	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-31	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-32	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-33	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-34	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-35	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-36	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-37	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-38	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-39	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-40	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-41	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-42	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-43	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-44	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-45	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-46	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-47	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-48	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-49	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-50	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-51	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-52	Replacement	$50,000

Attachment 2 - Other Trucks Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
United Parcel Service, Inc. (UPS)	Orange	682-53	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-54	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-55	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-56	Replacement	$50,000
Buford Powers	Alameda	525-1	Replacement	$50,000
Eleuterio Dominguez Jr.	Santa Clara	908-1	Replacement	$50,000
DCS Trucking, Inc.	Santa Clara	643-1	Replacement	$50,000
MCD Trucking LLC	San Francisco	903-1	Replacement	$50,000
CamKal Industrial Transport, LLC (Aleta M. Bryant)	San Francisco	843-1	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-4	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-5	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-6	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-8	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-9	Replacement	$50,000
Jorge Aguayo (La Perla Del Pacifico, Inc.)	Monterey	941-3	Replacement	$50,000
Villa Park Trucking, Inc.	San Bernardino	946-3	Replacement	$50,000
Noah Concrete Corporation	Santa Clara	852-1	Replacement	$50,000
Noah Concrete Corporation	Santa Clara	852-3	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-1	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-9	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-12	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-14	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-15	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-16	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-17	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-18	Replacement	$50,000
Grifall Trucking, Inc	Santa Clara	855-21	Replacement	$50,000
Matagrano Inc.	San Mateo	904-1	Replacement	$50,000
Matagrano Inc.	San Mateo	904-2	Replacement	$50,000
Matagrano Inc.	San Mateo	904-4	Replacement	$50,000
Matagrano Inc.	San Mateo	904-5	Replacement	$50,000
Matagrano Inc.	San Mateo	904-6	Replacement	$50,000
Sloan Transport Inc. / Antioch Building Materials	Contra Costa	910-2	Replacement	$50,000
Sloan Transport Inc. / Antioch Building Materials	Contra Costa	910-3	Replacement	$50,000
Sloan Transport Inc. / Antioch Building Materials	Contra Costa	910-4	Replacement	$50,000
Sloan Transport Inc. / Antioch Building Materials	Contra Costa	910-5	Replacement	$50,000
Sloan Transport Inc. / Antioch Building Materials	Contra Costa	910-6	Replacement	$50,000
Benjamin Rojas (Rojas Trucking)	San Francisco	911-1	Replacement	$50,000
Benjamin Rojas (Rojas Trucking)	San Francisco	911-2	Replacement	$50,000
Benjamin Rojas (Rojas Trucking)	San Francisco	911-3	Replacement	$50,000
Benjamin Rojas (Rojas Trucking)	San Francisco	911-4	Replacement	$50,000
Benjamin Rojas (Rojas Trucking)	San Francisco	911-5	Replacement	$50,000
Forward Transportation, Inc.(Filex Fok)	San Mateo	842-1	Replacement	$50,000
B & B Paving	Contra Costa	1149-1	Replacement	$50,000
B & B Paving	Contra Costa	1149-5	Replacement	$50,000
Forward Transportation, Inc.(Filex Fok)	San Mateo	842-2	Replacement	$50,000
Phillip J. Grifall (Grifall Trucking, Inc.)	Santa Clara	857-1	Replacement	$50,000
Sukhwinder S. Kang dba Kang Trucking	Solano	333-2	Replacement	$50,000
Goodwill Industries of the Greater East Bay	Alameda	1090-2	Replacement	$50,000
Aujla Brothers Trucking	Alameda	632-1	Replacement	$50,000
Uchicua Trucking(Celso C. Uchicua)	Santa Clara	1078-1	Replacement	$50,000
Gurpartap Signh or Raghbir Signh Sandhu	Contra Costa	1079-1	Replacement	$50,000
Jason Andrew Varsani or Thomas Brian Varsani	San Francisco	1081-1	Replacement	$50,000
Harpinder Chauhan (GN Express)	Stanislaus	1083-1	Replacement	$50,000
Brown/Son/Trucking, Inc.	San Francisco	1084-1	Replacement	$50,000

Attachment 2 - Other Trucks Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Shumate Enterprises, LLC	San Francisco	1085-1	Replacement	$50,000
Shumate Enterprises, LLC	San Francisco	1085-2	Replacement	$50,000
Yi Ping Ma (DM Transportation, Inc.)	Alameda	1087-1	Replacement	$50,000
Umarjit Singh	Alameda	684-1	Replacement	$50,000
Rajinder Singh Randhawa	Alameda	1091-1	Replacement	$50,000
George D. Drake	San Francisco	905-1	Replacement	$50,000
Satinderpal Kaur (GS Trucking)	Alameda	640-1	Replacement	$50,000
Quikrete of Northern California	Alameda	305-1	Replacement	$50,000
Quikrete of Northern California	Alameda	305-2	Replacement	$50,000
Quikrete of Northern California	Alameda	305-3	Replacement	$50,000
Watsonville Coast Produce, Inc.	Santa Cruz	307-3	Replacement	$50,000
Half Moon Bay Building & Garden Supply, Inc.	San Mateo	309-1	Replacement	$50,000
Half Moon Bay Building & Garden Supply, Inc.	San Mateo	309-2	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-57	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-58	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-59	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-1	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-2	Replacement	$50,000
Michael Curtin (Curtin Air Freight, Inc.)	Sonoma	759-3	Replacement	$50,000
L. Serpa Trucking, Inc.	Contra Costa	315-2	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-1	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-2	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-3	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-4	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-5	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-6	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-7	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-8	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-9	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-10	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-11	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-12	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-13	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-14	Replacement	$50,000
Tom Santoro Transportation, Inc.	Monterey	317-15	Replacement	$50,000
Sukhwinder S. Kang dba Kang Trucking	Solano	333-1	Replacement	$50,000
John Shi Zhong	Alameda	340-1	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-1	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-2	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-3	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-4	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-5	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-6	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-8	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-9	Replacement	$50,000
Colma Drayage, Inc.-few w/lease that paid off	San Mateo	549-10	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-1	Replacement	$50,000
George D. Drake (D&W Transport LLC)	San Francisco	283-1	Replacement	$50,000
Right Away Redy Mix	Alameda	285-1	Replacement	$50,000
Right Away Redy Mix	Alameda	285-3	Replacement	$50,000
Right Away Redy Mix	Alameda	285-4	Replacement	$50,000
Right Away Redy Mix	Alameda	285-5	Replacement	$50,000
Right Away Redy Mix	Alameda	285-6	Replacement	$50,000
Right Away Redy Mix	Alameda	285-7	Replacement	$50,000
Right Away Redy Mix	Alameda	285-8	Replacement	$50,000

Attachment 2 - Other Trucks Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Ellco Logistics, Inc.	Alameda	290-1	Replacement	$50,000
Ellco Logistics, Inc.	Alameda	290-2	Replacement	$50,000
Ellco Logistics, Inc.	Alameda	290-3	Replacement	$50,000
Ellco Logistics, Inc.	Alameda	290-4	Replacement	$50,000
Knight Roofing	Alameda	310-1	Replacement	$50,000
C&A Trucking	Sonoma	311-1	Replacement	$50,000
Rich Voss Trucking, Inc.	Santa Clara	314-1	Replacement	$50,000
Houshang Tabar (H&A Trucking)	Contra Costa	293-1	Replacement	$50,000
Conway Freight Lines	Alameda	297-1	Replacement	$50,000
Conway Freight Lines	Alameda	297-2	Replacement	$50,000
Conway Freight Lines	Alameda	297-3	Replacement	$50,000
Conway Freight Lines	Alameda	297-4	Replacement	$50,000
Conway Freight Lines	Alameda	297-5	Replacement	$50,000
Conway Freight Lines	Alameda	297-6	Replacement	$50,000
Conway Freight Lines	Alameda	297-7	Replacement	$50,000
Conway Freight Lines	Alameda	297-8	Replacement	$50,000
Conway Freight Lines	Alameda	297-9	Replacement	$50,000
Conway Freight Lines	Alameda	297-10	Replacement	$50,000
Conway Freight Lines	Alameda	297-11	Replacement	$50,000
Conway Freight Lines	Alameda	297-12	Replacement	$50,000
Conway Freight Lines	Alameda	297-13	Replacement	$50,000
Gabriel Feeney (Feeney Trucking)	San Francisco	299-1	Replacement	$50,000
Bajwa Trucking	Alameda	700-1	Replacement	$50,000
Gregory Stewart	San Mateo	701-1	Replacement	$50,000
Will O. Banks	Sonoma	422-1	Replacement	$50,000
Will O. Banks	Sonoma	422-2	Replacement	$50,000
Duran & Dimas Trucking Inc.	Santa Clara	1193-1	Replacement	$50,000
Duran & Dimas Trucking Inc.	Santa Clara	1193-2	Replacement	$50,000
Duran & Dimas Trucking Inc.	Santa Clara	1193-3	Replacement	$50,000
The Salvation Army	San Diego	688-1	Replacement	$50,000
The Salvation Army	San Diego	688-2	Replacement	$50,000
Rogers Trucks & Equipment, Inc.	San Francisco	1202-1	Replacement	$50,000
Diamond K Supply	Contra Costa	1024-3	Replacement	$50,000
Santa Clara Transfer Service, Inc.	Monterey	1027-1	Replacement	$50,000
Gurmukh Singh	Alameda	1028-1	Replacement	$50,000
Harminder Singh	Alameda	1029-1	Replacement	$50,000
Custom Alloy Scrap Sales, Inc.	Alameda	1177-1	Replacement	$50,000
Custom Alloy Scrap Sales, Inc.	Alameda	1177-2	Replacement	$50,000
VEM General Engineering, Inc.	Alameda	1180-1	Replacement	$50,000
VEM General Engineering, Inc.	Alameda	1180-2	Replacement	$50,000
Harborth Enterprise	Sonoma	1182-1	Replacement	$50,000
Salvation Army	Los Angeles	618-6	Replacement	$50,000
Salvation Army	Los Angeles	618-7	Replacement	$50,000
Salvation Army	Los Angeles	618-23	Replacement	$50,000
Sukhwinder Singh	Alameda	627-1	Replacement	$50,000
Kamaljit Singh Khangura	Alameda	630-1	Replacement	$50,000
Maninder Singh Rai or Khangura Kamaljit Singh	Alameda	631-1	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-1	Replacement	$50,000
Valley Choice Express/George Torrez/Jose Torrez	Monterey	429-2	Replacement	$50,000
New Bern Transport Corp.	Marin	430-1	Replacement	$50,000
Thuan Van Nguyen	Alameda	506-1	Replacement	$50,000
Saroni Food Service	Contra Costa	915-1	Replacement	$50,000
McAbee Trucking, Inc.	San Benito	391-1	Replacement	$50,000
Elmer Hernandez dba Dean's Refrigerated Trucking	San Francisco	392-1	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-2	Replacement	$50,000

Attachment 2 - Other Trucks Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
United Parcel Service, Inc. (UPS)	Orange	682-3	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-4	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-5	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-6	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-7	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-8	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-9	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-10	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-11	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-12	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-13	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-14	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-15	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-16	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-17	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-18	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-19	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-20	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-21	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-22	Replacement	$50,000
United Parcel Service, Inc. (UPS)	Orange	682-23	Replacement	$50,000
Pete Skikos (SS Skikos Trucking, Inc.)	Sonoma	658-2	Replacement	$50,000
Dean's Refrigerated Trucking, Inc. (incl Lessors)	San Francisco	683-8	Replacement	$50,000
Dean's Refrigerated Trucking, Inc. (incl Lessors)	San Francisco	683-10	Replacement	$50,000
Dean's Refrigerated Trucking, Inc. (incl Lessors)	San Francisco	683-12	Replacement	$50,000
Totals		**245**		**$12,250,000**

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Thuan Vo	Santa Clara	451-1	Level 3 PM Retrofit	$15,000
Shalveen Singh (S&S Trucking)	Stanislaus	415-1	Level 3 PM Retrofit	$15,000
Richard Padovani (C Trans)	Alameda	917-3	Level 3 PM Retrofit	$15,000
Richard Padovani (C Trans)	Alameda	917-2	Level 3 PM Retrofit	$15,000
Richard Padovani (C Trans)	Alameda	917-1	Level 3 PM Retrofit	$15,000
Leonel Acosta	San Joaquin	771-1	Level 3 PM Retrofit	$15,000
Dung Quoc Nguyen	Alameda	188-1	Level 3 PM Retrofit	$15,000
Guillermo Garcia	San Joaquin	475-1	Level 3 PM Retrofit	$15,000
Kamal Trucking Corporation	Alameda	835-1	Level 3 PM Retrofit	$15,000
Loc Le/Le Van Le	Alameda	416-1	Level 3 PM Retrofit	$15,000
Jorge Pintor	Contra Costa	930-1	Level 3 PM Retrofit	$15,000
Huy Chay Voong/Clean Air Logix, LLC	Alameda	26-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc., dba Rodgers Trucking Co.	Alameda	237-2	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-5	Level 3 PM Retrofit	$15,000
Loc Trinh	Alameda	1094-1	Level 3 PM Retrofit	$15,000
Narinder Singh	Alameda	181-1	Level 3 PM Retrofit	$15,000
Mandhir Singh	San Joaquin	193-1	Level 3 PM Retrofit	$15,000
Dung Van Vo	Alameda	539-1	Level 3 PM Retrofit	$15,000
Simon Zerai	Contra Costa	381-1	Level 3 PM Retrofit	$15,000
Juan Alvarez	Alameda	364-1	Level 3 PM Retrofit	$15,000
Nery Guerra	San Joaquin	57-1	Level 3 PM Retrofit	$15,000
Marcos G. Garcia dba Horizon Frht Systems, Inc.	Alameda	610-1	Level 3 PM Retrofit	$15,000
Denis Flores	San Joaquin	412-1	Level 3 PM Retrofit	$15,000
Surjan Singh	Alameda	186-2	Level 3 PM Retrofit	$15,000
Surjan Singh	Alameda	186-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-6	Level 3 PM Retrofit	$15,000
Ernesto Figueroa (Figueroa Trucking)	Alameda	1014-1	Level 3 PM Retrofit	$15,000
Woldu N. Tesfandrias	San Joaquin	495-1	Level 3 PM Retrofit	$15,000
Julio Narugez	San Mateo	38-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-8	Level 3 PM Retrofit	$15,000
Teklay Kassa	Alameda	1017-1	Level 3 PM Retrofit	$15,000
Rodolfo Acosta	San Joaquin	766-1	Level 3 PM Retrofit	$15,000
Trans-Freight Express (App not present)	Alameda	545-5	Level 3 PM Retrofit	$15,000
Qui Le	Santa Clara	84-1	Level 3 PM Retrofit	$15,000
Brian K. Ung	Alameda	698-1	Level 3 PM Retrofit	$15,000
Brian K. Ung	Alameda	698-1	Level 3 PM Retrofit	$15,000
Mussie Giorgis	Alameda	39-1	Level 3 PM Retrofit	$15,000
Huynh Hong	Santa Clara	133-1	Level 3 PM Retrofit	$15,000
The Lew Family Limited Partnership	Alameda	183-1	Level 3 PM Retrofit	$15,000
Malkiat Singh Nijjar (MS Nijjar Trucking)	Alameda	360-1	Level 3 PM Retrofit	$15,000
Nekone Oriyavong (OK Trucking)	Contra Costa	369-1	Level 3 PM Retrofit	$15,000
Baljit Singh	Alameda	686-1	Level 3 PM Retrofit	$15,000
Praveen Narayan	Alameda	563-1	Level 3 PM Retrofit	$15,000
Elmo Menefee (EM Transportation)	Sacramento	647-1	Level 3 PM Retrofit	$15,000
Sy A Hong	Santa Clara	61-1	Level 3 PM Retrofit	$15,000
Harvinder Singh	Sutter	29-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-1	Level 3 PM Retrofit	$15,000
Sherbaf Mohammad	Santa Clara	121-1	Level 3 PM Retrofit	$15,000
Rodolfo E. Sermeno	San Joaquin	45-1	Level 3 PM Retrofit	$15,000
Marcos B. Dequeiroz	Contra Costa	925-1	Level 3 PM Retrofit	$15,000
Tuan Quoc Vo	Alameda	376-1	Level 3 PM Retrofit	$15,000
Damon Nears	Alameda	359-1	Level 3 PM Retrofit	$15,000
Eddie Carver	Contra Costa	740-1	Level 3 PM Retrofit	$15,000
Tony Nguyen	Santa Clara	454-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Sergio Matus	San Joaquin	58-1	Level 3 PM Retrofit	$15,000
Hernaldo Vanegas (Vanegas Freight Tansport)	Alameda	649-2	Level 3 PM Retrofit	$15,000
Hernaldo Vanegas (Vanegas Freight Tansport)	Alameda	649-1	Level 3 PM Retrofit	$15,000
Mesgang Mulgeta	Alameda	42-1	Level 3 PM Retrofit	$15,000
Travis Lam	Santa Clara	66-1	Level 3 PM Retrofit	$15,000
Loc Vien Tu	Alameda	64-1	Level 3 PM Retrofit	$15,000
Handher F. G. Dos Santos (Santos Trucking)	San Mateo	561-1	Level 3 PM Retrofit	$15,000
Marcos Carvalho	San Francisco	745-1	Level 3 PM Retrofit	$15,000
Marcio Luiz Silva	San Mateo	560-1	Level 3 PM Retrofit	$15,000
Randhir Singh	Alameda	52-1	Level 3 PM Retrofit	$15,000
Ali Mozahhabian	Alameda	820-1	Level 3 PM Retrofit	$15,000
Hardeep Singh	San Joaquin	452-1	Level 3 PM Retrofit	$15,000
James Truong	Alameda	78-1	Level 3 PM Retrofit	$15,000
Jorge Alberto Martinez	Alameda	348-1	Level 3 PM Retrofit	$15,000
Balhar Natt	San Joaquin	456-1	Level 3 PM Retrofit	$15,000
Juan F. Romero	Alameda	91-1	Level 3 PM Retrofit	$15,000
Hien Ngo	Contra Costa	62-1	Level 3 PM Retrofit	$15,000
Nabor Estudillo	San Joaquin	59-1	Level 3 PM Retrofit	$15,000
Hai Pham	Santa Clara	56-1	Level 3 PM Retrofit	$15,000
Kuldeep Singh	Contra Costa	50-1	Level 3 PM Retrofit	$15,000
Melchor Javier Ortega (Tighe Drayage)	Alameda	553-1	Level 3 PM Retrofit	$15,000
Trans-Freight Express (App not present)	Alameda	545-2	Level 3 PM Retrofit	$15,000
Minh Duy Dao	Alameda	624-1	Level 3 PM Retrofit	$15,000
Pan Guoshen	Alameda	763-1	Level 3 PM Retrofit	$15,000
Gurpreet Singh	Alameda	111-1	Level 3 PM Retrofit	$15,000
Trans-Freight Express (App not present)	Alameda	545-6	Level 3 PM Retrofit	$15,000
Carlos Jordan	Alameda	826-1	Level 3 PM Retrofit	$15,000
Francisco Gonzalez	San Joaquin	453-1	Level 3 PM Retrofit	$15,000
Sai Man Chan	Alameda	104-1	Level 3 PM Retrofit	$15,000
Manjit Panesar	Contra Costa	44-1	Level 3 PM Retrofit	$15,000
Laurence Lee (S.K. Trucking)	San Francisco	976-1	Level 3 PM Retrofit	$15,000
Carlos Jordan	Alameda	826-2	Level 3 PM Retrofit	$15,000
CTP Transportation	Alameda	937-1	Level 3 PM Retrofit	$15,000
Irabal Jose Valenca (World Transportation Co.)	Alameda	924-1	Level 3 PM Retrofit	$15,000
Carlos Jordan	Alameda	826-3	Level 3 PM Retrofit	$15,000
Porfirio Diaz	Alameda	47-1	Level 3 PM Retrofit	$15,000
Gurvinder Singh	Alameda	41-1	Level 3 PM Retrofit	$15,000
An Nguyen	Alameda	79-1	Level 3 PM Retrofit	$15,000
Francisco Gonzalez	San Joaquin	53-1	Level 3 PM Retrofit	$15,000
Paramjeet Singh Sandhu, dba Sandhu Bros Trans	San Joaquin	170-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-7	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-12	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-9	Level 3 PM Retrofit	$15,000
Jaswinder Kooner Singh	San Joaquin	51-1	Level 3 PM Retrofit	$15,000
Gurnam Singh	Alameda	43-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-10	Level 3 PM Retrofit	$15,000
Kahendra K. Charitar	San Mateo	361-1	Level 3 PM Retrofit	$15,000
Singh Pritam	San Joaquin	130-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc., dba Rodgers Trucking Co.	Alameda	237-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-11	Level 3 PM Retrofit	$15,000
Mauricio Gonzalez	Alameda	49-1	Level 3 PM Retrofit	$15,000
John E. Anderson(Gold Coast Transportation)	Alameda	1173-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-4	Level 3 PM Retrofit	$15,000
Singh Pargat	San Joaquin	129-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Danilo Barillas (Barillas Trucking)	Alameda	776-2	Level 3 PM Retrofit	$15,000
Danny Dihn	San Francisco	36-1	Level 3 PM Retrofit	$15,000
Du Nguyen	Santa Clara	88-1	Level 3 PM Retrofit	$15,000
Mahan Parvizi	Santa Clara	22-1	Level 3 PM Retrofit	$15,000
Seyed Ali Tajalli	San Mateo	68-1	Level 3 PM Retrofit	$15,000
Ken Yong Qiang Chen (Forward Transportation)	San Francisco	849-1	Level 3 PM Retrofit	$15,000
Dan Nham	San Francisco	89-1	Level 3 PM Retrofit	$15,000
Andy Bay Nguyen	Santa Clara	80-1	Level 3 PM Retrofit	$15,000
Parminder Singh Hundal	Alameda	185-1	Level 3 PM Retrofit	$15,000
Dat Pham	Alameda	90-1	Level 3 PM Retrofit	$15,000
Thach Chau	Santa Clara	60-1	Level 3 PM Retrofit	$15,000
Rodolfo Garcia	Contra Costa	46-1	Level 3 PM Retrofit	$15,000
Danilo Barillas (Barillas Trucking)	Alameda	776-1	Level 3 PM Retrofit	$15,000
Frederick Duane Dunn (Dunn Transport)	Yolo	646-1	Level 3 PM Retrofit	$15,000
Binh Cam	Santa Clara	87-1	Level 3 PM Retrofit	$15,000
Jarnail Singh Bhele	Sutter	28-1	Level 3 PM Retrofit	$15,000
Naseer A. Khan	Contra Costa	15-1	Level 3 PM Retrofit	$15,000
Trai Duc Nguyen	Alameda	622-1	Level 3 PM Retrofit	$15,000
Gurpreet Singh	Sutter	155-1	Level 3 PM Retrofit	$15,000
Singh Manohar	Alameda	154-1	Level 3 PM Retrofit	$15,000
German Rivas	Alameda	983-1	Level 3 PM Retrofit	$15,000
Kiet Quoc Son	Santa Clara	82-1	Level 3 PM Retrofit	$15,000
Fitsum Teklay Mender	San Francisco	35-1	Level 3 PM Retrofit	$15,000
Singh Kallu Sukhdev	Sutter	172-2	Level 3 PM Retrofit	$15,000
Rafael Gutierrez	Alameda	48-1	Level 3 PM Retrofit	$15,000
Yingming Huo	Santa Clara	350-1	Level 3 PM Retrofit	$15,000
Oscar Sanchez	Alameda	997-1	Level 3 PM Retrofit	$15,000
Louis Nguyen	Santa Clara	76-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-3	Level 3 PM Retrofit	$15,000
Alonzo Melicemo Juarez	San Francisco	34-1	Level 3 PM Retrofit	$15,000
Vinh Nguyen	Santa Clara	623-1	Level 3 PM Retrofit	$15,000
Niuloa Ken Mesui (Bridge Terminal Transport)	Alameda	31-1	Level 3 PM Retrofit	$15,000
Issa Transport Services, LLC	Alameda	839-3	Level 3 PM Retrofit	$15,000
Tung Thanh Nguyen	Santa Clara	85-1	Level 3 PM Retrofit	$15,000
Rajinder Singh	Alameda	182-1	Level 3 PM Retrofit	$15,000
Nelson Nguyen	San Joaquin	207-1	Level 3 PM Retrofit	$15,000
Singh Kallu Sukhdev	Sutter	172-1	Level 3 PM Retrofit	$15,000
Quang Le	Alameda	63-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-2	Level 3 PM Retrofit	$15,000
Kishore Chandra	Contra Costa	909-1	Level 3 PM Retrofit	$15,000
Singh Inderjit	San Joaquin	171-1	Level 3 PM Retrofit	$15,000
Singh Jagmohan	San Joaquin	168-1	Level 3 PM Retrofit	$15,000
Tran Tony Thanh	Stanislaus	101-1	Level 3 PM Retrofit	$15,000
Cuong Minh Pham	Santa Clara	375-1	Level 3 PM Retrofit	$15,000
Singh Prabhjit	Alameda	173-1	Level 3 PM Retrofit	$15,000
Jaime Segura	Contra Costa	27-1	Level 3 PM Retrofit	$15,000
Yalew Alemayehi	Alameda	929-1	Level 3 PM Retrofit	$15,000
John Nguyen (Mason Dixon, Inc.)	Alameda	366-1	Level 3 PM Retrofit	$15,000
Singh Harinder	San Joaquin	175-1	Level 3 PM Retrofit	$15,000
Kulvir Singh	Alameda	174-1	Level 3 PM Retrofit	$15,000
Singh Joginder	San Joaquin	169-1	Level 3 PM Retrofit	$15,000
Carlos Linarez	Solano	760-1	Level 3 PM Retrofit	$15,000
Marcos Ramos	Contra Costa	817-1	Level 3 PM Retrofit	$15,000
Trung Vo	Alameda	54-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Baljit Singh Sandhu	Stanislaus	199-1	Level 3 PM Retrofit	$15,000
Dai Huynh	Alameda	55-1	Level 3 PM Retrofit	$15,000
Dao Thanh Van	Alameda	10-1	Level 3 PM Retrofit	$15,000
Jagdev Singh	Contra Costa	176-1	Level 3 PM Retrofit	$15,000
Long Phan	Santa Clara	77-1	Level 3 PM Retrofit	$15,000
Avila Gonzalo Gonzalez	Alameda	522-1	Level 3 PM Retrofit	$15,000
Kee Ngei Wong	San Francisco	725-1	Level 3 PM Retrofit	$15,000
Philip Hx Chan	San Francisco	541-1	Level 3 PM Retrofit	$15,000
Najibullah Ghafar	Alameda	13-1	Level 3 PM Retrofit	$15,000
Mohammad Kakar (Team Transportation Services)	Alameda	979-1	Level 3 PM Retrofit	$15,000
Nelson Logistic Services (Jeffery Ting)	San Mateo	126-1	Level 3 PM Retrofit	$15,000
Jose Carlos Arevalo(Shipper Transport Express)	Alameda	991-1	Level 3 PM Retrofit	$15,000
Carlos Romo	Alameda	919-1	Level 3 PM Retrofit	$15,000
Santiago C. Aguilar(Aguilar Trucking)	Napa	1170-1	Level 3 PM Retrofit	$15,000
Sandhu Rominder Singh	Alameda	152-1	Level 3 PM Retrofit	$15,000
Danny Anhao	San Joaquin	802-1	Level 3 PM Retrofit	$15,000
Francisco Peralta (Vanessas Trucking)	Fresno	977-1	Level 3 PM Retrofit	$15,000
Ramiro Mijia Jeronimo	San Francisco	258-1	Level 3 PM Retrofit	$15,000
Jorge Navichoque	Solano	936-1	Level 3 PM Retrofit	$15,000
Ng Chung Ying	Alameda	116-1	Level 3 PM Retrofit	$15,000
Vu Anh Vo	Santa Clara	86-1	Level 3 PM Retrofit	$15,000
Jawed Khurush	Alameda	816-1	Level 3 PM Retrofit	$15,000
Blaise Hoang	Santa Clara	458-1	Level 3 PM Retrofit	$15,000
Juan Alvarado	Alameda	635-1	Level 3 PM Retrofit	$15,000
Ranjit Singh	San Joaquin	177-2	Level 3 PM Retrofit	$15,000
Ying Tu Xiao	Alameda	20-1	Level 3 PM Retrofit	$15,000
Phong Pham Ha Gia (VA Transportation)	Alameda	504-1	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-9	Level 3 PM Retrofit	$15,000
Leung Man Kong	Alameda	18-1	Level 3 PM Retrofit	$15,000
VA Transportation	San Francisco	7-2	Level 3 PM Retrofit	$15,000
C&C Transportation(Chun Kuen Lee)	Contra Costa	1169-1	Level 3 PM Retrofit	$15,000
Hugo Palma	San Joaquin	723-1	Level 3 PM Retrofit	$15,000
Jim Bobby Hamilton	Alameda	261-1	Level 3 PM Retrofit	$15,000
Khong Dinh dba D&K Trucking	Alameda	790-1	Level 3 PM Retrofit	$15,000
Wai-Hung Au	San Francisco	370-1	Level 3 PM Retrofit	$15,000
Michael Ferry (Michael Ferry Trucking)	Solano	920-1	Level 3 PM Retrofit	$15,000
Tsegay G. Ghebrekirstos	Alameda	592-1	Level 3 PM Retrofit	$15,000
Jasbir Singh Sandhu	Solano	687-1	Level 3 PM Retrofit	$15,000
Hector Escober	San Francisco	792-1	Level 3 PM Retrofit	$15,000
Montana Trucking/Manila S.	Contra Costa	975-1	Level 3 PM Retrofit	$15,000
Palla Bains Trucking	Santa Clara	19-1	Level 3 PM Retrofit	$15,000
Chhy Choeum	Stanislaus	387-1	Level 3 PM Retrofit	$15,000
Deep Singh	Contra Costa	738-1	Level 3 PM Retrofit	$15,000
Ernesto Castaneda Cortez	Santa Clara	574-1	Level 3 PM Retrofit	$15,000
Marc Anthony/Anthony L. Sanders	Alameda	263-1	Level 3 PM Retrofit	$15,000
Koon He Chan	San Francisco	814-1	Level 3 PM Retrofit	$15,000
Jones H. Liu	Alameda	807-1	Level 3 PM Retrofit	$15,000
Nelson Logistic Services (Jeffery Ting)	San Mateo	126-2	Level 3 PM Retrofit	$15,000
Ricky James Patton	Alameda	272-1	Level 3 PM Retrofit	$15,000
Khaled Ali (Shippers Transport Express)	Alameda	1003-1	Level 3 PM Retrofit	$15,000
Can Yuan Chen	Alameda	934-1	Level 3 PM Retrofit	$15,000
Antonio A. Nunes	San Francisco	1203-1	Level 3 PM Retrofit	$15,000
Donvu Nguyen	Santa Clara	457-1	Level 3 PM Retrofit	$15,000
Vinh Dinh	Santa Clara	455-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
John Nguyen	Santa Clara	450-1	Level 3 PM Retrofit	$15,000
Jorge Alvarado	Alameda	555-1	Level 3 PM Retrofit	$15,000
Chuyen Dinh Ngo	Santa Clara	65-1	Level 3 PM Retrofit	$15,000
Agustin William N Macario	San Francisco	269-1	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-10	Level 3 PM Retrofit	$15,000
Clyde Haynes (New Leaf Trucking)	Alameda	32-1	Level 3 PM Retrofit	$15,000
Xing Hai Zhong	San Francisco	932-1	Level 3 PM Retrofit	$15,000
Savong En	Stanislaus	916-1	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-17	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-16	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-15	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-14	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-12	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-11	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-9	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-8	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-7	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-6	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-5	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-4	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-3	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-2	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-1	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-8	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-3	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-2	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-1	Level 3 PM Retrofit	$15,000
Roberto Ayala (Ayala Trucking)	Alameda	478-1	Level 3 PM Retrofit	$15,000
Ramon Garcia Martinez and Jorge Garcia	Sacramento	1004-1	Level 3 PM Retrofit	$15,000
Pedro Gomez and Carlos Umanzo	Alameda	1002-1	Level 3 PM Retrofit	$15,000
Gerado Martinez	Alameda	796-1	Level 3 PM Retrofit	$15,000
Alfonso D. Campos/ Policarpio M. Alvear	Contra Costa	249-1	Level 3 PM Retrofit	$15,000
Anthony Hem	Stanislaus	921-1	Level 3 PM Retrofit	$15,000
Thomas Soto/ Mata Hugo (Soto Trucking)	Contra Costa	243-1	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-7	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-6	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-5	Level 3 PM Retrofit	$15,000
North Bay Container, Inc.	Alameda	1188-4	Level 3 PM Retrofit	$15,000
Hugo Mejia	Alameda	1006-1	Level 3 PM Retrofit	$15,000
Joe Chan	San Francisco	349-1	Level 3 PM Retrofit	$15,000
Wei Jian Chen	San Francisco	719-1	Level 3 PM Retrofit	$15,000
Ho-Keung Yuen (Timi Transportation)	Alameda	466-1	Level 3 PM Retrofit	$15,000
Xiang Qian Zhang (China Ahead Trucking Inc.)	Alameda	931-1	Level 3 PM Retrofit	$15,000
Frank Adams	Alameda	201-1	Level 3 PM Retrofit	$15,000
Rosalina Chavez	Alameda	811-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-10	Level 3 PM Retrofit	$15,000
Ever F. Cortez	Stanislaus	567-1	Level 3 PM Retrofit	$15,000
Ramon Mejia (Mejia Trucking)	Alameda	245-1	Level 3 PM Retrofit	$15,000
Guang Yao Li (Cool Bull Express, Inc.)	Alameda	465-1	Level 3 PM Retrofit	$15,000
Gong Vue Liu	Alameda	323-1	Level 3 PM Retrofit	$15,000
Tam Van Huynh	Sacramento	250-1	Level 3 PM Retrofit	$15,000
Daniel T. Streeter (D&E Streeter Trucking)	Sonoma	459-1	Level 3 PM Retrofit	$15,000
Hector E. Flores dba Flores Trucking	Alameda	514-1	Level 3 PM Retrofit	$15,000
Mario Ernesto Reyes	Contra Costa	984-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Auduong Ha Xay	Alameda	115-1	Level 3 PM Retrofit	$15,000
Diamond Freight System Inc.	San Francisco	918-2	Level 3 PM Retrofit	$15,000
Peter Ocso	Monterey	588-1	Level 3 PM Retrofit	$15,000
Eduardo Guzman	Alameda	992-1	Level 3 PM Retrofit	$15,000
Quanny Bui	Alameda	75-1	Level 3 PM Retrofit	$15,000
Yilman A Navarrette	Contra Costa	270-1	Level 3 PM Retrofit	$15,000
Julio A. Franco (Franco's Trucking)	Alameda	242-1	Level 3 PM Retrofit	$15,000
Mutual Express Company	Alameda	1197-1	Level 3 PM Retrofit	$15,000
Tuan Anh Phan	Santa Clara	5-1	Level 3 PM Retrofit	$15,000
Juan Jose Portillo	Contra Costa	256-1	Level 3 PM Retrofit	$15,000
Highway Trucking Co.	Alameda	1007-3	Level 3 PM Retrofit	$15,000
Israel Recinos dba Recinos Trucking	San Mateo	708-1	Level 3 PM Retrofit	$15,000
Sergio Perez Limon	Napa	265-1	Level 3 PM Retrofit	$15,000
Xiang Guo Xu	Alameda	982-1	Level 3 PM Retrofit	$15,000
Bashar Abunijem (BLM Trucking)	San Mateo	469-1	Level 3 PM Retrofit	$15,000
Policarpio Manriquez Alrear	Contra Costa	241-1	Level 3 PM Retrofit	$15,000
Ouk Jimmy O	Alameda	105-1	Level 3 PM Retrofit	$15,000
Dung Van Truong	Santa Clara	1096-1	Level 3 PM Retrofit	$15,000
William Xavier Jones	Santa Clara	83-1	Level 3 PM Retrofit	$15,000
Snider Lsg/Adrien A. Fecteau III Lse.	Contra Costa	609-1	Level 3 PM Retrofit	$15,000
VPL, Inc.	San Joaquin	502-13	Level 3 PM Retrofit	$15,000
Toan Quy Luu	San Francisco	244-1	Level 3 PM Retrofit	$15,000
Diamond Freight System Inc.	San Francisco	918-1	Level 3 PM Retrofit	$15,000
Moz Cipriano Jose	San Joaquin	107-1	Level 3 PM Retrofit	$15,000
Anthony Furtch	Alameda	33-1	Level 3 PM Retrofit	$15,000
Amin Nabizad	Alameda	933-1	Level 3 PM Retrofit	$15,000
Jesus A. Alas (Alas Trucking)	Contra Costa	590-1	Level 3 PM Retrofit	$15,000
Juan Navarro	Contra Costa	260-1	Level 3 PM Retrofit	$15,000
Jose Angel Artiga (Golden Bay Trucking)	Alameda	990-1	Level 3 PM Retrofit	$15,000
Highway Trucking Co.	Alameda	1007-2	Level 3 PM Retrofit	$15,000
Steven S. Jan	Alameda	585-1	Level 3 PM Retrofit	$15,000
Esayas Gebregergish	Alameda	906-1	Level 3 PM Retrofit	$15,000
Leonel Siliezar/Anabella Reyes	Sonoma	419-1	Level 3 PM Retrofit	$15,000
Phuoc Quy Luu	San Francisco	371-1	Level 3 PM Retrofit	$15,000
Jose A. Galdamez	Alameda	840-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-7	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-9	Level 3 PM Retrofit	$15,000
Frank Fu	Alameda	240-1	Level 3 PM Retrofit	$15,000
Richard Wang (National Recycling Corp.)	Alameda	203-2	Level 3 PM Retrofit	$15,000
Jia Le Xue	Alameda	681-1	Level 3 PM Retrofit	$15,000
Alan Ng	Alameda	662-1	Level 3 PM Retrofit	$15,000
Kevin Leonard (P&R Trucking)	Alameda	236-1	Level 3 PM Retrofit	$15,000
Roger Alcides Salvador (P&R Trucking)	Solano	226-1	Level 3 PM Retrofit	$15,000
Sergio Espinosa (P&R Trucking)	Sonoma	225-1	Level 3 PM Retrofit	$15,000
Reza T. Ghazanfari	Napa	486-1	Level 3 PM Retrofit	$15,000
Wilson Chung	Alameda	526-1	Level 3 PM Retrofit	$15,000
Harinder Singh (Bridge Terminal Transport)	Sacramento	1001-1	Level 3 PM Retrofit	$15,000
Ren Kong	Alameda	100-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-8	Level 3 PM Retrofit	$15,000
Luis A. Guzman	Sacramento	737-1	Level 3 PM Retrofit	$15,000
Sammie Stroughter (P&R Trucking)	Solano	224-1	Level 3 PM Retrofit	$15,000
Oscar Alberto Santos	Alameda	556-1	Level 3 PM Retrofit	$15,000
Hung Quoe Hoang	Alameda	246-1	Level 3 PM Retrofit	$15,000
Guo He Wu	Alameda	678-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Juan Vasquez (Vasquez Transport)	Alameda	784-1	Level 3 PM Retrofit	$15,000
Manuel L. Villena	Santa Clara	251-1	Level 3 PM Retrofit	$15,000
Thien H. Do	Shasta	978-1	Level 3 PM Retrofit	$15,000
Jose Vidal Preza	Contra Costa	1010-1	Level 3 PM Retrofit	$15,000
Tighe Drayage Co.	San Francisco	356-3	Level 3 PM Retrofit	$15,000
Jia Hui Wen	San Francisco	806-1	Level 3 PM Retrofit	$15,000
Manuuli Tauefa	Alameda	673-1	Level 3 PM Retrofit	$15,000
Mohammed Hakik (P&R Trucking)	San Mateo	217-1	Level 3 PM Retrofit	$15,000
Gajjan Kang	Alameda	513-1	Level 3 PM Retrofit	$15,000
Wei Jin Huang (Forward Transportation)	San Francisco	847-1	Level 3 PM Retrofit	$15,000
Eric Liao	Alameda	599-1	Level 3 PM Retrofit	$15,000
Bartolome Joaquin	Alameda	672-1	Level 3 PM Retrofit	$15,000
Parnelli F. Rudolph (P&R Trucking)	Solano	227-1	Level 3 PM Retrofit	$15,000
Juan Ignacio Vazquez LSE (P&R Trucking LSR)	San Joaquin	222-1	Level 3 PM Retrofit	$15,000
Zhong Xing Wu (P&R Trucking)	Alameda	221-1	Level 3 PM Retrofit	$15,000
Salvador R. Bustos (P&R Trucking)	Solano	213-1	Level 3 PM Retrofit	$15,000
Carlos Jordan	Alameda	826-4	Level 3 PM Retrofit	$15,000
Rudy Ocampos	Alameda	257-1	Level 3 PM Retrofit	$15,000
William Vasquez (Juan Vasquez or Carlos Vasquez)	Alameda	709-1	Level 3 PM Retrofit	$15,000
William Lopez	Alameda	980-1	Level 3 PM Retrofit	$15,000
Bruce Ngo	Alameda	378-1	Level 3 PM Retrofit	$15,000
Danny Nguyen	Alameda	200-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-5	Level 3 PM Retrofit	$15,000
Hung Phu Pham	Alameda	23-1	Level 3 PM Retrofit	$15,000
Lamphong Thipphavong	Alameda	255-1	Level 3 PM Retrofit	$15,000
Hernandez Everaldo C	Stanislaus	124-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-15	Level 3 PM Retrofit	$15,000
Li Dong Hua (Forward Transportation)	San Francisco	848-1	Level 3 PM Retrofit	$15,000
Alberto Hernandez	Napa	727-1	Level 3 PM Retrofit	$15,000
Guo Quan Tan	Alameda	799-1	Level 3 PM Retrofit	$15,000
Jamal Mohammed (P&R Trucking)	Alameda	219-1	Level 3 PM Retrofit	$15,000
Juan A. Deleon (P&R Trucking)	Contra Costa	214-1	Level 3 PM Retrofit	$15,000
Ahmed Idris Mohamed (P&R Trucking)	Santa Clara	210-1	Level 3 PM Retrofit	$15,000
Khieng C. Thai	Santa Clara	1171-1	Level 3 PM Retrofit	$15,000
Francisco Lopez	Contra Costa	841-1	Level 3 PM Retrofit	$15,000
Eberto DeLeon (R.D.J. Trucking)	Sonoma	248-1	Level 3 PM Retrofit	$15,000
Chung Ping Chan	Alameda	677-1	Level 3 PM Retrofit	$15,000
John G Gong	Alameda	96-1	Level 3 PM Retrofit	$15,000
Tekle Nigussie (Kamal Trucking)	Contra Costa	928-1	Level 3 PM Retrofit	$15,000
Hardip Singh	Alameda	139-1	Level 3 PM Retrofit	$15,000
Dang Dany Minh	Alameda	112-1	Level 3 PM Retrofit	$15,000
Geneva Refrigerated Truck Service	San Francisco	750-2	Level 3 PM Retrofit	$15,000
Jihhsiang Chi (Richland Express Company)	Contra Costa	761-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-12	Level 3 PM Retrofit	$15,000
Ranjit Singh	San Joaquin	177-1	Level 3 PM Retrofit	$15,000
Jasbir Singh	Alameda	144-1	Level 3 PM Retrofit	$15,000
Wlodzimierz Zagata	Alameda	24-1	Level 3 PM Retrofit	$15,000
Allen Lee	Santa Clara	562-1	Level 3 PM Retrofit	$15,000
Rajwinder Sunner	Alameda	198-1	Level 3 PM Retrofit	$15,000
Nguyen Van Tan	Contra Costa	9-1	Level 3 PM Retrofit	$15,000
Troy DeCuir (T&K Transportation)	Contra Costa	1000-1	Level 3 PM Retrofit	$15,000
Ramiro M. Lule	San Francisco	810-1	Level 3 PM Retrofit	$15,000
Byambatsogat Bulgan	Alameda	720-1	Level 3 PM Retrofit	$15,000
Oscar Ayala	San Francisco	417-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Randy Ballesteros	Alameda	663-1	Level 3 PM Retrofit	$15,000
Sukhwinder Toger	Alameda	679-1	Level 3 PM Retrofit	$15,000
Vicente Cantila Ferrer (P&R Trucking)	Solano	215-1	Level 3 PM Retrofit	$15,000
Abdirashib Nebi (P&R Trucking)	Santa Clara	209-1	Level 3 PM Retrofit	$15,000
Ali Jama Abdille (P&R Trucking)	Santa Clara	208-1	Level 3 PM Retrofit	$15,000
Balbir S. Dhaliwal	Alameda	530-1	Level 3 PM Retrofit	$15,000
Federico Saldivar	Alameda	699-1	Level 3 PM Retrofit	$15,000
Issa Transport Services, LLC	Alameda	839-1	Level 3 PM Retrofit	$15,000
Geneva Refrigerated Truck Service	San Francisco	750-4	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-13	Level 3 PM Retrofit	$15,000
BB Trucking (American Transportation Express Inc.)	San Francisco	935-1	Level 3 PM Retrofit	$15,000
Cheng Hao Rong	Alameda	664-1	Level 3 PM Retrofit	$15,000
Kelson Yang Gao	Alameda	676-1	Level 3 PM Retrofit	$15,000
Rodelio DeJesus	Alameda	675-1	Level 3 PM Retrofit	$15,000
Luis Espinosa	Alameda	674-1	Level 3 PM Retrofit	$15,000
Jaswinder Singh Lelly	Contra Costa	608-1	Level 3 PM Retrofit	$15,000
Zhi Ming Ruan (Mason Dixon Intermodal, Inc.)	Sacramento	557-1	Level 3 PM Retrofit	$15,000
Cau Van Giang (P&R Trucking)	Alameda	216-1	Level 3 PM Retrofit	$15,000
Tomasz Gryko (Sierra Trucking)	Contra Costa	460-1	Level 3 PM Retrofit	$15,000
Jorge Lopez	Alameda	996-1	Level 3 PM Retrofit	$15,000
Sonia E. Santos	Alameda	981-1	Level 3 PM Retrofit	$15,000
Brown Lavelle	San Francisco	119-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-11	Level 3 PM Retrofit	$15,000
German Wilfredo Ochoa	Alameda	715-1	Level 3 PM Retrofit	$15,000
Shiquan Mai	Alameda	671-1	Level 3 PM Retrofit	$15,000
Cesario Acoba	Alameda	680-1	Level 3 PM Retrofit	$15,000
Nermin Terovic (Sarajevo Transport) (P&R Trucking	Sacramento	223-1	Level 3 PM Retrofit	$15,000
Benz Transportation, Inc.	Alameda	661-1	Level 3 PM Retrofit	$15,000
Perez Rodolfo Malana	Solano	109-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-17	Level 3 PM Retrofit	$15,000
FanRu Zeng	Alameda	927-1	Level 3 PM Retrofit	$15,000
Fahmi Mohammed (Sheppers Transport Express)	Alameda	789-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-6	Level 3 PM Retrofit	$15,000
Hing Tong Leling	San Francisco	809-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-14	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-4	Level 3 PM Retrofit	$15,000
Benz Transportation, Inc.	Alameda	661-4	Level 3 PM Retrofit	$15,000
Benz Transportation, Inc.	Alameda	661-3	Level 3 PM Retrofit	$15,000
Benz Transportation, Inc.	Alameda	661-2	Level 3 PM Retrofit	$15,000
Santos Carretero Orozco (P&R Trucking)	Santa Clara	231-1	Level 3 PM Retrofit	$15,000
Issa Transport Services, LLC	Alameda	839-2	Level 3 PM Retrofit	$15,000
Jose A. Serrano	Kern	998-1	Level 3 PM Retrofit	$15,000
Eddy E. Manzanares (EEM Trucking)	Solano	607-1	Level 3 PM Retrofit	$15,000
Norman M. Cheung	San Francisco	476-1	Level 3 PM Retrofit	$15,000
Charanjit Sepla	Alameda	529-1	Level 3 PM Retrofit	$15,000
Ricardo Robles Gil	Alameda	706-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-10	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-9	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-8	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-7	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-6	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-4	Level 3 PM Retrofit	$15,000
Aguilar Alejandro, Aguilares Trucking	Alameda	147-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-11	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
De Quang Duong	Santa Clara	508-1	Level 3 PM Retrofit	$15,000
Palacios Jose B.	Alameda	142-1	Level 3 PM Retrofit	$15,000
Ben Chi Pang Kwong	San Mateo	404-1	Level 3 PM Retrofit	$15,000
Issa Transport Services, LLC	Alameda	839-4	Level 3 PM Retrofit	$15,000
H.E.S. Transportation Services, Inc. `	Alameda	851-3	Level 3 PM Retrofit	$15,000
Nguyen Chingh Hoang	Alameda	110-1	Level 3 PM Retrofit	$15,000
Zhuomin Guan	San Francisco	689-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-16	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-15	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-14	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-13	Level 3 PM Retrofit	$15,000
Hong Menh San	Alameda	1009-1	Level 3 PM Retrofit	$15,000
Mohammad K. Saghebi	Santa Clara	428-1	Level 3 PM Retrofit	$15,000
Mansoor Alizai (Bridge Terminal Transport)	Alameda	938-1	Level 3 PM Retrofit	$15,000
Bahia Transport, Inc.	Alameda	576-1	Level 3 PM Retrofit	$15,000
Felipe Perez	Sacramento	505-1	Level 3 PM Retrofit	$15,000
Nadine Meyer dba Rushmore Delivery Service	Alameda	645-3	Level 3 PM Retrofit	$15,000
Jackie Ray Brumfield	Alameda	268-1	Level 3 PM Retrofit	$15,000
World Transportation	Alameda	253-3	Level 3 PM Retrofit	$15,000
World Transportation	Alameda	253-2	Level 3 PM Retrofit	$15,000
Jaime Segura	Contra Costa	587-1	Level 3 PM Retrofit	$15,000
Tung Nguyen (Kamal Trucking)	San Francisco	837-1	Level 3 PM Retrofit	$15,000
Chi Wai Fok	Alameda	418-1	Level 3 PM Retrofit	$15,000
Tin Van Chau	Alameda	482-1	Level 3 PM Retrofit	$15,000
Northern California Paper Recyclers, Inc	Alameda	252-3	Level 3 PM Retrofit	$15,000
Dawit Mestin	Alameda	103-1	Level 3 PM Retrofit	$15,000
World Transportation	Alameda	253-1	Level 3 PM Retrofit	$15,000
Nadine Meyer dba Rushmore Delivery Service	Alameda	645-2	Level 3 PM Retrofit	$15,000
Thiet Tran	Santa Clara	93-1	Level 3 PM Retrofit	$15,000
Hardip Singh	Alameda	187-1	Level 3 PM Retrofit	$15,000
Balwant Singh	Alameda	138-1	Level 3 PM Retrofit	$15,000
Jason Ouyang (JO Transportation Trucking	Alameda	347-1	Level 3 PM Retrofit	$15,000
Nadine Meyer dba Rushmore Delivery Service	Alameda	645-1	Level 3 PM Retrofit	$15,000
H.E.S. Transportation Services, Inc. `	Alameda	851-2	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-12	Level 3 PM Retrofit	$15,000
Jose Garcia	Contra Costa	582-1	Level 3 PM Retrofit	$15,000
Nguyen Duc Van	Alameda	127-1	Level 3 PM Retrofit	$15,000
Berhane Gebrekristos	Alameda	603-1	Level 3 PM Retrofit	$15,000
Ying Uy Xiao (Longdo Trucking)	Alameda	496-3	Level 3 PM Retrofit	$15,000
John Q Langston	Contra Costa	262-1	Level 3 PM Retrofit	$15,000
Northern California Paper Recyclers, Inc	Alameda	252-2	Level 3 PM Retrofit	$15,000
Shi Lin Yu	Alameda	531-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-5	Level 3 PM Retrofit	$15,000
Ying Uy Xiao (Longdo Trucking)	Alameda	496-6	Level 3 PM Retrofit	$15,000
Ying Uy Xiao (Longdo Trucking)	Alameda	496-5	Level 3 PM Retrofit	$15,000
Ying Uy Xiao (Longdo Trucking)	Alameda	496-4	Level 3 PM Retrofit	$15,000
Ying Uy Xiao (Longdo Trucking)	Alameda	496-2	Level 3 PM Retrofit	$15,000
Ying Uy Xiao (Longdo Trucking)	Alameda	496-1	Level 3 PM Retrofit	$15,000
Yosief Fisehaye	Alameda	993-1	Level 3 PM Retrofit	$15,000
Northern California Paper Recyclers, Inc	Alameda	252-1	Level 3 PM Retrofit	$15,000
Wei Wen Chen	Alameda	713-1	Level 3 PM Retrofit	$15,000
Lan Mong Le	Alameda	493-1	Level 3 PM Retrofit	$15,000
Phuong Van Dang (Issa Transport Services, LLC)	Alameda	365-1	Level 3 PM Retrofit	$15,000
Jorge Rivera	Alameda	743-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Eyasu Medhin	Santa Clara	989-1	Level 3 PM Retrofit	$15,000
Mynor Hernandez (Impact Transportation)	Contra Costa	1011-1	Level 3 PM Retrofit	$15,000
Dennis Garcia (Impact Transportation)	Contra Costa	447-1	Level 3 PM Retrofit	$15,000
James Turner (Impact Transportation)	Contra Costa	443-1	Level 3 PM Retrofit	$15,000
Mauricio Alvarenga (Impact Transportation)	Contra Costa	440-1	Level 3 PM Retrofit	$15,000
Silas Archila (Impact Transportation)	Contra Costa	439-1	Level 3 PM Retrofit	$15,000
Assefa B. Kidane	Alameda	987-1	Level 3 PM Retrofit	$15,000
Saul Lima (Impact Transportation)	Contra Costa	449-1	Level 3 PM Retrofit	$15,000
Sasha Gajdos (Impact Transportation)	Contra Costa	442-1	Level 3 PM Retrofit	$15,000
Pablo Caballero (Impact Transportation)	Contra Costa	436-1	Level 3 PM Retrofit	$15,000
Mynor Hernandez (Impact Transportation)	Contra Costa	1011-2	Level 3 PM Retrofit	$15,000
Samson Teckie (Impact Transportation)	Contra Costa	445-1	Level 3 PM Retrofit	$15,000
Anacleto Fredy Escobar (Impact Transportation)	Contra Costa	444-1	Level 3 PM Retrofit	$15,000
Tom Van Vo	San Francisco	346-1	Level 3 PM Retrofit	$15,000
Micheal Ngon Tran	Alameda	420-1	Level 3 PM Retrofit	$15,000
Thien Ton Hoang	Alameda	406-1	Level 3 PM Retrofit	$15,000
Mariano Madrid (Impact Transportation)	Contra Costa	441-1	Level 3 PM Retrofit	$15,000
Gudy Linarez (Impact Transportation)	Contra Costa	434-1	Level 3 PM Retrofit	$15,000
Khoi Pham	Santa Clara	462-1	Level 3 PM Retrofit	$15,000
Kareem Kaddah (K-K Transport)	San Francisco	407-1	Level 3 PM Retrofit	$15,000
Tuong Nguyen	Santa Clara	461-1	Level 3 PM Retrofit	$15,000
(Abraham) Eyasu Gebretatiyos	Alameda	755-1	Level 3 PM Retrofit	$15,000
Ragnesh K. Prasad	Solano	732-1	Level 3 PM Retrofit	$15,000
Lau Binh Quoc	Alameda	108-1	Level 3 PM Retrofit	$15,000
Siliezar Edwin Cineo	San Francisco	150-1	Level 3 PM Retrofit	$15,000
Jose Garcia (Impact Transportation)	Contra Costa	448-1	Level 3 PM Retrofit	$15,000
Edgardo Rodriguez (Impact Transportation)	Contra Costa	437-1	Level 3 PM Retrofit	$15,000
Rodrigo Rivera (Impact Transportation)	Contra Costa	435-1	Level 3 PM Retrofit	$15,000
Gudy Linarez (Impact Transportation)	Contra Costa	434-2	Level 3 PM Retrofit	$15,000
Jorge Rodriguez (Impact Transportation)	Contra Costa	446-1	Level 3 PM Retrofit	$15,000
Nelson Palacios (Impact Transportation)	Contra Costa	433-1	Level 3 PM Retrofit	$15,000
Andres Caceres	Contra Costa	1005-1	Level 3 PM Retrofit	$15,000
Bejer Fabian (Impact Transportation)	Contra Costa	438-1	Level 3 PM Retrofit	$15,000
Siliezar Jorge Americo	Alameda	151-1	Level 3 PM Retrofit	$15,000
Raheem Khalaf	Alameda	728-1	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-29	Level 3 PM Retrofit	$15,000
SP Trucking	Alameda	652-1	Level 3 PM Retrofit	$15,000
Tan Vu Siev	Alameda	135-1	Level 3 PM Retrofit	$15,000
Jianfu Chen	Alameda	808-1	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-21	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-18	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-13	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-10	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-8	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-1	Level 3 PM Retrofit	$15,000
SP Trucking	Alameda	652-3	Level 3 PM Retrofit	$15,000
SP Trucking	Alameda	652-2	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-31	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-24	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-15	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-14	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-11	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-23	Level 3 PM Retrofit	$15,000
Argueta Miguel Angel	Alameda	156-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Carlos Sanchez	Alameda	994-1	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-36	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-28	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-12	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-9	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-5	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-33	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-26	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-25	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-20	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-16	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-17	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-35	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-34	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-22	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-7	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-6	Level 3 PM Retrofit	$15,000
Jaime Balderas (Pacific Coast Container)	Alameda	922-1	Level 3 PM Retrofit	$15,000
Gerardo Velazquez (Just Because Trucking)	San Mateo	923-1	Level 3 PM Retrofit	$15,000
Troy Ferry(Troy Ferry Trucking)	Solano	1174-2	Level 3 PM Retrofit	$15,000
Troy Ferry(Troy Ferry Trucking)	Solano	1174-1	Level 3 PM Retrofit	$15,000
Zaid Desta	Alameda	764-1	Level 3 PM Retrofit	$15,000
Florentino Roberto Monroy (Monroy Trucking)	Alameda	468-1	Level 3 PM Retrofit	$15,000
Huong Dinh	Santa Clara	67-1	Level 3 PM Retrofit	$15,000
Quy Tran	Santa Clara	69-1	Level 3 PM Retrofit	$15,000
Phuc Vo	San Francisco	70-1	Level 3 PM Retrofit	$15,000
Silverio Gualip (Lily Pena)	Alameda	71-1	Level 3 PM Retrofit	$15,000
Minh Nguyen	Alameda	72-1	Level 3 PM Retrofit	$15,000
Son Nguyen	Santa Clara	73-1	Level 3 PM Retrofit	$15,000
Bhugay Lama	Alameda	74-1	Level 3 PM Retrofit	$15,000
Nguyen Chingh Hoang	Contra Costa	6-1	Level 3 PM Retrofit	$15,000
VA Transportation	Alameda	7-1	Level 3 PM Retrofit	$15,000
VA Transportation	San Francisco	7-3	Level 3 PM Retrofit	$15,000
Binh Quoc Lau	San Francisco	8-1	Level 3 PM Retrofit	$15,000
Tomas Posada	Alameda	11-1	Level 3 PM Retrofit	$15,000
Julio Cesar Aguilar	San Francisco	12-1	Level 3 PM Retrofit	$15,000
Mohammad Nisar	Alameda	14-1	Level 3 PM Retrofit	$15,000
Imran-Alam	Alameda	16-1	Level 3 PM Retrofit	$15,000
Farhad Omar	Alameda	17-1	Level 3 PM Retrofit	$15,000
Jagpal Kulwinder Kaur	San Joaquin	25-1	Level 3 PM Retrofit	$15,000
National Recycling Corp.	Alameda	1-2	Level 3 PM Retrofit	$15,000
National Recycling Corp.	Alameda	1-1	Level 3 PM Retrofit	$15,000
Nguyen Hoang Quoc	Santa Clara	2-1	Level 3 PM Retrofit	$15,000
Reyes Mike Stephen Arao	Sutter	3-1	Level 3 PM Retrofit	$15,000
Tommy Tran	Alameda	4-1	Level 3 PM Retrofit	$15,000
The Sutta Company	Alameda	37-1	Level 3 PM Retrofit	$15,000
Anh Tuan Vo	Alameda	40-1	Level 3 PM Retrofit	$15,000
Thang Van Nguyen	Alameda	92-1	Level 3 PM Retrofit	$15,000
Hung Van Nguyen	Alameda	95-1	Level 3 PM Retrofit	$15,000
Iqbal Kohgadai	Alameda	97-1	Level 3 PM Retrofit	$15,000
Alan Fong	San Francisco	98-1	Level 3 PM Retrofit	$15,000
Nobuo Ogiwara	Alameda	99-1	Level 3 PM Retrofit	$15,000
Alfred Li	San Francisco	102-1	Level 3 PM Retrofit	$15,000
Nguyen Joe Chung	Alameda	113-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Vo Nhuan	Alameda	114-1	Level 3 PM Retrofit	$15,000
Tran Christopher V	Alameda	117-1	Level 3 PM Retrofit	$15,000
Nguyen Trai Duc	Alameda	120-1	Level 3 PM Retrofit	$15,000
Singh Palvinder	Contra Costa	122-1	Level 3 PM Retrofit	$15,000
Nguyen Hoang Quoc	Alameda	123-1	Level 3 PM Retrofit	$15,000
Tran Hoang Van	Alameda	125-1	Level 3 PM Retrofit	$15,000
Lam Thuan	Alameda	128-1	Level 3 PM Retrofit	$15,000
Singh Manjeet	San Joaquin	131-1	Level 3 PM Retrofit	$15,000
Le Lan Mong	Alameda	132-1	Level 3 PM Retrofit	$15,000
Dang Dany Minh	Alameda	134-1	Level 3 PM Retrofit	$15,000
Bui Pilly Phonghoang	Alameda	136-1	Level 3 PM Retrofit	$15,000
Pham Hoang Dinh	Alameda	137-1	Level 3 PM Retrofit	$15,000
Nguyen Andrew Nghia	Alameda	140-1	Level 3 PM Retrofit	$15,000
Mengsteab H. Teweldebirhan	Alameda	141-1	Level 3 PM Retrofit	$15,000
Mengsteab H. Teweldebirhan	Alameda	141-2	Level 3 PM Retrofit	$15,000
Tuan Quoc Tran	Contra Costa	143-1	Level 3 PM Retrofit	$15,000
Singh Parshotam	Stanislaus	145-1	Level 3 PM Retrofit	$15,000
Singh Jasbinder	Alameda	146-1	Level 3 PM Retrofit	$15,000
Surinder Grewal	Contra Costa	153-1	Level 3 PM Retrofit	$15,000
Hugo Guzman	Alameda	985-1	Level 3 PM Retrofit	$15,000
Tsegay Teklezghi	Alameda	986-1	Level 3 PM Retrofit	$15,000
Ismael Hernandez Aceucio	Santa Clara	988-1	Level 3 PM Retrofit	$15,000
Walter Campos	Alameda	995-1	Level 3 PM Retrofit	$15,000
Ryan Trucking (GSC Logistics)	Alameda	21-1	Level 3 PM Retrofit	$15,000
Hiep Duong Tran	San Joaquin	273-1	Level 3 PM Retrofit	$15,000
Tien Tran	Alameda	81-1	Level 3 PM Retrofit	$15,000
Rene Portillo	Napa	705-1	Level 3 PM Retrofit	$15,000
Daniel Enrique Romero	Alameda	533-1	Level 3 PM Retrofit	$15,000
Milton Aldana	Contra Costa	540-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-3	Level 3 PM Retrofit	$15,000
Harban Singh Gill	Alameda	621-1	Level 3 PM Retrofit	$15,000
Phu Tuong Lam	Santa Clara	474-1	Level 3 PM Retrofit	$15,000
Sen Tran	Alameda	480-1	Level 3 PM Retrofit	$15,000
Chung F. Kwan	San Francisco	485-1	Level 3 PM Retrofit	$15,000
Cuong Minh Pham	Santa Clara	490-1	Level 3 PM Retrofit	$15,000
Ying Uy Xiao (Longdo Trucking)	Alameda	496-7	Level 3 PM Retrofit	$15,000
Kulbir Gill, dba K. G. Transportation	Alameda	157-2	Level 3 PM Retrofit	$15,000
Kulbir Gill, dba K. G. Transportation	Alameda	157-1	Level 3 PM Retrofit	$15,000
Singh Gurpreet	Contra Costa	158-1	Level 3 PM Retrofit	$15,000
Singh Jagtar	Alameda	159-1	Level 3 PM Retrofit	$15,000
Singh Balbir	Alameda	160-2	Level 3 PM Retrofit	$15,000
Singh Balbir	Alameda	160-1	Level 3 PM Retrofit	$15,000
Gurmukh Singh dba GS Trucking	Alameda	161-1	Level 3 PM Retrofit	$15,000
Tran Keit Edward	Alameda	162-1	Level 3 PM Retrofit	$15,000
Gurratan S. Kalkat	Alameda	163-1	Level 3 PM Retrofit	$15,000
Tran Nga Trong	Solano	164-1	Level 3 PM Retrofit	$15,000
Nguyen Tony Hong	Alameda	166-1	Level 3 PM Retrofit	$15,000
Singh Gurmeet, dba G. S. Chahal Trucking	Alameda	167-1	Level 3 PM Retrofit	$15,000
Gurbinder Singh	Contra Costa	178-1	Level 3 PM Retrofit	$15,000
Baljinder Singh	Contra Costa	179-1	Level 3 PM Retrofit	$15,000
Karnail Singh	Contra Costa	180-1	Level 3 PM Retrofit	$15,000
Gurpreet Singh	Stanislaus	184-1	Level 3 PM Retrofit	$15,000
Dalbir Singh Padda	San Joaquin	189-1	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Bhurwinder S. Chahal	San Joaquin	190-1	Level 3 PM Retrofit	$15,000
Gurinder Singh	San Joaquin	191-1	Level 3 PM Retrofit	$15,000
Makhan Singh Dhaliwal	Stanislaus	192-1	Level 3 PM Retrofit	$15,000
Rajvinder Kaur	Stanislaus	194-1	Level 3 PM Retrofit	$15,000
Manjit Singh	Alameda	195-1	Level 3 PM Retrofit	$15,000
Rupinder Singh	Contra Costa	196-1	Level 3 PM Retrofit	$15,000
Bhupinder Singh	Contra Costa	197-1	Level 3 PM Retrofit	$15,000
Hardip Singh	Alameda	202-1	Level 3 PM Retrofit	$15,000
Richard Wang (National Recycling Corp.)	Alameda	203-1	Level 3 PM Retrofit	$15,000
Hoang Gia Dam	Alameda	204-1	Level 3 PM Retrofit	$15,000
Hieu T. Ha	Alameda	205-1	Level 3 PM Retrofit	$15,000
Loc Trinh Le	Alameda	206-1	Level 3 PM Retrofit	$15,000
Nicolas Bonite (P&R Trucking)	Solano	211-1	Level 3 PM Retrofit	$15,000
Benny Bowe (P&R Trucking)	Alameda	212-1	Level 3 PM Retrofit	$15,000
Sang T Ho (P&R Trucking)	Alameda	218-1	Level 3 PM Retrofit	$15,000
Fred Rudulph Jr (P&R Trucking)	Solano	228-1	Level 3 PM Retrofit	$15,000
Hugo Rodas (P&R Trucking)	Marin	229-1	Level 3 PM Retrofit	$15,000
Hitalo Ramirez (P&R Trucking)	Contra Costa	230-1	Level 3 PM Retrofit	$15,000
Ibrahim Okanovic(P&R Trucking)	Santa Clara	232-1	Level 3 PM Retrofit	$15,000
Walter F Martinez	Napa	233-1	Level 3 PM Retrofit	$15,000
Edwin H./ Sonia I. Martinez	Solano	234-1	Level 3 PM Retrofit	$15,000
Nam A Ly (Brenner Fncl Inc Lsr) (P&R Trucking)	Alameda	235-1	Level 3 PM Retrofit	$15,000
Baljit Singh	Alameda	238-1	Level 3 PM Retrofit	$15,000
Eduardo Machado	Alameda	247-1	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-13	Level 3 PM Retrofit	$15,000
AM/S Trans Co	Alameda	254-14	Level 3 PM Retrofit	$15,000
Jose Hernandez	Contra Costa	259-1	Level 3 PM Retrofit	$15,000
Marvin A Ayala	Contra Costa	264-1	Level 3 PM Retrofit	$15,000
Mario Almeda Valles	Contra Costa	266-1	Level 3 PM Retrofit	$15,000
Inmer Castro	San Francisco	267-1	Level 3 PM Retrofit	$15,000
Anthony Darnell Ward	Contra Costa	271-1	Level 3 PM Retrofit	$15,000
Dhabendran Reddy (D.N.A. Trucking)	Solano	559-1	Level 3 PM Retrofit	$15,000
Linderman Rugama (Issa Transportation)	Alameda	571-1	Level 3 PM Retrofit	$15,000
Balwinder Singh	Alameda	604-1	Level 3 PM Retrofit	$15,000
Juan Sandoval	Fresno	612-1	Level 3 PM Retrofit	$15,000
Asfaw Gessese	Alameda	1098-1	Level 3 PM Retrofit	$15,000
Sau Van Nguyen (VA Transportation)	Alameda	693-1	Level 3 PM Retrofit	$15,000
Tighe Drayage Co.	San Francisco	356-1	Level 3 PM Retrofit	$15,000
Tighe Drayage Co.	San Francisco	356-2	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-18	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-19	Level 3 PM Retrofit	$15,000
Parviz Afsharialiabad	Santa Clara	534-1	Level 3 PM Retrofit	$15,000
Nhi Minh Dao	Santa Clara	538-1	Level 3 PM Retrofit	$15,000
Dong Thanh Le (VA Transportation)	Alameda	660-1	Level 3 PM Retrofit	$15,000
Trans-Freight Express (App not present)	Alameda	545-1	Level 3 PM Retrofit	$15,000
Trans-Freight Express (App not present)	Alameda	545-3	Level 3 PM Retrofit	$15,000
Trans-Freight Express (App not present)	Alameda	545-4	Level 3 PM Retrofit	$15,000
Jose Borrero (Impact Transportation)	Alameda	552-1	Level 3 PM Retrofit	$15,000
Hugo Vasquez	Contra Costa	692-1	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-16	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-17	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-18	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-19	Level 3 PM Retrofit	$15,000
Lawson Drayage, Inc.	Alameda	634-20	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)
Si Tien Vo	Alameda	408-1	Level 3 PM Retrofit	$15,000
Anthony F. Liu (Fox Trucking)	San Francisco	573-1	Level 3 PM Retrofit	$15,000
Mohamed Hersi	Alameda	568-1	Level 3 PM Retrofit	$15,000
Nhan Tuan Huynh	Alameda	421-1	Level 3 PM Retrofit	$15,000
Faysal A. Mohamed	Alameda	752-1	Level 3 PM Retrofit	$15,000
Faruq Kamin (Kamal Trucking)	Alameda	753-1	Level 3 PM Retrofit	$15,000
Douglas Vargas Mendez	Contra Costa	778-1	Level 3 PM Retrofit	$15,000
Miguel Govea	Contra Costa	780-1	Level 3 PM Retrofit	$15,000
Jaspreet Singh	Contra Costa	781-1	Level 3 PM Retrofit	$15,000
Genaro Estrada	Alameda	717-1	Level 3 PM Retrofit	$15,000
Raheem Khalaf	Alameda	728-2	Level 3 PM Retrofit	$15,000
Yi Cheng Li	San Francisco	729-1	Level 3 PM Retrofit	$15,000
Truong X. Bao	Alameda	736-1	Level 3 PM Retrofit	$15,000
Jose Alberto Ortez	Alameda	747-1	Level 3 PM Retrofit	$15,000
Andy Bay Nguyen	Santa Clara	804-1	Level 3 PM Retrofit	$15,000
Beethoven Buenaflor	Alameda	999-1	Level 3 PM Retrofit	$15,000
Farhad Rahimi	Alameda	1159-1	Level 3 PM Retrofit	$15,000
Gilmer Zevallos	Alameda	1160-1	Level 3 PM Retrofit	$15,000
Arnold Zevallos	Solano	1162-1	Level 3 PM Retrofit	$15,000
Nuredin K. Mohammed	Alameda	828-1	Level 3 PM Retrofit	$15,000
George Milanez	San Francisco	829-1	Level 3 PM Retrofit	$15,000
Abraham W. Goytom	Contra Costa	831-1	Level 3 PM Retrofit	$15,000
Danh Hoang (Kamal Trucking)	Contra Costa	836-1	Level 3 PM Retrofit	$15,000
Vinay S. Dayal (Dayal Trucking)	Stanislaus	362-1	Level 3 PM Retrofit	$15,000
Balihar Singh	Alameda	363-1	Level 3 PM Retrofit	$15,000
Christopher Bien Phan (VA Trucking)	Alameda	367-1	Level 3 PM Retrofit	$15,000
Gurdip Singh	San Joaquin	372-1	Level 3 PM Retrofit	$15,000
Sang Thanh Tran	Alameda	373-1	Level 3 PM Retrofit	$15,000
Lindbergh Guzman	Contra Costa	374-1	Level 3 PM Retrofit	$15,000
Nhuan Vo	Alameda	379-1	Level 3 PM Retrofit	$15,000
Guan H. Wu	Alameda	380-1	Level 3 PM Retrofit	$15,000
Quyen Vinh Huynh	Alameda	382-1	Level 3 PM Retrofit	$15,000
Quyen Vinh Huynh	Alameda	382-1	Level 3 PM Retrofit	$15,000
Edwin Ibanez (Ibanez Transport)	San Mateo	383-1	Level 3 PM Retrofit	$15,000
Samer Jebril (J & S Trucking Co.)	Alameda	357-1	Level 3 PM Retrofit	$15,000
Davendra Kumar (DNH Carriers, Inc.)	Costa Costa	358-1	Level 3 PM Retrofit	$15,000
Gurdeep Singh (Haryana Trucking)	Santa Clara	1172-1	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-2	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-3	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-4	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-19	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-27	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-30	Level 3 PM Retrofit	$15,000
Wings Century Trucking, Inc.	Alameda	1184-32	Level 3 PM Retrofit	$15,000
Highway Trucking Co.	Alameda	1007-1	Level 3 PM Retrofit	$15,000
Helen Dorodian (AH Trucking)	Santa Clara	1008-1	Level 3 PM Retrofit	$15,000
Jagdish Singh (Gagom Trucking)	Santa Clara	1026-1	Level 3 PM Retrofit	$15,000
Amin Ehsan (AE Transport)	Alameda	926-1	Level 3 PM Retrofit	$15,000
Angel Filio	San Joaquin	399-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-1	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-2	Level 3 PM Retrofit	$15,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1192-3	Level 3 PM Retrofit	$15,000

Attachment 1 - Port Trucks Recommended for Retrofits

Applicant Name	County	Project Name	Project	State/Port/ BAAQMD Investment ($)

	Total Dollars	Total PM Benefits (lbs)	Total NOX Benefits (lbs)	Total Emission Benefits (NOx + PM*20) (lbs)
Total-754 Retrofits	$11,310,000	140,887	2,081,739	4,899,482

Attachment 1 - Port Trucks Recommended for Replacement

Applicant Name	County	Project Name	Project	State Investment ($)
Michael Ayers	Sacramento	1139-1	Replacement	$50,000
Kenneth Evans	Yolo	1145-1	Replacement	$50,000
North Bay Container, Inc.	Alameda	1187-6	Replacement	$50,000
Martin Ponce	San Mateo	791-1	Replacement	$50,000
Leul G. Zeru	Alameda	765-1	Replacement	$50,000
Jorge Ceja Rivera	Alameda	786-1	Replacement	$50,000
Carino Transport (leasing from Amercn Capital Grp)	Alameda	957-1	Replacement	$50,000
Roberto A. Navarrete	San Joaquin	782-1	Replacement	$50,000
Pedro Jacome	Alameda	507-1	Replacement	$50,000
Harpal Singh	Sacramento	1038-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-19	Replacement	$50,000
Lap Van Luu (The Dianont Fri. System)	San Francisco	294-1	Replacement	$50,000
Juan Pablo Acevedo (Shippers Transport Express)	Alameda	734-1	Replacement	$50,000
China Ahead Trucking	Alameda	1175-6	Replacement	$50,000
Moon Wa Kwong	Alameda	577-2	Replacement	$50,000
Antonio Zepeda	Alameda	1136-1	Replacement	$50,000
Gary Maritt	Washoe	1064-1	Replacement	$50,000
Kibreab Weldeab	Alameda	597-1	Replacement	$50,000
Robert St. John	Sacramento	1055-1	Replacement	$50,000
Calvin Turner	Solano	1058-1	Replacement	$50,000
Agustin Luna Hernandez	Yolo	746-1	Replacement	$50,000
Derek Chio Ho	Alameda	494-1	Replacement	$50,000
Raman Kumar	Contra Costa	1134-1	Replacement	$50,000
Joseph Hill	San Joaquin	1155-1	Replacement	$50,000
Mike Evans	Yolo	1132-1	Replacement	$50,000
Demar Rivera Pena (Lehman Transportation)	Alameda	768-1	Replacement	$50,000
Santos Eduardo Vargas (Vargas Transport)	Alameda	949-1	Replacement	$50,000
Bo Xuan Chen	San Francisco	865-1	Replacement	$50,000
Cheng Kam Chung	San Francisco	575-1	Replacement	$50,000
Joel Vega	Contra Costa	961-1	Replacement	$50,000
Galo Reyes	San Mateo	642-1	Replacement	$50,000
North Bay Container, Inc.	Alameda	1187-2	Replacement	$50,000
Long Chau	San Francisco	1113-1	Replacement	$50,000
Mark Scheckla	Shasta	1147-3	Replacement	$50,000
Harvider Singh	Sutter	1141-1	Replacement	$50,000
Geneva Refrigerated Truck	San Francisco	751-1	Replacement	$50,000
Gonzalo Mayorga	San Mateo	968-1	Replacement	$50,000
China Ahead Trucking	Alameda	1175-2	Replacement	$50,000
Carlos Sanchez	San Joaquin	1118-1	Replacement	$50,000
China Ahead Trucking	Alameda	1175-5	Replacement	$50,000
Devine Intermodal	Yolo	1031-2	Replacement	$50,000
Keith Sears	Sacramento	1050-1	Replacement	$50,000
Victor Trejo	San Joaquin	1137-1	Replacement	$50,000
Lkhagva Ganzorig	Yolo	1060-1	Replacement	$50,000
Mark Scheckla	Shasta	1147-1	Replacement	$50,000
Mark Scheckla	Shasta	1147-2	Replacement	$50,000
Thanh Nguyen	Santa Clara	1135-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-20	Replacement	$50,000
Arturo Vera Lopez	Fresno	1037-1	Replacement	$50,000
William Gonzales	Sacramento	1051-1	Replacement	$50,000
Harinder Singh (AV Trucking)	Alameda	863-1	Replacement	$50,000
Enrique Zepeda	Alameda	1120-1	Replacement	$50,000
Carlos R. Cardona	San Francisco	535-1	Replacement	$50,000
Kushinder Singh	Contra Costa	1143-1	Replacement	$50,000
Jaime Sanchez	San Joaquin	1142-1	Replacement	$50,000
Long Mach	Alameda	1133-1	Replacement	$50,000

Attachment 1 - Port Trucks Recommended for Replacement

Applicant Name	County	Project Name	Project	State Investment ($)
Richard Yuen	Alameda	393-1	Replacement	$50,000
Freight Line Express Trucking	Alameda	343-4	Replacement	$50,000
Eddie Sherrard	Alameda	1117-1	Replacement	$50,000
Khalid Kohgadai (Khalid Trucking)	Alameda	861-1	Replacement	$50,000
Kenneth Evans	Yolo	1129-1	Replacement	$50,000
Jaswinder Dulai	Sacramento	1059-1	Replacement	$50,000
Francisco Sanchez	San Joaquin	1124-1	Replacement	$50,000
Bhag Sandhu	Sacramento	1116-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-12	Replacement	$50,000
Jerry Chancey	Stanislaus	1034-1	Replacement	$50,000
Danny Ouyang	San Francisco	600-1	Replacement	$50,000
Dandar Jargal	Sacramento	1035-1	Replacement	$50,000
Nelson A. Iratheta	Alameda	473-1	Replacement	$50,000
Adam K. Mehary	Alameda	754-1	Replacement	$50,000
Steven Blackwell	Alameda	1140-1	Replacement	$50,000
Satnam Bisla	Sacramento	1106-1	Replacement	$50,000
Amandip Rana	Sutter	1103-1	Replacement	$50,000
Antonio Zepeda	Alameda	1122-1	Replacement	$50,000
Allan Chimedkhuyag	Sacramento	1032-1	Replacement	$50,000
Jaswant Chhokar	Sacramento	1114-1	Replacement	$50,000
Jagdisher Singh	Fresno	1105-1	Replacement	$50,000
Parshotam Singh	Contra Costa	1125-1	Replacement	$50,000
Meng Chhoeung	Stanislaus	1053-1	Replacement	$50,000
Wennie Gumahad	San Joaquin	1056-1	Replacement	$50,000
Vitaly Khokhlan (lessee)	Sacramento	1062-1	Replacement	$50,000
David Wu	Alameda	601-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-3	Replacement	$50,000
Rajanpal Singh	Placer	1109-1	Replacement	$50,000
Danell Stevens	Solano	1126-1	Replacement	$50,000
Sukhvinder Bains	Sacramento	1072-1	Replacement	$50,000
Sophan Suos	Sacramento	1040-1	Replacement	$50,000
Sinal Sin	Sacramento	1054-1	Replacement	$50,000
Apolo Mok	Sacramento	1041-1	Replacement	$50,000
Amreet Singh	Sacramento	1044-1	Replacement	$50,000
North Bay Container, Inc.	Alameda	1187-3	Replacement	$50,000
North Bay Container, Inc.	Alameda	1187-1	Replacement	$50,000
Carlos M. Morales	Contra Costa	877-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-8	Replacement	$50,000
Jesus Ymbol (lessee)	San Joaquin	1069-1	Replacement	$50,000
Danh Vo	Santa Clara	1121-1	Replacement	$50,000
Daniel Muniz	Sacramento	1039-1	Replacement	$50,000
Devon Maritt	Washoe	1047-1	Replacement	$50,000
Jose Bustillo	Madera	1049-1	Replacement	$50,000
Peter Shi Long Shu (SL Transport)	Alameda	795-1	Replacement	$50,000
Ignacio Sanchez	San Joaquin	1144-1	Replacement	$50,000
Kidane Tecle Bokresion	Contra Costa	883-1	Replacement	$50,000
Do Phan	Santa Clara	1123-1	Replacement	$50,000
Theodore Katsinis	Sacramento	1070-1	Replacement	$50,000
Dana Sheppard dba In God We Truck	Sacramento	860-1	Replacement	$50,000
Marcos T. Argueta (Lehman Transportation)	Alameda	769-1	Replacement	$50,000
Cesar Catalan	Alameda	787-1	Replacement	$50,000
Rey Gumahad	San Joaquin	1057-1	Replacement	$50,000
Yong Jie Gao	Alameda	616-1	Replacement	$50,000
Christobal Deras	Alameda	805-1	Replacement	$50,000
Carlos Artiga Platero (Artiga Trucking)	Contra Costa	783-1	Replacement	$50,000
Tajinder Singh (AV Trucking)	Alameda	864-1	Replacement	$50,000

Attachment 1 - Port Trucks Recommended for Replacement

Applicant Name	County	Project Name	Project	State Investment ($)
Thai Tran	Santa Clara	1128-1	Replacement	$50,000
Aleksander Dipon	Sacramento	1048-1	Replacement	$50,000
Andy H. Sun	Alameda	470-1	Replacement	$50,000
Christopher Kyles	Sacramento	1033-1	Replacement	$50,000
Merdlito Gran	San Joaquin	1071-1	Replacement	$50,000
Ramon Anderson	Alameda	1130-1	Replacement	$50,000
Paul Jones	Sacramento	1115-1	Replacement	$50,000
Wai Pong Lam	Alameda	403-1	Replacement	$50,000
Paul Jones	Sacramento	1127-1	Replacement	$50,000
Jia Huan Du	Alameda	602-1	Replacement	$50,000
Roberto H. Zapatero(B.A. Tango Inc)	Contra Costa	1163-1	Replacement	$50,000
Willie Cowan	Solano	1119-1	Replacement	$50,000
Ray Wei Lei	Alameda	405-1	Replacement	$50,000
Ahmad Kabir Khaliqi	Alameda	1166-1	Replacement	$50,000
Gelio Villeda	Contra Costa	479-1	Replacement	$50,000
Qian Zhang Xiang (China Ahead Trucking)	Alameda	1176-1	Replacement	$50,000
Gurmit Singh	San Joaquin	867-1	Replacement	$50,000
Orencio Macion	San Joaquin	1067-1	Replacement	$50,000
Phong Diep	Alameda	355-1	Replacement	$50,000
China Ahead Trucking	Alameda	1175-3	Replacement	$50,000
Devine Intermodal	Yolo	1031-10	Replacement	$50,000
Alan Lan	Alameda	401-1	Replacement	$50,000
King Yuen Chan	Alameda	566-1	Replacement	$50,000
China Ahead Trucking	Alameda	1175-7	Replacement	$50,000
China Ahead Trucking	Alameda	1175-4	Replacement	$50,000
China Ahead Trucking	Alameda	1175-1	Replacement	$50,000
Melvin W. Lau	Alameda	593-1	Replacement	$50,000
Steven Norlin	Placer	1112-1	Replacement	$50,000
Bernardo Siano	San Joaquin	1042-1	Replacement	$50,000
Virsna Kong	Stanislaus	1102-1	Replacement	$50,000
Harmun Takhar	Sutter	1101-1	Replacement	$50,000
Shawn Moppin	San Joaquin	1045-1	Replacement	$50,000
Jiang Wei	Alameda	344-1	Replacement	$50,000
Malkait Singh	Sacramento	1111-1	Replacement	$50,000
Rinat Yagudin	Sacramento	1061-1	Replacement	$50,000
Vincent Chambers	Sacramento	1104-1	Replacement	$50,000
Pavel Lapik	Sacramento	1043-1	Replacement	$50,000
Ka Hin Fung	Alameda	396-1	Replacement	$50,000
Moon Wa Kwong	Alameda	577-1	Replacement	$50,000
Jagdeep Singh	Sacramento	1108-1	Replacement	$50,000
Roberto Jeronimo Ayala (Ayala Trucking)	Alameda	492-1	Replacement	$50,000
Marai Rahimi (Sarah Trucking)	San Joaquin	503-1	Replacement	$50,000
Kudus T. Negassi	Alameda	329-1	Replacement	$50,000
Igor Kovpak (lessee)	Sacramento	1063-1	Replacement	$50,000
Jimmy Duhaylungsod	San Joaquin	1066-1	Replacement	$50,000
Freight Line Express Trucking	Alameda	343-1	Replacement	$50,000
Chi T. Sin	Alameda	882-1	Replacement	$50,000
Chien Van Nguyen	Contra Costa	598-1	Replacement	$50,000
Jesus Lopez	San Joaquin	1138-1	Replacement	$50,000
Jian Xu Yong	Alameda	666-1	Replacement	$50,000
Freight Line Express Trucking	Alameda	343-2	Replacement	$50,000
Yrlas Mark	Fresno	1068-1	Replacement	$50,000
Negusse G. Hadgu	Alameda	326-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-4	Replacement	$50,000
Eric Liu	Alameda	870-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-22	Replacement	$50,000

Attachment 1 - Port Trucks Recommended for Replacement

Applicant Name	County	Project Name	Project	State Investment ($)
Asmerom T. Tesfamicael	Alameda	845-1	Replacement	$50,000
Junnyl Rasay	San Joaquin	1107-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-5	Replacement	$50,000
Devine Intermodal	Yolo	1031-18	Replacement	$50,000
Brian Zhi Gang He	San Francisco	554-1	Replacement	$50,000
North Bay Container, Inc.	Alameda	1187-5	Replacement	$50,000
Guillermo Pinto (North Bay Container, Inc.)	Alameda	1186-4	Replacement	$50,000
Guillermo Pinto (North Bay Container, Inc.)	Alameda	1186-3	Replacement	$50,000
Guillermo Pinto (North Bay Container, Inc.)	Alameda	1186-2	Replacement	$50,000
Guillermo Pinto (North Bay Container, Inc.)	Alameda	1186-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-9	Replacement	$50,000
North Bay Container, Inc.	Alameda	1187-4	Replacement	$50,000
Kasi K. Langi	San Mateo	523-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-13	Replacement	$50,000
Jose H. Centeno	Contra Costa	742-1	Replacement	$50,000
Freight Line Express Trucking	Alameda	343-3	Replacement	$50,000
Devine Intermodal	Yolo	1031-15	Replacement	$50,000
Eric Shun Lok Chiu	Alameda	467-1	Replacement	$50,000
Mark Semma	San Mateo	402-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-6	Replacement	$50,000
Jarnail Singh	Sutter	1131-1	Replacement	$50,000
Andrew Paragas	Sacramento	1046-1	Replacement	$50,000
Leveni T. Toki	Solano	528-1	Replacement	$50,000

	Total Dollars	Total PM Benefits (lbs)	Total NOX Benefits (lbs)	Total Emission Benefits (NOx + PM*20) (lbs)
Total Replacements-191	$9,550,000	161,055	3,367,937	6,589,046

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Surjit Singh	Placer	1036-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-1	Replacement	$50,000
Krishanpal Jandy	Sacramento	1052-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-17	Replacement	$50,000
Devine Intermodal	Yolo	1031-23	Replacement	$50,000
Benjamin LaMoure	Sacramento	1065-1	Replacement	$50,000
Kuljit Singh	Sacramento	1110-1	Replacement	$50,000
Ivan D. Lainez leasee (Ericl Casco Sillas Dossanto	San Francisco	733-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-21	Replacement	$50,000
Devine Intermodal	Yolo	1031-11	Replacement	$50,000
Felise Langi dba SF Enterprises	Alameda	527-1	Replacement	$50,000
Phuoc "Max" Cao (Kamal Trucking)	Alameda	327-1	Replacement	$50,000
Khammone Luangrath	Alameda	973-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-14	Replacement	$50,000
Teklemariam Hiyabu	Santa Clara	767-1	Replacement	$50,000
Henry N. Labrado	Solano	862-1	Replacement	$50,000
Abdul Latif Popal (Kamal Trucking)	Alameda	757-1	Replacement	$50,000
Devine Intermodal	Yolo	1031-16	Replacement	$50,000
Devine Intermodal	Yolo	1031-7	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-6	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-7	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-8	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-9	Replacement	$50,000
Ron V. Tran (GSC Logistics)	Alameda	274-1	Replacement	$50,000
Garcia Pedro	Alameda	275-1	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-1	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-2	Replacement	$50,000
Partap Singh Gill	Stanislaus	510-1	Replacement	$50,000
Dion Cracraft	Alameda	511-1	Replacement	$50,000
Trust Trucking Company - Replacement App	San Joaquin	512-1	Replacement	$50,000
Raghbir Singh	Marin	515-1	Replacement	$50,000
Milton Gil	Contra Costa	536-1	Replacement	$50,000
Ermes Alberto Benavides	Alameda	537-1	Replacement	$50,000
Ana Julia Molina (Bay Area Container)	Contra Costa	542-1	Replacement	$50,000
Rene D. Ayala (Ayala Trucking)	San Francisco	543-1	Replacement	$50,000
Ruben Flores (RF Trucking)	San Mateo	464-1	Replacement	$50,000
Ken Yip (K & Y Trucking)	San Mateo	472-1	Replacement	$50,000
Simon Lam	Alameda	594-1	Replacement	$50,000
Boota S. Nijjar & Harvinder G. Nijjar	Solano	595-1	Replacement	$50,000
Atul Arora	Alameda	596-1	Replacement	$50,000
Gurpartap S. Randhawa	Alameda	106-1	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-1	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-2	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-3	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-4	Replacement	$50,000
Rocha Transportation, Inc.	Stanislaus	500-5	Replacement	$50,000
Ablelom Zerfiel	Alameda	762-1	Replacement	$50,000
Joginder Singh	Contra Costa	331-1	Replacement	$50,000
Dong Hung Fue dba Mercury Trucking	Alameda	483-1	Replacement	$50,000
Jose Avalos	Santa Clara	484-1	Replacement	$50,000

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Mike Querio (Royal Trucking)	Contra Costa	550-1	Replacement	$50,000
Mike Querio (Royal Trucking)	Contra Costa	550-2	Replacement	$50,000
Gilberto Abdul Martinez	Alameda	907-1	Replacement	$50,000
MCD Trucking LLC	San Francisco	902-1	Replacement	$50,000
Yiu Don / Donwin Transportation	Alameda	280-1	Replacement	$50,000
Jose Williams Rivas	Contra Costa	316-1	Replacement	$50,000
Gilmer Zevallos	Alameda	1161-1	Replacement	$50,000
Hedayatullah Kohgudai	Alameda	1164-1	Replacement	$50,000
Jose Ovidio Escobar	Contra Costa	1165-1	Replacement	$50,000
Gopal Singh (Mettla Transport)	Santa Clara	1167-1	Replacement	$50,000
Sakhiullah Mehraban	Stanislaus	1168-1	Replacement	$50,000
Rene D. Ayala (Ayala Trucking)	San Francisco	543-2	Replacement	$50,000
Timmy Wai Leung Tang	San Mateo	94-1	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-1	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-2	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-3	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-4	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-5	Replacement	$50,000
Michael Negassi	Alameda	770-1	Replacement	$50,000
Beyenete W. Yonas	Alameda	772-1	Replacement	$50,000
Luis A. C. Perez	Contra Costa	773-1	Replacement	$50,000
Marvin Aroche	San Joaquin	774-1	Replacement	$50,000
Julio C. Mendez	Contra Costa	775-1	Replacement	$50,000
Mandel C. Rodrigues	San Mateo	777-1	Replacement	$50,000
Oscar A. Rivera	Contra Costa	779-1	Replacement	$50,000
Rolando Rodriguez (Lehman Transport)	San Joaquin	785-1	Replacement	$50,000
Carlos C. Beltran (Mason Dixon Intermodal, Inc.)	Alameda	788-1	Replacement	$50,000
Ernesto Arrua (Ernesto Trucking)	San Mateo	793-1	Replacement	$50,000
Shiuraj S. Purewal	Santa Clara	794-1	Replacement	$50,000
Lal Singh	San Joaquin	797-1	Replacement	$50,000
Jorge A. Martinez	Alameda	798-1	Replacement	$50,000
Jagjit Singh	Yolo	716-1	Replacement	$50,000
Juan Aparicio Rodriquez	Contra Costa	718-1	Replacement	$50,000
Joga Singh	San Joaquin	721-1	Replacement	$50,000
Zeyu Lu	Santa Clara	722-1	Replacement	$50,000
Raymond Ho	Alameda	286-1	Replacement	$50,000
Lawrence Apollo Rogers dba Rogers Trucking	Sutter	952-1	Replacement	$50,000
Shirley Westbrook (D. Laws Trucking)	Solano	1018-1	Replacement	$50,000
Habtom Hagos Woldezghi	San Francisco	1074-1	Replacement	$50,000
Abraham H. Woldezghi	San Francisco	1075-1	Replacement	$50,000
Ephrem K. Tewoldldemdhin	Alameda	1076-1	Replacement	$50,000
Waldo F. Guard	Alameda	1077-1	Replacement	$50,000
Sukhpal Singh	Contra Costa	1086-1	Replacement	$50,000
Bahia Transport, Inc.	Alameda	1088-1	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-2	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-3	Replacement	$50,000
Ning Zhang	San Francisco	955-1	Replacement	$50,000
Ernesto Martinez (Fargo Trucking Company)	Alameda	956-1	Replacement	$50,000
Javier Cendejas (Cendejas Trucking)	Contra Costa	958-1	Replacement	$50,000
Ghebrehiwot Yemane (Richard Daniels Transp.)	San Francisco	962-1	Replacement	$50,000

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Munira Quraishi	Contra Costa	963-1	Replacement	$50,000
Jesus Luis Zepeda (P.C.C. Logistics)	Alameda	964-1	Replacement	$50,000
Orlando Cerna	Contra Costa	965-1	Replacement	$50,000
Hector Jose Corea	San Mateo	966-1	Replacement	$50,000
Herbert Olivares	San Mateo	967-1	Replacement	$50,000
Norberto Corrales	San Mateo	969-1	Replacement	$50,000
Daysi H. Flores	Santa Clara	970-1	Replacement	$50,000
Jorge Rios	Contra Costa	971-1	Replacement	$50,000
Zhi Gang Zhang	Alameda	724-1	Replacement	$50,000
Alfredo Antonio Mejia	Napa	726-1	Replacement	$50,000
Scott Davis	Alameda	730-1	Replacement	$50,000
Shao Wei Wu	San Francisco	731-1	Replacement	$50,000
Celin Caceres	San Mateo	735-1	Replacement	$50,000
Wilbur Ibarra	Solano	739-1	Replacement	$50,000
Amanuel E. Tekeste	Alameda	741-1	Replacement	$50,000
Baldev Singh	San Joaquin	744-1	Replacement	$50,000
Marvin Figueroa (Shippers Transport Express)	Alameda	748-1	Replacement	$50,000
Charlie K. Guzman Quintanilla	Sacramento	749-1	Replacement	$50,000
Forward Transportation, LLC	San Mateo	850-1	Replacement	$50,000
Andy Tai Lee	San Francisco	800-1	Replacement	$50,000
Jesus Juarez	San Francisco	803-1	Replacement	$50,000
Jorge Alberto Martinez	Alameda	972-1	Replacement	$50,000
Silicon Roadways	Alameda	974-1	Replacement	$50,000
Silicon Roadways	Alameda	974-2	Replacement	$50,000
Silicon Roadways	Alameda	974-3	Replacement	$50,000
Silicon Roadways	Alameda	974-4	Replacement	$50,000
Silicon Roadways	Alameda	974-5	Replacement	$50,000
Silicon Roadways	Alameda	974-6	Replacement	$50,000
Silicon Roadways	Alameda	974-7	Replacement	$50,000
Silicon Roadways	Alameda	974-8	Replacement	$50,000
Silicon Roadways	Alameda	974-9	Replacement	$50,000
Silicon Roadways	Alameda	974-10	Replacement	$50,000
Silicon Roadways	Alameda	974-11	Replacement	$50,000
Silicon Roadways	Alameda	974-12	Replacement	$50,000
Silicon Roadways	Alameda	974-13	Replacement	$50,000
Silicon Roadways	Alameda	974-14	Replacement	$50,000
Silicon Roadways	Alameda	974-15	Replacement	$50,000
Silicon Roadways	Alameda	974-16	Replacement	$50,000
Silicon Roadways	Alameda	974-17	Replacement	$50,000
Silicon Roadways	Alameda	974-18	Replacement	$50,000
Silicon Roadways	Alameda	974-19	Replacement	$50,000
Silicon Roadways	Alameda	974-20	Replacement	$50,000
Silicon Roadways	Alameda	974-21	Replacement	$50,000
Anil Kumar	Contra Costa	300-1	Replacement	$50,000
Ajit Singh(Angel's Trucking)	Alameda	301-1	Replacement	$50,000
Kumar's Trucking	Contra Costa	302-1	Replacement	$50,000
George Suroz (GSC Logistics)	Alameda	303-1	Replacement	$50,000
Tung Choy Chan	San Mateo	304-1	Replacement	$50,000
Rogers Trucks & Equipment, Inc.	San Francisco	306-1	Replacement	$50,000
JAB Trucking	San Mateo	308-1	Replacement	$50,000

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Eagle Recycling, Inc.	San Benito	313-1	Replacement	$50,000
Jordan Robinson	Contra Costa	385-1	Replacement	$50,000
Dhaliwal Trucking	Alameda	388-1	Replacement	$50,000
Pal Singh	Fresno	696-1	Replacement	$50,000
Zhijian Huang (BJ Transportation LLC)	Alameda	697-0	Replacement	$50,000
The Diamond Freight System, Inc.	San Francisco	859-1	Replacement	$50,000
The Diamond Freight System, Inc.	San Francisco	859-2	Replacement	$50,000
Oscar A Castro	Solano	1204-1	Replacement	$50,000
Mercury Transport, Inc.	Contra Costa	287-1	Replacement	$50,000
Michael Esmaili	Alameda	960-1	Replacement	$50,000
Sandeep Aulakh	Alameda	801-1	Replacement	$50,000
Bikram Sandhu	Alameda	878-1	Replacement	$50,000
H.E.S. Transportation Services, Inc. `	Alameda	1201-1	Replacement	$50,000
Jasvir Singh	Alameda	866-1	Replacement	$50,000
Carlos Ponce	Alameda	868-1	Replacement	$50,000
Harjit Singh	Santa Clara	869-1	Replacement	$50,000
Hector Armand Kreitz	Solano	871-1	Replacement	$50,000
Labh Singh	Contra Costa	872-1	Replacement	$50,000
Nghia Ngoc Doan (VA Transportation)	Alameda	873-1	Replacement	$50,000
Assefa B. Kidane	Alameda	874-1	Replacement	$50,000
Inderjit Singh	Contra Costa	875-1	Replacement	$50,000
Jorge M. Navichoque	Solano	876-1	Replacement	$50,000
Jorge M. Navichoque	Solano	876-2	Replacement	$50,000
Folgar Campos	Alameda	879-1	Replacement	$50,000
Michael Mengis Zere	Alameda	880-1	Replacement	$50,000
Kevin Lam	Alameda	881-1	Replacement	$50,000
Luis Carlos Puliceno	San Mateo	884-1	Replacement	$50,000
Mauro H. Soares	San Mateo	885-1	Replacement	$50,000
Mieczyslaw Grabda	Alameda	637-1	Replacement	$50,000
Zabiullah Aminyar	Alameda	644-1	Replacement	$50,000
Rogers Trucks & Equipment, Inc.	San Francisco	306-2	Replacement	$50,000
Mutual Express Company	Alameda	239-1	Replacement	$50,000
Mutual Express Company	Alameda	239-2	Replacement	$50,000
Sahib Singh	Alameda	30-1	Replacement	$50,000
Ma Kenny	Alameda	149-1	Replacement	$50,000
Nirmal Singh Gora	Solano	685-1	Replacement	$50,000
Hamed Rahimi	Contra Costa	703-1	Replacement	$50,000
Antonio A. Nunes	San Francisco	707-2	Replacement	$50,000
Gurmail Singh Sidhu	Yolo	710-1	Replacement	$50,000
Inderdeep Singh Sidhu	Alameda	711-1	Replacement	$50,000
Thien H. Do (ALT Intermodal, Inc.)	Alameda	712-1	Replacement	$50,000
Jorge Rueda	Contra Costa	714-1	Replacement	$50,000
Joe C. Nguyen (Kamal Trucking)	Alameda	319-1	Replacement	$50,000
Loc Trinh Le (Kamal Trucking)	Alameda	320-1	Replacement	$50,000
Ming Cheng	San Francisco	339-1	Replacement	$50,000
Ghermai Ogbe	Alameda	341-1	Replacement	$50,000
Freightline Express Trucking	Alameda	342-1	Replacement	$50,000
Jaime Carrillo (Impact Transportation)	Contra Costa	551-1	Replacement	$50,000
Jason Sen Kong	Alameda	665-1	Replacement	$50,000
Ernesto De Claro	Alameda	667-1	Replacement	$50,000

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Max Legaspi	Alameda	669-1	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-4	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-5	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-6	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-7	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-8	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-9	Replacement	$50,000
Antonini Freight Express	San Joaquin	950-10	Replacement	$50,000
Gurinder S. Gosal	Contra Costa	558-1	Replacement	$50,000
Antonio Hernandez (Portillo Trucking Co.)	Alameda	564-1	Replacement	$50,000
Jagninder Singh Boparai	San Joaquin	565-1	Replacement	$50,000
Sarbjit Singh (Star K Trucking)	Santa Clara	569-1	Replacement	$50,000
Harinder Singh dba Union Trucking	Alameda	570-1	Replacement	$50,000
Linderman Rugama (Issa Transportation)	Alameda	572-1	Replacement	$50,000
Norberto E. Archila Escobar	Alameda	578-1	Replacement	$50,000
Dimas Gomez (Gomez Trucking)	Contra Costa	579-1	Replacement	$50,000
Carlos Suarez	Alameda	580-1	Replacement	$50,000
Buta Singh	Yolo	581-1	Replacement	$50,000
Eddy E. Manzanares (EEM Trucking)	Solano	606-1	Replacement	$50,000
Jagwinder Singh (Shan Transport)	Santa Clara	611-1	Replacement	$50,000
Ignacio Toscano Jr.	Alameda	613-1	Replacement	$50,000
Shawn Garner (Silver Dollar Trucking)	Alameda	614-1	Replacement	$50,000
En Hong Zhen	Alameda	615-1	Replacement	$50,000
Juan Rebollo	Alameda	617-1	Replacement	$50,000
Kuldeep Singh Dhillon	San Mateo	625-1	Replacement	$50,000
Rajwinder Singh	Alameda	626-1	Replacement	$50,000
Tho Quy Luu (Mega Trucking)	San Francisco	295-1	Replacement	$50,000
Bakhshish Singh (Khakh Trucking)	Contra Costa	296-1	Replacement	$50,000
Wilton Santos Nery	Contra Costa	886-1	Replacement	$50,000
Carlos J. Flores	San Francisco	887-1	Replacement	$50,000
Ich Van Le	Alameda	888-1	Replacement	$50,000
Jasmail Dhah (Pac Coast Container)	Alameda	889-1	Replacement	$50,000
Huai Gang Shan (Forward Transportation)	San Mateo	846-1	Replacement	$50,000
Pablo Caballero (Impact)	Contra Costa	951-1	Replacement	$50,000
Mussie Habte	Alameda	953-1	Replacement	$50,000
Semere Abraha(Adulis Trucking)	Alameda	954-1	Replacement	$50,000
Edilson Viveros (Bridge Terminal Transport)	Alameda	321-1	Replacement	$50,000
Mebrahtu Asmelash	San Joaquin	322-1	Replacement	$50,000
Hong Liu	Alameda	324-1	Replacement	$50,000
Nahum Vidal	Fresno	325-1	Replacement	$50,000
Vinh Q. Luong (Kamal Trucking)	Alameda	328-1	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-3	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-4	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-5	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-6	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-7	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-8	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-9	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-10	Replacement	$50,000
Evergreen Oil, Inc.	Alameda	276-11	Replacement	$50,000

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Evergreen Oil, Inc.	Alameda	276-12	Replacement	$50,000
Jasbir S. Gill	Santa Clara	278-1	Replacement	$50,000
Hong Huan Kuang	San Mateo	279-1	Replacement	$50,000
Jain Xu Yong/ Benz Transportation	Alameda	281-1	Replacement	$50,000
Celina Gomez	Contra Costa	282-1	Replacement	$50,000
Reza Shadram	Alameda	284-1	Replacement	$50,000
Mercury Transport, Inc.	Contra Costa	287-2	Replacement	$50,000
Peter Wilson Lee	Alameda	291-1	Replacement	$50,000
Xue Feng Deng/DM Transportation, Inc.	Alameda	330-1	Replacement	$50,000
Denis Otilio Hernandez	Alameda	332-1	Replacement	$50,000
Bo Xuan Chen	San Francisco	334-1	Replacement	$50,000
Amanullah Osmani	Alameda	335-1	Replacement	$50,000
Buntha Seurn (Kamal Trucking)	Alameda	336-1	Replacement	$50,000
Reth Roeurth dba Short & Sweet Trucking)	Alameda	337-1	Replacement	$50,000
Safety Express Trucking LLC	San Mateo	338-1	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-12	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-13	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-14	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-15	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-16	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-17	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-18	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-19	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-20	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-21	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-22	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-23	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-24	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-25	Replacement	$50,000
Wen Hua Yang	San Francisco	353-1	Replacement	$50,000
Gurpreet Singh Gill	San Joaquin	354-1	Replacement	$50,000
Carlos Galdamez	Santa Clara	583-1	Replacement	$50,000
Joga Singh Gosal	Contra Costa	584-1	Replacement	$50,000
Armando Amador	San Francisco	586-1	Replacement	$50,000
Jose Alex Aguilar	Alameda	589-1	Replacement	$50,000
Edgar Leon	Contra Costa	633-1	Replacement	$50,000
Bhupinder Singh	Alameda	812-1	Replacement	$50,000
Umarjit Singh	Alameda	813-1	Replacement	$50,000
Yu Zhong Chen	Alameda	815-1	Replacement	$50,000
Jitendra Kumar	Alameda	818-1	Replacement	$50,000
Surjit Singh	Contra Costa	819-1	Replacement	$50,000
Bereket Woldegorgis	San Joaquin	821-1	Replacement	$50,000
Samuel Debesay	Alameda	822-1	Replacement	$50,000
Alem Bsrat	Alameda	823-1	Replacement	$50,000
Efren Causapin	Alameda	824-1	Replacement	$50,000
Pepito Nodora	Alameda	827-1	Replacement	$50,000
Elyas N. Mussa	Alameda	830-1	Replacement	$50,000
John Shi Zhong	Alameda	832-1	Replacement	$50,000
Tecle Fessehaye Sebhatu	Alameda	833-1	Replacement	$50,000
Mike Razavi (Kamal Trucking)	Alameda	834-1	Replacement	$50,000

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Issa Transport Services, LLC	Alameda	838-1	Replacement	$50,000
Issa Transport Services, LLC	Alameda	838-2	Replacement	$50,000
Issa Transport Services, LLC	Alameda	838-3	Replacement	$50,000
Issa Transport Services, LLC	Alameda	838-4	Replacement	$50,000
Issa Transport Services, LLC	Alameda	838-5	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-13	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-6	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-7	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-8	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-9	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-10	Replacement	$50,000
California Multimodal, Inc.	Los Angeles	277-11	Replacement	$50,000
Erick G. Ardon	Alameda	825-1	Replacement	$50,000
Erick G. Ardon	Alameda	825-2	Replacement	$50,000
Mahabir S. Randhawa	Alameda	628-1	Replacement	$50,000
Malkiat Singh	Alameda	629-1	Replacement	$50,000
Hilltop Ranch, Inc.	Merced	1183-1	Replacement	$50,000
Hilltop Ranch, Inc.	Merced	1183-2	Replacement	$50,000
Hilltop Ranch, Inc.	Merced	1183-3	Replacement	$50,000
Hilltop Ranch, Inc.	Merced	1183-4	Replacement	$50,000
Rafael Amador	Contra Costa	890-1	Replacement	$50,000
Asamrew M. Hussien (STX)	Alameda	891-1	Replacement	$50,000
Assefa Eshetu Tsegave (STX)	San Francisco	892-1	Replacement	$50,000
Kifle Achamyeleh	Santa Clara	893-1	Replacement	$50,000
Gebre T. Gebresilasie	Alameda	894-1	Replacement	$50,000
Mesfin M. Sinke	Alameda	895-1	Replacement	$50,000
Mehfeaz Najmudin (STX)	Alameda	896-1	Replacement	$50,000
Erick J. Gutierrez	Contra Costa	897-1	Replacement	$50,000
Fitsum F. Kubrom (Kamal Trucking)	Alameda	898-1	Replacement	$50,000
Mohammad Yama Naeemi (STX)	Alameda	899-1	Replacement	$50,000
Edwin R. Causapin	Alameda	900-1	Replacement	$50,000
Jose Mauricio Flores	Contra Costa	397-1	Replacement	$50,000
Jasbir Gill	Sacramento	398-1	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-1	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-2	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-3	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-4	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-5	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-6	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-7	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-8	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-9	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-10	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-11	Replacement	$50,000
Frank Ghiglione, Inc. dba Rodgers Trucking Co.	Alameda	1191-12	Replacement	$50,000
Ismael Ordaz	Alameda	670-1	Replacement	$50,000
Mike Querio (Royal Trucking)	Contra Costa	550-4	Replacement	$50,000
Mike Querio (Royal Trucking)	Contra Costa	550-5	Replacement	$50,000
Mike Querio (Royal Trucking)	Contra Costa	550-7	Replacement	$50,000
Mike Querio (Royal Trucking)	Contra Costa	550-8	Replacement	$50,000

Attachment 2 - Port Truck Contingency Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
Mike Querio (Royal Trucking)	Contra Costa	550-9	Replacement	$50,000
Maximo Salinas	Colusa	591-1	Replacement	$50,000
Totals		**191**		**$9,550,000**

Attachment 1 - Marine Harbor Craft Recommended for Repower

Applicant Name	County	Project Name	Project	State Investment ($)
Nicola Ingargiola	Marin	477-1	Repower	$101,050
Foss Maritime Company	Contra Costa	756-1	Repower	$229,500
		Total*		**$330,550**

*Emissions under discussion with California Air Resources Board

Attachment 1 - Locomotives Recommended for Replacements

Applicant Name	County	Project Name	Project	State Investment ($)
BNSF Railway Company	Contra Costa	1185-1	Replacement	$739,885
BNSF Railway Company	Contra Costa	1185-2	Replacement	$739,885
BNSF Railway Company	Contra Costa	1185-3	Replacement	$739,885
BNSF Railway Company	Contra Costa	1185-4	Replacement	$739,885
		Total*		**$2,959,540**

*Emissions under discussion with California Air Resources Board

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Smith and
Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 7, 2008

Re: Transportation Fund for Clean Air (TFCA) Regional Fund Audit Report

RECOMMENDED ACTION

Receive and file the results of TFCA Audit Report #10, an audit of TFCA Regional Fund projects, including the auditor's findings and recommendations to improve the administration and fiscal management of the TFCA Program.

BACKGROUND

California Health and Safety Code Section 44242 requires fiscal auditing of each project or program funded by TFCA. The fiscal audits are to be conducted by an independent auditor selected by the Bay Area Air Quality Management District (Air District).

DISCUSSION

The Air District retained the services of Caporicci & Larson to conduct the fiscal audits of closed (completed) TFCA Regional Fund projects that were completed as of June 30, 2006. The audits were conducted November 2007 through July 2008. Air District sponsored projects were also included in this audit. Caporicci & Larson completed and issued 255 audit reports (one for each project audited) to the Air District and appropriate Project Sponsor for review and comment.

TFCA Programs	**Sponsors**	**Projects**	**Funds Awarded**
Regional Fund Program	74	180	$ 63,951,592
Lower Emission School Bus Program	6	6	$ 1,765,891
Vehicle Incentive Program	32	50	$ 739,333
Solid Waste Collection Vehicle Incentive Program	19	19	$ 3,034,319
Total audits (as of June 30, 2006)	**131**	**255**	**$ 69,491,135**

The auditor's Summary Report, a compilation of the 255 audit reports, is attached and a list of the audited projects is provided in Appendix B of the Audit Summary Report. A summary of the findings is presented in Table 1.

Table 1: Summary of Findings

Finding #	Description	Total Audited	Not in Compliance	%
2006-1 (SF)	Inadequate Accounting of Records	255	2	0.78%
2006-2 (SF)	Late Filing of Reports (part 1)	2,098	329	15.68%
2006-2 (SF)	Late Filing of Documents/Reports (part 2)	69	7	10.14%
2006-3 (SF)	Missing Reports	2,058	156	7.58%
2006-4 (SF)	Air District Logo/Decal	255	39	15.29%
2006-5 (SF)	No Written Agreements with 3rd Parties	19	4	21.05%
2006-6 (SF)	Record Retention (A-H)	1599	32	2.00%
2006-7 (SF)	Adherence to Funding Agreement (A-G)	988	10	1.01%
2006-8 (SF)	Document Substantiation	255	1	0.39%
2006-1 (OF)	Cancelled Projects	255	4	1.57%
2006-2 (OF)	Projects Not Audited In Timely Manner	180	15	8.33%
2006-3 (OF)	Timely Reimbursement	255	2	0.78%
2006-4 (OF)	Late Filing of Reports	69	7	10.14%

Key: (SF) Sponsor Findings (OF) Oversight Findings

Each Project Sponsor was provided an opportunity to respond in writing to the findings which is included in the auditor's report. All findings were addressed through discussions with Air District staff and the TFCA Regional Fund project sponsors. The audit provided recommendations for improving the administration and fiscal management of the TFCA Program. A summary of the Air District's response to the findings, the auditor's recommendations, and the Air District's remediation effort will be presented to the Committee.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer /APCO

Prepared by: Andrea Gordon
Reviewed by: Jack M. Colbourn

AGENDA: 8

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson, Jerry Hill and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2008

Re: Report of the Executive Committee Meeting of November 24, 2008

RECOMMENDED ACTION

The Executive Committee recommends Board of Directors approval of a $250,000 funding level for implementation of the Community Grant Program.

BACKGROUND

The Executive Committee met on Monday, November 25, 2008 to receive the following reports and recommendations:

A) Report of the Quarterly Report of the Hearing Board;
B) Advisory Council Activities;
C) Continued Discussion of the Role of the Advisory Council;
D) Consideration of Board a Community Grant Program Funding level;
E) Production System Project Update;
F) Joint Policy Committee Update; and
G) Closed Session.

Attached are the staff reports presented in the Executive Committee packet.

Chairperson Pamela Torliatt will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

D) The fiscal year 2008/2009 budget includes funds for incentive programs which could include funding for the Community Grant Program.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Lisa Harper
Reviewed by: Mary Ann Goodley

Attachment(s)

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

TO: **Chairperson Pamela Torliatt and Members of the Executive Committee**

FROM: **Chairperson Thomas M. Dailey, M.D., and Members of the Hearing Board**

DATE: **November 20, 2008**

RE: **Hearing Board Quarterly Report – JULY 2008 – SEPTEMBER 2008**

RECOMMENDED ACTION:

This report is provided for information only.

DISCUSSION:

COUNTY/CITY	PARTY/PROCEEDING	REGULATION(S)	STATUS	PERIOD OF VARIANCE	ESTIMATED EXCESS EMISSIONS
Alameda/Livermore	**AIR POLLUTION CONTROL OFFICER of the BAY AREA AIR QUALITY MANAGEMENT DISTRICT vs. MASOOD AMINI-FILABAD, *aka* AMINI FILABAD and HAMID AMINI, individually, and *d/b/a* LIVERMORE LIVERMORE GAS MART, an unincorporated association – Docket No. 3557** – *Accusation and Request for Order of Abatement (Permit to Operate) for Violation of Regulation 2, Rule 1, Section 302, and Request for Order for Abatement (Permit to Operate).*	**2-1-302**	**Withdrawn**	**===**	**===**
Contra Costa/Richmond	**CHEVRON PRODUCTS COMPANY – Docket No. 3558** – *Emergency Variance from Regulation 2, Rule 1, Section 307 and Regulation 2, Rule 6, Section 307, insofar as they require compliance with (i) Condition No. 15698, Part 1, and Tables II.B and IV-C.3.1 of the Refinery's Major Facility Review Permit; and (ii) Standard Condition I.B.2 of the Refinery's Major Facility Review Permit, insofar as it requires compliance with Condition No. 15698, Part 1, and Tables II.B. and IV-C.3.1 of the Refinery's Major Facility Review Permit.*	**2-1-307** **2-6-307** **(Major Facility Review Permit)**	**Granted**	**7/9/08 – 8/7/08**	**===**

Solano/Benicia	**VALERO REFINING COMPANY – CALIFORNIA (Emergency Variance – Docket No. 3547 -** *Variance from Regulation 8, Rule 5, Sections 328 and 304 (including reference to 8-5-320, 8-5-321 and 8-5-322); Regulations 2-1-307 and 2-6-307, insofar as they require compliance with (i) Condition No. 20762, Table IV-J33 and Table VII-J33 of the Facility's Major Facility Review Permit and (ii) Standard Condition 1.B.2 of the Facility's Major Facility Review Permit, insofar as it requires compliance with Condition No. 20762, Table IV-J33 and Table VII-J33 of the Facility's Major Facility Review Permit.*	**8-5-328** **8-5-304** **2-1-307** **2-6-307** **(Major Facility Review Permit)**	**Withdrawn**	**===**	**===**

1. **NOTE: During the third quarter of 2008, the Hearing Board scheduled five (5) hearings but held none due to two (2) Dockets being dismissed and three (3) Dockets being continued into the next Quarter. A total of $3,086 was collected as Hearing Board fees and no excess emissions fees were collected during this quarter.**

EXCESS EMISSION DETAILS

COMPANY NAME	DOCKET NO.	TOTAL EMISSIONS	TYPES OF EMISSIONS	PER UNIT COST	TOTAL AMT COLLECTED
					$ 0
				TOTAL COLLECTED:	**$ 0**

Respectfully submitted,

Thomas M. Dailey, M.D.
Chair, Hearing Board

Prepared by: Lisa Harper
Reviewed by: Mary Ann Goodley

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Pamela Torliatt and Members of the Executive Committee

From: Louise Bedsworth, Ph.D., Chairperson Advisory Council

Date: November 20, 2008

Re: Advisory Council Activities and Recommendation

RECOMMENDATIONS:

Recommend Board of Directors approval of the Advisory Council's Resolution Regarding Climate Change and Regional Pollution.

DISCUSSION:

Presented below are summaries of the key issues discussed at meetings of the Advisory Council and its Standing Committees during July through December 2008.

A) Advisory Council Regular Meeting of July 9, 2008: The Advisory Council received reports from each of its committees. The Council discussed and approved recommendations presented by the Public Health Committee regarding a Strategy for Asthma as it relates to Indoor Air Quality. (Board of Directors approved the Strategy at its October 1, 2008 meeting.) The Committee received an update on the Community Air Risk Evaluation (CARE) Program from Program Manager Dr. Phil Martien. The Council also received a report from APCO Jack Broadbent outlining Air District activities.

B) Technical Committee Meeting of August 4, 2008: The Technical Committee had a discussion on Climate Change: Synergies and Conflicts of Climate Change on Bay Area Air Quality. The Committee also discussed information received in previous presentations (Update on PM Inventory Development, Modeling and Data Analysis presented on February 11, 2008 by Mr. Saffet Tanrikulu and Mr. David Fairley; Consequences of Changes in Temperature, Inflow Boundary Conditions and Local Emissions on Air Quality in Central California presented on April 7, 2008 by Dr. Rob Harley; and Past and Future Temperature World-Wide, in California and the Bay Area presented on June 9, 2008 by Dr. Philip B. Duffy) and began drafting a recommendation to the full Council.

C) Air Quality Planning Committee Meeting of August 11, 2008: The Air Quality Planning Committee received a presentation by Environmental Planner Sigalle Michael regarding California Air Resources Board's AB 32 Climate Change Draft Scoping Plan. The Committee drafted Recommended Principles in response to the California Air Resources Board's request for comments on its AB 32 Climate Change Draft Scoping Plan.

D) Advisory Council Regular Meeting of September 10, 2008. The Council received reports from each of its Committees. The Council discussed and approved recommendations presented by the Air Quality Planning Committee regarding Principles developed in response to California Air Resources Board's request for comments on its AB 32 Climate Change Draft Scoping Plan. (Board of Directors approved the Recommended Principles at its October 1, 2008 meeting.) The Council also received a presentation from Ursula Vogel, Public Information Officer with the Metropolitan Transportation Commission on its Regional Transportation Plan 2035.

E) Advisory Council Executive Committee Meeting of September 10, 2008: The Committee received reports from each of the Council's standing committees.

F) Public Health Committee Meeting of October 8, 2008: The Committee received a presentation by Advisory Council Chairperson Louise Wells Bedsworth, PhD on the Public Health Impacts of Climate Change.

G) Advisory Council Special Meeting of October 21, 2008: The Council discussed the revised Advisory Council Role as proposed by the Board of Directors Executive Committee.

H) Technical Committee Meeting of October 22, 2008: The Committee continued its discussion of climate change and air quality. It drafted a recommended Resolution Regarding Climate Change and Regional Pollution for approval by the full Council.

I) Advisory Council Executive Committee Meeting of November 12, 2008: The Committee received reports from each of the Council's standing committees.

J) Advisory Council Regular Meeting of November 12, 2008: The Advisory Council received reports from each of its Committees. The Council discussed and reviewed recommendations presented by the Technical Committee on a Resolution Regarding Climate Change and Regional Pollution. The Council unanimously agreed to forward the Resolution to the Executive Committee for consideration by the Board of Directors. A copy of the Council's Resolution is attached for Committee review and consideration.

The minutes of the above referenced meetings are attached.

Respectfully submitted,

Louise Wells Bedsworth, PhD
Advisory Council Chairperson

Prepared by: Kristianna Ledesma
Reviewed by: Mary Ann Goodley

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
(415) 749-5000

APPROVED MINUTES

Advisory Council Regular Meeting
2:00 p.m., Wednesday, July 9, 2008

Call To Order

Opening Comment: Vice Chairperson Brazil called the meeting to order at 2:08 p.m.

Roll Call: Sam Altshuler, Harold Brazil, Vice Chair; Ken Blonski, Robert Bornstein, Ph.D., Jeffrey Bramlett, MPA, Fred Glueck, John Holtzclaw, Ph.D., Robert T.P. Huang, Ph.D., Steven T. Kmucha, Kraig Kurucz, Kendal Oku, Virginia Smyly, Linda Weiner and Brian Zamora.

Absent: Cassandra Adams, Louise Bedsworth, Ph.D., Irwin Dawid, Emily Drennen, William Hanna and Karen Licavoli-Farnkopf.

Oath of Office: The Oath of Office was given to Virginia Smyly, Advisory Council Member, Public Health category, for a term effective immediately, and ending, December 31, 2009.

Public Comment Period – There were no public comments.

Consent Calendar

1. Approval of Minutes of May 15, 2008

Council Member Holtzclaw requested the following amendments:

- Page 4, 4th paragraph; "Council Member Weiner referred to the PM 2.5 standards in 2020 and she confirmed…"
- Page 4, 5th paragraph; "If it is, this is the strategy that gets put in the SIPs. ~~SIBs~~"
- Page 5, 1st paragraph; "…is due to population change, economic activities, VMT ~~VMP~~ or other reasons."
- Page 7, 4th paragraph; "…when Spare the Air day began and ~~the~~ one thought behind it…"

Committee Action: Council Member Holtzclaw moved to approve the Minutes of May 15, 2008, as amended; seconded by Council Member Zamora; carried unanimously without objection.

Committee Reports

2. Executive Committee Meeting of May 15, 2008

Vice Chairperson Brazil reported that at the Executive Committee meeting of May 15, 2008, members spoke about the last Board meeting where Dr. Bedsworth was supportive of a work plan for indoor air quality and he also reported that the A & WMA Conference highlights were discussed.

3. Technical Committee Meeting of June 9, 2008

Committee Chair Kurucz reported on Dr. Duffy's presentation on global warming, stating temperature changes were reviewed which found more warming in winter months and less in summer months. Studies show more warming of nighttime minimums marking key summer daytime highs. Climate models cannot presently reproduce well key daytime maximums.

The decreased amount of snow is due to warming and not to precipitation. We see greater temperature gradients due to inland warming which drives coastal cooling. Models indicate that warming is likely to get much worse when viewed on a statewide scale. Bay Area and California trends are similar from 1949 to present and there is greater radiant heating and not more extreme temperatures. Also discussed were 4 area studies, 3 of which showed warming trends and one that did not. The course-scale global models do not include all of the drivers or forcing factors that effect regional scale climate. Some of those are land use change, which includes irrigation and urbanization. In California, irrigation is a very significant driver of regional climate and actually a cooling influence. The other factor that is a cooling is aerosols. Their effects are not well understood and not represented in the global scale models, and agricultural aerosols are not represented at all in the Central Valley. Another factor not in the model is the snow albedo feedback, which has an amplifying effect on warming wherein the loss of snow itself creates warming, and in the course-scale models, there is no snow.

4. Public Health Committee Meeting of June 9, 2008

Committee Chair Zamora reported that the meeting focused on Regulation 6, Rule 3, Wood-Burning Devices. Committee Member Weiner and he testified before the Board of Directors at its July 9, 2008 meeting.

5. Air Quality Planning Committee Meeting of June 16, 2008

Vice Chairperson Brazil reported that Theresa Rommell, Senior Planner/Analyst from Metropolitan Transportation Commission (MTC) and staff from San Francisco Metropolitan Transportation Authority (SFMTA) provided the Committee with a presentation on the current state and future projections of regional transit funding. A revenue panel was convened by the Mayor to study ways to fund Muni and review a zonal fare, and fare free scenarios. David Wiley of the Air District provided a presentation and information on motor vehicle registration fees received by the Air District from surcharges, sources of which are dictated by legislation include $4 for AB 434, Transportation Fund for Clean Air and $2 for AB 923, the Mobile Source Incentive Fund. The Committee also discussed the need for a HOT lane policy, the need for congestion pricing to wrap into how the Air District could fund those projects, and a

recommendation from the Committee to support congestion pricing for the Council at their September meeting.

PRESENTATION

6. Consideration and Approval of Draft Resolution on Indoor Air Quality.

Committee Member Zamora briefly discussed the background on work to date, regulations and data on indoor air quality, and the purpose of bringing the information to staff and to the Advisory Council. The resolution is intended to be a resource document for Air District staff, state, federal and other agencies. For example, if a call was received on asthma, one could review the appendices and identify a resource to refer to. He noted the document would need to be updated from time to time. Committee members thanked Mr. Zamora for the Committee's work.

Committee Member Glueck questioned how someone could properly screen an indoor air quality or environmental issue versus a true health issue. Committee Member Zamora believed the question was extremely complex and certain health and environmental issues would need to be identified and eliminated to get to the source of the problem, and Committee Member Kmucha agreed the matter was complex in that everyone has their own unique sensitivities, daily exposures, and personal medical history.

Vice Chair Brazil referred to the Recommendation section and he confirmed coordination was also being done with local health departments and the Air District. Committee Member Weiner and other members voiced the importance for resource information to be updated on a regular basis.

Committee Action: Council Member Altshuler moved to approve the draft Resolution on Indoor Air Quality and forward it to the Board of Directors; seconded by Council Member Weiner; carried unanimously without objection.

Mr. Broadbent requested Item 8 be taken out of order.

AIR DISTRICT OVERVIEW

8. Report of the Executive Officer/APCO
   Mr. Broadbent provided an update on pending and planned Air District activities, policies and initiatives.

Mr. Broadbent thanked those members who attended the A & WMA Conference in Portland. He said that the Air District is beginning its new budget cycle and monitoring its resources. He also discussed the wood smoke regulation which had just been adopted by the Board of Directors, and he thanked the Advisory Council for their support. He briefly discussed the Port of Oakland's and other port's efforts on the Green Port Initiative, the truck retrofit program, infrastructure bond monies acquired by the Air District, and costs and technical challenges with devices for short haul trucks. He said the Board of Directors has asked the Climate Protection Committee to formulate a work plan that speaks on how the Air District relates to AB32, said the Bay area is

experiencing a very bad summer with 6 violations of air quality and 10 violations over the state standard, and Ms. Roggenkamp noted that today and tomorrow were Spare the Air Days.

Committee Members discussed fires and their impact on ozone, heavy duty trucks outlawed on I-580, trucks entering and leaving the Port of Oakland and their schedule, retrofit/replacement of trucks, incentivizing cleaner trucks and CARB's consideration of an on-road truck rule in October/November. Mr. Broadbent suggested inviting Mr. Richard Sinkoff to a future meeting in order to discuss the Port of Oakland's Maritime Air Quality Improvement Plan.

7. **Update on CARE Program**

Dr. Phil Martien provided an update on the CARE Program, the West Oakland Health Risk Assessment and implementation of the CARE Mitigation Action Plan. He stated that staff compiled emissions of toxic air contaminants throughout the Bay Area in 2005, discussed the Air District's participation in the West Oakland HRA and presented key findings:

- The West Oakland community is exposed to diesel PM concentrations that are almost three times the estimated background diesel PM concentrations in the Bay Area.
- The estimated lifetime potential cancer risk for residents of West Oakland from exposure to diesel PM emissions is about 1200 excess cancers per million.
- On-road heavy-duty trucks result in the largest contribution to the overall potential cancer risks levels in the West Oakland community, followed (in order) by ships, harbor craft, locomotives, and cargo handling equipment.

Dr. Martien discussed potential cancer risks from Port emissions and non-cancer health impacts from Port diesel PM emissions, CARB findings on risk reduction, the Air District's roles and commitments in West Oakland. He said the CARE Mitigation Action Plan focuses risk reduction activities where they are most needed. It is based on maps of toxic air emissions and sensitive populations. Six impacted communities were identified. The Action Plan includes grant funds, outreach efforts, liaison with local health departments, land use guidance and the Green Ports Initiative.

He discussed incentive funding which includes: $11 million for replacement and retrofit of heavy-duty diesel engines, $35 million in Goods Movement Bond (main), $4 million in Goods Movement Bond (early action), $11 million in Mobile Source Incentive Fund, $16 million in TFCA Regional funds, and $10 million in TFCA County Program Manager funds. He discussed land use guidance, stating that cities and counties have authority over local land-use decisions but that land use guidance will help evaluate health impacts resulting from new development projects and from existing toxic sources, determine when mitigation is required, assist with general plans and project-specific analysis, and provide tools for more informed local decision-making. He said next steps include work with ARB to complete the final West Oakland HRA, conduct truck survey and measurement study, conduct sub-regional and regional modeling, continue to implement the CARE Mitigation Action Plan, and continue dialog with communities.

Committee Members discussed with Dr. Martien the following:

- The number of respiratory cases has risen;

- How ships at ports operate, unload, transfer loads, and the electrification process;
- The existence of possible coding and calculating errors by the Office of Statewide Health Planning and Development (OSHPD) staff which is done by retrospective chart review after the patient has already been discharged and usually by people who are not medically trained, as well as whether data is counted and included for those who go to emergency rooms and receive treatment, and the need for some sort of standardization.
- Modeling and measurement studies which have been done by CARB;
- The Air District's participation in West Oakland HRA;
- The fact that automobile traffic impacts are not factored into the West Oakland HRA which would increase PM emissions;
- Whether the CARE Program was advocating alternative technology and transportation alternatives and looking to streamline efforts of barge distribution of containers to outlining areas to alleviate on-road truck activities. It was noted that Port facilities were not all equipped to handle large volumes of containers;
- The study done by FedEx which tracks data on routes, miles, time delays, and efficiencies for their truck movements;
- Data should be collected based on cumulative or high episodes for non-cancer health impacts rather than averages;
- Sub-regional modeling for the 4 other ports in the Bay Area, focus on review of local scale modeling, and focus on risk reduction activities where they are most needed which include Richmond, Concord, West Oakland, Eastern San Francisco, East Oakland/San Leandro and San Jose;
- Tom Cahill's study on the impacts of landscaping along highways which shows that it can reduce particulate matter. A possible mitigation measure proposed at the State level was to study the effects of vegetation on reducing particles next to housing, and local funding for street tree planting programs;
- Risk from diesel particulate matter and its spatially averaged numbers, benefits of reductions for West Oakland once the on-road truck regulation is adopted;
- Rates of cancers, heart attacks, premature deaths;
- Other strategies used for drayage trucks, the school bus replacement program and approval of a consulting firm to provide outreach and assistance with the application process.

OTHER BUSINESS:

9. Council Member Comments/Other Business

Committee Members individually reported on their participation at the A & WMA Conference in Portland, their preferred sessions and keynote speakers, Portland's transportation system, Portland's use of streetcars and bicycles.

Committee Members suggested that Professor Schneider from Stanford be contacted to speak at its September or October meeting and that Mr. Sinkoff, Director of Environmental Planning, be contacted to provide a presentation on the Port's MAQIP.

Committee Member Kurucz reported that the Bureau of Automotive Repair Program reimburses up to $1,000 to purchasers of new, non-polluting vehicles.

10. **Time and Place of Next Meeting:** The next meeting will be held on Wednesday, September 10, 2008, to be held at 939 Ellis Street, San Francisco, CA 94109.

11. **Adjournment:** The meeting adjourned at 4:40 p.m.

/S/ Lisa Harper
Lisa Harper
Clerk of the Boards

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

APPROVED MINUTES

Advisory Council Technical Committee
9:30 a.m., Monday, August 4, 2008

1. **Call to Order – Roll Call.** Chairperson, Kraig Kurucz called the meeting to order at 9:35 a.m.

   Present: Sam Altshuler, P.E., Robert Bornstein, Ph.D., Fred Glueck, John Holtzclaw, Ph.D., Kraig Kurucz, Chairperson.

   Absent: Louise Bedsworth, Ph.D.

2. **Public Comment Period.** There were no public comments.

3. **Approval of Minutes of June 9, 2008:**

Dr. Holtzclaw made a motion to approve the minutes. The Committee submitted minor edits to the minutes, discussed the need for speakers to provide a summary of their comments, and suggested that future minutes be summarized to a minimum of 3-4 pages.

Chairperson Kurucz commented that Dr. Duffy did not review the minutes and suggested he be forwarded the draft minutes to edit, for staff to make editorial amendments and resubmit the minutes for approval at the next Technical Committee meeting in October.

4. **Committee Member Comments/Other Business:**

Mr. Glueck questioned whether or not the Air District could, over the next few months, monitor the differences in air quality due to changes in China during the Olympics and how it affects background here. Gary Kendall, Director of Technical Services, stated that the Air District performs air monitoring and the data are archived and available for such analysis. The Committee then briefly discussed tracking, whether or not background is affected, wind direction and blips up or down which may be caused by meteorology or emissions.

Chairperson Kurucz reported that for the Committee's next meeting, Dr. Schneider has been contacted and is interested in providing a presentation to the Committee. He stated that Board of Directors' Vice Chair Torliatt had expressed interest in Dr. Schneider's presentation. Chair Kurucz asked whether a joint meeting would be possible.

After brief discussion, there was general agreement by the Committee that staff would discuss scheduling of the presentation with Chair Hill for the October 15th Board of Directors meeting, Chairperson Kurucz would contact and confirm Dr. Schneider's availability for October 15th (with an alternate date of October 20, 2008), and that the presentation focus on the Bay Area, what are the upcoming impacts, and what could the Air District do in taking a leadership role in adaptation and mitigation.

5. Discussion of Implications of Climate Change; Synergies and Conflicts of Climate Change on Bay Area Air Quality: *The Committee discussed the implications of climate change; synergies and conflicts of climate change on Bay Area air quality.*

Mr. Altshuler communicated that he believed there was a conflict between controlling wood smoke and using renewable energy, was surprised the Rule came down hard on perceived cleaner stoves and not as hard on fireplaces and the lack of the argument made for renewable energy. Ms. Roggenkamp, Deputy APCO, explained that this was addressed in the environmental document for the new Rule.

Chairperson Kurucz referred to the format of a recommendation of the Technical Committee and discussed with members recommended actions and important points to identify as "whereas" clauses.

Dr. Bornstein asked staff to identify the last Air District document which would state the position of the Board of Directors and the Air District having to do with climate change in air quality. Ms. Roggenkamp responded that this topic was discussed by the Board at their January Retreat; climate protection is one of the key initiatives of the Air District and since that time the fee schedule for greenhouse gases had been adopted. Staff has also discussed with the Climate Protection Committee about preparing a Work Program for climate protection, which she said was in the planning stages.

Dr. Bornstein recommended that the Air District's modeling efforts be state-of-the-art and all-encompassing in order to model ozone, PM, climate change and CARE with an integrated set of models, and that the District ensure their modeling group has the tools to carry out this kind of modeling. Ms. Roggenkamp reported that the Air District recently embarked upon a multi-pollutant plan, and she agreed it is important to think about multiple pollutants at the same time and what this means for PM, toxics or greenhouse gases. She said staff held one public workshop to discuss this idea, there was support from those in attendance, and she suggested this as an appropriate avenue. Staff is looking at how to analyze different kinds of control measures, look at benefits and potential conflicts among pollutants which is in concert with what the Committee is suggesting.

Dr. Bornstein reiterated the need to study the local impacts, local observations and conduct modeling to know past conditions, project future conditions, and how to adapt and mitigate.

Chairperson Kurucz suggested the Committee discuss and synthesize the next item in order to develop a recommendation to the Advisory Council.

6. Discussion of Presentations made to the Advisory Council Technical Committee:

1. *Update on PM Inventory Development, Modeling and Data Analysis (presented on February 11, 2008 by Mr. Saffet Tanrikulu and Mr. David Fairley);*
2. *Consequences of Changes in Temperature, Inflow Boundary Conditions, and Local Emissions, on Air Quality in Central California (presented on April 7, 2008 by Professor Rob Harley);*
3. *Past and Future Temperature World-Wide, in California, and the Bay Area (presented on June 9, 2008 by Dr. Philip B. Duffy).*

Chairperson Kurucz pointed out the importance of formulating a good summary of the presentations and suggested beginning with "whereas" clauses, which would then lead to recommendations. He suggested one of the actions to recommend be modeling; both multi-pollutant and a regional version of the global models.

Dr. Bornstein said the original global models diverged and people did not believe them until they were able to simulate what happened in the last hundred years. Then they started to believe simulations out for another hundred years. He said if the Committee is recommending some sort of regional modeling, a component of this should be able to reproduce what has happened over the last 40 years and then look at projections out for the next 40 years in a changing climate.

He suggested that an ad-hoc committee be considered, comprised of experts from Livermore Laboratories, Stanford University or other research institutes to meet and form a pool of knowledge on climate change and its impact on the local area. Ms. Roggenkamp noted that there has been some consideration among staff about holding a one-day symposia to discuss potential conflicts as we think about all pollutants at once and representatives of this sort would be invited. She agreed that possibly one of the recommendations out of the symposia could be for representatives to continue to meet.

The Committee discussed at length the following phrases as input to the resolution:

WHEREAS, problem/solution of climate change and regional pollution are inter-related;

WHEREAS, EPA modeling is now becoming multi-scale and multi-pollutant;

WHEREAS, implications of renewable energy involve concentration, energy, conservation, and health;

WHEREAS, climate change can overwhelm and cause unintended consequences and trade-offs (e.g. aerosols and climate, fires, coastal cooling, snowfall, flooding);

WHEREAS, regional reactions to global climate change are varied;

WHEREAS, land use planning strategies impact local climate change;

WHEREAS, Bay Area has unique concentration of analytical capabilities, experts and innovators;

WHEREAS, prediction models need validation on past changes;

WHEREAS, Bay Area has existing observational networks;

WHEREAS, the Bay Area has served as a model in air quality strategies;

THEREFORE, the Technical Committee recommends that the Air District include climate change issues in the Air District's multi-pollutant, multi-scale air quality management planning process, including:

- Continuing to apply and validate the best available multi-scale and multi-pollutant models to local linked air-quality and climate change issues.

Dr. Bornstein also suggested the clauses reference the individual person who gave the Committee the information/ideas.

Mr. Altshuler recommended that the Air District consider the position of a Climate Protection Officer, similar to the newly approved Public Health Officer, in order to raise the status of the Committee's position. Ms. Roggenkamp reported that employee, Ana Sandoval has been promoted to Senior Policy Advisor in the Executive Office and one of her roles will be working on climate protection issues in a policy-oriented manner and how the Air District works with outside organizations. She also stressed that Planning Division staff currently focus on climate protection, and part of the concept over time is that this be integrated throughout the Air District.

Dr. Bornstein suggested that observations be used to understand what the local climate changes are and that this be a separate recommendation. Chairperson Kurucz stated that this needed to be made in context and not used as a reason to avoid action on a local basis.

In closing, Chair Kurucz expressed thanks to Committee members and agreed to work with two other members of the Committee to wordsmith the draft resolution and bring it back to the full Committee for finalization and submission to the Advisory Council.

7. Time and Place of Next Meeting: At the call of the Chair.

8. Adjournment. 11:54 a.m.

Lisa Harper
Clerk of the Boards

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

DRAFT MINUTES

Air Quality Planning Committee
9:30 a.m., Monday, August 11, 2008

Call to Order: Chairperson Drennen called the meeting to order at 9:33 a.m.

Roll Call: Ken Blonski, Irvin Dawid, John Holtzclaw, Ph.D., Robert Huang, Ph.D., Kendal Oku and Emily Drennen, Chairperson.

Absent: Harold Brazil, Irvin Dawid, William Hanna, Kraig Kurucz

Public Comment Period. There were no public comments.

Approval of Minutes of June 16, 2008: Chair Drennen deferred the approval of the minutes to the end of the meeting or until there was a quorum established of the Committee.

Presentation by ClimatePlan on the Air Resources Board AB 32 Climate Change Draft Scoping Plan

Chair Drennen reported that ClimatePlan representatives could not be present to provide a presentation, and she acknowledged receipt of materials which had been forwarded to her for distribution to the Committee.

Overview of Air Resources Board AB 32 Climate Change Draft Scoping Plan and Discussion and Consideration of Policy Recommendation Regarding AB 32 Climate Change Draft Scoping Plan

Environmental Planner Sigalle Michael gave a PowerPoint presentation and overview of the Draft Scoping Plan, noting that the draft plan outlines approaches for implementing AB 32. Key elements of the Plan include a cap and trade program to begin in 2012, expanding energy efficiency, increasing a renewable portfolio standard to 33%, and implementing new and existing regulations for vehicle standards and low carbon fuel standard. Transportation measures include: Pavley I & II, low carbon fuel standard, vehicle efficiency, goods movement, high speed rail, local government actions and regional targets, and other sectors such as high GWP gases, forests, recycling and agriculture. Additional measures include vehicle feebates, congestion pricing, pay-as-you-drive insurance, industrial source measures and indirect source rules for new development.

Ms. Michael discussed potential Air District roles in enforcement, tracking relationships between GHG reductions and toxic and criteria pollutants, permitting of new equipment and technologies, collaborating on outreach and education, assisting local government with

Climate Action Plans, assisting in developing and tracking regional GHG reduction targets, and providing CEQA guidance.

She presented the scoping plan schedule as follows:

- June 20, 2008 – Draft Scoping Plan released for public review;
- July 22, 2008 – Technical Appendices released for public review;
- October 2008 – Proposed Scoping Plan to be released;
- November 2008 – ARB Board to consider adoption of Scoping Plan;
- 2009-2012 – ARB to develop and adopt rules for plan implementation.

Chair Drennen reported a number of local and regional agencies are preparing response letters to ARB on the Draft Scoping Plan and she confirmed with Deputy APCO Jean Roggenkamp that a response by the Air District was due by Friday.

Dr. Huang questioned and confirmed with Ms. Roggenkamp that the Air District has the resources to carry out provisions of the draft plan and has been integrating greenhouse gas reduction in its existing work and programs.

Dr. Holtzclaw agreed that the ARB seems to understand and is committed with the land use nexus and design which will result in miles traveled and information on trips; however, he believed that the draft plan ignored some of this. Ms. Roggenkamp noted that transportation and fuel related issues were new for the ARB, but said they recognize there is a need and are waiting to choose a direction until feedback is received.

Mr. Blonski questioned population assumptions in the Draft Plan and he confirmed with Ms. Roggenkamp that population growth is taken into consideration and information is identified on a “per capita” basis.

Mr. Blonski referred to the overview of measures and forests, stating there is a build-up of growth and vegetation; a number of studies have looked at how California deals with wildfires and where we build, but it has been proven that if you keep fire out of these eco-systems, it will return. He said this year out of a total of 120 million acres, approximately 1 million acres had been burned, and he pondered how minimizing damage from wildfire through vegetation management would play out.

Dr. Holtzclaw questioned whether or not there have there been studies of the contribution to global warming of wildfires compared to other contributions, and Mr. Blonski said there are a number of economists looking at it, but he was not up on the studies and would need to research this further. He said interestingly, particulate matter is viewed as a fumigant, and with inversions it can be a contributor of forest health.

Dr. Holtzclaw said it seems to be the location of housing that guides what we protect and do not protect. Mr. Blonski agreed and said people are being allowed to build in areas where it does not make sense in relationship to fires. He noted it is difficult to get cities and counties to limit development and believed people focus on structural protection versus resource protection.

Chair Drennen questioned the reference of $5 million identified in Table II of the Scoping Plan, noting that breakdown of monies would be as follows: Transportation at 38%; electricity at 23%; industry at 20%; commercial building at 9%, and agricultural at 6%, and other as a very small amount. Ms. Roggenkamp clarified that under cap and trade, sectors include transportation fuels and not fuels used already in cars, and monies would support additional measures to regulations already in place. She believed land use and transportation were strong components of the Draft Plan.

Chair Drennen discussed the need to include and focus on land use and transportation strategies in the Committee's recommendation, noted ClimatePlan's comments relating to reduction targets being too low to spur meaningful change, and she said omitted from the plan were public transportation and congestion relief programs.

Mr. Blonski said bus and train ridership was at an all-time high and he believed this would be an excellent vehicle to weigh in on ridership, such as Caltrain and the San Joaquin Valley. He is dismayed that the United States is the only industrialized nation that does not have high speed rail or a rail network, and except for high speed rail, the Draft Plan does not fully address this.

Dr. Huang believed the Air District could accomplish very little without the participation from its local cities and confirmed with Ms. Roggenkamp that regional agency staff were also collaborating together to arrive at a more comprehensive plan.

Dr. Holtzclaw suggested considering a new revenue source that rewards cities and counties that do the best job, such as an emissions tax that goes back to the cities on their per capita reductions. Mr. Blonski voiced concern in a per capita allocation, as Contra Costa County had significantly less production of greenhouse gases than Sonoma or Marin Counties due to industrial lands and the existence of refineries. Chair Drennen suggested those purchasing high-emitting vehicles could be taxed, and proceeds from the tax could go back to users of non-polluting or low emission vehicles.

Mr. Hilken pointed out the collaborative efforts of the Joint Policy Committee, stating Air District staff and regional agency representatives meet and focus on climate change.

Chair Drennen suggested the Committee work on formulating a list of recommended principles to be passed on as a recommendation to the Advisory Council and thereafter, to the Board of Directors, in response to the Draft AB 32 Scoping Plan. The Committee discussed bullet points from documents received from ClimatePlan, agreed with the need for transportation and land use issues to be included in the recommended set of principles, and reviewed presentations made to the Committee over the last year.

BREAK

The Committee took a break at 11:14 a.m. and reconvened the regular meeting at 11:35 a.m.

Chair Drennen and the Committee agreed to the following eight principles to be forwarded as a recommendation to the Advisory Council, and thereafter, to the Board of Directors in their response to comments on the Draft AB 32 Scoping Plan:

1. Climate protection actions can and should reinforce current efforts to reduce criteria and toxic air contaminants. Other benefits include lower heating and cooling costs, reduced water use and improvements in energy efficiency and public health;
2. Given that the transportation sector contributes approximately 40% of all global warming emissions in California, the Scoping Plan needs to include more aggressive emission reduction targets for land use and transportation. The plan should encourage efficient, non-auto dependent growth and compact development close to resources, jobs and transit;
3. By taking a strong leadership role now, California will realize compounded and co-occurring benefits from future land use and transportation planning undertaken now. Actions not taken will cost all Californians more in the future;
4. Given that bus and train ridership is at an all-time high in California and that transit agencies are chronically underfunded, the Scoping Plan needs to address crucial transit investments and promote transportation efficiency to give Californians better transportation options, including biking and walking;
5. The California Air Resources Board (CARB) should set firm targets for regions but authorize regions and localities to choose from a flexible set of policy tools to achieve the targets. Targets need to be set using a transparent, justifiable methodology, and once set progress should be measured in the same process and reviewed in shorter timeframes in order for it to be consistent over the years;
6. The Air District supports the adoption of a series of key policy tools currently under consideration, including the Indirect Source Rule, Pay-As-You Drive Insurance, Congestion Pricing and incentive programs. Other innovative measures could include alternative parking management practices (e.g. the "SFPark Program), speed reduction measures and new carbon fees to assist and reward jurisdictions successful in meeting planned targets;
7. The plan should make it a top priority to invest in and sustain public transportation and programs to improve transportation efficiency and reduce congestion. In many cases, the state, regions, and local agencies can simply redirect funds they are already going to spend. For instance, the statewide plan should encourage metropolitan planning organizations to re-examine committed funds in their long-term transportation plans;
8. Cities, counties and regions should be given incentives to develop in less fire-prone areas, manage vegetation and conserve forests and agriculture in order to sequester carbon and improve air quality.

Action: Mr. Blonski made a motion to approve and recommend that the eight principles be forwarded for consideration to the Advisory Council, and thereafter onto the Board of Directors, and advocate for their inclusion in the CARB Draft Scoping Plan; Dr. Holtzclaw seconded the motion. The motion was approved unanimously.

Approval of Minutes of June 16, 2008: Dr. Holtzclaw moved to approve the minutes of June 16, 2008; Mr. Oku seconded the motion. The minutes were approved unanimously.

Discussion and Consideration of Agenda for Next Meeting

Chair Drennen asked members to submit questions and comments on congestion pricing for the next meeting on October 2, 2008.

Dr. Huang requested a professor from UC Davis who is an expert on Environmental Justice speak at the next Committee meeting, and he agreed to send the Chair the professor's contact information.

Dr. Holtzclaw requested the Clerk poll for the next meeting to be held October 16, 2008, stating he would be on vacation until October 10, 2008.

Time and Place of Next Meeting: 9:30 a.m., Thursday, October 16, 2008 – 939 Ellis Street, San Francisco, CA 94109.

Adjournment: The Committee adjourned at 12:32 p.m.

/s/ Lisa Harper
Clerk of the Boards

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
(415) 749-5000

APPROVED MINUTES

Advisory Council Regular Meeting
10:00 a.m., Wednesday, September 10, 2008

Call To Order

Opening Comment: Chairperson Bedsworth called the meeting to order at 10:05 a.m.

Roll Call: Susan Adams, Sam Altshuler, P.E., Ken Blonski, Robert Bornstein, Ph.D., Jeffrey Bramlett, Harold Brazil, Irwin Dawid, Emily Drennen, Fred Glueck, John Holtzclaw, Ph.D., Robert T.P. Huang, Ph.D., Kraig Kurucz, Karen Licavoli Farnkopf, MPH, Kendal Oku, Virginia Smyly, Linda Weiner and Brian Zamora.

Absent: William Hanna and Steven T. Kmucha.

Public Comment Period – There were no public comments.

Consent Calendar

1. Approval of Minutes of July 9, 2008

- Council Member Kurucz requested minor edits be made to the Technical Committee report.

Committee Action: Council Member Holtzclaw moved to approve the Minutes of July 9, 2008, as amended; seconded by Council Member Zamora; abstained by Mr. Dawid as he was not in attendance for the July 9th meeting; carried unanimously without objection.

Committee Reports

2. **Technical Committee Meeting of August 4, 2008**

Committee Chair Kurucz reported that the Committee had a discussion on presentations received from speakers over the past year. Speakers included Saffet Tanrikulu, David Fairley, both from the Air District, informing the Committee of the data analysis conducted on local pollution and particulate matter. In addition, Professor Rob Harley addressed the Committee on the consequences of changes in temperature, inflow boundary conditions, local emissions on air quality and a presentation from Dr. Phil Duffy on past and future temperature worldwide. Information from these presentations has been synthesized and the Committee is now working

towards a recommendation to the full Council. Mr. Kurucz reviewed the Committee's discussion on climate change and regional pollution. Inter-related subjects discussed include: regional reactions to global climate change; implications of renewable energy involving energy conservation and health; and land use planning strategies. Mr. Kurucz continued stating that the Air District should include climate change issues in its multi-pollutant, multi-scale air quality management planning process, including applying and validating the best available multi-scale, multi-pollutant models to local linkages between air quality and climate change. It was also requested that the Air District stay current and get the best tools available for experts to use in their air quality planning efforts in proposing new regulations.

The Committee discussed whether the Air District should have a Climate Protection Officer, which will be revisited at a future meeting. Mr. Kurucz concluded his reported.

Chairperson Bedsworth stated that Ms. Drennen would provide the Air Quality Planning Committee report with recommendations to AB32 Draft Scoping Plan.

3. **Air Quality Planning Committee Meeting of August 11, 2008**

Committee Chair Drennen reported that for agenda planning purposes, October 2nd or October 16th, will be considered as potential dates for the next Air Quality Planning Committee meeting. The topic will include High Occupancy Toll Lanes (HOT Lanes) and congestion pricing policies.

Chair Drennen continued with AB32, stating that at the August 11th meeting the Committee decided to tackle this issue due to time sensitivity. Ms. Drennen provided the Council with a brief overview of AB32, stating that the goal of AB 32 is to reduce greenhouse gas emission to 1990 levels by 2020. Ms. Drennen stated that transportation provides the largest amount of emissions of any sector. The California Air Resources Board (CARB) has put together a draft scoping plan. Chair Drennen stated that the plan leaves out some general ideas of measures that might be implemented in the future, to meet the goal of 1990 levels. Ms. Drennen noted that Air District staff provided the Committee with a presentation on AB32 and its implementation plan; in addition the Committee reviewed information materials from a group called Climate Plan. Chair Drennen continued that recommendations from the Air Quality Planning Committee would then to go the Board of Directors' Executive Committee; and if approved would move to the Board of Directors and then to CARB for comment.

In addition, Chair Drennen noted that Air District staff worked on a comment letter. Chair Drennen requested that Ms. Roggenkamp provide the Committee with a summary. Ms. Roggenkamp stated the comment letter focuses primarily on two main aspects of the Scoping Plan; 1) how the Scoping Plan treats stationary sources, which is historically the Air District's regulatory purview for greenhouse gases and climate protection; AB32 provides this authority to ARB, as there is a significant need for coordination on stationary source regulations; and 2) The cap and trade program that is being proposed, there is not much detail about the cap and trade program in the Scoping Plan, so there were several issues raised in particular, how the cap and trade program would be designed in order to make sure it is set up in a way that would not adversely affect the commercial industry. There are also measures that address stationary sources that were in a category that called for further evaluation. The Air District felt that those should be brought forward into the recommended strategies for refineries, cement plants, dock plants and others.

The other topics that the Advisory Council Air Quality Planning Committee addressed in its proposed comments were the linkage between land use, transportation, air quality and greenhouse gases.

Council Member Drennen commented that part of the reason for taking on this issue; is because many felt the Draft Scoping Plan does a pretty good job of looking at fuels and vehicle efficiency, but it leaves the other part nebulous and not completely fleshed out. Council Member Drennen thanked staff for implementing some of the Committee's questions into the letter. Council Member Drennen continued, providing the Committee with an overview of the recommendations.

Council Member Weiner commented that the memo seems to focus on transportation land use, which is fine because the Air District deals with air quality, she was not sure it should be under the same category of cap and trade. In addition, Council Member Weiner stated that whatever measures are taken whether it be cap and trade, or regulatory that they do not increase hot spots in those areas that include multiple sources of pollution; as that is an issue that all are concerned about.

Ms. Roggenkamp outlined the timeframe for document submittal to the Air Resources Board, as the next Executive Committee of the Board of Directors will be held on September 29, 2008. Assuming the Council agrees to move items to the Executive Committee, that would be September 29, 2008; Board of Directors meeting is October 1, 2008 and the Proposed Scoping Plan will be released on October 3, 2008. Ms. Roggenkamp continued stating that CARB is expected to take on this issue at their November 20, 2008 Board Meeting.

After a lengthy discussion Committee members provided their recommendations on the AB 32 Draft Scoping Plan comment letter.

Committee Action: Council Member Altshuler moved to approve the recommended changes to the proposed comments to CARB's Draft AB 32 Scoping Plan and forwarding to the Executive Committee for Board of Director approval; seconded by Council Member Holtzclaw; carried unanimously without objection.

PRESENTATION

4. Transportation 2035: Change in Motion

Chairperson Bedsworth introduced Ms. Ursula Vogel.

Ursula Vogel, Metropolitan Transportation Commission Public Information Officer, provided an overview and update on MTC's long-range regional transportation plan: Transportation 2035: Change in Motion.

Ms. Vogel presented MTC's RTP Transportation 2035 and addressed the financially constrained investment plan. Ms. Vogel noted that the total Plan revenue amount over the next 25 years is $223 billion. Transportation funds equal about 90% or $191 billion. Ms. Vogel stated that MTC looked into revisiting its commitments as asked, but determined that since most of the projects

are mandates or have already had substantial investments made in them, MTC would not uncommit any funds as part of this plan.

Ms. Vogel continued that the revenue is dispersed with:

48% Local - funds come from sales taxes, transit fares, and county sales taxes.
14% Regional – funds come from bridge tolls.
20% State – funds come from gas taxes.
12% Federal
6% Anticipated/Unspecified

Efficiency requests include:

- Lifeline - $0.4 million;
- Bike - $1.0 million;
- Climate - $0.4. million;
- Planning - $0.3 million;
- TLC - $2.2 million; and
- FPI - $1.6 million

MTC is in the process of working on eliminating shortfalls over the upcoming months.

Ms. Vogel continued the presentation showing existing, funded and proposed Freeway Performance Ramp Metering, which was launched in 2007. The Commission is eager to pursue HOT lanes and recognizes that goal can be better met by implement to the program regionally.

Ms Vogel continued her presentation by describing HOT Network Principles that include:

1. Collaboration and cooperation – CMAs, Caltrans, CHP, BATA
2. Corridor-based focus and implementation – user orientation
3. Reinvestment within the corridor – capital and operating
4. Corridor investment plans – guide reinvestment
5. Simple system – consistent design, signage, marketing
6. Toll collection – BATA
7. Financing – could include BATA toll bridge enterprise

Council Member Bramlett requested clarification on whether or not existing HOV lanes are being converted to HOT lanes and asked about taking existing lanes from 101 northbound and converting them directly to a HOT lane. Council Member Bramlett stated that he is extremely surprised and opposed to the continuation of pouring billions of dollars of concrete for these types of projects.

Ms. Vogel continued with the presentation and noted the following:

- Plan Expenditures by Mode - 65% transit and 35% roads;
- Plan Expenditures by Function - 81% maintenance and operations and 19% expansion;
- Plan Expenditures Supporting Focused Growth – 81% maintenance and operations, 12% transit expansion and 7% road expansion;

- Plan Expenditures Supporting Lifeline – 52% transit maintenance and operations, 36% roads and 12% transit expansion; and
- Plan Expenditures Supporting Climate Protection – 81% maintenance and operations, 12% transit expansion and 7% road expansion

Next steps include:

- Identify "Future Actions", and solicit input from partners and the public through Phase 3 outreach (October/November 2008)
- Conduct environmental assessment (EIR) and transportation/air quality conformity analysis (August-November 2008)
- Release Draft Transportation 2035 Plan & EIR (December 2008)
- Adopt Final Transportation 2035 Plan & EIR (March 2009)

Ms. Vogel concluded her presentation.

Chairperson Bedsworth thanked Ms. Vogel for her presentation.

AIR DISTRICT OVERVIEW

5. Report of the Executive Officer/APCO

Ms. Roggenkamp provided an update on pending and planned Air District activities, policies and initiatives.

Ms. Roggenkamp gave an overview of the Summer Ozone Season stating that there were 11 Spare the Air Public Health advisories; 11 exceedances were above the national 8-hour ozone standard; 16 days over the California 8-hour ozone standard; and 9 days over the California one-hour standard. Ms. Roggenkamp continued stating that the season will run through the beginning of October.

Ms. Roggenkamp continued that the Air District is gearing up for the Wintertime STA season, which starts in early November and stated that the Wood Smoke rule was adopted and thanked the Council for its help. The Regulation 6; Rule 3: Wood Smoke Devices is effective November 1, 2008. When there is STA Alert announced the public will be informed that this is not a night when you can burn solid fuels in your fireplace or woodstoves, as there will be extensive outreach. In addition, Ms. Roggenkamp informed the Council that there will be another round of rebates for change-outs to inserts and stoves.

Ms. Roggenkamp said that the state has recommended to EPA that the Bay Area be a non-attainment area for the 35 micrograms per cubic meter Federal 24-hour PM 2.5 standard. EPA has indicated that they plan to accept the states' recommendations that are currently out for public comment and EPA will make determinations of attainment and non-attainment areas by mid December, as the Air District is expected to be designated as a non-attainment area for PM 2.5, 24-hour standard.

Council Member Licavoli-Farnkopf inquired about the criteria for attainment/non attainment designations; Ms. Roggenkamp responded that it is based on a three year average; depending on the pollutant. As an example, Ms. Roggenkamp stated that for the 24-hour PM 2.5 standard, the last three year period indicates that the Air District will be non-attainment.

Ms. Roggenkamp continued that the Air District has conducted a truck count project in the West Oakland area, working with community members through Pacific Institute in the West Oakland Environmental Indicators Project. Truck count data was collected somewhere between 15 and 20 sites in West Oakland. Community members assisted with this project, the collection is completed and being analyzed. This information is relevant to the work of the Air District, Port of Oakland and ARB's work on health risks.

Ms. Roggenkamp concluded that the State Budget has not passed, and that it did not seem that things would particularly affect the Air District's budget, but until the budget is passed the Air District is uncertain.

Council Member Holtzclaw thanked Ms. Roggenkamp for being well informed and for her report.

OTHER BUSINESS:

6. **Council Member Comments/Other Business**

Council Member Bornstein stated that he just returned from two days at the 5th Annual California Climate Change Conference, sponsored by the California Energy Commission and the conference evolved into a powerful conference with 400+ attendees and 500-600 people participating via webcast.

Dr. Bornstein continued that the images of melting ice caps were dramatic. Most attendees were research and policy individuals. Discussions included climate change and policy, a keynote on transportation, resiliency to climate change and another keynote on the health of ecological systems. That speaker believed we would have to move species so that they can continue to survive, as they are unable to move themselves to regions with the correct climate; in addition the speaker stated that 1/3 of all the species in the world will be extinct. Council Member Bornstein presented a paper on coastal cooling related to per capita energy consumption.

7. **Time and Place of Next Meeting:** The next meeting will be held on Wednesday, November 12, 2008, to be held at 939 Ellis Street, San Francisco, CA 94109.

8. **Adjournment:** The meeting adjourned at 11:55 a.m.

/s/ Vanessa Johnson
Executive Secretary

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109
(415) 749-5000

APPROVED MINUTES

Advisory Council Executive Committee
Wednesday, September 10, 2008

1. **Call to Order – Roll Call:** Chairperson Louise Bedsworth, Ph.D., called the meeting to order at 9:02 a.m.

   Present: Louise Bedsworth, Ph.D., Chairperson, Jeffery Bramlett, Emily Drennen, Kraig Kurucz (9:13 a.m.), and Brian Zamora

   Absent: Harold Brazil

   Also Present: Sam Altshuler and Fred Glueck

2. **Public Comment Period:** There was none.

3. **Approval of Minutes of May 15, 2008:**

   Mr. Glueck provided an edit to be incorporated in the minutes.

   Committee Action: Ms. Drennen moved approval of the minutes as amended; seconded by Mr. Bramlett; the minutes carried unanimously.

4. **Standing Committee Chair Reports:**

   A) Public Health Committee Meeting of June 9, 2008

   Mr. Zamora gave the report on behalf of the Public Health Committee, stating that the Committee did not meet on August 13th, as there was not a quorum. The next meeting of the Committee is scheduled for October 8, 2008. Mr. Zamora also noted that at the next meeting the Committee will invite Richard Sinkoff from the Port of Oakland or possibly schedule Dr. Iton. Mr. Zamora continued by stating the subject for discussion would be the Air District's CARE Program as it relates to the Port of Oakland.

   Chairperson Bedsworth responded to Mr. Zamora stating that there is a possibility that Dr. Iton would be available in November. In addition, Chairperson Bedsworth stated a need for the Health Department and the Air District to work together on CARE and any other issues.

   Mr. Zamora concluded his report.

B) Air Quality Planning Committee Meetings of June 16, 2008 and August 11, 2008

Emily Drennen, Chairperson of the Air Quality Planning Committee gave the Committee report. The Committee received a presentation on the California Air Resource Board's AB 32 Climate Change Draft Scoping Plan. The Draft Scoping Plan was released to the public and open for public comment. Ms Drennen continued, stating that the Committee was able to come up with recommendations on the Draft Scoping Plan which are included on the agenda for the full Council consideration. The Air District staff has responded to the request for comments on the Draft Scoping Plan.

Jean Roggenkamp, Deputy Air Pollution Control Officer, provided the Committee with an overview of the Air District's comments submitted in a letter to the Air Resources Board. Ms. Roggenkamp stated that the Air Resources Board is now working to prepare the Proposed Scoping Plan, based on comments received.

Ms. Roggenkamp gave an overview of AB 32 stating that the bill was passed by the Legislature and signed by the Governor and is a road map on how California will address climate change. The goal is to reach 1990 levels of greenhouse gases in the state by 2020. Ms. Roggenkamp continued that the Executive Order called for 80% below 1990 levels by the year 2050, but AB 32 specifically focuses on the 2020 target. The Scoping Plan is the framework for how the state would propose to meet the 2020 target; it includes the cap and trade program and early action measures for high global warming potential gases such as voluntary measures, energy sector measures, transportation and land use measures.

Ms. Drennen concluded her report.

C) Technical Committee Meeting of June 9, 2008 and August 4, 2008

Kraig Kurucz reported that on June 9, 2008 Dr. Duffy provided a presentation on global warming. He summarized Dr. Duffy's key points: temperature change is going to continue and worsen; many factors are masking effects of global warming and current models do not take these factors into account; there are no increases in summertime highs, but there is overall warming as evidenced by increased daytime minimums and wintertime temperatures; the decrease in snowcap is due to warming and not due to a decrease in precipitation; and land use and agricultural practices, for example irrigation and aerosols, are important drivers of temperature but are not incorporated into current models. Effects of aerosols are not well understood and agricultural aerosols are not represented in Central Valley models. The snow albedo effect is also not represented.

Mr. Kurucz reported that on August 4, 2008 the Committee discussed the implications of climate change; synergies and conflicts of climate change on Bay Area air quality.

Based on presentations received over the past year, the Committee is developing resolution language focusing on climate change and regional air pollution, multi-scale and multi-

pollutant modeling, the implications of renewable energy and energy conservation as well as public health.

Mr. Kurucz reported that the Committee considered a recommendation for the Air District to hire a Climate Change Officer.

Mr. Kurucz concluded his report.

5. Chairperson's Report

Chairperson Bedsworth apologized for not being able to attend the Executive Committee meeting that was held in May, but thanked Harold Brazil for stepping in on her behalf. Chair Bedsworth continued, stating that the Committee will continue its efforts to have Dr. Iton as a speaker at an upcoming meeting.

6. Committee member Comment/Other Business:

There were none.

7. Time and Place of Next Meeting: 9:00 a.m., Wednesday, November 12, 2008, 939 Ellis Street, San Francisco, CA 94109.

8. Adjournment: The meeting adjourned at 9:20 a.m.

/s/ Vanessa Johnson
Executive Secretary

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

DRAFT MINUTES

Advisory Council Public Health Committee
1:30 p.m., Wednesday, October 8, 2008

1. **Call to Order:** Chairperson Zamora called the meeting to order at 1:37 p.m.

   Roll Call: Brian Zamora, Chairperson; Jeffrey Bramlett, Steven Kmucha, Karen Licavoli-Farnkopf, MPH, Linda Weiner

   Absent: Cassandra Adams

   Others Present: Louise Wells Bedsworth, Ph.D. and Virginia Smyly

2. **Public Comment Period:** There were none.

3. **Approval of Minutes of June 9, 2008:** Ms. Licavoli-Farnkopf moved approval of the minutes, seconded by Ms. Weiner, carried unanimously.

4. **Public Health Impacts of Climate Change:** *The Committee received a presentation by Advisory Council Chairperson Louise Wells Bedsworth, Ph.D. on the Public Health Impacts of Climate Change.*

Dr. Bedsworth gave a PowerPoint presentation on the public health impacts of climate change, responding to those impacts, climate change and local health officers, and a summary of findings on a survey conducted of public health officers.

She reported that global impacts of climate change show an increase in global average temperature of 2.5° F to 10.4° F degrees by 2100, a rise in sea level and an increase in frequency and severity of storms and alterations in regional flora and fauna. Models of climate change in California estimate there will be a temperature increase of 3.6° F to 10.8° F by 2100, as well as sea level rise, increase in frequency and severity of extreme events, reduction in snowpack levels which affect water basins, reduction in agricultural yields and quality which affects high value crops, and shifts in natural flora and fauna. She said there is no clear trend for estimates of future precipitation amounts, but there is a shift from snow to rain.

She presented scenarios over a number of different models, stating it is not known what path of emissions will take and how sensitive they will be to the climate once in the atmosphere.

Dr. Bedsworth discussed the sensitivity of each example and how they differ which she stated has to do with how climate will respond. In looking at the coming century, none of the lines (as presented in the graph) stay at or below zero, so there is some amount of change that will occur. Dr. Bedsworth noted that the lines stay much closer together until the middle of the century and

then they spread. This is due to the number of emissions in the atmosphere already and where differences will be seen at the end of the century. She confirmed the scenario presented was representative of business as usual.

Dr. Bedsworth then discussed and presented results of the PPIC survey which was conducted in July 2008. The following questions and results were included in the survey:

> *"How serious a threat is global warming to California's economy and way of life?"* -- 27% believed the threat was somewhat serious; 52% believed the threat was very serious.
>
> *"When will the effects of global warming start to happen?"* -- 64% believed it was already happening; 5% believed it is within a few years; 8% within my lifetime.

Dr. Bedsworth noted public health impacts can be broken into direct impacts: heat-related morbidity and mortality; and indirect impacts: air quality, vector-borne illness, wildfires, climate refugees, and strain on healthcare services.

She presented a chart on climate change and extreme heat projected in heat wave days to the end of the century and larger changes where currently there are not a lot of heat wave days. In addition to extreme heat deaths, she noted there is data showing an increase in mortality with the increase in temperatures over time. Key vulnerabilities are associated with age, social isolation, pre-existing conditions, those mentally disabled, those who are substance abusers, some who will do daring things during heat events, and some studies also cite young children.

Dr. Bedsworth said the study focuses on ozone pollution where the bulk of analysis was taken, and papers actually show the results of different things over time. There is a consistent trend with ozone and climate change because of increases in temperature, biogenic emissions, changing with mixing depths within the atmosphere, boundary changes, and energy demand changes. This trend results in the "Climate Penalty", which means that additional emission reductions will be needed to meet the same target and there will be an additional health costs as a result.

Dr. Bedsworth presented results from a modeling study of Dr. Rob Harley which looked at the Bay Area, Sacramento and Fresno. They looked toward 2050 and how climate change would affect air quality. The first is a business as usual future which revealed a 10% to 15% reduction in ozone levels by 2050. In looking at climate change/current emissions without reductions, an increase in pollution of 3% to 10% is projected in ozone levels. The final scenario is climate change with future emissions reductions, which finds that a reduction in ozone ranges from a zero to 9% reduction. The study also found that the Bay Area was found to be the most sensitive.

Dr. Bedsworth then discussed other health impacts, as:

- <u>Vector-Borne Illness</u>: She said while most have been eradicated, there has been dengue seen in Texas. However, one of the higher risks of something like this spreading is globally, through travel inside and outside the United States.

- <u>Wildfires:</u> Studies have shown an increase in frequency and extent and the numbers able to escape in contained boundaries.

- Displacement of Affected Populations: There is a possibility for people to be displaced outside of California or the globe.

- Strain on Health Care Services: With an increase of health related impacts comes more strain on emergency rooms, medical staff and health care providers.

Dr. Bedsworth further reported that California can reduce the public health impacts of climate change through mitigation of emission reductions, adaptation through programs designed to respond to and reduce vulnerability in the face of climate change, and she said both are critical elements of climate policy. Regarding adaptation and public health, the front line actors are the local health agencies and air quality planning agencies. Current programs exist to respond to public health risks, such as heat emergency plans, disease tracking programs vector control, and air quality improvement programs, all of which provide a good foundation for adaptation.

Dr. Bedsworth then discussed heat emergency plans, public education programs addressing energy and water reduction, and technical management tools to track disease and plan for drought, noting the PPIC conducted a survey of 61 local health officers on August 29, 2007. Responses came from 34 jurisdictions covering 32 counties and 2 cities, representing just over ¾ of California's population. The survey was completed October 26, 2007 and she presented the following survey questions and results:

"Is there a threat of global climate change?" 55% see it as a very serious health risk, 38% see it as somewhat serious, and there were minimal results for responses of "not at all or not too serious".

"What is the largest threat from climate change?" 35% believe it is from extreme heat; 28% from agriculture; 25% from water shortage; 22% from flooding; 18% from wildfires; 9% from human health; 5% from air quality and water quality, which is interesting because the State early on made air quality a big focus of greenhouse gasses' and vehicles.

"Do you believe some programs are already in place that can aid in adaptation to climate change?" While 100% responded there are programs for disease tracking, 88% had heat emergency plans and 12% did not. Very few had transportation to cooling centers, which is a factor that has been found to reduce mortality in extreme heat events.

"Do you feel that your agency has adequate information to respond to public health emergencies in general and to climate-related health emergencies?" 65% say yes they do, in general; 25% said no, they do not. 29% said they do and 68% said they do not when it is a climate-related health risk.

All surveyed believed it would be very helpful to have information on regional risk assessment, scientific information, Clearinghouse, Statewide health tracking database, guidance from the Department of Public Health, educational programs for agency staff, vulnerability assessment, and guidance from EOS.

"Do you feel that your agency has adequate resources to respond to climate change?" 70% said no and 20% said yes. Resources that would be helpful or very helpful included:

Health impact assessment:	97%
Dedicated funding:	93%
Staff with expertise in climate science:	79%
Vulnerability assessments:	65%
State coordination:	42%
Local coordination:	25%

In summary, Dr. Bedsworth said climate change will have direct and indirect impacts on public health; emissions mitigation will affect level of impacts experienced; adaptation will be needed to respond to the public health risks; local health agencies feel that they lack the resources and information to respond to the public health risks posed by climate change.

Ms. Weiner reported that CARB is developing a partnership with Public Health Department. They are revising the health impacts report and the Lung Association is also working with the health departments on land use policies within AB 32, looking at how SMART growth can impact obesity as well as other health related issues. Dr. Bedsworth noted that the larger survey report has come out and looks at adaptation needs, which has more specific recommendations. However, she said the Department of Public Health is not a member of the Climate Action Team which she believes is an important step that needs to be taken.

Chair Zamora questioned and confirmed with Dr. Bedsworth that work was being done across the country; Environmental Defense coordinated efforts with George Mason University and the National Association of Public Health Officials and surveyed a represented sample of health officials around the country with similar questions and results.

Chair Zamora questioned if Dr. Bedsworth could parse out opinions where communities are already hot versus temperate, and she noted there were 34 communities which were very difficult to break down. However, one interesting result was revealed when attainment and non-attainment areas were further broken down. She asked participants if there was a Spare the Air program or if they work with their air districts to publicize the information. People in non-attainment areas were more likely to work with air districts than attainment areas, which was flip-flopped.

Dr. Bedsworth then discussed a study with Ms. Weiner which assessed vulnerability assessments and extreme heat, and Chair Zamora suggested that further education and outreach was needed to promote cooling centers, especially for vulnerable populations.

Ms. Smyly briefly discussed the Katrina event and transportation and early warming systems not put into place. She suggested a registry be developed as opposed to communication through telephonic alert, as seniors sometimes do not have telephones, pagers, or cell phones. Dr. Bedsworth then discussed San Diego County's 9-1-1 system for those vulnerable which could be implemented and activated during extreme emergencies.

Committee members thanked Dr. Bedsworth for her informative presentation.

5. Committee Member Comments/Other Business - None

6. **Time and place of next meeting:** 1:30 p.m., Wednesday, December 10, 2008, 939 Ellis Street, San Francisco, CA 94109.

7. **Adjournment:** The meeting adjourned at 2:23 p.m.

/s/Lisa Harper
Clerk of the Board

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
(415) 749-5000

APPROVED MINUTES

Advisory Council Special Meeting
9:30 a.m., Tuesday, October 21, 2008

Call To Order

Opening Comment: Chairperson Bedsworth called the meeting to order at 9:31 a.m.

Roll Call: Chairperson Louise Bedsworth, Ph.D.; Council Members Cassandra Adams, Sam Altshuler, Vice Chair Harold Brazil, Ken Blonski, Robert Bornstein, Ph.D., Jeffrey Bramlett, MPA, Emily Drennen, Fred Glueck, William Hanna, John Holtzclaw, Ph.D., Robert T.P. Huang, Ph.D., Kendal Oku, Linda Weiner and Brian Zamora.

Absent: Irwin Dawid, Steven T. Kmucha, Kraig Kurucz, Karen Licavoli-Farnkopf and Virginia Smyly

Public Comment Period – There were no public comments.

1. **Discussion of Proposed Advisory Council Role:** *The Committee was provided information on the Board of Directors' consideration of revising the role of the Advisory Council.*

Mr. Broadbent provided a summary of the history of the Advisory Council, its purpose, membership, representation and standing committees, and said that staff has been considering ways to better utilize the talents and resources of the Advisory Council and had discussed concepts with the Board of Directors Executive Committee at its September 29, 2008 meeting. Specifically, the Executive Committee proposed that the Advisory Council meet four times a year and focus on the following topic areas: 1) current developments in health information related to air quality; 2) current developments in technologies and techniques for control of air emissions from stationary sources; 3) current developments in technologies and techniques for control of air emissions from mobile sources; and 4) current developments related to air quality in land use planning and transportation planning.

Mr. Broadbent further explained that the Air District staff includes scientists, engineers and planners capable of researching and developing policy and developing successful programs and principles relating to health impacts and air quality. The Air District's vision for the Advisory Council is to serve as a forum for hearing and facilitating discussions from experts.

Mr. Broadbent further discussed burdens on staff and duplication of efforts and said the Air District is looking to streamline efforts of the Council. He proposed a process similar to a symposium, where a call for papers would be issued ahead of the meeting and proceedings would be held on the four topic areas.

Discussion ensued and comments were received from the Council.

Mr. Broadbent discussed the Advisory Council's comments, stating that he believed the Air District has an extensive public process where stakeholders are involved and cited the CARE Task Force as an example. Moreover, he felt the Advisory Council can serve a greater purpose as a convener of speakers; members could more efficiently provide their expertise to the Council and be able to determine findings that need to be taken into consideration.

Mr. Broadbent noted that the Chair of the Board of Directors serves as an ex-officio member of the Advisory Council and should attend future meetings. He agreed that staff could logistically arrange for speakers and for papers ahead of time. In conclusion, he said staff was open to feedback and the Board of Directors would ultimately adopt the legal framework to implement recommendations.

Vice Chairperson Harold Brazil, acting as Chairperson in the absence of Dr. Bedsworth, confirmed with Mr. Broadbent that next steps would be to have him meet with the Chairperson, Vice Chairperson and Secretary to develop a proposal, which would be presented and discussed with the full Advisory Council at a regular or special meeting.

Mr. Broadbent thanked the Advisory Council for their patience, reiterated their level of expertise and he is optimistic about developing an efficient working model for the Air District.

OTHER BUSINESS:

2. **Council Member Comments/Other Business –** None.

3. **Time and Place of Next Meeting:** The next meeting will be held on Wednesday, November 12, 2008 at 10:00 a.m., 939 Ellis Street, San Francisco, CA 94109.

4. **Adjournment:** The meeting adjourned at 11:28 a.m.

/s/ Lisa Harper
Clerk of the Boards

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

DRAFT MINUTES

Advisory Council Technical Committee
9:30 a.m., Wednesday, October 22, 2008

1. **Call to Order – Roll Call.** Chairperson, Kraig Kurucz called the meeting to order at 1:00 p.m.

   Present: Sam Altshuler, P.E., Louise Bedsworth, Ph.D., Robert Bornstein, Ph.D., Fred Glueck, John Holtzclaw, Ph.D., Kraig Kurucz, Chairperson.

   Absent: None

2. **Public Comment Period.** There were no public comments.

3. **Approval of Minutes of August 4, 2008:** Mr. Glueck made a motion to approve the minutes of August 4, 2008; seconded by Mr. Altshuler; unanimously approved.

4. **Discussion of Presentations Made to the Advisory Council:** *The Committee discussed presentations made throughout the year.*

Chair Kurucz asked members if they had further comments on presentations made throughout the year. He suggested adding S.T. Rao's presentation and bringing it in by reference and working it into a recommendation. He referred to Slide number 7; "Managing air quality requires modeling tools that connect among various scales". He believes this goes right to the heart of what the Technical Committee is recommending, and it justifies it in terms of tying together various impacts at the different scales, and the fact that if you do not have all of the scales, then you cannot use the model as a predictive tool.

He said Slide 8 is the Air Quality Research Framework which shows where models fit into the scheme of developing recommendations. This is a long process and it does not necessarily lead to a new regulation as an output, but it sets us up to review the science and be able to add new data, run additional models, and use the latest thinking to develop a recommendation.

Dr. Bornstein said it also shows the interaction between the modules of this single model which used to be considered models unto themselves and were run independently from the other models.

Chair Kurucz said if the Technical Committee were to recommend one of these models and the Air District bought a multi-scale model or built one, and the Committee later on decided there was another whole factor it was interested in that was not part of the original purchase, he questioned if this is something that would need to be started from scratch or could it already be in there and capable of it, and it would not be used at some future point where it was determined

to be important to know. Dr. Bornstein said CMAC is designed to be similar to a file cabinet where if a new meteorological model comes along, one would pull out that shelf and put in the new one. Therefore, modules can be updated, and in addition, the new trend is to link all of these scientific models with impact models. So, it may not be a module dealing with pollution of streams now, but if such a module comes, CMAC is constructed for it to be plugged in and integrated. He believed EPA staff could add on any adaptation that is necessary.

Director of Technical Services, Gary Kendall, added that he believes Dr. Bornstein has explained it well; the complex models that employ chemistry generally have deposition built into them. It is a matter of taking the deposition calculations and feeding them into a different piece of software that would look at how that might impact the bay, streams and other waterways.

Dr. Bornstein said he did not believe the Committee should be recommending any specific model, but recommending research towards these integrated one atmospheric models. One could mention that EPA is in the lead, and staff could decide which models out there are the best, given their regulatory framework.

5. **Discussion and Consideration of Proposed Recommendation Resolution:** *The Committee discussed and considered a proposed recommendation resolution to the full Council.*

Mr. Glueck suggested considering a Therefore, Be it Resolved, that recognizing that the District has the implementation, enforcement and compliance obligations on behalf of CARB with consideration to AB 32, one of the efforts should be directed toward addressing how the District can encourage participation from the various stakeholder entities. He noted that there is not a lot the District will be able to do with the influence of mobile sources and more so with stationary sources. However, in terms of their outreach policies towards helping trucking groups in reducing their emissions, obtaining funds for switch outs of their power sources, being more aggressive with technological information to Ports and other stationary locations in alternative forms of energizing systems, and since their aspect is implementation and enforcement in nature, he believed part of that outreach effort could be what science has been made available, where to help direct stakeholders and whether there is a way to become more proactive as a resource of information, assistance and funding to those stakeholders who need to be in compliance with AB 32 regulations. He suggested the formation of an Ad Hoc Committee to identify alternatives in order to reach out to get more stakeholders.

Chair Kurucz said procedurally, Mr. Glueck's suggestion would be in the form of a motion to add a couple of "Whereas" or "Therefore" paragraphs. The Committee suggested taking a short break in order to make copies of Dr. Bornstein's revised recommendation and introduction to a resolution. After a 5-minute break, Chair Kurucz reconvened the meeting.

- Dr. Bornstein announced that he changed the order of the "Whereas" paragraphs, revised some words and made other minor changes. He confirmed with Mr. Altshuler that he had added three bullet points to the end of the recommended resolution wording.

Committee Action: Dr. Bornstein made a motion to add S.T. Rao's presentation to the recommendation, to accept the revised recommendation prepared by himself and Mr. Altshuler, and work from this document to discuss further revisions; Dr. Holtzclaw seconded the motion; unanimously approved.

The Technical Committee discussed each paragraph of the revised recommendation and proposed the following changes be made for the final version:

1st WHEREAS: WHEREAS, the problems and solutions of climate change and regional pollution are inter-related and can potentially be in conflict;

4th WHEREAS: WHEREAS, land use planning (e.g., urbanization and irrigation) impact local climate and energy policies;

5th WHEREAS: WHEREAS, the implications of air pollution mitigation and climate protection impact energy policy, ecosystems, water resources and public health;

9th WHEREAS: WHEREAS, the Bay Area has an unique concentration of analytical capabilities, experts, and innovators; and

Revised: THEREFORE, BE IT RESOLVED THAT, the Advisory Council recommends that the Air District use multi pollutant, multi-scale air quality models and include climate change issues in air quality management. These models should include the following capabilities:

- A validation process against past observations for ozone, PM, toxics, and greenhouse gases) scales from regional to urban to street level.
- Downscaled IPCC global climate data for simulations of past and future regional and local climate change.
- Models that link meteorology, ocean, (i.e., coastal and bay) air quality, climate change impacts (e.g. energy, ecosystems, water resources and health).

Committee Action: Mr. Glueck made a motion to accept the changes and adopt the revised resolution wording; Dr. Holtzclaw seconded the motion; unanimously approved.

Mr. Altshuler made a motion to consider and add a final paragraph to the recommendation; Mr. Glueck seconded the motion, as follows:

> THEREFORE, BE IT FURTHER RESOLVED, that the Air District continue its interactions with the local multi-disciplinary experts to facilitate its transition to an integrated planning framework.

The Committee recommended that District staff explore the idea of convening a group from the Advisory Council to best implement and facilitate recommendations, suggested that Committee meetings be limited to 10 per year, and 4 symposiums a year to convene and bring together local experts. They discussed and recommended that the following final paragraph be added:

> THEREFORE, BE IT FURTHER RESOLVED that the Air District Continue Its Interactions With The Local Multi-Disciplinary Experts To Facilitate Its Transition To An Integrated Planning Framework.

Mr. Glueck said since the Committee recognizes that the District has the staff, resources and outreach capabilities, he suggested that the Advisory Council advocate that staff enhance its outreach efforts to obtain voluntary compliance by stakeholders through its efforts of education, information and advice to the stakeholders. Mr. Kendall reiterated the outreach work already being done by the District through its Carl Moyer Program. He said greenhouse gases, the authority to regulate, control and require reductions lie with the State and they are in the process of specifying reduction targets.

Committee Action: Mr. Glueck made a motion to accept the proposed changes to the resolution's wording and authorized the Chair to review changes made once drafted and make modifications as needed; Dr. Holtzclaw seconded the motion; unanimously approved.

6. **Committee Member Comments/Other Business:** Mr. Glueck congratulated the Technical Committee on their work over the last year.

7. **Time and Place of Next Meeting:** 9:30 a.m., Monday, December 1, 2008, 939 Ellis Street, San Francisco, CA 94109.

8. **Adjournment.** 3:12 p.m.

/s/ Lisa Harper
Clerk of the Boards

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109
(415) 749-5000

DRAFT MINUTES

Advisory Council Executive Committee
10:00 a.m.
Wednesday, November 12, 2008

1. **Call to Order – Roll Call:** Chairperson Louise Bedsworth, Ph.D., called the meeting to order at 10:00 a.m.

   Present: Louise Bedsworth, Ph.D., Chairperson; Harold Brazil, Vice Chairperson; Jeffery Bramlett, Secretary; Emily Drennen and Kraig Kurucz

   Absent: Brian Zamora

   Also Present: Fred Glueck, Ken Blonski, Sam Altshuler, Karen Licavoli-Farnkopf

2. **Public Comment Period:** There was none.

3. **Approval of Minutes of September 10, 2008:**

   Committee Action: Mr. Kurucz made a motion to approve the Minutes of September 10, 2008; seconded by Vice Chairperson Bramlett; carried unanimously without opposition.

4. **Standing Committee Chair Reports:**

   A) Public Health Committee Meeting of October 8, 2008 (Zamora, Acting Chair)

Chairperson Bedsworth noted Mr. Zamora's absence and reported she had given a presentation on the public health impacts of climate change.

   B) Technical Committee Meeting of October 22, 2008 (Chair Kurucz)

Mr. Kurucz gave the Technical Committee report, stating the Committee had discussed its recommendation and asked that it be brought forward for review by the Advisory Council. The recommendation is for the District to consider a resolution to address climate change, multi-scale and multi-pollutant modeling and regional pollution. Further,

that the District secure a model that can handle multi-pollutants at different scales from local air toxics rules as well as traditional scales, including CO_2, so that the impacts of climate change could be an input to the model.

He also reported that the Committee completed its agenda, canceled its December meeting, and will be meeting informally as a group for a luncheon.

5. Consideration and Discussion of Recommendation for 2009 Slate of Officers
The Committee discussed and recommended to the full Advisory Council a Slate of Officers for 2009.

Committee Action: Mr. Glueck made a motion to approve the 2009 Slate of Officers as follows: Chair Harold Brazil and Vice Chairperson Jeffrey Bramlett, and for the Advisory Council to consider and nominate for the position of Secretary at the January retreat; Mr. Bramlett seconded the motion; carried unanimously without objection.

6. Chairperson's Report

Chairperson Bedsworth reported that on November 3, 2008, the Executive Officer/APCO met with Advisory Council Officers to further consider the role of the Advisory Council, which is proposed as follows:

The Advisory Council will have its January retreat and then meet 8 times per year; conducting 4 symposia to receive presentations from leading experts on defined topic areas and 1 meeting following each symposium (a total of 4 meetings) to summarize materials presented at the symposium. The Council will assign lead member(s) to prepare the reports from each symposium; members will be assigned based on their familiarity with topic area(s) covered. The Council chair will make a presentation to the Board of Directors after each summary meeting. Staff will develop a document template for the reports.

Each meeting report will include:

1) Summary of symposium;
2) Key points;
3) Emerging issues; and
4) Future information needs.

Outline of Symposia/Meetings:

January 14, 2009 – Advisory Council Retreat
February 2009 – 1st Symposium
March 2009 - Discussion of Symposium
April 2009 – 2nd Symposium
May 2009 – Discussion of Symposium
July 2009 – 3rd Symposium
September 2009 – Discussion of Symposium

October 2009 – 4th Symposium
November 2009 – Discussion of Symposium

There will be no meetings held in June, August, and December. The Officers of the Council will meet on an as needed basis to discuss scheduling and coordination issues.

Gary Kendall, Technical Services Division Director will be the liaison to the Council.

Committee Members discussed the proposed schedule, suggested an evaluation component be incorporated into the process, and were presented with an alternate proposal by Ms. Drennen.

7. **Committee Member Comment/Other Business:**

8. **Time and Place of Next Meeting:** 9:00 a.m., Wednesday, January 14, 2009, 939 Ellis Street, San Francisco, CA 94109.

9. **Adjournment:** The Committee adjourned to the Regular Advisory Council meeting at 10:37 a.m.

Lisa Harper
Clerk of the Boards

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
(415) 749-5000

DRAFT MINUTES

Advisory Council Special Meeting
10:30 a.m., Wednesday, November 12, 2008

Call To Order

Opening Comment: Chairperson Bedsworth called the meeting to order at 10:45 a.m.

Roll Call: Chairperson Louise Bedsworth, Ph.D.; Council Members, Sam Altshuler, Vice Chair Harold Brazil, Ken Blonski, Robert Bornstein, Ph.D., Jeffrey Bramlett, MPA, Emily Drennen, Fred Glueck, William Hanna, John Holtzclaw, Ph.D., Robert T.P. Huang, Ph.D., Kraig Kurucz, Karen Licavoli-Farnkopf, Kendal Oku, Virginia Smyly and Linda Weiner.

Absent: Cassandra Adams, Irwin Dawid, Steven Kmucha, Brian Zamora

Public Comment Period – There were no public comments.

CONSENT CALENDAR

1. Approval of Minutes of September 10, 2008 and October 21, 2008

Minor corrections were requested for the minutes of September 10, 2008, as follows:

- Page 2, 1st paragraph: "…management planning process, including ~~implying~~ applying and…"
- Page 2, header paragraph: "~~4.~~ 3. Air Quality Planning Committee Meeting of August 11, 2008"
- Page 3, 3rd paragraph: ~~"be~~ "she was not sure it should be under…." And "that they do not increase ~~HOT~~ hot spots…"
- Page 5, 1st paragraph under Item 5; identify number of exceedances as 11.

Committee Action: Mr. Altshuler made a motion to approve the minutes of September 10, 2008 and October 21, 2008, as amended; seconded by Dr. Holtzclaw; which carried by unanimously without objection.

COMMITTEE REPORTS

2. Public Health Committee Meeting of October 8, 2008

Chairperson Bedsworth, on behalf of Mr. Zamora, reported that she had given a presentation on the public health impacts of climate change at the meeting of October 8, 2008 and noted that there will not be a Public Health Committee meeting in December.

3. Technical Committee Meeting of October 22, 2008

Mr. Kurucz gave the Technical Committee report, stating the Committee had discussed its recommendation and asked that it be brought forward for review by the Advisory Council. The recommendation is for the District to consider a resolution to address climate change, multi-scale and multi-pollutant modeling and regional pollution. Further, that the District secure a model that can handle multi-pollutants at different scales from local air toxics rules as well as traditional scales, including CO_2, so that the impacts of climate change could be an input to the model.

He also reported that the Committee completed its agenda, canceled its December meeting, and will soon be meeting informally as a group for a luncheon.

After discussion by the Advisory Council, the following amendments to the resolution were recommended:

- Under "Discussion", omit the second list of presentations;
- Revise Bullet 2: "Apply IPCC global climate data, as the boundary conditions for more local simulations of past and future regional and local climate change; and"
- Revise Bullet 3: "Ability to link meteorology, ocean (i.e., coastal and bay), air quality, and climate change impacts (e.g. energy, ecosystems, water resources and health)."
- Revise "THEREFORE, BE IT FURTHER RESOLVED that the Air District continue its interactions with ~~the~~ local multi-disciplinary experts to facilitate its transition to an integrated planning framework."

Committee Action: Mr. Hanna made a motion to approve the recommendation, as amended; Dr. Holtzclaw seconded the motion; unanimously carried without objection.

DISCUSSION

4. **Approval of Executive Committee Recommendation on 2009 Slate of Advisory Council Officers:** *The Council considered approval of the 2009 Slate of Advisory Council Officers.*

Committee Action: Dr. Holtzclaw made a motion to approve the 2009 Slate of Officers as follows: Chair Harold Brazil and Vice Chairperson Jeffrey Bramlett, and for the Advisory Council to consider the position of Secretary at the January retreat; Mr. Glueck seconded the motion; carried unanimously without objection.

PRESENTATION

5. Recognition of Outgoing Advisory Council Members

Chairperson Bedsworth recognized the following outgoing Advisory Council Members, thanked them for their long-term commitment in serving on the Advisory Council, and presented each with a plaque: Linda Weiner, Irwin Dawid, Fred Glueck, Sam Altshuler, William Hanna, Brian Zamora.

Council Members thanked outgoing members for their service, dedication and guidance. Deputy APCO, Jean Roggenkamp, recognized Council Members for their service and expertise, thanked Chairperson Bedsworth for her service and leadership as Chairperson, and presented her with a plaque.

DISCUSSION

6. Discussion of Proposed Role of Advisory Council

Chairperson Bedsworth reported that on November 3, 2008, the Executive Officer/APCO met with Advisory Council Officers to further consider the role of the Advisory Council, which is proposed as follows:

The Advisory Council will have its January retreat and then meet 8 times per year; conducting 4 symposia to receive presentations from leading experts on defined topic areas and 1 meeting following each symposium (a total of 4 meetings) to summarize materials presented at the symposium. The Council will assign lead member(s) to prepare the reports from each symposium; members will be assigned based on their familiarity with topic area(s) covered. The Council chair will make a presentation to the Board of Directors after each summary meeting. Staff will develop a document template for the reports.

Each meeting report will include:

1) Summary of symposium;
2) Key points;
3) Emerging issues; and
4) Future information needs.

Outline of Symposia/Meetings:

January 14, 2009 – Advisory Council Retreat
February 2009 – 1st Symposium
March 2009 - Discussion of Symposium
April 2009 – 2nd Symposium
May 2009 – Discussion of Symposium
July 2009 – 3rd Symposium
September 2009 – Discussion of Symposium
October 2009 – 4th Symposium
November 2009 – Discussion of Symposium

There will be no meetings held in June, August, and December. The Officers of the Council will meet on an as needed basis to discuss scheduling and coordination issues.

Gary Kendall, Technical Services Division Director will be the liaison to the Council.

Advisory Council members discussed the proposed schedule, suggested an evaluation component be incorporated into the process, and were presented with an alternate proposal by Ms. Drennen.

Council Members discussed and suggested the following changes to the proposal:

Expansion of items 1-4 on what each meeting will include;
Include the word, "recommendations" into the meeting report;
Requested the word, "effectively" be deleted;
Discussed an alternate proposal by Council Member Drennen;
Acknowledged that the structure is new and there is the ability for it to be modified;
An evaluation component be incorporated;
The opportunity for new Council Member orientation;
Consideration be given for the alternative proposal;
A subcommittee meet to work on symposia programming issues.

Mr. Broadbent thanked Council Members for their dialogue and believed that more clarification regarding the structure could be discussed at the January retreat and modifications could be made as needed. He agreed that the Advisory Council should address key concerns and issues from a technical and scientific standpoint and noted that the new Chair of the Board of Directors will also be attending meetings. He said the first symposia topic will focus on County Health Officers and/or designees, and he further discussed the process for amendment to the District's Administrative Code.

Committee Action: Mr. Hanna made a motion to accept the proposal as a guideline and framework by which the Advisory Council will operate in the coming year and modify it as necessary; Mr. Glueck seconded the motion; which passed by the following vote: Ayes: 13; Noes: 1 (Drennen); Abstain: 2 (Weiner and Smyly).

OTHER BUSINESS:

7. **Council Member Comments/Other Business**

Committee Members and staff discussed the District's need to be engaged in the AB 32 Scoping Plan implementation. Mr. Broadbent reported that staff is forwarding the AB 32 principles developed by the Advisory Council to the Board of Directors for their endorsement.

Dr. Bornstein announced that his paper on local California summer daytime coastal cooling has been accepted by the American Meteorological Society's Journal of Climate, the top atmospheric journal worldwide. It will first be posted on-line and then will appear in print.

8. **Time and Place of Next Meeting:** The next meeting will be a Retreat, held on Wednesday, January 14, 2009 at 10:00 a.m., 939 Ellis Street, San Francisco, CA 94109.

9. **Adjournment:** The meeting adjourned at 12:25 p.m.

Lisa Harper
Clerk of the Boards

AGENDA: 7

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Pamela Torliatt and Members of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 20, 2008

Re: Consideration of Community Grant Program Funding Level

RECOMMENDED ACTION

Staff is seeking a recommendation from the Executive Committee for approval by the Board of Directors of a $250,000 funding level for development of a formalized Community Grant Program.

BACKGROUND

The Air District has historically supported community-based projects that reduce emissions, improve energy efficiency, provide air quality education and improve community health, yet not in a formalized process. The District will create a designated fund for these community-based projects which help to forward the District's mission of achieving clean air to protect the public's health and the environment.

The Public Outreach Committee met on October 31, 2008, to provide direction to staff on the development of the Community Grant Program. The Board of Directors at its November 5, 2008, Board meeting, approved the Public Outreach Committee's recommendation to formalize the creation of a Community Grant Program.

DISCUSSION

The Community Grant Program provides an opportunity for the Air District to focus on areas where there is a demonstrated need for resources, and a commitment to the Air District's mission and approach where resources can be utilized to achieve a measurable impact. To achieve these goals this program proposes to award grants that focus on outreach, education, emission reductions, and/or public health in communities.

Staff will establish the criteria, thresholds and target areas for Executive Committee consideration. Once the program is in place, staff will have a call for projects, screen applications, and present projects to the Executive Committee for consideration.

BUDGET CONSIDERATIONS/FINANCIAL IMPACT

Staff is seeking a recommendation for approval by the Board of Directors for a $250,000 funding level for the Community Grant Program. The fiscal year 2008/2009 budget includes funds for incentive programs which could include funding for the Community Grant Program.

Respectfully submitted,

Jack P. Broadbent Executive
Officer/APCO

BAY AREA AIR QUALITY MANGEMENT DISTRICT
Memorandum

To: Chairperson Hill and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 19, 2008

Re: Production System Project Update

RECOMMENDED ACTION:

Receive and File.

DISCUSSION:

Staff will present some of the early capabilities already deployed from the production system project. In addition, the underlying information system's server infrastructure will be described.

BUDGET CONSIDERATION/FINANCIAL IMPACT

No impact.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Jeffrey McKay

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Pamela Torliatt and Members of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 20, 2008

Re: Joint Policy Committee Update

RECOMMENDED ACTION:

Receive and file.

DISCUSSION

At the November 24, 2008, meeting of the Executive Committee, staff will provide an update on the activities of the Joint Policy Committee.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Pamela Torliatt and Members of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2008

Re: Public Hearing to Consider Proposed Amendments to Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations; Regulation 3: Fees, Schedule R: Equipment Registration Fees; and Adoption of a CEQA Negative Declaration

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RECOMMENDED ACTION:

Staff recommends that the Board of Directors take the following actions:

- Adopt proposed amendments to Regulation 8: Organic Compounds, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations;
- Adopt proposed amendments to Regulation 3: Fees, Schedule R: Equipment Registration Fees; and
- Adopt a California Environmental Quality Act (CEQA) Negative Declaration.

BACKGROUND

Regulation 8, Rule 45 sets volatile organic compound (VOC) emission limits for coatings and surface preparation solvents used in automotive refinishing. The Rule also regulates coating of original equipment such as heavy duty trucks, buses, trains, golf carts and camper shells. The Rule requires the use of spray technology that is transfer efficient, to maximize the amount of paint that adheres to the intended surface and minimize overspray, and filters to prevent overspray particles from entering the atmosphere. Currently, VOC emissions from automotive refinishing operations in the Bay Area total 5.8 tons per day. The proposed amendments will implement control measure SS-1 from the Bay Area 2005 Ozone Strategy and is based on a Suggested Control Measure developed by the California Air Resources Board (CARB).

DISCUSSION

The proposed amendments to Regulation 8, Rule 45 will:

- Reduce the allowable VOC limits for coatings and surface preparation solvents, effective October 1, 2009,
- Combine the requirements for motor vehicle (auto refinishing) and mobile equipment coating and change some of the categories of coatings,

- Require mobile refinishing operations to register with the District,
- Add provisions to make Reg. 8-45 more enforceable, clearer and consistent with other California air districts' auto refinishing rules.

Proposed amendments to Regulation 3: Fees will add a one-time registration fee of $100 for mobile refinishers, with an annual renewal fee of $60.

Coatings that meet the VOC limits in the proposal are commercially available and in use in a number of Bay Area auto refinish facilities. Staff proposes an October 1, 2009 compliance date to allow enough time for all facilities to convert to the lower VOC coatings. The proposed amendments to Regulation 8, Rule 45 will reduce VOC emissions from motor vehicle and mobile equipment coating operations by approximately 3.7 tons per day. The average cost per affected facility is $793 and the cost effectiveness of this regulatory proposal is $801 per ton of VOC reduced.

A socioeconomic analysis has found that the costs of the rule amendments would not create economic dislocation or loss of jobs, including to small businesses. Pursuant to the California Environmental Quality Act (Public Resources Code 21000 et seq.), an initial study for the proposed amendments has been conducted, concluding that the proposed rule would not create any significant adverse environmental impacts. A Negative Declaration was posted for public review and comment.

RULE DEVELOPMENT PROCESS

The proposed rule amendments were developed with significant public input. Staff participated in the 2005 development of the Suggested Control Measure with CARB staff, which was developed with considerable industry input. Staff has discussed the proposed amendments with auto refinishing trade groups, with manufacturers and distributors of coatings, chemicals and surface preparation solvents, with mobile refinishing companies, and with EPA and CARB staff and staff from other air districts. Staff held public workshops on August 25, 2008 in San Francisco, and on the evenings of August 26 and 27 in San Jose and San Pablo to solicit public input on the draft regulation. In addition, staff visited a number of auto refinish facilities. Several parties submitted written comments after the workshops. Following the workshops and the comment period on the draft regulation, an amended draft regulation was prepared in response to comments by affected industry, EPA and CARB staff.

Final proposed amendments to Regulation 8, Rule 45 and Regulation 3, Schedule R, a staff report, a CEQA initial analysis and Negative Declaration, and a socioeconomic analysis were posted for public review and comment on October 27, 2008. Public comments on the proposed amendments, and staff responses, are attached as Appendix A.

CHANGES TO THE RULE SINCE PUBLICATION

Since publication, staff has discovered minor errors in the draft amendments to Regulation 8, Rule 45 and made corrections in the final draft. These corrections clarify consistent terminology throughout the rule, correct internal reference numbers, and, in Section 8-45-301,

delete a requirement for a previous draft section that was not included in the final proposed amendments. These corrections are minor, preserve the intent of the rule as stated in the staff report and do not change the impact of the proposed amendments. These changes do not require that the public hearing be continued to adopt the proposed amendments.

BUDGET CONSIDERATION/FINANCIAL IMPACTS

Costs to the Air District to administer and enforce the amended rule to mobile refinishers will be recovered by registration fees set out in proposed Regulation 3 Fees, Schedule R.

Respectfully submitted,

Jack P. Broadbent
Executive Officer / APCO

Prepared by: Victor Douglas
Reviewed by: Henry Hilken

Attachments:

Proposed amendments to Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations;

Proposed amendments to Regulation 3: Fees, Schedule R, Equipment Registration Fees;

Staff Report including appendices
- Appendix A: Comments and Responses
- Appendix B: Socioeconomic Analysis
- Appendix C: CEQA Initial Study and Negative Declaration

REGULATION 8
ORGANIC COMPOUNDS
RULE 45
MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 45
MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS

(Adopted June 7, 1989)

8-45-100 GENERAL

8-45-101 Description: The purpose of this Rule is to limit the emission of volatile organic compounds from the finishing or refinishing of motor vehicles, mobile equipment and their parts and components.

8-45-110 Exemption, Original Equipment Manufacturer: The provisions of this Rule shall not apply to Original Equipment Manufacturer (OEM) coatings applied at manufacturing or assembly plants ~~which~~ that are subject to Regulation 8, Rule 13.

8-45-111 Exemption, Touch-up: The provisions of this Rule shall not apply to touch-up operations.

8-45-112 Limited Exemption, Graphic Design Applications: The provisions of ~~this Rule~~ Section 8-45-303 shall not apply to graphic design applications.

8-45-113 Exemption, Military Vehicles and Ground Support Equipment: The provisions of this Rule shall not apply to the coating of military vehicles and ground support equipment ~~which~~ that is subject to the provisions of Regulation 8, Rule 19. Military vehicles include tanks and armored personnel carriers but do not include passenger vehicles. (Amended November 2, 1994)

8-45-114 Exemption, Radiators and Engine Components: The provisions of this Rule shall not apply to the coating of radiators and engine components ~~which~~ that is subject to the provisions of Regulation 8, Rule 19.

(Amended November 2, 1994)

8-45-115 Exemption, Aerosol ~~Paint~~ Coating Products: The provisions of this Rule shall not apply to the application of aerosol ~~paint~~ coating products ~~which is subject to the provisions of Regulation 8, Rule 49~~. Aerosol coating products are subject to the provisions of the 17CCR, commencing at §94520.

(Adopted June 20, 1990)

8-45-116 Limited Exemption, Transfer Efficiency: The provisions of Section 8-45-303 shall not apply to the application of:

116.1 H~~h~~igh viscosity or thixotropic coatings with application equipment that is supplied with and is an integral part of the coating container, ~~or to the application of~~

116.2 C~~c~~orrosion protective coatings to enclosed interior spaces, or

116.3 Underbody coatings and truck bed liner coatings.

(Adopted November 2, 1994)

8-45-117 Limited Exemption, Early Compliance: Until October 1, 2009, any person who complies with the VOC limits in Section 8-45-301.3 shall not be subject to Sections 8-45-301.1, 301.2, 311, 312, or 314.

8-45-200 DEFINITIONS

8-45-201 Adhesion Promoter: A coating that is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of a subsequent coating, and upon which a subsequent coating is applied.

8-45-2~~3~~02 Aerosol ~~Paint~~ Coating Product: A mixture of resins, pigments, liquid solvents and gaseous propellants, packaged in a disposable can for hand-held application.

(Adopted June 20, 1990)

8-45-20~~1~~3 Anitglare/Safety Coating: A coating ~~which~~ that minimizes light reflection for safety purposes. (Amended November 2, 1994)

~~**8-45-202 Deleted November 2, 1994**~~

8-45-20~~3~~4 Camouflage Coating: A coating applied on motor vehicles to conceal such vehicles from detection.

8-45-204~~4~~5 Catalyst: A substance whose presence enhances the reaction between chemical compounds.

8-45-206 Clear Coating: Any coating that contains no pigments and is labeled and formulated of application over a color coating or clear coating.

8-45-207 Color Coating: Any pigmented coating that requires a subsequent clear coating. Color coatings include metallic/iridescent color coatings and exclude adhesion promoters, primers, and multi-color coatings.

8-45-205~~5~~8 Color Match: The ability of a repair coating to blend into an existing coating so that color difference is not visible**.**

8-45-206~~6~~9 Electrostatic Application: The application of charged atomized paint droplets ~~which~~ that are deposited by electrostatic attraction.

~~**8-45-207 Deleted November 2, 1994**~~

8-45-2~~08~~10 Final Stage Manufacture: Where an incomplete vehicle chassis is delivered to a manufacturer for installation and paint of a truck body and/or components to form a completed vehicle**.**

8-45-2~~09~~11 Graphic Design Application: The application of logos, letters, numbers and graphics to a painted surface, with or without the use of a template.

8-45-21~~0~~2 Ground Support: Vehicles used in support of aircraft activities at airports.

8-45-21~~1~~3 Group I Vehicles: Passenger cars, large/heavy duty truck cabs and chassis, light- and medium-duty trucks and vans, and motorcycles.

8-45-21~~2~~4 Group II Vehicles and Equipment: Public transit buses and mobile equipment.

8-45-21~~3~~5 High-Volume, Low-Pressure (HVLP) Spray: Equipment used to apply coatings by means of a gun ~~which~~ that is designed to be operated and ~~which~~ that is operated between 0.1 and 10 pounds per square inch, gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

(Amended October 6, 1993; November 2, 1994)

8-45-2~~33~~16 Key System Operating Parameter: An air pollution abatement operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Section 8-45-301.

(Adopted June 1, 1994)

8-45-214~~4~~7 Large/Heavy Duty Trucks: Any truck having a manufacturer's gross vehicle weight rating of over 10,000 pounds.

8-45-215~~5~~8 Light and Medium-Duty Trucks and Vans: Any truck or van having a manufacturer's gross vehicle weight rating of 10,000 pounds or less.

8-45-216~~6~~9 Metallic/Iridescent Topcoat: Any coating ~~which~~ that contains more than 5 g/l (.042 lb/gal) of metal or iridescent particles, as identified on a technical or material safety data sheet, as applied, where such particles are visible in the dried film.

8-45-2~~17~~20 Mobile Equipment: Any equipment ~~which~~ that may be drawn or is capable of being driven on rails or on a roadway, including, but not limited to, trains, railcars, truck bodies, truck trailers, camper shells, mobile cranes, bulldozers, street cleaners, golf carts and implements of husbandry or agriculture. (Amended November 2, 1994)

8-45-221 Mobile Refinishing Operation: Any refinishing operation that may change location or address between operations.

8-45-222 Mobile Refinishing Operator: Any person who engages in mobile refinishing operations for compensation.

8-45-223 Motor Vehicle: Any self-propelled vehicle, including, but not limited to, a car, truck, bus, golf cart, van, motorcycle, tanks, and armored personnel carriers.

8-45-224 Multi-Color Coating: Any coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, and hides surfaces defects on areas of heavy use, and which is applied over a primer or adhesion promoter. Gonioapparent coatings are not multi-color coatings.

8-45-22~~7~~5 Multi-Stage Topcoat System: A topcoat system composed of ~~either~~ a basecoat / clearcoat, a basecoat/midcoat/clearcoat, or a groundcoat.

The VOC content of a basecoat/clearcoat coating system shall be calculated according to the following formula:

$$VOC_{MS} = \frac{VOC_{bc} + 2VOC_{cc}}{3}$$

The VOC content of a 3-Stage coating system shall be calculated according to the following formula:

$$VOC_{MS} = \frac{VOC_{bc} + VOC_{mc} + 2VOC_{cc}}{4}$$

The VOC content of a 4-Stage coating system shall be calculated according to the following formula:

$$VOC_{MS} = \frac{VOC_{gc} + VOC_{bc} + VOC_{mc} + 2VOC_{cc}}{5}$$

Where:

VOC_{MS} is the sum of the VOC content, as applied, and used to determine compliance with the standards in Section 8-45-301.

VOC_{gc} is the VOC content, as applied, of a pigmented groundcoat, basecoat or tinted primer sealer.

VOC_{bc} is the VOC content, as applied, of a pigmented basecoat or translucent midcoat.

VOC_{mc} is the VOC content, as applied, of a translucent midcoat or tinted clearcoat.

$2VOC_{cc}$ is two times the VOC content, as applied, of a transparent clearcoat.

Effective October 1, 2009, the VOC content of a multi-stage topcoat shall be considered separately as color coating and clear coating.

(Amended November 2, 1994)

8-45-226 Overall Control Efficiency: The efficiency of an approved emission control system, measured by the collection system's capture efficiency multiplied by the destruction efficiency of the control device expressed as a percentage.

8-45-2~~18~~27 Precoat: Any coating ~~which~~ that is applied to bare metal primarily to deactivate the metal surface prior to application of a subsequent primer surfacer. Effective April 1, 1995, a precoat shall be a coating that dries by oxidation or chemical polymerization.

(Amended November 2, 1994; January 6, 1999)

8-45-2~~19~~28 Pretreatment ~~Wash Primer~~ Coating: Any coating ~~which~~ that contains a minimum of 0.5% acid by weight~~,~~ that is necessary to provide surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.

8-45-22~~0~~9 Primer: Any coating ~~applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat~~ that is labeled and formulated for application to a substrate on which a subsequent coating is applied. A primer may provide 1) a bond between the substrate and a subsequent coat, 2) corrosion resistance, 3) a smooth substrate surface, or 4) resistance to penetration of subsequent coats, and on which a subsequent coat is applied. Primers surfacers are primers and may be pigmented.

(Amended November 2, 1994; January 6, 1999)

8-45-2~~21~~30 Primer Sealer: Any coating ~~applied for the purpose of sealing the underlying metal or coating system prior to the application of a topcoat~~ that is labeled and formulated for application prior to the application of a color coating or single-stage coating for the purpose of color uniformity, or to promote the ability of the underlying coating to resist penetration by the color coating. (Amended November 2, 1994)

8-45-2~~22~~31 Primer Surfacer: Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and ~~which~~ that promotes a uniform surface by filling in surface imperfections.

8-45-2~~2~~32 Reducer: The organic solvent used to thin ~~enamel~~ coatings.

8-45-2~~24~~33 Refinishing: Any coating of a vehicle~~s~~, ~~their~~ its parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and ~~which~~ that is subsequent to the original coating applied at an Original Equipment Manufacturing (OEM) plant coating assembly line.

(Amended November 2, 1994)

~~**8-45-226 Deleted November 2, 1994**~~

8-45-234 Single-Stage Coating: Any pigmented coating, excluding primers and multi-color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent coatings.

8-45-2~~25~~35 Specialty Coatings: Unique coatings and compliant coatings with additives ~~which~~ that are necessary due to unusual job performance requirements. Said coatings include, but are not limited to, adhesion promoters, uniform finish blenders, elastomeric materials, gloss flatteners, bright metal trim repair, and anti-glare/safety coatings.

8-45-236 Spot Repair: Repair of an area on a motor vehicle, piece or mobile equipment, or associated parts or components of less than an entire panel.

8-45-23~~5~~7 Temporary Protective Coating: A coating applied for the purpose of protecting adjacent areas to that being painted from overspray. The temporary protective coating is removed after primer or topcoat application. (Adopted November 2, 1994)

8-45-2~~2~~38 Topcoat: Any coating applied over a primer, primer system, or an original OEM finish for the purpose of protection or appearance. For the purposes of this Rule, the VOC limits for solid color and metallic/iridescent topcoats are for single stage applications. A multi stage topcoat may be either a solid or metallic/iridescent coat, the VOC_{MS} of a multi stage topcoat system will determine compliance with the VOC standards in Section 8-45-301.1 or 301.2. Effective October 1, 2009, topcoats include color coating, clear coating, single-stage coating and uniform finish blender.

(Amended November 2, 1994)

8-45-2~~2~~39 Touch-up Coating: A coating applied by brush or air brush by the owner or manufacturer of the motor vehicle or mobile equipment to repair minor surface damage and imperfections.

(Amended June 20, 1990)

8-45-2~~3~~40 Transfer Efficiency: The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

8-45-241 Truck Bed Liner Coating: Any coating, excluding clear, color, multi-color, and single-stage coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.

8-45-242 Underbody Coating: Any coating labeled and formulated for application to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the motor vehicle.

8-45-243 Uniform Finish Coating: Any coating labeled and formulated for application to the area around a spot repair for the purpose of blending a color of a repaired area or clear coat to match the appearance of an adjacent area's existing coating.

8-45-2~~3~~44 Utility Body: A body designed for and mounted on a light or medium duty truck or van. (Adopted November 2, 1994)

8-45-2~~31~~45 Volatile Organic Compound: Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) ~~which~~ that would be emitted during use, application, curing or drying of a solvent or surface coating.

245.1 For purposes of calculating VOC content of a coating, any water or any of the following compounds:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, fully methylated siloxanes

shall not be considered to be part of the coating.

245.2 For the purposes of calculating the VOC content of surface preparation solvent ~~subject to Section 8-45-308.4~~ or temporary protective coating, any water or ~~shall be considered to be part of the product. T~~the following compounds:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched of linear, completely methylated siloxanes (VMS)

shall be considered part volume of the solvent or temporary protective coating or solvent but not be considered part of the VOC content of the solvent or temporary protective coating.

(Amended Nov. 2, 1994; Dec. 20, 1995; Nov. 6, 1996)

8-45-300 STANDARDS

8-45-301 **Coating Limits**: ~~Effective on the dates specified,~~ ~~a~~Any person who applies coatings to Group I or II vehicles, mobile equipment, their parts and components, shall comply with Subsection~~s~~ 8-45-301.1 or 301.2 below:

301.1 Group I Vehicles: Until October 1, 2009, a~~A~~ person shall not refinish Group I vehicles, their parts and components, using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt solvents, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an ~~abatement device~~ overall control efficiency of at least 85% and ~~which~~ meets the requirements of Regulation 2, Rule1:

	~~April 1, 1995~~ VOC	~~July 1, 1999 VOC~~
Pretreatment Wash Primer	780 g/l (6.5 lbs/gal)	
Precoat	~~600 g/l (5.0 lbs/gal)~~ 580 g/l (4.8 lb/gal)	~~580 g/l (4.8 lb/gal)~~
Primer/Primer Surfacer	250 g/l (2.1 lbs/gal)	
Primer Sealer	420 g/l (3.5 lbs/gal)	
Solid Color Topcoat	420 g/l (3.5 lbs/gal)	
Metallic/Iridescent Topcoat	520 g/l (4.3 lbs/gal)	
Multi -Stage Topcoat System	540 g/l (4.5 lbs/gal)	
Temporary Protective Coating	60 g/l (0.5 lbs/gal)	

301.2 Group II Vehicles and Mobile Equipment: Until October 1, 2009, a~~A~~ person shall not finish or refinish Group II vehicles and equipment or their parts and components using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt solvents, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an ~~abatement device~~ overall control efficiency of at least 85% and ~~which~~ meets the requirements of Regulation 2, Rule 1:

	~~April 1, 1995~~ VOC	~~July 1, 1999 VOC~~
Pretreatment Wash Primer	780 g/l (6.5 lbs/gal)	
Precoat	~~600 g/l (5.0 lbs/gal)~~ 580 g/l (4.8 lb/gal)	~~580 g/l (4.8 lb/gal)~~
Primer/Primer Surfacer	250 g/l (2.1 lbs/gal)	
Primer Sealer	340 g/l (2.8 lbs/gal)	
Topcoat	420 g/l (3.5 lbs/gal)	
Metallic/Iridescent Topcoat	420 g/l (3.5 lbs/gal)	
Camouflage	420 g/l (3.5 lbs/gal)	
Temporary Protective Coating	60 g/l (0.5 lbs/gal)	

(Amended Oct. 6, 1993; June 1, 1994; Nov. 2, 1994; Jan. 6, 1999)

301.3 Effective on the dates specified, no person shall finish or refinish any vehicles, mobile equipment or their parts and components using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt solvents, in excess of the following limits unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an overall control efficiency of at least 85% and which meets the requirements of Regulation 2, Rule 1:

Coating Product	October 1, 2009 VOC	January 1, 2010 VOC
Adhesion Promoter	840 g/l (7.0 lbs/gal)	540 g/l (4.5 lb/gal)
Clear Coating	250 g/l (2.1 lbs/gal)	
Color Coating	420 g/l (3.5 lbs/gal)	

Multi-Color Coating	680 g/l (5.7 lbs/gal)	
Pretreatment Coating	660 g/l (5.5 lbs/gal)	
Primer	250 g/l (2.1 lbs/gal)	
Primer Sealer	340 g/l (2.8 lbs/gal)	250 g/l (2.1 lbs/gal)
Single-Stage Coating	420 g/l (3.5 lbs/gal)	340 g/l (2.8 lbs/gal)
Temporary Protective Coating	60 g/l (0.5 lb/gal)	
Truck Bed Liner Coating	310 g/l (2.6 lbs/gal)	
Underbody Coating	430 g/l (3.6 lbs/gal)	
Uniform Finish Coating	540 g/l (4.5 lbs/gal)	
Any Other Coating Type	250 g/l (2.1 lbs/gal)	

~~Any coating will be assumed to be subject to the VOC limits set forth in Section 8-45-301.3 unless the manufacturer complies with Section 8-45-404.~~

8-45-302 **Deleted October 6, 1993**

8-45-303 **Transfer Efficiency**: A person shall not apply any coating to any Group I or II motor vehicles or mobile equipment or their parts and components with spray application equipment unless one of the following methods is used:

303.1 Electrostatic application equipment, operated in accordance with the manufacturer's recommendations;

303.2 High-Volume, Low-Pressure (HVLP) spray equipment, operated in accordance with the manufacturer's recommendations; or

303.3 Any ~~other~~ alternative coating application method ~~which~~ that achieves a transfer efficiency equivalent to, or higher than, the application methods listed in ~~subs~~Section 8-45-303.1 or 303.2. Prior written approval from the APCO shall be obtained for each ~~equivalent~~ alternative method used.

(Amended October 6, 1993; November 2, 1994)

8-45-304 **Prohibition of Specification**: No person shall solicit or require for use or specify the application of a coating on a Group I or II motor vehicle, mobile equipment, or part or component thereof if such use or application results in a violation of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating ~~which~~ that is subject to the provisions of this Rule is to be applied to any motor vehicle, mobile equipment, or part or component at any physical location within the District.

8-45-305 **Prohibition of Sale or Manufacture**: ~~A~~ No person shall supply, ~~not~~ offer for sale, sell, manufacture, blend, repackage for sale within the District, ~~or~~ ship into the District any coating if such product is prohibited by any of the provisions of this Rule, unless the coating is for use exclusively within an approved emissions control system. The prohibition of this Section shall apply to the sale of any coating ~~which~~ that will be applied at any physical location within the District.

(Amended November 2, 1994)

8-45-306 **Moved to Section 8-45-40~~6~~5** ~~**Compliance Statement Requirement**: The manufacturer of coatings subject to this Rule shall include a designation of VOC (as defined in Section 8-45-231) as supplied, including coating components, expressed in grams per liter or pounds per gallon, excluding water and exempt solvents, on data sheets.~~

8-45-307 **Deleted November 2, 1994**

8-45-308 **Surface Preparation and Solvent Loss Minimization**: Any person using organic solvent for surface preparation and cleanup or mixing, using or disposing of coating or stripper containing organic solvent:

308.1 Shall close containers used for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

308.2 Shall close containers of fresh or spent solvent, coating, catalyst, thinner, or reducer~~, or solvent~~ when not in use.

308.3 Shall not use organic compounds for the cleanup of spray equipment, including paint lines, unless equipment for collecting the organic compounds and minimizing their evaporation to the atmosphere is used.

308.4 Until October 1, 2009,~~Effective April 1, 1995,~~ the VOC content of surface preparation solvent shall not exceed 72 g/l (0.6 lb/gal). This limit shall not apply to surface preparation solvent applied from a hand held spray bottle.

The VOC content of surface preparation solvent used to clean plastic parts shall not exceed 780 g/l (6.5 lbs/gal).

308.5 Effective October 1, 2009, the VOC content of surface preparation solvent shall not exceed 25 g/l (0.2 lb/gal). This limit shall not apply to surface preparation solvent used as bug and tar remover provided that the VOC content of such solvent does not exceed 350 g/l (2.9 lb/gal). Usage of solvent used as bug and tar remover is limited as follows:

a. 20 gallons in any consecutive 12-month period for facilities and operations with 400 gallons or more of coating usage per year;

b. 15 gallons in any consecutive 12-month period for facilities and operations with 150 gallons or more of coating usage per year; and

c. 10 gallons in any consecutive 12-month period for facilities and operations with less than 150 gallons of coating usage per year.

(Amended November 2, 1994)

8-45-309 Deleted October 6, 1993

8-45-310 Deleted October 6, 1993

8-45-311 Small Production/Utility Bodies: Until October 1, 2009 a~~A~~ person shall not coat utility bodies where the coating must match that of the vehicles upon which they will be mounted using any coating with a VOC content in excess of the standards set forth in Subsection 8-45-301.1, provided production is less than 20 vehicles per day.

8-45-312 Specialty Coatings: Until October 1, 2009 a~~A~~ person shall not use any specialty coating with a VOC content in excess of 840 g/l (7.0 lbs/gal), as applied, excluding water and exempt solvents. Use of all specialty coatings except antiglare/safety coatings shall not exceed 5.0 percent of all coatings applied, on a monthly basis. Effective October 1, 2009, the volume of adhesion promoter, uniform finish coating and multi-color coating combined shall not exceed 5.0 percent of all topcoats applied, on a monthly basis.

(Amended November 2, 1994)

~~**8-45-313 Temporary Protective Coating**: A person shall not use any temporary protective coating with a VOC content in excess of 60 g/l (0.5 lbs/gal), excluding water.~~

(Adopted November 2, 1994)

8-45-314 Precoat Limitation: Until October 1, 2009, ~~A~~ a person shall not use precoat in excess of 25%, by volume, of the amount of primer surfacer used.

(Adopted November 2, 1994; Amended January 6, 1999)

8-45-315 HVLP Marking: ~~Effective April 1, 1995, a~~ A person shall not sell or offer for sale for use within the District any HVLP gun without a permanent marking denoting the maximum inlet air pressure in psig at which the gun will operate within the parameters specified in Section 8-45-21~~3~~5. (Adopted November 2, 1994)

8-45-316 Filtration: ~~Effective April 1, 1995, a~~ A person shall not apply single or multi-stage topcoats subject to Section 8-45-301 to any vehicle except when exhausted through ~~a~~ properly maintained particulate filtration media. Effective October 1, 2009, a person shall not apply clear coating, color coating, multi-color coating, single-stage coating or uniform finish coating to any vehicle except when exhausted through properly maintained particulate filtration media. This requirement applies to all persons applying coating subject to this Rule at stationary and mobile locations. The filter system shall meet the requirements of Regulation 2, Rule 1, as applicable.

(Adopted November 2, 1994)

8-45-317 Most Restrictive VOC Limit: If anywhere on the container or any automotive coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Section 8-45-301.3, then the lowest VOC content limit shall apply.

8-45-318 Prohibition of Possession: Effective October 1, 2009, no person shall possess, at any automotive refinishing facility or at any mobile refinishing operation, any automotive coating or surface preparation solvent that is not in compliance with Section 8-45-301.3 or 308.5.

8-45-319 National Emission Standards for Hazardous Air Pollutants (NESHAP): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources: In

addition to the requirements of this Rule, motor vehicle and mobile equipment coating operations are subject to the requirements of 40CFR63, subpart HHHHHH, as applicable.

8-45-400 ADMINISTRATIVE REQUIREMENTS

8-45-401 Deleted November 2, 1994

8-45-402 Registration for Mobile Refinishing Operations: No later than October 1, 2009, any person engaging in mobile refinishing operations shall register the mobile refinishing operation in accordance with Regulation 1, Section 410. Any person registering a mobile refinishing operation shall pay the fees required, as set forth in Regulation 3.

8-45-403 Reporting Requirements for Mobile Refinishing Operators: Effective October 1, 2009, any mobile refinishing operator shall, upon request supply the APCO with a list of scheduled clients including name, address and anticipated schedule for each.

8-45-404 VOC Labeling Requirements: Effective October 1, 2009, the manufacturer and re-packager of any automotive coating, automotive coating component or surface preparation or clean up solvent subject to this Rule that is manufactured on or after October 1, 2009 shall include on all containers the applicable use category (or categories), and the VOC content for the coating, component or solvent, expressed in grams per liter.

8-45-405 Compliance Statement Requirement: Any manufacturer or re-packager of coatings, coating components and solvents subject to this Rule shall provide to operators of motor vehicle and mobile equipment coating operations, on product data sheets or an equivalent medium, information sufficient to determine compliance with the provisions of this Rule. Such information shall include:

405.1 VOC content of coatings, components and solvents in grams per liter, as defined in Section 8-45-231;

405.2 VOC content of each recommended mix ratio; and

405.3 Information sufficient to determine emissions from use of coatings and solvents subject to this Rule, such as weight percentage of VOC or volume percentage and density of VOC.

8-45-500 MONITORING AND RECORDS

8-45-501 ~~Coating~~ Records: Any person subject to Sections 8-45-301~~.1~~ and 30~~1.2~~8 shall:

501.1 Maintain and have available during an inspection a current list of coatings in use that provides all of the coating data necessary to evaluate compliance, including the following information, as applicable:

a. coating, catalyst and reducer used

b. mix ratio of components used for each coating applied

c. VOC content of coating as applied.

501.2 Record, and total, on a ~~weekly~~ monthly basis, the following information:

a. ~~coating and mix ratio of components in the coating used~~

~~b~~. quantity of each coating applied

~~501.3 Record, on a daily basis, the following information:~~

~~a. quantity and mix ratio of each specialty coating applied~~

~~501.4 Record on a monthly basis the~~ type, mix or dilution ratio and ~~amount~~ quantity of solvent used for cleanup and surface preparation.

501.3 Current manufacturer product specification sheets, material safety data sheets, technical data sheets, or air quality data sheets, that list the compliance statement information required by Section 8-45-406.

501.4~~5~~ Records shall be retained and available for inspection by the APCO for the previous 24-month period. Effective November 1, 2009, records shall be maintained and made available for inspection by the APCO for the previous 36-month period.

(Amended November 2, 1994)

8-45-502 **Air Pollution Abatement Equipment, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Sections 8-45-301.1 ~~and 301.2~~ through 301.3, in addition to Section 8-45-501 shall record on a daily basis:

a. amount of coating, VOC content and mix ratio of components in the coating used, and

b. key system operating parameters.

(Adopted June 1, 1994; Amended November 2, 1994)

8-45-503 **Precoat Limitation Records:** Until October 1, 2009, a~~A~~ny person using precoat shall retain purchase invoices to verify compliance with Section 8-45-314. Such invoices shall be available for inspection upon request. (Adopted November 2, 1994)

8-45-504 **Sales Records:** Any person within the District ~~selling~~ who sells, offers for sale, supplies or distributes coatings subject to this Rule shall make receipts of customer purchases available for inspection upon request~~. Cash sales shall be recorded including the customer's name and business address.~~ and keep a detailed log of each automotive coating supplied, sold or distributed showing:

504.1 The quantity manufactured, supplied, sold, or distributed, including size and number of containers.

504.2 The VOC content for coatings; and

504.3 To whom the coatings were supplied, sold, or distributed including name, address, phone number, retail tax license number, and District permit number or registration number, as applicable.

(Adopted November 2, 1994)

8-45-505 **Recordkeeping Requirements for Clients of Mobile Refinishing Operators**: Effective October 1, 2009, any person for whom mobile refinishing operations were conducted at least five times in any one-year period or for which 25 vehicles were refinished in any one-year period shall keep a records indicating the following:

505.1 The name, address, phone number, retail tax license number, and valid District registration number of each mobile refinishing operator utilized;

505.2 The date(s) each mobile refinisher engaged in mobile refinishing operations;

505.3 The number(s) of vehicles refinished by each mobile refinisher on the date(s) of operation.

8-45-600 **MANUAL OF PROCEDURES**

8-45-601 **Analysis of Samples**: Samples of volatile organic compounds as specified in Section~~s~~ 8-45-301~~.1 or 301.2~~ shall be analyzed as prescribed in the Manual of Procedures (MOP), Volume III, Method 21 or 22. Samples of volatile organic compounds as specified in Section 8-45-308~~.4~~ shall be analyzed as prescribed in the MOP, Volume III, Method 31. ~~Samples containing parachlorobenzotrifluoride shall be analyzed as prescribed in the MOP, Vol. III, Method 41.~~ Samples containing volatile methylsiloxanes shall be analyzed as prescribed in the MOP, Vol. III, Method 43.

(Amended November 2, 1994; November 6, 1996)

8-45-602 **Determination of Emissions, Operations with an Emission Control ~~Device~~ System:** ~~Emissions of volatile organic compounds as specified in Sections 8-45-301.1, or 301.2, shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). For the purpose of determining abatement device efficiency, any acetone, PCBTF or VMS shall be included as a volatile organic compound. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.~~

Emissions of volatile organic compounds from source operations controlled by an emission control system shall be determined as follows:

602.1 Capture efficiency shall be determined as specified in 40 CFR 51, Appendix M, Test Methods 204 – 204F, as applicable.

602.2 Control device destruction efficiency shall be determined as specified in the Manual of Procedures, Volume IV, ST-7 or EPA Method 25 or 25A.

602.3 For the determination of control device destruction efficiency, any non-precursor organic compound specified in Section 8-20-216 shall be included as a volatile organic compound.

602.4 The overall control efficiency of an emission control system, expressed as a percentage, shall be calculated according to the following equation:

OE = [CE x DE]/100

Where:

OE = Overall efficiency
CE = Capture efficiency
DE = Control device destruction efficiency

602.5 A source shall be in violation if the VOC emissions exceed the standards of this rule as measured by any of the reference test methods.

(Amended June 1, 1994; November 6, 1996)

8-45-603 Deleted October 6, 1993

8-45-604 Determination of Acid Content: Measurement of acid content as specified in Section 8-45-219 shall be determined in accordance with ASTM Test Method D-1613-85. (Adopted October 6, 1993)

8-45-605 Determination of Metallic Content: The metallic content of a coating (as specified in Section 8-45-216) shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coating by X-Ray" (July 1996).

8-45-606 Determination of Methyl Acetate, Acetone, t-Butyl Acetate, and PCBTF Contents: The quantity of methyl acetate, acetone, t-butyl acetate, and parachlorobenzotriflouride (as specified in Sections 8-45-231 and 264 shall be determined by using ASTM Method D6133-02: "Standard Test Method for Acetone, *p*-Chlorobenzotrifluoride, Methyl Acetate or *t*-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph."

8-45-607 Spray Equipment Transfer Efficiency: Any demonstration of the transfer efficiency of an alternative coating application equipment shall be determined in accordance with the provisions of South Coast Air Quality Management District "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" dated May 24, 1989.

REGULATION 3: FEES

SCHEDULE R
EQUIPMENT REGISTRATION FEES

1. Persons operating commercial cooking equipment that are required to register equipment as required by District rules are subject to the following fees:
   a. Conveyorized Charbroiler REGISTRATION FEE: $360
   b. Conveyorized Charbroiler ANNUAL RENEWAL FEE: $100
   c. Under-fired Charbroiler REGISTRATION FEE: $360
   d. Under-fired Charbroiler ANNUAL RENEWAL FEE: $100

2. Persons operating non-halogenated dry cleaning equipment that are required to register equipment as required by District rules are subject to the following fees:
   a. Dry Cleaning Machine REGISTRATION FEE: $180
   b. Dry Cleaning Machine ANNUAL RENEWAL FEE: $125

3. Persons operating diesel engines that are required to register equipment as required by District or State rules are subject to the following fees:
   a. Diesel Engine REGISTRATION FEE: $120
   b. Diesel Engine ANNUAL RENEWAL FEE: $80

4. Persons operating boilers, steam generators and process heaters that are required to register equipment by District Regulation 9-7-404 are subject to the following fees:
   a. Each facility operating a boiler, steam generator or process heater subject to Regulation 9-7-404 ONE-TIME REGISTRATION FEE $425 per facility
   b. Each boiler, steam generator or process heater subject to Regulation 9-7-404, after the first ONE-TIME REGISTRATION FEE $50 per device

5. Persons owning or operating graphic arts operations that are required to register equipment by District Regulation 8-20-408 are subject to the following fees:
   a. REGISTRATION FEE: $215
   b. ANNUAL RENEWAL FEE: $135

6. Persons owning or operating mobile refinishing operations that are required to register by District Regulation 8-45-4 are subject to the following fees:
   a. REGISTRATION FEE $100
   b. ANNUAL RENEWAL FEE $60

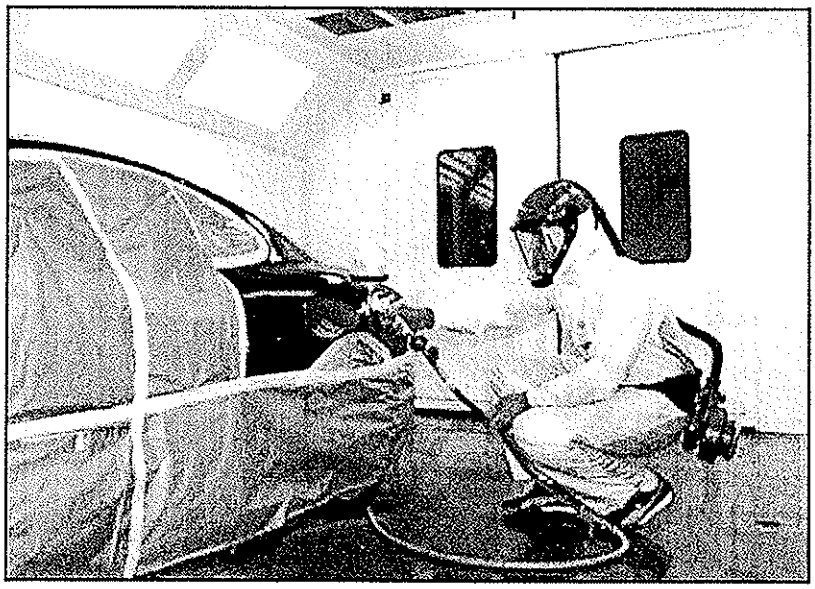
(Adopted 7/6/07, Amended 12/5/07; 5/21/08; 7/30/08)

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, California 94109

Staff Report

BAAQMD Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations



November 2008

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STAFF REPORT
Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations

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I. EXECUTIVE SUMMARY

The Bay Area Air Quality Management District (District) regulates emissions of volatile organic compounds (VOC) from automotive refinishing operations through Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations (Rule 8-45). Rule 8-45, which was first adopted in 1989, sets VOC limits on various types of paints and surface preparation solvents used in automotive refinishing. The Rule also regulates coating of original equipment such as heavy duty trucks, buses, trains, golf carts and camper shells. The Rule also requires the use of spray technology that is transfer efficient, to maximize the amount of paint that adheres to the intended surface and minimize overspray. Currently, VOC emissions from automotive refinishing operations in the Bay Area total 5.8 tons per day (tpd).

This proposal would further reduce VOC emissions from automotive refinishing and associated coating operations by incorporating the VOC limits and operational standards contained in the California Air Resources Board (ARB) Suggested Control Measure for Automotive Coatings (SCM). The SCM was developed in 2005 as a guideline to be used by California air districts in amending their automotive refinishing rules.[1]

The proposal also includes new requirements for mobile refinishing operations. Mobile refinishers are typically small, one-person operations that travel from place to place to repair and repaint minor dents and scratches, frequently at auto dealerships. Mobile refinishers would be required to register with the District, and frequent clients, such as auto dealerships, would be required to record mobile refinisher visits. A concurrent amendment is proposed in Regulation 3: Fees, Schedule R: Equipment Registration Fees to recoup costs of inspecting these operations.

The proposed amendments would result in a VOC emission reduction of 3.7 tpd, or about 63 percent of the Bay Area motor vehicle and mobile equipment coating emissions, and cost, on average, $793 per facility. The result is a cost effectiveness of $801 per ton of VOC emissions reduced. A socioeconomic impact analysis found no significant impacts on Bay Area jobs or the economy. An environmental impact analysis found no adverse environmental impacts and a CEQA Negative Declaration is proposed.

II. BACKGROUND

Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations regulates VOC emissions from automotive refinishing operations and coating operations to finish other motor vehicles and mobile equipment. These include heavy duty trucks, trailers, buses, trains, golf carts, camper shells and utility bodies. (The only original equipment manufacturer of automobiles in the Bay Area, New United Motors of Fremont, CA, is subject to Regulation 8, Rule 13: Light and Medium Duty Motor Vehicle Assembly Plants; that rule is designed specifically for assembly line operations.) Most VOCs used as solvents in refinishing coatings are precursors to the formation of ozone. Ozone is formed from the photochemical reaction of oxides of nitrogen (NOx) and VOCs. Ozone can result in reduced lung function, increased respiratory symptoms, increased airway hyper-reactivity, and increased airway inflammation. In addition, VOCs can contribute to the secondary formation of particulate matter (PM). Currently, the San Francisco Bay Area is not in attainment of the State air quality standards for ozone and PM, and ARB has determined that ozone and ozone precursors are sometimes transported from the Bay Area to neighboring air basins. Amendments to Rule 8-45 were included as Control Measure SS 1 in the Bay Area 2005 Ozone Strategy.

A. Automotive Refinishing Operations

Automotive refinishing operations are conducted at auto body repair and paint shops, production auto body paint shops, auto dealership repair and paint shops, fleet operator repair and paint shops, and by mobile refinishers who travel to various sites and do limited body work and repainting at those locations. Many of the facilities do collision repair and some do commercial vehicle refinishing and repair. Mobile refinishing operations are primarily conducted at car dealerships and at facilities that operate fleets of vehicles, like rental car agencies, and government agencies.

There are approximately 1100 automotive refinishing facilities in the District. Facilities that engage in automotive refinishing include auto body repair shops, automotive paint shops, auto dealerships, public transit agencies like Bay Area Rapid Transit, San Francisco Municipal Transit, and Alameda County and Contra Costa County Transit, airports, public works departments, and educational facilities like high schools and community colleges. Overall, the majority of automotive refinishing facilities are small businesses typically having one to five employees. Over 70 percent of the facilities are estimated to have one million dollars or less in annual revenue.[1] Automotive refinishing facilities vary greatly in size and level of sophistication. Some automotive refinishing facilities are medium to large, relatively automated facilities, equipped with spray booths with forced air dryers and filtration, automatic gun cleaners and computerized recordkeeping for coating use; while many of the remaining facilities are typically family-run shops that may have a few employees. There are probably less than 200 mobile refinishers in the District.

1. Process Description

Automotive refinishing consists of refinishing done as a result of collision repair, in which the finish coats must blend into the existing color and surface; and complete refinishing and original equipment painting, where a complete topcoat is applied and color match is only necessary insofar as a utility body or truck trailer is expected to match a truck cab or corporate color scheme. Before a surface can be painted, it is critical that the surface is cleaned and degreased to ensure the undercoatings and topcoatings will bond properly. There are two main categories of automotive coatings: primers or undercoatings and top coats. Primers are applied for fill, corrosion protection and to provide a smooth, uniform surface for the topcoat. Topcoats provide the desired appearance and protection.

2. Surface Cleaning and Preparation

Prior to the application of any coating, it is critical to prepare and clean the underlying metal or plastic surface of dirt and oils. The first step in the process is sanding the surface to remove old paint and rust. The sanding also roughens the surface for the application of a primer coating. Next, dust is removed and then the surface is wiped with solvent to remove grease, oil or road tar. VOCs are released from the evaporation of the solvent from the surface and from the wipe cleaning cloth.

3. Primers

Primers, or undercoatings, include adhesion promoters, pre-coats, pretreatment coatings, primer-surfacers, primer-sealers, and sealers. Primers are used to provide corrosion protection, surface filling properties for dings and scratches, and to bond the substrate to subsequent coats. The primers also provide a smooth surface for the application of the top coat and are sometimes pigmented to reduce the amount of a color coat that would be necessary. Primers typically have high solids content and are, relatively, low in VOC content. Primers are responsible for about seven percent of the total VOC emissions from the coating operations subject to Rule 8-45.

Adhesion Promoter

An adhesion promoter is a coating applied directly to uncoated plastic surfaces to facilitate bonding of subsequent coatings.

Precoats

Precoats are applied to bare metal primarily to etch (reduce the oxidized metallic layer) the metal surface prior to the application of a subsequent primer surfacer. This provides a better bond between the primer and the metal substrate. Developed for use with a water-borne primer-surfacer, they prevent the underlying metal from rusting.

Pretreatment Coatings

Pretreatment coatings are applied directly to bare metal surfaces to provide corrosion resistance and adhesion. Pretreatment coatings contain a small amount of acid to provide surface etching.[2]

Primer-Surfacer

Primer-surfacers provide the majority of the fill for a repair. This provides a uniform surface that covers imperfections prior to a sealer or topcoat. Typically, these are applied to slightly above the surrounding painted area and then, when cured, sanded to obtain a uniform, smooth surface.

Primer-Sealer and Sealers

A primer sealer is a thin-film coating used to isolate the primer-surfacer from the topcoat. The primer-sealer will fill minute sanding scratches, but will not fill voids. It is generally non-sandable, and forms a smooth surface for a topcoat application. An expensive, pigmented topcoat or a color coat will not penetrate through a sealer into underlying primers, resulting in the use of more color coat to provide the desired color and hiding charactistics.

4. Topcoats

Following the application of the primer or primer system (a combination of primers), a topcoat is used to provide the desired appearance characteristics. Topcoats can be single-stage solid colors or coats, single-stage metallic finishes, and multistage systems that may include two or three intermediate coats to create the illusion of depth in the finish, overlaid with clear, protective top coats. When a vehicle is refinished, the painter's job is to deceive the eye into not seeing a demarcation line between the repaired and the un-repaired portion of the vehicle. The topcoat application is usually applied to a larger area than the primered area, in order to smoothly blend new paint into existing paint. Topcoats are estimated to be responsible for about 60 percent of total VOC emissions from automotive refinishing operations.

Color Coatings

Color coatings are pigmented coatings that require a subsequent clear coating for protection, durability, and gloss. Color coatings include metallic / iridescent coatings.

Water-borne color coatings, offered by most manufacturers, greatly reduce VOC emissions from the more common higher VOC solvent-borne coatings. The use of water-borne coatings may require air moving equipment, like fans, in the spray booths to enhance drying. In some cases, heat may be required to speed the drying of the water-borne coatings.[1]

Single-stage Coatings

Single-stage coatings are older technology that is used to refinish vehicles manufactured before the color coat/clear coat finishing systems were developed. These coatings, as the name implies, can be applied in one step as opposed to several, as are required for a color coat / clear coat system. They are also used on trucks and utility bodies where appearance is less critical, on military vehicles and other mobile equipment. Single-stage coatings are often used in production shops where the entire vehicle is painted and can achieve the desired color, protection and durability.

Multi-Color Coatings

Multi-color coatings are also used in automotive refinishing. These coatings are packaged in a single container and result in the appearance of more than one color in a single application. These coatings are also called "splatter" coating due to their appearance and are commonly used on truck beds.

Clear Coatings

Clear coatings contain no or minimal pigments and are applied over a color coating or intermediate translucent coating. The clear coat gives the appearance of depth and shine, and provides protection for the vehicle.

5. Other Coatings

Other coating categories include temporary protective coatings, truck bed liner coatings and underbody coatings. These miscellaneous coating categories account for less than 0.1 percent of the total VOC emissions from automotive refinishing operations.

Temporary Protective Coatings

Temporary protective coatings are used to temporarily protect areas of the vehicle from overspray or mechanical damage. These coatings are used instead of masking in the painting process and may be applied to a vehicle prior to shipment. The temporary protective coatings are removed following the application of a primer or top coat, or to prepare a vehicle for sale.

Truck Bed Liner Coatings

Truck bed liner coatings are rubberized coatings used to protect truck beds from abrasion and to provide traction. They help prevent dings and scratches from cargo.

Underbody Coatings

Underbody coatings were formerly called "rubberized asphaltic underbody coatings." They are applied to the wheel wells, door panels, fenders, undersides of trunks or hoods, and the underside of the vehicle. Underbody coatings are used for sound dampening and for protection from road debris.

6. Spray Equipment Cleaning

Following the application of various coatings, the spray equipment must be properly maintained and thoroughly cleaned to ensure the consistent application of a quality finish. There are two primary methods of cleaning spray equipment: the manual cleaning process and mechanical cleaning systems. It is estimated that the solvent used in the equipment cleaning process and surface cleaning and preparation, combined, accounts for over 30 percent of the total VOC emissions from motor vehicle and mobile equipment coating operations.

B. Regulatory History

1. The Current Rule

Rule 8-45 was adopted on June 7, 1989, and addressed VOC emissions from automotive refinishing operations. The Rule applied to auto body shops, manufacturers and sellers of automotive refinishing coatings, and manufacturers of heavy equipment like passenger buses and heavy duty trucks. (Original equipment manufacturers (OEM) are exempt from Rule 8-45 and are addressed under Regulation 8, Rule 13: Light and Medium Duty Motor Vehicle Assembly Plants.) The Rule initially required the use of spray equipment with higher transfer efficiency for primer coats in July 1990 and for all coatings in January 1991. VOC standards for the various affected coating categories were phased in over three increments, with each increment becoming increasingly more stringent. Each increment became effective on January 1, 1990; January 1, 1992; and January 1, 1995.

Rule 8-45 was significantly amended on November 2, 1994 as a result of an assessment of technology forcing VOC limits set in 1989. The VOC limits were revised to reflect technological progress and to give manufacturers adequate time to bring reformulated products to market. The revision also included incorporating additional VOC standards, which included a 0.6 lb/gal VOC limit for surface preparation solvent, a 0.5 lb/gal VOC limit for temporary protective coating, and a volume limitation on precoat. A new requirement that topcoats be applied in a spray booth or within a particulate filtration system was also added to the Rule.

Rule 8-45 was amended again on January 6, 1999, primarily to allow the use of a precoat under non-water-borne primer-surfacer to prevent corrosion of the metal surface of an auto body.

Currently, Rule 8-45 sets VOC limits for automotive refinishing coatings and solvents used in automotive refinishing operations. Table 1 summarizes the VOC limits for automotive coatings currently contained in the Rule.

Table 1
VOC Limits of Rule 8-45

Rule 8-45 Coating Categories & Solvents	VOC Limits (g/l)	
	Group I[a]	Group II[b]
Pretreatment Wash Primer	780	780
Precoat	580	580
Primer / Primer Surfacer	250	250
Primer Sealer	420	340
Solid Color Topcoat	420	--
Topcoat	--	420
Metallic Iridescent Topcoat	520	420
Multi-Stage Topcoat System	540	--
Camouflage	--	420
Specialty Coatings	840	840
Temporary Protective Coating	60	60
Surface Prep Solvent	72	72
Plastic Surface Prep Solvent	780	780

a. Group I refers to vehicles such as passenger cars, large/heavy duty truck cabs and chassis, light and medium-duty trucks and vans, and motorcycles.
b. Group II refers to public transit buses and mobile equipment.

The Rule also sets transfer efficiency requirements for spray equipment. It requires the use of electrostatic application equipment, high-volume, low-pressure (HVLP) spray equipment, or the District-approved equivalent for applying coatings. In addition, the Rule prohibits anyone from specifying the use of coatings that are not compliant with the above limits for any automotive refinishing operation and it prohibits the sale of non-compliant coatings in the District.

2. Regulatory Activity Since the Last Amendments to Rule 8-45

In October 2005, ARB published the Suggested Control Measure for Automotive Coatings (SCM), which is a guideline regulation for California air districts to use in drafting amendments to their automotive refinishing operations rules and regulations. The SCM is based on information provided to ARB by districts and automotive coating manufacturers.

The SCM recommends that California air districts' automotive refinishing rule be amended to:

1. Combine Groups I and Group II vehicle categories and establish VOC limits by coating category only;
2. Eliminate the composite VOC limit for multistage coating systems and establish independent VOC limits for both the color and clear parts of the multistage coating systems;

3. Combine the primer, primer surfacer, and primer sealer categories and establish a single VOC limit for primers; and
4. Eliminate the general specialty coating category and replace it with specific categories, and corresponding VOC limits.

Since the ARB published the SCM, the South Coast, San Joaquin Valley, and Santa Barbara districts have adopted amendments to their automotive coating rules that incorporate the recommendations of the SCM.

III. PROPOSED AMENDMENTS

The proposed amendments to Rule 8-45 are intended to reduce VOC emissions from automotive refinishing operations. The proposal is based on ARB's 2005 SCM. The proposal also contains provisions designed to address mobile automotive refinishing operations.

A. Coating and Surface Preparation and Cleaning Solvent VOC Limits

The proposed amendments to Rule 8-45 incorporate the VOC limits and definitions contained in the SCM. Several categories of coatings are to be combined. Table 2 shows the current coating categories in the Rule alongside the new corresponding coating categories and the VOC limits for each category that are proposed to become effective in October 2009 and January 2010.

Table 2
Current and Proposed Coating Categories and VOC Limits for Automotive Refinishing Operations

Rule 8-45 Coating Categories	**VOC Limits** (g/l)		**Proposed Coating Categories**	**VOC Limits** (g/l)
	Group I[a]	**Group II**[b]	**Effective Dates:** October 1, 2009 or **January 1, 2010**[c]	
Anti-glare / Safety Coating	--	--	Color Coating	420
Camouflage	--	420		
Multi-Stage Topcoat System	540	--		
			Clear Coating	250
Pretreatment Wash Primer	780	780	Pretreatment Coating	660
Precoat	580	580	Primer	250
Primer & Primer Surfacer	250	250		
Primer Sealer	420	340	**Primer Sealer**	**250**[c]
Metallic / Iridescent Topcoat	520	420	**Single-Stage Coating**	**340**[c]
Solid Color Topcoat	420	--		
Topcoat	--	420		
Temporary Protective Coating	60	60	Temporary Protective Coating	60
Specialty Coatings (limited by volume)	840	840	Multi-Color Coating	680
			Truck Bed Liner Coating	310
			Underbody Coating	430
			Uniform Finish Coating	540
			Adhesion Promoter	**540**[c]
			Any Other Coating Type	250
Surface Preparation Solvents	72	72	Surface Preparation Solvents	25
Solvents for Plastics Surface Preparation	780	780		

a. Group I refers to vehicles such as passenger cars, large/heavy duty truck cabs and chassis, light and medium-duty trucks and vans, and motorcycles.
b. Group II refers to public transit buses and mobile equipment.
c. The effective date for the **bolded categories – primer sealer, single stage coating and adhesion promoter** – is January 1, 2010.

With the incorporation of the new coatings categories, the coating categories currently contained in the Rule would be either eliminated or subsumed into the new categories. The affected coating categories include multi-stage topcoat, metallic iridescent topcoat, primer sealer, primer surfacer, precoat, camouflage, specialty coating, and anti-glare safety coating.

B. Surface Preparation and Cleaning Solvents

The proposed VOC limit for cleaning materials would be reduced from either 780 or 72 g/l to 25 g/l. The current rule requires that surface preparation solvents meet a 72 g/l VOC standard, except that high-VOC solvents can be used if contained in a hand-held spray bottle. Solvents used for preparing plastic surfaces, such as replacement bumpers, are allowed up to 780 g/l of VOC. The logic of allowing high-VOC solvent in hand-held spray bottles is that, whereas an entire surface will be wiped with solvent to take off dust as a final preparatory step before painting, spots of tar on fenders and bumpers cannot be easily removed without a high-VOC solvent. Although the SCM recommends a 25 g/l VOC limit for surface preparation solvent, the occasional need for higher VOC solvents for certain preparation work is not addressed. It has been reported that, in areas where this limit has gone into effect, auto refinishing facilities are using aerosol cans of cleaning solvent, specifically, bug and tar remover regulated under ARB's Consumer Products Regulation. One automotive products distributor reported that the use of aerosol spray solvent has increased from one or two cans per week to ten per day.

The Santa Barbara APCD adopted a provision to allow a limited amount of higher-VOC solvent for surface preparation to their auto refinishing rule in June 2008. Based on requests from Santa Barbara area auto body shops, they allowed use of up to 20 gallons per year per facility to higher VOC solvent. While this amount is appropriate for the largest shops, staff considers it to be overly generous for smaller outfits and mobile refinishers. Staff proposes a sliding scale of surface preparation solvent usage (20 gallons per year (gpy) for a shop that uses 400 gpy or more of coating; 15 gpy for a shop using 150 gpy or more of coating; and 10 gpy for less than 150 gpy of coating). A VOC limit of 350 g/l (approximately equivalent to ARB's 40 percent VOC by weight standard for bug and tar remover) is proposed. This avoids the excessive cost of numerous aerosol cans and the waste associated with using them.

C. Specialty Coatings: Multi-color Coating, Uniform Finish Coating and Adhesion Promoter

The Rule currently has a volume limitation on the amount of specialty coating that can be used, no more than five percent of all coatings used on a monthly basis, except antiglare/safety coating (primarily used at one Bay Area facility). The purpose of this standard is to limit the use of high VOC coatings renamed as special purpose coatings. The proposed amendments allow three coatings – multi-color coating, uniform finish coating, and adhesion promoter – to have a VOC limit significantly higher than other coating categories. These VOC limits range from 540 to 680 g/l. Multi-color coating shows more than one color when dried. Uniform finish coating is used on spot repairs, those areas where less than an entire panel is refinished. Uniform finish coating is a higher VOC, translucent color coating used to blend and make invisible the demarcation between a repaired area and existing paint. Adhesion promoter is applied to uncoated plastic surfaces to aid bonding of a subsequent coating.

Staff proposes to limit the use of these three coatings to no more than five percent of topcoats used, on a volume basis. Doing so will also satisfy one concern expressed by an EPA staff member about a previous version of the draft amendments, that is, that the removal of the five percent limitation could allow more high VOC specialty coating to be used, which could have been considered a relaxation of the standards in the current rule. Uniform finish coating is less than 0.2 percent of topcoats used on a state-wide basis.

Staff is also proposing a change in a definition recommended in the SCM. A spot repair was defined by the SCM as an area of less than 1.0 square foot in size. This definition was an attempt to limit the amount of uniform finish coating used because uniform finish coating can be used, by definition, only on spot repairs. However, the size limit cannot be determined once the area has been painted and, therefore, the provision as recommended in the SCM would be unenforceable. The volume limitation, however, is an enforceable standard that will prevent over-use of this higher VOC coating and make the amendments approvable by EPA, at such time when the Rule is submitted into the State Implementation Plan.

D. Requirements for Mobile Refinishing Operations

Mobile refinishing operators are not required to have a permit from the District. Because mobile refinishers operate in multiple locations, their operations are currently difficult to track and inspect. Therefore, it is difficult to determine the compliance status of these operations. To address this, provisions specific to mobile refinishing operations are proposed for the Rule. Mobile refinishers would be required to register their operations with the District and upon request, notify the District of their schedule of clients. During operations, mobile refinishers have to comply with the same requirements as stationary refinishers. Mobile refinishers are also required to meet the recordkeeping requirements of the Rule. Clients of mobile refinishers where at least five operations per year or 25 cars have been refinished within a year would have to keep records of the mobile refinisher contracted to, dates of service, and number of vehicles refinished. This requirement primarily affects auto dealerships and will allow staff to cross-check with registered refinishers.

A proposed amendment to Regulation 8, Rule 3: Fees, Schedule R: Equipment Registration Fees, will set an initial registration fee of $100 and a recurring annual fee of $60 for mobile refinishers.

E. Administrative Requirements

1. Compliance Statement Requirement

The proposed amendments would require manufacturers and re-packagers of automotive coatings, components and solvents to provide written information necessary to verify compliance on product technical data sheets or the equivalent. Manufacturers must also provide recommended mix ratios and sufficient information to determine emissions, such as weight VOC or volume VOC and density of VOC.

2. VOC Labeling Requirements

Effective October 1, 2009, the proposed amendments would require manufacturers and re-packagers of automotive coatings and components to label all containers with the coating use category and the VOC content. The VOC content would also be required for cleanup and surface preparation solvents.

3. Recordkeeping Requirements

The proposal would simplify recordkeeping requirements for automotive refinishing operations that are subject to Rule 8-45. Monthly records of the totals of coating used would still be required. Beyond that, operators would need to keep the compliance statements provided by the manufacturers or distributors of coatings and record the mix ratios of coating components used.

The clients of mobile refinishing operators who have had at least five automotive refinishing operations conducted in a year or had at least 25 vehicles refinished within a year would be required to maintain records detailing the following:

- The name(s), address(es), phone number(s), retail tax license number(s), and valid District permit or registration number(s);
- The dates each mobile refinishing operation occurred; and
- The number of vehicles refinished on each occasion.

These requirements for mobile refinishing clients would take effect on October 1, 2009.

F. Test Methods

The Rule lists several test methods to demonstrate compliance. These include methods for determining VOC, acid, metallic and exempt compound contents of coatings and solvents. Methods for determining overall abatement efficiency, transfer efficiency, and HVLP equivalency are also included.

G. Regulation 3, Schedule R: Equipment Registration Fees

An amendment is also proposed for Regulation 3: Fees, Schedule R: Equipment Registration Fees. The fee is proposed to recoup the costs of inspection of mobile refinishing operations. Because mobile refinishers are not stationary, they do not need District permits, and staff has not been able to recover the costs associated with compliance verification and enforcement associated with these operations. The proposed amendments would require mobile refinishing operations to pay an initial registration fee of $100 and an annual renewal fee of $60.

IV. EMISSIONS and EMISSION REDUCTIONS

The District 2005 emissions inventory indicates that VOC emissions associated automotive coating totaled approximately 3.99 tons per day (tpd). Also, VOC emissions associated with clean-up and surface preparation solvent use at automotive refinishing operations totaled 1.83 tpd for a total of 5.8 tpd for this industry.

ARB estimated that implementation of the requirements and VOC limits of the SCM would result in an overall emissions reduction of 63 percent. Table 3 presents VOC emissions in the District from the proposed major coating categories and the expected VOC emissions reduction based on the proposal.

Table 3
Estimated VOC Emissions from Automotive Refinishing Operations and Anticipated Reductions Due to the Proposal

Coating Category	VOC Emissions (tpd)	Emission Reductions (tpd)	Percent Reductions (percent)
Clear Coating	0.52	0.31	60
Color Coating	2.48	1.68	68
Pretreatment Coating	0.07	0.04	59
Primer	0.34	0.19	56
Single-Stage Coating	0.55	0.32	58
Uniform Finish Coating	0.02	0.01	63
Surface Prep Solvents	1.83	1.11	61
Total	**5.81**	**3.66**	**63**

Automotive refinishing is a fairly uniform practice throughout California and, consequently, the relative usage of coating is consistent. At the time the SCM was developed, most districts in California had identical VOC limits, with the exception of the South Coast AQMD. Therefore, the reductions estimated for the Bay Area should be consistent with reductions estimated for the entire state.

V. ECONOMIC IMPACTS

Staff conducted a cost and cost effectiveness analysis based information developed by ARB staff and recent cost information provided by several coating distributors, facilities that have already converted to lower VOC coating, and other air districts. A socioeconomic analysis was also performed along with an incremental cost effectiveness analysis and an analysis of the potential impact to the District.

A. Costs and Cost Effectiveness

ARB staff performed a cost analysis to estimate the cost of implementation of the SCM. ARB estimated the cost of implementation of the new standards to be $13.9 million annually. This reflected increased costs of compliant coatings, additional operation and maintenance costs and need to purchase additional equipment, such as water-compatible spray guns, forced air and heating equipment. The average cost of compliance was estimated to be about $2300 per facility. At the time ARB's analysis was conducted, few if any, automotive refinishing facilities were using coating products that met the limits of the then developing SCM. However, since ARB's approval of the SCM in 2005, a considerable number of facilities throughout the state, including the Bay Area, have converted to coating products that comply with the proposed VOC limits. District staff's recent economic evaluation indicates that the actual costs to comply with the proposed VOC limits may be lower than originally estimated by ARB.

The jobbers (automotive coating distributers) representing the several coating manufacturers have been instrumental in helping facilities make the conversion from solvent-based color coats to waterborne. This assistance includes complimentary training (both onsite and remote), discounted equipment in some cases such as mixing machines, water-tolerant spray guns, heating and air moving equipment, and continued customer service to help facilities experience a smooth transition. Discussions with these jobbers and converted facility operators indicate that the costs to switch to waterborne coating products should be less than the costs estimated by the ARB. The approximate cost per booth to convert to waterborne color coat is estimated to be from $950 to $1250. The equipment and costs are listed in Table 4.

Table 4
Cost Estimation for the Use of Waterborne Color Coats per Spray Booth[3, 4]

Equipment	Costs
Venturi Fans (pair) and Stand	$300 -$500
Infrared Heating Lamps	$200
Stainless Steel Spray Gun	$400-$500
Waste Container	$50
Total Costs	**$950-$1250**

Facilities with multiple booths may elect to purchase only one spray gun for use in two booths. Applying these equipment costs to the automotive refinishing facilities permitted by the District along with the recurring costs, which includes the cost of coatings and maintenance as developed by ARB, results in a total annual cost of $1.2 million.

Coatings formulated to meet the proposed VOC limits can cost up to 20 percent more than currently compliant coatings on a volumetric basis. However, because the new formulations have greater solids contents and use a waterborne reducer instead of a solvent-based reducer, it is expected that the cost of using the new formulations would be

about equal to, if not less than, the cost of the currently used coating.[5] The overall cost effectiveness of the proposal is estimated to be $800 per ton of VOC reduced.

Finally, the proposal would require mobile refinishing operators to register with the District. The cost of the initial registration would be $100, with an annual recurring fee of $60.

B. Socioeconomic Impacts

Section 40728.5 of the California Health and Safety Code requires an air district to assess the socioeconomic impacts of the adoption, amendment or repeal of a rule if the rule is one that "will significantly affect air quality or emissions limitations." Bay Area Economics of Emeryville, California has prepared a socioeconomic analysis of the proposed amendments to Rule 8-45. District staff has reviewed and accepted this analysis. Based on the analysis, District staff has concluded that the affected facilities should be able to pass through the costs of compliance with the proposed rule without significant economic dislocation or loss of jobs.

C. Incremental Cost Effectiveness

The District is required to conduct an incremental cost effectiveness analysis prior to adopting any proposed Best Available Retrofit Control Technology rule or feasible measure pursuant to Health and Safety Code Section 40920.6 (a)(3). Under this section, the District must: (1) identify one or more control options achieving the emission reduction objectives for the proposed rule; (2) determine the cost effectiveness for each option; and (3) calculate the incremental cost effectiveness for each option. To determine incremental costs, the District must "calculate the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option."

The alternative control option used in this analysis assumes that all spray booths operated by automotive refinishing facilities are abated by add-on controls rather than through a reduction in the VOC limits of color and clear coats. The add-on control system chosen is a hybrid of carbon adsorption and catalytic incineration control systems to achieve an overall control efficiency of 85 percent. A control system is estimated to cost approximated $175,000 per spray booth for capital and installation with annual operation and maintenance (O&M) costs estimated to be 10 percent of the capital cost, $17,500.[6] Installation of this control technology on the 1400 spray booths permitted in the District (some facilities have multiple booths) results in a total District-wide cost of $245 million. Applying a control efficiency of 85 percent to the 3.6 ton per day of emissions coating operations conducted in a spray booth would achieve an emissions reduction of 3.0 tons per day. It is assumed that surface preparation and cleaning operations would be conducted outside the spray booth. Amortizing the capital and installation cost at 7.5 percent interest for 10 years ($25,000) and adding the O&M cost ($17,500) results in an annualized cost of $59.5 million District-wide.

Incremental cost effectiveness can be calculated according to the following formula:

$$ICE = \frac{C_{option} - C_{proposal}}{ER_{option} - ER_{proposal}}$$

Where:

- **ICE** = the incremental cost effectiveness.
- C_{option} = the annualized cost of the control option.
- $C_{proposal}$ = the annualized cost of the proposal.
- ER_{option} = the potential annual emissions reduction that would be achieved by the control option.
- $ER_{proposal}$ = the potential annual emission reductions that would be achieved by the proposal.

$$ICE = \frac{\$59.5\text{ mm} - \$1.1\text{ mm}}{(3.6\text{ tpd} - 3.8\text{ tpd}) \times 365\text{ days}}$$

$$= \$160{,}000\text{ per ton}$$

Consequently, due to the extremely high cost effectiveness of this option, staff does not recommend mandatory abatement for all spray booths. There have been no other increments identified that would achieve the same emission reduction objective.

D. District Impacts

The proposed amendments will have very little impact on District resources. The affected sources are currently permitted and inspected by district staff. The proposal will also require mobile refinishers to register with the District, which will make them easier to track and evaluate for compliance. The initial and annual registration fees are expected to cover the increased inspection activity at these sources.

VI. ENVIRONMENTAL IMPACTS

A. CEQA

Pursuant to the California Environmental Quality Act, the District has had an initial study for the proposed amendments prepared by Environmental Audit, Inc. The initial study concludes that there are no potential significant adverse environmental impacts associated with the proposed amendments. A negative declaration is proposed for approval by the District Board of Directors. The negative declaration and initial study were available for comment between October 27 and November 17, 2008. Although no comments were received specifically directed at the CEQA documents, one comment on the proposed amendments – requesting an exemption for tertiary butyl acetate – was responded to as a CEQA comment and response, in addition to the response in Appendix A because the comment referred to CEQA.

B. Greenhouse Gas Emissions

In June, 2005, the District's Board of Directors adopted a resolution recognizing the link between global climate change and localized air pollution impacts. Climate change, or global warming, is the process whereby emissions of anthropogenic pollutants, together with other naturally-occurring gases, absorb infrared radiation in the atmosphere, leading to increases in the overall average global temperature.

While carbon dioxide (CO_2) is the largest contributor to global warming, methane, halogenated carbon compounds, nitrous oxide, and other species also contribute to climate change. Gases in the atmosphere can contribute to the greenhouse effect both directly and indirectly. Direct effects occur when the gas itself is a greenhouse gas (GHG). While there is relative agreement on how to account for these direct effects of GHG emissions, accounting for indirect effects is more problematic. Indirect effects occur when chemical transformations of the original compound produce other GHGs, when a gas influences the atmospheric lifetimes of methane, and/or when a gas affects atmospheric processes that alter the radiative balance of the earth (e.g., affect cloud formation).

VOCs have some direct global warming effects; however, they may also be considered greenhouse gases due to their indirect effects. VOCs react chemically in the atmosphere to increase concentrations of ozone and may prolong the life of methane. The magnitude of the indirect effect of VOCs is poorly quantified and depends on local air quality. Global warming not only exacerbates ozone formation, but ozone formation exacerbates global warming. Consequently, reducing VOCs to make progress towards meeting California air quality standards for ozone will help reduce global warming.

As result of the proposed amendments, it is expected that most facilities will have to purchase and use, at a minimum, venturi fans and/or infrared heating lamps to operate competitively if they do not already own them. Use of these devices would result in a negligible increase in energy consumption and, subsequently, a negligible increase in CO_2 emissions. However, this small potential increase in CO_2 emissions would be greatly offset by the reductions in VOC emissions (which also contribute to GHG emissions) due to the implementation of the reduced VOC limits. Also, the use of waterborne coatings results in a smaller waste stream. Operators typically use a concentrator that allows paint solids to settle from leftover paint and water used to wash spray equipment. The settled paint is filtered and concentrated and allowed to dry. The filtered water may be re-used for cleaning or allowed to evaporate. Ultimately, there is less waste material to be transported for reclamation or disposal through incineration resulting in less CO_2 emissions than when using solvent-based coatings.

District VOC rules typically allow a facility to reduce emissions to the atmosphere through the use of air pollution abatement equipment as an option to the use of low-VOC products. Such abatement equipment may be thermal or catalytic oxidizers or carbon adsorption. These devices are rarely a cost-effective solution except in the largest facilities, however, if they were employed, emissions of GHG could be expected to

increase due to the use of natural gas to fire an oxidizer. Historically, low-VOC products have been successfully implemented. Because air pollution abatement equipment is not expected to be used to meet the VOC limits in the proposed rule amendments, no increase in GHG emissions are expected.

C. Tertiary Butyl Acetate

During this rule development process, a stakeholder requested that the District exempt tertiary butyl acetate (TBAC) from the VOC definition in the Rule. Tertiary butyl acetate is a common name for acetic acid, 1,1-dimethlyethyl ester. It is a colorless, flammable liquid with a strong odor. In 2004, the US EPA found that TBAC has a negligible contribution to photochemical reactivity (ozone formation). Consequently, it is exempt from the federal list of VOC. Lyondell Chemical (now LyondellBasell) requested a similar exemption from ARB, which would only apply to the state-wide consumer products rule (17CCR, commencing at §94520). In 2005, ARB developed the Automotive Refinishing SCM, and performed an assessment of the potential adverse health impacts of an exemption for TBAC under the provisions of CEQA. The assessment team included staff from ARB, Office of Environmental Health Hazard Assessment (OEHHA), State Water Resources Control Board (SWRCB) and the Department of Toxic Substances Control (DTSC). The assessment analyzed the potential health impacts associated with replacement of solvents commonly used in automotive refinish coatings with TBAC, including acetone and PCBTF (VOC-exempt solvents) and a variety of non-exempt solvents. The assessment did not consider the impacts of replacing water with TBAC. The assessment found that 33 to 54 tons per day of TBAC could be emitted in California, the majority from auto refinishing operations.

TBAC has low acute inhalation, oral, dermal and ocular toxicity, and no impacts in several short term genotoxicity assays. No chronic, developmental, or reproductive toxicity data are available. No carcinogenicity data are available. ARB concluded that it is not possible to assess the long-term exposure non-cancer health effects of TBAC. In studies with rats, TBAC has been shown to substantially metabolize to tertiary butyl alcohol. Studies have shown that tertiary butyl alcohol may cause oxidative DNA damage and has been shown to induce liver tumors in rats and mice. Because of this, concern has been expressed that TBAC may be a cancer risk to humans. Comments have suggested that the rat and mouse data are not relevant to humans, but there is insufficient evidence to show that the tertiary butyl alcohol carcinogenicity data are not relevant to humans.[7]

ARB concluded that TBAC should be considered to pose a cancer risk to humans, but recommended an exemption for the compound in the SCM. ARB estimated a lifetime population-weighted exposure risk of 11 in one million excess cancers for populations near facilities with high TBAC emissions. ARB did not estimate a cancer risk for exposed worker populations, but found that it would be much higher. In recommending the exemption from the VOC definition in the SCM, ARB recommended that air districts determine whether the use of TBAC would pose a risk of unacceptable exposures. Subsequent to these findings, ARB promulgated an SCM for architectural coatings in

2007 and revisions to the state-wide consumer products regulation in 2008. ARB did not exempt TBAC in either of these processes.

The South Coast has exempted TBAC in their comparable rule (Rule 1151: Motor Vehicle and Mobile Equipment Coating Operations) but only for primers, on the reasoning that complying products were already available for topcoats. The San Joaquin district has exempted TBAC for automotive coatings, but not surface preparation or clean-up solvents. Ventura County has proposed (but not yet adopted) a complete exemption. TBAC, if exempted, could replace other compounds with toxicity concerns, such as xylene, although it could also be used to replace water in waterborne coatings and/or water or other exempt compounds in cleaning solvents.

In 1993, the Air District Board of Directors adopted a policy directing staff to consider the impacts of negligibly photochemically reactive compounds on a rule-by-rule basis and not exempt compounds that deplete stratospheric ozone or are toxic. To this end, staff has recommended deleting exemptions for stratospheric ozone depleting compounds such as 1,1,1 trichloroethane and toxic compounds such as methylene chloride. Further, staff has not added compounds to the exempt list without an indication that they were useful in meeting VOC limits in particular rules.

There is no clear evidence that TBAC is a human carcinogen, however, there is also a lack of long-term health effects studies to make a definitive determination. Because the South Coast and San Joaquin have already adopted amendments to their motor vehicle and mobile equipment coating rules, products have already been developed to meet the lower VOC standards that do not rely on TBAC for compliance. These coatings are commercially available and in use, including in the Bay Area.

Because TBAC may potentially pose a cancer risk to humans, and because compliant coatings that do not contain TBAC are already available on the market and being used, staff does not recommend an exemption for TBAC in Rule 8-45 at this time.

VII. REGULATORY IMPACTS

Section 40727.2 of the Health and Safety Code requires an air district, in adopting, amending, or repealing an air district regulation, to identify existing federal and district air pollution control requirements for the equipment or source type affected by the proposed change in air district rules. The air district must then note any difference between these existing requirements and the requirements imposed by the proposed change. It had been determined that two federal air pollution control regulations apply to automotive refinishing operations:

1. 40 CFR Parts 9 and 59 – National Volatile Organic Compound Emissions Standards for Automotive Coating (National Rule), and

2. 40 CFR Part 63, Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (NESHAP).

A. Comparison with the National Rule

The National Rule sets VOC limits for some of the automotive coating categories in the proposal. Table 5 indicates that the proposed VOC limits are significantly more stringent compared to limits set forth in the National Rule.

Table 5
Comparison of the National Rule with the Proposal

Coating Category	National Rule VOC Limits (g/l)	Coating Category	Proposed Rule 8-45 VOC Limits (g/l)
Pretreatment Wash Primer	780	Pretreatment Coating	660
Primer / Primer Surfacer	580	Primer	250
Primer Sealer	555		
Single / Two-Stage Coating	600	Color & Clear Coating	250-420
Topcoats ≥ 3 Stages	630	Color & Clear Coating	250-420
Multi-Colored Topcoats	680	Multi-Colored Coating	680
Specialty Coatings	840	Truck Bed Liner Coating Underbody Coating Uniform Finish Coating Adhesion Promoter	250-540

B. Comparison with the NESHAP

The NESHAP regulates automotive refinishing operations along with other area sources. The main purpose is to reduce emissions of several hazardous air pollutants (HAP): chromium, lead, manganese, nickel, and cadmium. These metals are found in the pigments in some colors. Table 6 compares the general requirements of the NESHAP with those of the proposal. Because the District requires filtration for the application of all topcoats and filters of 98 percent efficiency are readily available, the District rule is as stringent as the NESHAP.

Table 6
Comparison of the NESHAP with the Proposal

NESHAP Requirements affecting automotive refinishing operations	Equivalent Requirements
Painter Training	No equivalent requirement
Filtration with 98% capture efficiency	Properly maintained and operated filtration
Spray booths used to refinish complete vehicles or equipment must be enclosed with negative pressure of 0.05" of water	No equivalent requirement, permit conditions
Spray booths used to coat parts or products must have 3 walls/side curtains and ventilated with negative pressure	No equivalent requirement
Use HVLP spray gun, electrostatic application, airless or air-assisted airless spray gun, or equivalent.	Yes: § 8-45-303
No atomization or spraying of cleaning solvent outside a container when cleaning spray gun.	Yes: § 8-45-308

VIII. RULE DEVELOPMENT / PUBLIC CONSULTATION PROCESS

The process to bring this proposal to the Board of Directors has been a comprehensive process involving automotive coating manufacturers, their distributors and trade associations, and consultation with other regulatory agencies such as ARB, EPA, and other California air districts. In the development of this staff report, the previous workshop report and associated Public Workshops, and proposed amendments District staff has:

- Participated in the development of ARB's Automotive Refinishing SCM;
- Held meetings and conference calls with automotive coatings manufacturers and distributors;
- Attended automotive coatings manufacturers demonstrations and training seminars;
- Hosted meetings with the Bay Area Automotive Refinishing Association;
- Visited numerous automotive refinishing facilities.

District staff also collected information on each of the 1100 motor vehicle and mobile equipment coating facilities permitted in the Bay Area to help estimate emissions, emission reductions and costs. Staff developed the economic analysis based on the analysis presented in the 2005 SCM staff report and by additional costing information provided by coating distributors and facility operators in the Bay Area.

Staff also hosted a series of Public Workshops to inform and solicit comments from the affected industries and interested public on the proposed amendments to Rule 8-45. A morning workshop was held in San Francisco on August 25, 2008, and two evening workshops were hosted in San Jose and San Pablo on August 26 and 27, respectively. The attendance at these workshops ranged between 40 and 60 individuals and included automotive coating and chemical manufacturers and distributors, automotive refinishing facility operators, mobile refinishers, and staff members from ARB, EPA, other air districts and other environmental agencies.

Comments presented during and subsequent to the workshops focused primarily on:

- The cost of equipment needed to use waterborne coatings;
- The proposed compliance date;
- Clarification of definitions;
- A proposed compliance option based on the reactivity of organic compounds in the coating rather than the traditional measurement by mass (grams VOC per liter of coating); and
- A VOC exemption for TBAC.

As a result of these comments and further discussions and analyses, several changes have been made and are reflected in this proposal:

- Staff investigated and updated the costs of compliance and found that the original estimate to be accurate, if not overly conservative;
- Effective dates for compliance were delayed to October 1, 2009 and January 1, 2010 to provide sufficient time for Bay Area shops to transition to compliant coating products;
- Definitions were clarified;
- The reactivity based option was removed;
- Staff evaluated TBAC and does not propose to exempt it.

A public notice of the availability of a draft of proposed amendments to Regulation 8, Rule 45, proposed amendments to Regulation 3, Schedule R, a staff report, CEQA initial study and proposed negative declaration and a socioeconomic analysis was published on the District's website and e-mailed to CARB and interested parties on October 27, 2008. Staff also notified interested parties on a mailing list via postcard. During the written comment period, seven comments were received. They were from representatives of Eastman Chemical Company, LyondellBasell Industries, Santa Clara Valley Transportation Authority, National Paint and Coatings Association, DuPont Corporation, RadTech International, and FinishMaster, Inc. Comments and staff responses are attached as Appendix A. No changes are proposed as a result of the written comments.

Since publication, staff has discovered minor errors in the draft amendments to Regulation 8, Rule 45 and made corrections in the final draft. These corrections clarify consistent terminology throughout the rule, correct internal reference numbers, and, in

Section 8-45-301, delete a requirement for a draft section that was not included in the final proposed amendments. These corrections are minor, preserve the intent of the rule as stated in the staff report and do not change the impact of the proposed amendments. These changes do not require a continuation of the public hearing.

IX. CONCLUSION

Pursuant to the California Health and Safety Code Section 40727, before adopting, amending, or repealing a rule the Board of Directors must make findings of necessity, authority, clarity, consistency, non-duplication and reference. The proposal is:

- Necessary to supplement the District's ability to meet the commitment made as part of the District's 2005 Ozone Strategy in Control Measure SS 1 to attain the State one-hour ozone standard, as well as meet transport mitigation requirements;
- Authorized by California Health and Safety Code Section 40702;
- Clear, in that the new regulation specifically delineates the affected industries, compliance options and administrative and monitoring requirements for industry subject to this rule;
- Consistent with other District rules, and not in conflict with state or federal law;
- Non-duplicative of other statutes, rules or regulations; and
- Properly references the applicable District rules and test methods and does not reference other existing law.

A socioeconomic analysis prepared by Bay Area Economics has found that the proposed amendments would not have a significant economic impact or cause regional job loss. District staff have reviewed and accepted this analysis. A California Environmental Quality Act analysis prepared by Environmental Audit, Inc., concludes that the proposed amendments would not result in any adverse environmental impacts. District staff have reviewed and accepted this analysis as well. A Negative Declaration for the proposed amendments has been prepared and will be circulated for comment.

Staff recommends the adoption of the proposed amendments to Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations, adoption of the proposed amendment to Regulation 3: Fees, Schedule R: Equipment Registration Fees, and approval of a CEQA Negative Declaration.

X. REFERENCES

[1] "Staff Report for the Proposed Suggested Control Measure for Automotive Coatings," Air Resources Board, October 2005.

[2] Auto Body Surface Coating: "A Practical Guide to Reducing Air Emissions," Small Business Pollution Prevention Center, Iowa Waste Reduction Center, University of Northern Iowa, 1998

[3] Rob Casaleta, Sherwin-Williams, Conversation with Victor Douglas, September 5, 2008.

[4] Jeff Hartl, AMX, Phone conversation with Victor Douglas, September 8, 2008.

[5] Tom Laginess, BASF, Phone conversation with Victor Douglas, March 7, 2008.

[6] CAPCOA 2003 Engineering Symposium, April 1, 2003.

[7] Luo, D, PhD, et al, Environmental Assessment of *Tertiary*-Butyl Acetate (DRAFT) Staff Report, June 2005, CARB http://wwww.arb.ca.gov/research/reactivity/TBAC1.pdf

APPENDIX A

COMMENTS AND RESPONSES

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APPENDIX A
COMMENTS AND RESPONSES

Written comments were received from the following:

A. Mark Barbour, Ph.D., Regulatory Advocacy Manager, Eastman Chemical Company, via e-mail dated October 29, 2008

Comment: Disappointed to see reactivity-based option removed from the draft rule.

Response: Early in the rule development process, staff had proposed a compliance option based on the relative reactivity of solvents in the coating used, as an alternative to the mass of photochemically reactive solvents. That option was not supported by any of the automotive coating manufacturers, nor staff at the Air Resources Board. Since automotive coating manufacturers stated that they would not likely be pursuing reactivity based formulations, staff is not proposing to include them in the Rule 8-45 at this time.

B. Daniel Pourreau, Pd.D., Technical Advisor, LyondellBasell Industries, e-mail dated October 28, 2008 and letter via e-mail dated November 14, 2008

LyondellBasell developed and produces tertiary butyl acetate (TBAC), and supports the reduction of VOC limits. Mr. Pourreau had met with staff (August 27) to discuss the use of TBAC in auto refinishing operations. Staff was requested to conduct a health risk assessment on the use of TBAC in auto refinishing operations in the Bay Area. The staff report does not indicate that this has been done.

Comment: The staff report contains some inaccuracies regarding TBAC. Additional toxicological studies and a peer-reviewed risk assessment on the primary metabolite (tertiary-butyl alcohol, TBA) have been performed since CARB's 2005 "Environmental Impact Assessment of Tertiary-Butyl Acetate." These studies confirm that TBAC has low acute and subchronic toxicity, is not a reproductive or developmental toxin and is unlikely to be a human carcinogen. Even if BAAQMD were to conclude that the CARB concerns were justified, a risk assessment should be conducted.

Response: Toxicological information regarding TBAC is mixed. Some scientific studies indicate that TBAC is a relatively non-toxic compound. However, there are also studies that indicate that TBAC is potentially carcinogenic. According to Budroe, et al. (2004) "TBAC has been demonstrated to be substantially metabolized to TBA in rats, and a positive TBA genotoxicity study suggests that TBA may cause oxidative DNA damage. TBA has been shown to induce tumors in both rats and mice, and the Office of Environmental Health Hazard Assessment has calculated an oral cancer potency factor for TBA. Therefore, TBAC should be considered to pose a potential cancer risk to humans because of the metabolic conversion to TBA."

Manufacturers currently produce automotive coatings that are compliant with the proposed VOC limits. Staff does not believe it is good policy to recommend an

exemption for a potential carcinogen that may replace solvents that, toxicologically, are relatively innocuous, particularly if such an exemption is not necessary to achieve compliance.

Comment: District staff stated that no long-term health studies were conducted for TBAC, however, this is also true for parachlorobenzotrifluoride (PCBTF), a currently exempt compound. PCBTF emissions will increase under the proposed amendments.

Response: Staff is aware that long-term health studies are also lacking for PCBTF. Staff is also aware that PCBTF has been used to meet the compliance limits in some automotive refinish coatings, particularly clear coatings.

Comment: Much more is known about the toxicity of TBAC and its metabolite, TBA, than PCBTF. According to a 1992 NTP study, PCBTF does not appear to be a mutagen, or genotoxic, but this does not exclude the possibility that it may be a carcinogen in mice or rats. Because PCBTF was exempted in Reg. 8-45 without a definitive determination as to its toxicity, BAAQMD should exempt TBAC.

Response: PCBTF was exempted in District coating rules in 1995, following the EPA's determination of negligible photochemical reactivity. The staff report recommending an exemption for PCBTF states:

> It must be noted that, in the case of PCBTF and VMS (volatile methyl siloxanes), numerous toxicity studies have been done, as is required for listing under the EPA's Significant New Alternatives Program (SNAP). These include acute and subchronic mammalian studies, genotoxicity and ecotoxicity (fish). The results of these studies indicate that the material is not toxic, mutagenic or carcinogenic, therefore, do not indicate a need to further study the compounds. However, because they do not measure long term exposure, neither can one state unequivocally that there are no long term exposure effects.

The District continuously reevaluates policies underlying rule development activities. The development of the Board-adopted Stratospheric Ozone Policy in 1991, as an example, is the result of reconsideration of exemptions granted in the 1980's for compounds that were shown to have deleterious environmental effects. BAAQMD staff and statewide efforts have become much more precautionary in terms of granting exempt compound status since that time. The data on PCBTF, however, does not suggest it is a likely carcinogen, unlike some data available for TBAC. Staff will continue to monitor PCBTF studies for additional data.

Comment: The metabolism of TBAC is well understood. Most experts conclude that TBAC and TBA are not mutagenic, genotoxic or likely human carcinogens. The mode of action by which TBA causes tumors in male rats (α-2μ-globulin nephropathy) does not exist in other species of rats, mice, female rats of the same species, or humans. However, the California Office of Environmental Health Hazard Assessment (OEHHA) has disputed this conclusion and suggested a hypothetical cancer risk factor for humans. This is not an official agency position and has not been validated by the California Scientific Review Panel or Cancer Identification Committee. Therefore, TBAC should not be considered a carcinogen for these amendments.

Response: Subchronic studies identified the kidney as the target organ in both male and female rats. Male rat kidney effects have been discounted by some scientific review panels due to α-2μ-globulin accumulation, an effect that some say is not relevant to human health. However, Doi, et al. (2007) looked at the role of α-2μ-globulin in male rat kidney tumors and concluded, "These results suggest that while α-2μ-globulin nephropathy may contribute to the renal tumor response, the critical component(s) of the nephropathy most closely associated with the development of tumors cannot clearly be identified. Thus, reliance on evidence of α-2μ-globulin-associated nephropathy in determining the potential human hazard from chemicals that cause renal tubular tumor cells in rats may need to be reconsidered." Therefore, it is uncertain whether α-2μ-globulin nephropathy is the mode of action by which TBA causes tumors in male rats. The involvement of α-2μ-globulin in the renal pathology caused by TBA in male rats has been interpreted differently among different pathologists.

An expert panel review of a study of mice showing TBA mouse thyroid tumors has been questioned and/or discounted by some reviewers due to its irrelevance to human health. However, according to Budroe et al. (2004), "It should be noted that US EPA has adopted the following science policy positions: 1) it is presumed that chemicals that produce rodent thyroid tumors may pose a carcinogenic hazard for human thyroid, and 2) in the absence of chemical-specific data, humans and rodents are presumed to be equally sensitive to thyroid cancer due to thyroid-pituitary disruption." (Hill, et al. 1998)

Since the development of the Automotive Coating SCM, CARB has developed an Architectural Coatings SCM and amendments to the statewide Consumer Products Regulation. In both of these efforts, CARB did not exempt TBAC as a VOC.

Comment: OEHHA's hypothetical cancer risk factor allows staff to estimate the potential cancer risk in the auto refinish industry, which is not possible with PCBTF. Both the San Joaquin and South Coast districts conducted risk assessments as part of their rulemaking efforts. BAAQMD should do the same.

Response: San Joaquin and South Coast districts conducted risk analyses as part of the proposal to exempt (at least partially) TBAC. A risk analysis for such an exemption is appropriate, as it evaluates the effect of a proposed action. A risk analysis for the lack of an exemption is not warranted.

Further, evaluation of risk involves many variables, in addition to judgment as to whether the modeled risk is acceptable. In CARB's analysis, they found a cancer risk that varied (depending on the example and assumptions used) between less than one in one million to no more than eleven in one million. San Joaquin's analysis found a cancer risk that varied from less than one in one million to no more than 11.7 in one million. San Joaquin modeled seven auto refinishing facilities, in which the closest receptor was 36 meters away. In the Bay Area, there are a number of auto refinish facilities, particularly in San Francisco, where the nearest receptors are much closer. To properly model the various parameters that contribute to risk, site-specific meteorological data should be used and this is rarely available for smaller facilities.

Comment: The potential for occupational exposure is negligible since precautions are routinely taken to avoid inhalation of solvent vapors and skin exposure to isocyanates in automotive refinish coatings. Precautions include isolating and ventilating the area, donning protective clothing, and using breathing apparatus.

Response: Staff agrees with this comment.

Comment: The potential for near-source or environmental exposure is likely negligible. TBAC has been exempted in 49 states and the San Joaquin and South Coast districts. The statement (in the staff report) that compliant coatings for auto refinish do not rely on TBAC is irrelevant and incorrect. The NPCA and several manufacturers have stated that TBAC is a useful compliance tool. We have identified several coating suppliers that offer TBAC-based coatings. TBAC is not listed as toxic, is not an ozone depleter and is not a greenhouse gas.

Response: Manufacturers do consider TBAC a useful compliance tool and some have stated that they may develop coatings containing TBAC were it exempted in the Bay Area and the rest of California. Some manufacturers already produce coatings containing TBAC. However, coatings without TBAC are currently available and are being used that do not exceed the proposed VOC limits.

Further, the South Coast only provided a limited exemption for TBAC under its automotive coatings rule, Rule 1151. In Rule 1151, TBAC is only exempt in primers (not color topcoats or clear coatings). At the time amendments to Rule 1151 were adopted in 2005, the South Coast concluded that there were available non-TBAC formulations for color topcoats and clear coatings, but that lower-VOC formulations for primers had not yet been developed. Today, non-TBAC formulations are available to meet the lower VOC limits for all categories.

Comment: LyondellBasell again requests that BAAQMD conduct a CEQA analysis on the use of TBAC in automotive refinish operations and base the decision to exempt the compound on this analysis. LyondellBassell also requests that incorrect statements regarding the toxicity of TBA and TBAC and the use of TBAC in the staff report be corrected.

Response: Regardless of the findings of a risk assessment, staff chooses to apply the precautionary principle, which states that if an action might cause harm to the public or environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on the advocate for the action. This is the basis of the District's toxics management policy.

A VOC exemption encourages the use of a compound, particularly so in the case of TBAC because it is a useful solvent in coating formulations. An exemption would run contrary to the California Green Chemistry Initiative and proponents of the exemption have not adequately shown that TBAC does not have potentially deleterious health effects. OEHHA staff, whose mission is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances has not recommended that TBAC be exempted as a VOC. District staff agrees.

References used in this response:

Budroe, J.D., Brown, J.P., Salmon, A.G., and Marty, M.A., *Acute Toxicity and Cancer Risk Assessment Values for Tert-butyl Acetate*, Regulatory Toxicology and Pharmacology 40:168-176, 2004

Doi, A.M., Hill, G., Seely, J. Hailey, J.R., Kissling, G., and Bucher, J.R., *α-2μ-Globulin Nephropathy and Renal Tumors in National Toxicology Program Studies*, Toxicologic Pathology 35:553-540, 2007

Hill, R.N., Crisp, T.M., Hurley, P.M., Rosenthal, S.L., Singh, D.V., *Risk Assessment of Thyroid Follicular Cell Tumors*, Environmental Health Perspectives 106: 447-457, 1998

National Toxicology Program (NTP), *Toxicology and Carcinogenesis Studies of t-Butyl Alcohol (CAS No. 75-65-0) in F344/N Rats and B6C3F1 Mice (Drinking Water Studies)*, NTP Technical Report Series No. 436, NIH Publication N. 95-3167. National Institute of Environmental Health Sciences, Research Triangle Park, NC, 1995

C. Mark Gordon, Environmental Health and Safety Manager, Santa Clara Valley Transportation Authority, e-mail dated November 13, 2008

Comment: Pointed out typographical errors in Section 8-45-306 and 503.1, and suggested that a definition of "surface preparation" would clarify what the BAAMQD considers as surface preparation.

Response: The errors have been corrected. The term "surface preparation" has been used without a specific definition in Rule 8-45, since its initial adoption in 1989. Staff believes the term is self evident and since the Rule's initial adoption, there has been no enforcement issue associated with the term and that adding a definition would not benefit that enforceability of the Rule.

Surface preparation (in the context of VOC limits for surface preparation solvent) is the preparation for painting, repair or further preparation, or the use of solvents prior to intended use, of the motor vehicle or mobile equipment. Santa Clara Valley Transportation Authority paints and refinishes mobile equipment such as buses, but also repairs motor vehicle and equipment parts. Solvent used in these applications is controlled by other BAAQMD rules, such as Regulation 8, Rule 16: Solvent Cleaning Operations, or Regulation 8, Rule 4: General Solvent and Surface Coating, that already have low-VOC provisions for solvent cleaning and surface preparation.

D. Jim Sell, Senior Counsel, National Paint and Coatings Association, letter (and revision) via e-mail dated November 17, 2008

The National Paint and Coatings Association (NPCA) represents the following paint companies involved in manufacturing automotive coatings: DuPont, PPG, Sherwin Williams, Earl Scheib, AKZO, BASF, Ellis Paint (PCL Automotive Division), and Valspar.

Comment: Supports the revision in the draft amendments that synchronizes the compliance date for sellers and users of coatings.

Response: Comment noted.

Comment: A 25 g/l VOC limit for solvent, although derived from the SCM, is too low. NPCA recommends a provision similar to the Santa Barbara APCD, that allows up to 20 gallons per year of high VOC (780 g/l) solvent. The Reg. 8-45 proposal, to allow 10, 15 or 20 gallons of 350 g/l solvent (depending on overall coating usage), is unnecessarily complicated and may result in more solvent being used to clean surfaces.

Response: Staff evaluated the Santa Barbara provision and is aware that the issue of cleaning certain surfaces was not resolved in the SCM development. There is no allowance for higher VOC solvent in some California district rules, most notably in the South Coast, where the provisions in the rule have been in place for some time. Staff proposed the provision based, in part, on testimony that the South Coast area had seen a significant increase in the use of aerosol spray cans to clean problematic surfaces in auto refinish facilities. The amendments are intended to both limit the emissions from this source category to the maximum extent feasible as required by provisions of the California Clean Air Act, as well as limit other adverse environmental consequences, such as the generation of empty spray can waste. The Bay Area is home to many more auto refinish operations than there are in Santa Barbara County. Staff calculated that emissions from a 20 gallon allowance of 780 g/l VOC solvent allotted to all facilities would decrease emissions by 0.14 tons per day less than the current proposal (i.e., achieve smaller emissions reductions). For this reason, and because the CARB consumer products regulation limits aerosol bug and tar remover (the aerosol surface cleaner used most often in auto refinish facilities) to 40 percent VOC (equal to 350 g/l), staff believe that the current proposal reduces emissions to the maximum extent feasible and addresses the needs of the industry.

Comment: Endorses LyondellBasell's request to exempt tertiary butyl acetate.

Response: Please see response to Comment B, above.

Comment: Opposes a requirement for the VOC content on the labels, and requests enforcement discretion for coatings manufactured and labeled prior to the effective date of July 1, 2008.

Response: The labeling requirement (Section 8-45-404) came from the SCM, and has already been adopted in other districts and only affects coating that are manufactured on or after October 1, 2009. Consequently, coating labels will already contain VOC content to comply with other rules. The rationale for the labeling requirements is that labeling serves as a self-compliance check for the painter, and makes enforcement of the rule easier.

Comment: Supports deletion of the confusing definition of "solvent."

Response: Comment noted.

Comment: Supports clarification of the compliance statement provision.

Response: Comment noted.

Comment: The SCM proposal assigns VOC limits for individual types of specialty coatings. Specialty coatings are allowed up to 840 g/l VOC in the current Reg. 8-45, but limited to 5 percent of the total coating usage. The transition to waterborne coatings has created a need for a greater usage of uniform finish blender. The rationale for the 5 percent limit no longer exists because of the imposition of lower VOC limits. Also, the VOC content limits are Best Available Retrofit Control Technology, so should not be limited to a volume usage.

Response: EPA staff has stated that allowing specialty coatings with a VOC content of greater than the VOC content of existing coating categories in Reg. 8-45 could constitute a rule relaxation, making the rule unable to be approved into the state implementation plan (SIP). The staff proposal to retain the 5 percent limitation (to make the amendments approvable into the SIP) only affects three specialty coatings – uniform finish blender, multi-color coating, and adhesion promoter – instead of the unlimited number of specialty coatings that are included in the 5 percent limitation in the current rule. Adhesion promoter, used only on plastic surfaces, and multi-color coating, used in truck bed liners, are rarely used. Uniform finish blender, the coating specifically addressed by NPCA, should be used only to blend existing paint during a spot repair. The coating survey used to develop the SCM found that uniform finish blender amounted to only 0.2 percent of the topcoats used. Even if the use of uniform finish blender increased substantially, it is very likely to be well under the 5 percent limit.

E. Emily Taylor, DuPont Corporation, e-mail dated November 17, 2008

Comment: Concern that the 25 g/l VOC standard for surface preparation does not provide the level of cleaning necessary for waterborne cleaning but acknowledges the 350 g/l VOC allowance in the draft amendments. However, DuPont encourages adoption of the Santa Barbara allowance of 20 gallons per year of 780 g/l solvent, as these solvents are known to be effective and efficient.

Response: Please see response to the second comment in D, above.

F. Rita M. Loof, Director, Environmental Affairs, RadTech International, letter via e-mail dated November 17, 2008

RadTech is the trade association for Ultraviolet and Electron Beam UV/EB technologies.

Comment: Auto refinishing is an emerging market for UV/EB technology. Most coatings are less than 50 g/l, and similar technology has been deem BACT/LAER for various printing operations. RadTech requests that the economic analysis section include the option of reformulation from solvent borne to UV/EB, and include a definition of UV/EB coatings. RadTech also requests that an alternate test method (ASTM D5403-93) be allowed as an alternative to EPA Method 24 for thin film UV/EB coatings.

Response: Staff recognizes advantages of the UV technology for certain applications. Uses of UV/EB coatings is permitted under the proposed amendments. The economic analysis section of the staff report and socioeconomic analysis does not need to target specific technologies, especially where those technologies may have economic benefits. Definitions for specific technologies in the rule are also not necessary unless those definitions are used specifically for unique compliance limits, exemptions or test methods in the rule. UV technology used in auto refinishing is well within the VOC limits, even tested with conventional methodology. Finally, test methods used in District rules must be EPA-approved. Although ASTM Method D5403-93 has been sent to EPA, it has not yet been approved for use in SIP-approved rules.

G. Greg Calhoun, District Operations Manager, FinishMaster, e-mail dated November 18, 2008

FinishMaster is an independent supplier of automotive paints and finishing equipment.

Comment: The effective date of October 1, 2009 is too soon to convert all the facilities in the Bay Area. Given the time to convert each shop in the Bay Area (one week), this is insufficient time. In addition, in the current economic climate, the huge burden on the industry could prove devastating because of a quick conversion.

Response: During the rule development process, staff received considerable testimony on the effective date, including some that suggested earlier dates. A large number of shops in the Bay Area have already converted to coatings that comply with the proposed VOC limits, as the new coatings have been available in the Bay Area and consistent requirements have been in place in the South Coast and San Joaquin districts for some time. Staff has contacted shop owners that have reported much quicker conversion times than the week cited. From the date of publication of the proposed amendments (October 27, 2008), almost a year is allowed for the conversion, and staff has been hosting public workshops and meeting with industry since early 2008. Staff believes that October, 2009 is sufficient time to convert to the new coatings.

Comment: Proposed Section 8-45-504.3 states that coating vendors must keep a log with sales information including retail tax number and District permit or registration number. This requirement will shut down our walk in trade.

Response: This requirement is to ensure that purchasers of coatings that are subject to this rule purchase only compliant coatings, and to allow staff to track coating sales to make sure coating users comply with District rules, including requirements to have permits or register, where applicable. The language states that the seller shall keep a log including "To whom the coatings were supplied, sold or distributed including name, address, phone number, retail tax license, and District permit number or registration number, *as applicable*." If a purchaser does not have a permit or is not registered, the provision does not apply. Staff does not believe

this provision would curtail walk-in trade, and notes that a similar provision, to keep customer receipts available for inspection, has existed in the rule for 14 years.

APPENDIX B

SOCIOECONOMIC ANALYSIS

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bae

Socio-Economic Impact Study: Proposed Amendment to Regulation 8, Rule 45 Motor Vehicle and Motor Equipment Coating Operations

Submitted to:
Bay Area Air Quality Management District

September 12, 2008

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Executive Summary

The Bay Area Air Quality Management District (BAAQMD) regulates emissions of volatile organic compounds (VOC) associated with automotive refinishing operations through Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations (Rule 8-45). Currently, the BAAQMD is proposing to amend Rule 8-45, to further reduce VOC emissions from automotive refinishing operations to achieve a 3.7 tpd or about 63 percent of the Bay Area automotive refinishing emissions reduction.

Socio-Economic Impacts

In order to estimate the economic impacts of amending Rule 8-45 on the affected industries, this report compares the affected industry's annualized compliance costs with its profit ratios. The analysis uses data from the BAAQMD, US Census County Business Patterns, the IRS, and Dun and Bradstreet, a private data vendor.

Economic Profile of Affected Industries

The BAAQMD identifies the affected industries as Coating Manufacturers (SIC 2851), and Automotive Refinishing Facilities (NAICS 811121/SIC 7532). According to BAAQMD records, no coating manufacturing companies are located in the Bay Area. However, there are over 1,100 automotive refinishing facilities, which include auto body repair shops, automotive paint shops, auto dealerships, public transit agencies, airports, public work departments, and educational facilities. In addition, the District includes an additional 200 mobile automotive refinishers.

Economic Impacts to Affected Industries

IRS data indicate that firms in the automotive repair and maintenance sector, which includes the affected industries, earn 4.2 percent profits on total revenue, resulting in total industry net profits of $16.7 million. According to updated BAAQMD data, the total annualized compliance costs will be approximately $1.2 million. Dividing the compliance costs ($1.2 million) by annual profits ($16.7 million) shows that the proposed Rule would result in a 7.1 percent reduction in firm profits. Although this is well below the ARB's 10 percent threshold, the smallest firms could incur impacts up to 19.5 percent.

In order to fully mitigate these impacts, firms would need to increase consumer repair charges between one and $18, with a six dollar average increase. These increases represent less than one percent of total repair charges, which average $2,200. The ARB and the BAAQMD conclude that firms could easily pass these charges along to consumers. Thus, the proposed Rule amendment should not adversely impact affected industry firms.

Regional Employment, Indirect, and Induced Impacts

Since on average, the proposed amendment to Rule 8-45 would not result in significant economic impacts to firms within the affected industries, and consumers and insurance companies will likely bear the compliance cost burden, the proposed amendment would not impact affected industry or regional employment. In addition, adoption of the proposed Rule amendment would not result in any additional regional spinoff, or multiplier, impacts.

Impacts to Small Businesses

Using the California Government Code 14835's definition of a small business, approximately 99.8 percent of all affected firms are small businesses. However, as the BAAQMD and this analysis both conclude that compliance costs are small enough to pass along to consumers without impacting the firms' competitiveness, amending Rule 8-45 would not adversely impact small businesses.

Description of Proposed Rule

Since 1989, the Bay Area Air Quality Management District (BAAQMD) has regulated emissions from volatile organic compounds (VOC) associated with automotive refinishing operations through Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations (Rule 8-45). The rule, which has been amended twice since its initial adoption, sets VOC limits on various types of paints and surface preparation solvents used in automotive refinishing. The rule also requires the use of spray technology that maximizes the amount of paint that adheres to the intended surface and minimizes overspray.

BAAQMD proposes to amend Rule 8-45, to further reduce VOC emissions from automotive refinishing operations. The amendment incorporates lower VOC limits and new operational standards outlined in the California Air Resources Board (ARB) Suggested Control Measure for Automotive Coatings (SCM), which was developed in 2005 as a guideline for air districts amending their automotive refinishing rules. The proposed VOC limits for different coating categories are presented in Table 1.

Table 1: Proposed Coating Categories and VOC Limits

Coating Category	VOC Limits (g/l)
Clear Coating	250
Color Coating	420
Multi-Color Coating	680
Pretreatment Coating	660
Temporary Protective Coating	60
Truck Bed Liner Coating	310
Underbody Coating	430
Uniform Finish Coating	540
Any other Coating Type	250
All Solvents	25
Adhesion Promoter	540
Primer	250
Single-Stage Coating	340

Source: Bay Area Air Quality Management District, 2008; BAE, 2008

The proposed amendment to Rule 8-45 would require automotive refinishing operations to use coatings that comply with the mass-based VOC limits by October 1, 2009 (January 1, 2010 for some coatings). Automotive refinishing operations take place at auto body repair and paint shops,

production auto body paint shops, auto dealership repair and paint shops, fleet operator repair and paint shops, and by mobile refinishers who travel to various sites and do limited body work and repainting at those locations. Mobile refinishers often provide services to car dealerships and at facilities that operate fleets of vehicles, like rental car agencies, and government agencies. Motor vehicle and mobile equipment coating subject to Rule 8-45 also occurs during the manufacture of heavy duty trucks, trailers, buses, trains, utility bodies, and camper shells.

In addition to reducing VOC limits, the proposed amendment would create new administrative requirements for mobile refinishing operations. Mobile refinishers would be required to register with the District annually. Furthermore, frequent clients of mobile refinishers, such as auto dealerships, would be required to keep records of mobile refinisher visits.

Currently, VOC emissions from automotive refinishing operations in the Bay Area total 5.8 tons per day (tpd). This includes approximately 3.99 tpd of VOC emissions associated with automotive coating and 1.83 tpd from clean-up and surface preparation solvent use at automotive refinishing operations. The proposed amendment to Rule 8-45 would achieve a reduction in VOC emissions of 3.7 tpd or about 63 percent of the Bay Area automotive refinishing emissions.

Regional Trends

This section provides background information on the demographic and economic trends for the San Francisco Bay Area, which represents the BAAQMD jurisdiction. The BAAQMD includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and the southern portions of Solano, and Sonoma Counties. Regional trends are compared to statewide demographic and economic patterns since 2000, in order to show the region's unique characteristics relative to the State.

Regional Demographic Trends

Table 2 shows the population and household trends for the nine county Bay Area and California between 2000 and 2008. During this time, the Bay Area's population increased by 7.6 percent, compared to 12.3 percent in California. Likewise, the number of Bay Area households grew by 7.2 percent, compared to a ten percent statewide increase.

Table 2: Population and Household Trends, 2000-2008

Bay Area (a)	2000	2008 (est.)	Total Change 2000-2008	Percent Change 2000-2008
Population	6,784,348	7,301,080	516,732	7.6%
Households	2,466,020	2,643,390	177,370	7.2%
Average Household Size	2.69	2.71		
California				
Population	33,873,086	38,049,462	4,176,376	12.3%
Households	11,502,871	12,653,045	1,150,174	10.0%
Average Household Size	2.87	2.94		

Notes:
(a) Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

Sources: California, Department of Finance, 2008; Claritas, 2008; BAE 2008.

The slower growth in the Bay Area is related to its relatively built out environment, compared to the state overall. While central valley locations, such as the Sacramento region, experienced large increases in the number of housing units, the Bay Area, which was relatively built out before the housing boom, only experienced moderate increases in housing units.

Regional Economic Trends

In the five-year period, between the third quarters of 2002 and 2007, the Bay Area's economic base grew by only one percent, increasing from 3.29 million jobs to 3.32 million jobs. This represents slightly slower job growth than the State, which grew by five percent.

Manufacturing, Retail Trade, and Professional, Scientific, and Technical Services, the largest private (non-government) sectors in the Bay Area's economy, each constituted ten percent of the region's total jobs in 2007. Over the five-year period the Manufacturing sector lost 14 percent of its jobs, while the Retail Trade sector was relatively stagnant, experiencing no growth. However, during this period, the Professional, Scientific, and Technical Services sector grew by 13 percent. Statewide, the Manufacturing sector declined by 11 percent while Retail Trade and Professional, Scientific, and Technical Services grew by six and 18 percent, respectively. Overall, the Bay Area's economic base reflects the state's base, sharing a similar distribution of employment across sectors. Table 3 shows the jobs by sector in 2003 and 2007.

The affected industries, Paint and Coating Manufacturers, and Automotive Body, Paint, and Interior Repair and Maintenance, fall into the Manufacturing and Other Services, except Public Administration sectors, respectively. While manufacturing represents a relatively large portion of the region's job base, employment contracted between 2002 and 2007.

In 2007, the Other Services except Public Administration sector represented four percent of the region's job base, and five percent of the state's job base. However, the region's sector experienced slower growth between 2002 and 2007, increasing by nine percent, compared to 16 percent statewide.

Table 3: Jobs by Sector, 2002-2007 (a)

	Bay Area					California				
	Q3 2002 (b)		Q3 2007 (c)		% Change	Q3 2002 (b)		Q3 2007 (c)		% Change
Industry Sector	**Jobs**	**% Total**	**Jobs**	**% Total**	**2002-2007**	**Jobs**	**% Total**	**Jobs**	**% Total**	**2002-2007**
Agriculture, Forestry, Fishing and Hunting	22,190	1%	22,751	1%	3%	443,760	3%	441,795	3%	0%
Mining	1,979	0%	2,132	0%	8%	20,848	0%	25,337	0%	22%
Construction	188,424	6%	198,440	6%	5%	788,601	5%	910,188	6%	15%
Manufacturing	402,800	12%	348,278	10%	-14%	1,641,249	11%	1,466,834	9%	-11%
Utilities	3,990	0%	5,843	0%	46%	54,731	0%	58,097	0%	6%
Wholesale Trade	114,575	3%	125,247	4%	9%	648,400	4%	719,879	5%	11%
Retail Trade	338,662	10%	338,591	10%	0%	1,574,357	11%	1,674,276	11%	6%
Transportation and Warehousing	53,648	2%	54,487	2%	2%	422,830	3%	431,593	3%	2%
Information	121,215	4%	114,415	3%	-6%	489,032	3%	475,166	3%	-3%
Finance and Insurance	147,341	4%	147,137	4%	0%	578,872	4%	614,055	4%	6%
Real Estate and Rental and Leasing	62,440	2%	59,665	2%	-4%	271,219	2%	283,925	2%	5%
Professional, Scientific, and Technical Services	291,463	9%	330,575	10%	13%	900,581	6%	1,059,422	7%	18%
Management of Companies and Enterprises	72,230	2%	58,996	2%	-18%	272,607	2%	206,120	1%	-24%
Administrative and Waste Services	182,563	6%	194,079	6%	6%	953,432	6%	1,000,102	6%	5%
Educational Services	61,709	2%	70,488	2%	14%	210,216	1%	243,996	2%	16%
Health Care and Social Assistance	286,553	9%	297,223	9%	4%	1,251,628	8%	1,374,102	9%	10%
Arts, Entertainment, and Recreation	53,410	2%	55,790	2%	4%	239,946	2%	260,712	2%	9%
Accommodation and Food Services	254,681	8%	283,526	9%	11%	1,163,214	8%	1,321,331	8%	14%
Other Services, except Public Administration	135,387	4%	147,552	4%	9%	621,612	4%	718,747	5%	16%
Unclassified	1516	0%	89	0%	-94%	41,637	0%	52,002	0%	25%
Government (d)	423,260	13%	419,892	13%	-1%	2,263,564	15%	2,306,723	15%	2%
Subtotal	**3,220,036**	**98%**	**3,275,196**	**99%**	**2%**	**0 14,852,336**	**100%**	**15,644,402**	**100%**	**5%**
Additional Suppressed/Confidential Employment (e)	74,055	2%	42,448	1%	-43%	n/a	0%	n/a	0%	
Total, All Employment	**3,294,091**	**100%**	**3,317,644**	**100%**	**1%**	**14,852,336**	**100%**	**15,644,402**	**100%**	**5%**

Notes:
(a) Includes all wage and salary employment covered by unemployment insurance.
(b) Represents employment for third quarter, 2002.
(c) Represents employment for third quarter, 2007.
(d) Government employment includes workers in all local, state and Federal sectors, not just public administration. For example, all public school staff are in the Government category.
(e) County employment for some industries were suppressed by EDD due to the small number of firms reporting in the industry for a given county.

Sources: California Employment Development Department, 2008; BAE, 2008.

Affected Industries

According to the BAAQMD, in 2008, the Bay Area had over 1,100 automotive refinishing facilities, and less than 200 mobile refinishers. As shown in Table 4, the U.S. Census Bureau reported that there were 903 firms in the Automotive Body, Paint, and Interior Repair and Maintenance sector that accounted for between 7,400 and 7,600 jobs in 2006.

The Bay Area had 26 Painting and Coating Manufacturing firms that accounted for between 400 and 800 jobs in 2006. The Painting and Coating Manufacturing sector is not limited to automotive painting and coating. The California Air Resources Board (ARB) identified Ellis Paint as the only painting and coating manufacturing firm in California. Ellis Paint's only manufacturing plant is located in the Los Angeles area. Because there are no auto paint manufacturers in the Bay Area, this report does not estimate the economic impacts to this sector.

Table 4: Profile of Affected Industries, 2006

NAICS	Industry Description	Employment	Number of Establishments by Size of Workforce							
			1-4	5-9	10-19	20-49	50-99	100-249	250+	Total
325510	Paint and Coating Manufacturing	411 - 1,056	12	4	2	5	1	2	0	26
811121	Automotive Body, Paint,and Interior Repair and Maintenance	7,418 - 7,567	413	244	156	84	5	1	0	903

Sources: US Census; BAE, 2008.

Socio-Economic Impacts

This section discusses the methodology, economic profile of affected industries, annualized compliance costs, and estimates the economic impacts associated with the proposed amendment to Rule 8-45.

Methodology

In order to estimate the economic impacts of amending Rule 8-45 on the affected industries, this report compares the affected industry's annualized compliance costs with its profit ratios. The analysis uses data from the BAAQMD, US Census County Business Patterns, the IRS, and Dun and Bradstreet, a private data vendor.

The BAAQMD identifies the affected industries as Coating Manufacturers (SIC 2851), and Automotive Refinishing Facilities (NAICS 811121/SIC 7532). According to BAAQMD records, no coating manufacturing companies are located in the Bay Area. However, there are over 1,100 automotive refinishing facilities, which include auto body repair shops, automotive paint shops, auto dealerships, public transit agencies, airports, public work departments, and educational facilities. In addition, the District includes an additional 200 mobile automotive refinishers.

Economic Profile of Affected Industries

According to Dun & Bradstreet data, a majority of the firms in the Automotive Refinishing Facilities sector have between one and four employees and average annual sales of approximately $116,400. As shown in Table 5, the average sales for businesses of all sizes were $355,783.

Table 5: Top and Body Repair and Paint Shop Sales

# of Employees	Number of Businesses	Average Annual Sales (a)	Average # of employees	Total Sales	Total Employees
1-4	822	$116,429	2	$95,713,791	1,601
5-9	186	$443,100	7	$82,412,319	1,228
10-19	95	$945,857	13	$89,719,371	1,215
20-49	45	$2,161,936	27	$96,503,789	1,183
50-99	6	$2,766,667	53	$15,437,198	298
100-249	0	n/a	n/a	n/a	n/a
250+	2	$11,000,000	250	$20,458,937	465
TOTAL	**1,155**	**$355,783**	**5**	**$410,929,615**	**5,988**

Notes:
(a) Average annual sales based on a 40 percent sample of the automotive painting businesses in the Bay Area.
SIC code 7532 (Top, Body, and Upholstery Repair Shops and Paint Shops)
Sources; Dun and Bradstreet, 2008; BAE, 2008

Based on IRS data on total sales and net income for the Automotive Repair and Maintenance sector, firms average a 4.2 percent rate of return on total sales. Table 6 presents the profits for automotive shops of varying sizes based on a 4.2 percent rate of return.

Table 6: Profits of Automotive Refinishing Facilities

# of Employees	Number of Businesses	Average Annual Sales	Avg. Return on Sales	Average Profits	Total Profits
1-4	822	$116,429	4.2%	$4,867	$4,001,329
5-9	186	$443,100	4.2%	$18,524	$3,445,259
10-19	95	$945,857	4.2%	$39,542	$3,750,731
20-49	45	$2,161,936	4.2%	$90,380	$4,034,355
50-99	6	$2,766,667	4.2%	$115,661	$645,354
100-249	0	n/a	4.2%	n/a	n/a
250+	2	$11,000,000	4.2%	$459,857	$855,289
TOTAL	**1,155**	**$355,783**	**4.2%**	**$14,874**	**$17,178,972**

Sources: Dun & Bradstreet; IRS; BAE, 2008.

As Table 6 shows, automotive refinishing facilities have average annual net profits of approximately $14,874, with profits ranging from $4,900 to $459,900, depending on the firm's size.

Description of compliance costs

The BAAQMD's Workshop Report specifies that compliance costs would total $2.8 million within the District, and would average $2,320 per facility. However, updated information from the BAAQMD suggests that the actual annualized cost will be between $950 and $1,250, averaging $1,022 per firm. Table 7 shows the annualized compliance costs for automotive refinishing facilities with varying equipment and revenues.

Table 7: Average Annualized Compliance Estimates

Number of Spray Booths	Existing Heating Equipment	Annual Revenues ($ million)	Average Annualized Costs
One	No	Less than 1.0	$950
Two	No	Less than 1.0	$950
Two	No	1.0 to 2.5	$2,500
Two	Yes	1.0 to 2.5	$2,500
Two	Yes	More than 2.5	$2,500
Three	Yes	More than 2.5	$2,850
Weighted Average			**$1,022**

Sources: BAAQMD; BAE, 2008.

According to the BAAQMD, the total compliance costs should total approximately, $1.1 million. Using the lower compliance costs for firms with less than $1.0 million in revenues and firms with at least three booths, $950, and higher compliance costs of $1,250 per booth for the remaining firms, results in a total estimated compliance cost of $1.2 million, a conservative estimate. Table 8 shows estimated total compliance costs.

Table 8: Total Annualized Compliance Costs

# of Employees	Number of Businesses	Average Annual Sales	Average Annualized Compliance Costs	Total Compliance Costs
1-4	822	$116,429	$950	$780,973
5-9	186	$443,100	$950	$176,691
10-19	95	$945,857	$950	$90,112
20-49	45	$2,161,936	$2,500	$111,594
50-99	6	$2,766,667	$2,850	$15,902
100-249	0	n/a	$2,850	n/a
250+	2	$11,000,000	$2,850	$5,301
Average	**1,155**	**$355,783**	**$1,022**	**$1,180,574**

Sources: Dun & Bradstreet; IRS; BAE, 2008.

Affected Industry Economic Impact analysis

In order to determine the impacts of facilities of various sizes, this analysis uses average revenue estimates from Dun & Bradstreet, in conjunction with IRS profit ratios, to determine whether BAAQMD's estimated annualized compliance costs would result in profit losses of 10 percent or more. The ARB uses the 10 percent threshold as a proxy for burden, where profit losses greater than 10 percent indicate a potential for significant adverse economic impacts. Table 9 shows the annualized compliance costs as a share of total profits.

Table 9: Total Annualized Compliance Costs as a Share of Profts

# of Employees	Number of Businesses	Total Annual Sales	Total Profits	Total Annualized Compliance Costs	Compliance Costs as a Share of Annual Profits
1-4	822	$95,713,791	$4,001,329	$780,973	19.5%
5-9	186	$82,412,319	$3,445,259	$176,691	5.1%
10-19	95	$89,719,371	$3,750,731	$90,112	2.4%
20-49	45	$96,503,789	$4,034,355	$111,594	2.8%
50-99	6	$15,437,198	$645,354	$15,902	2.5%
100-249	0	n/a	n/a	n/a	n/a
250+	2	$20,458,937	$855,289	$5,301	0.6%
Average	**1,155**	**$410,929,615**	**$16,732,317**	**$1,180,574**	**7.1%**

Sources: Dun & Bradstreet; IRS; BAE, 2008.

Overall, annualized compliance costs represent approximately 7.1 percent of profits, well below the 10 percent threshold. However, for the smallest firms with incomes under $1.0 million and one to four employees, the annualized compliance costs could be as high as 19.5 percent of profits, much higher than the ARB's 10 percent threshold.

According to the ARB's statewide economic impact analysis for the Automotive Coatings Suggested Control measure, automotive refinishing facilities should be able to pass the costs along to customers, and estimates an average increase of $11 per $2,200 in repairs. Since the increase to customers represents less than a one percent increase in costs, and since customers are unlikely to leave the region for these services, ARB determined that it is reasonable to assume that affected firms would be able to pass these costs along to consumers.

On the other hand, if businesses were not able to pass the costs along to consumers, some businesses would be able to absorb the costs, while others would need to find other means for mitigating the economic impacts. Although many of the businesses would experience impacts falling at or below the ten percent threshold, the vast majority, 71 percent, could anticipate impacts ranging up to 19.5 percent of profits. These businesses would either need to adopt higher value products or processes to increase profits, or shut down. Table 10 shows the necessary increase per $2,200 repair charge that businesses would need to charge to fully mitigate Rule 8-45's economic impacts.

Table 10: Average Consumer Cost Increases

# of Employees	Number of Businesses	Total Annual Sales	Average Number of Repairs	Total Annualized Compliance Costs	New Total Annual Sales	Average Consumer Cost Increase (a)
1-4	822	$95,713,791	43,506	$780,973	$96,494,764	$18
5-9	186	$82,412,319	37,460	$176,691	$82,589,010	$5
10-19	95	$89,719,371	40,782	$90,112	$89,809,484	$2
20-49	45	$96,503,789	43,865	$111,594	$96,615,384	$3
50-99	6	$15,437,198	7,017	$15,902	$15,453,100	$2
100-249	0	n/a	n/a	n/a	n/a	n/a
250+	2	$20,458,937	9,300	$5,301	$20,464,238	$1
Average	**1,155**	**$410,929,615**	**186,786**	**$1,180,574**	**$401,425,979**	**$6**

Note:
(a) This represents the maximum consumer price increase needed to fully mitigate economic impacts related to Rule 8-45.

Sources: Dun & Bradstreet; IRS; BAE, 2008.

As Table 10 shows, businesses would need to increase consumer costs between one dollar and $18, in order to fully recoup annualized compliance costs, with an average increase of six dollars. These increases represent an upper bound on consumer impacts, as only the smallest businesses would need to pass along costs to consumers in order to fall within the 10 percent impact on profits

threshold. In addition, to the extent that some of the firms will have lower annualized compliance costs, consumer prices will need to increase less than the amounts shown in Table 10.

Increasing consumer costs by six dollars per $2,200 repair results in a 0.3 percent increase. For the smallest businesses, an $18 per $2,200 repair increase would result in a 0.8 percent increase. As insurance companies often pay for auto repairs, they would most likely bear the heaviest direct burden. However, higher repair costs could be reflected in slightly higher consumer insurance premiums.

Affected Industry and Regional Employment Impacts

Since on average, the proposed Rule amendment would not result in significant economic impacts to firms within the affected industries, and consumers and insurance companies will likely bear the compliance cost burden, amending the Rule would not impact the affected industry or regional employment.

Regional Indirect and Induced Impacts

Indirect and induced impacts refer to regional multiplier effects of increasing or decreasing regional economic activity. If the Rule were to significantly impact local businesses, any closures would result in direct regional economic losses. Firms would no longer buy goods from local suppliers, thereby resulting in reduced indirect impacts, or business-to-business expenditures. In addition, firms would no longer employ regional residents, resulting in reduced induced impacts, or household spending.

However, since the proposed amendment to the Rule is not expected to result in significant direct impacts, its adoption would not result in any indirect or induced impacts either.

Impact on Small Businesses

According to California Government Code 14835, a small business is any business that meets the following requirements:

- Must be independently owned and operated;
- Cannot be dominant in its field of operation;
- Must have its principal office located in California;
- Must have its owners (or officers in the case of a corporation) domiciled in California; and
- Together with its affiliates, be either:
    - A business with 100 or fewer employees, and an average annual gross receipts of $10 million or less over the previous three tax years, or
    - A manufacturer with 100 or fewer employees.

Using these definitions, approximately 99.8 percent of all affected firms are small businesses. This analysis has shown that firms with lower revenues will experience higher impacts on return on profits as a result of the proposed amendment to the rule.

However, as the ARB and this analysis both assume that compliance costs of one dollar to $18 per $2,200 average repair charge are small enough to pass along to consumers without impacting the firms' competitiveness, the amendment of Rule 8-45 would not adversely impact small businesses. In addition, on average, the impacts of the proposed Rule amendment fall under the ARB's 10 percent threshold, which indicates that the proposed amendment would not adversely impact firms.

APPENDIX C

CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL ANALYSIS AND NEGATIVE DECLARATION

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Initial Study/Negative Declaration for the Amendments to Bay Area Air Quality Management District Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations

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Chapter 1

Introduction

Purpose of this Document

This Negative Declaration (Neg Dec) assesses the environmental impacts of the proposed adoption of amendments to Regulation 8, Rule 45 – Motor Vehicle and Mobile Equipment Coating Operations - 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 §15000 et seq.). A Neg Dec 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 amendments when determining whether to adopt them. The BAAQMD has prepared this Neg Dec because no significant adverse impacts are expected to result from the proposed rule amendments.

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 amendments:

- 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 on Regulation 8, Rule 45, describes the proposed rule amendments and describes the area and facilities that would be affected by the amendments.
- 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) regulates Volatile Organic Compound (VOC) emissions from automotive refinishing and mobile equipment coating operations under Regulation 8, Rule 45 (Rule 8-45). Currently, Bay Area automotive refinishing and mobile equipment coating businesses that have permits to operate and are subject to Regulation 8-45 emit 5.8 tons of VOC per day into the region's atmosphere. Facilities that engage in automotive refinishing include auto body repair shops, automotive paint shops, auto dealerships, public transit agencies, airports, public works departments and educational facilities. Also, mobile equipment manufacturers that produce buses, heavy duty trucks, trailers, and trucks are subject to Rule 8-45.

Regulation 8-45 was adopted June 7, 1989, and addressed VOC emissions from automotive refinishing operations. The rule initially required the use of spray equipment with higher transfer efficiency for primer coats in July 1990 and for all coatings in January 1991. VOC standards for the various affected coating categories were phased in over three increments, with each increment becoming increasingly more stringent. Each increment became effective on January 1, 1990; January 1, 1992; and January 1, 1995.

Rule 8-45 was significantly amended on November 2, 1994 as a result of a technology assessment of technology forcing limits set in 1989. The VOC limits were revised to reflect technological progress and to give manufacturers adequate time to bring reformulated products to market. The revision also included incorporating additional VOC standards, which included a 0.6 lb/gal VOC limit for surface preparation solvent, a 0.5 lb/gal VOC limit for temporary protective coating, and a volume limitation on precoat. A new requirement that topcoats be applied in a spray booth or within a particulate filtration system was also added to the rule.

Rule 8-45 was amended again on January 6, 1999, primarily to allow the use of a precoat under non-water-borne primer-surfacer to prevent corrosion of the metal surface of an auto body. Currently, Rule 8-45 sets VOC limits for automotive refinishing coatings and solvents used in automotive refinishing operations.

Objectives

The objective of the proposed rule amendments would reduce VOC emissions from automotive refinishing by incorporating the VOC limits and operational standards contained in the California Air Resources Board (CARB) Suggested Control Measure for Automotive Coatings (SCM). The SCM was developed in 2005 as a guideline to be used by California air districts in amending their automotive refinishing rules. The key

objective of CARB's SCM are to: (1) Improve the overall effectiveness and enforceability of district rules; (2) improve consistency among districts rules; and (3) achieve VOC emission reductions.

The District is considering amendments to Rule 8-45, to further reduce VOC emissions from automotive refinishing and mobile coating operations. The Bay Area is not yet in attainment of state ozone standards, so the District must implement all feasible measures to reduce emissions of pollutants that form ozone, nitrogen oxides (NOx) and VOCs, also referred to as reactive organic gases (ROG). Amendments to Rule 8-45 were included as Control Measure SS1 in the Bay Area 2005 Ozone Strategy.

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. CARB has also set California ozone standards. The Bay Area is a non-attainment area for the state one-hour and eight-hour ozone standards and federal eight-hour ozone standard. Under State law, ozone non-attainment areas must prepare plans showing how they will attain the state standards. The 2005 Ozone Strategy is the most recent planning document for the State ozone standards. Because the Bay Area is a marginal non-attainment area for the national one-hour standard, the least severe non-attainment classification, the BAAQMD is not required to prepare an attainment plan for the national standard.

Proposed Coating Categories and VOC Limits and Standards

The proposed amendments to Rule 8-45 are intended to reduce VOC emissions from automotive refinishing operations. The proposal is based on CARB's 2005 SCM and contains provisions designed to address mobile automotive refinishing operations. The SCM and proposed rule amendments will prohibit anyone from applying, manufacturing, blending, repackaging for sale, supplying, selling, or offering for sale, distributing, or possessing (at an automotive refinishing facility) any coating that does not meet the VOC limits. The proposed amendments to Rule 8-45 incorporate the VOC limits and definitions contained in the CARB's SCM for automotive coatings and would become effective on October 1, 2009 and January 1, 2010. Several categories of coatings would be combined. The proposed changes are summarized in Table 2-1. The BAAQMD is not including reactivity limits as an option for compliance as part of the proposed amendments to Rule 8-45.

TABLE 2-1

Current and Proposed Coating Categories and VOC Limits
Automotive Refinishing Operations

Rule 8-45 Coating Categories	**VOC Limits (grams/liter)**		**Proposed Coating Categories** [c]	**VOC Limits (g/l)**
	Group I[a]	**Group II**[b]	**Effective Dates:** October 1, 2009 or **January 1, 2010**[c]	
Anti-glare/Safety Coating	--	--	Color Coating	420
Camouflage	--	420	Color Coating	420
Multi-Stage Topcoat System	540	--	Clear Coating	250
			Color Coating	420
Pretreatment Wash Primer	780	780	Pretreatment Coating	660
Precoat	580	580	Primer	250
Primer & Primer Surfacer	250	250		
Primer Sealer	420	420	**Primer Sealer**	**250**[c]
Metallic/Iridescent Topcoat	520	420	**Single-Stage Coating**	**340**[c]
Solid Color Topcoat	420	--		
Topcoat	--	420		
Temporary Protective Coating	60	60	Temporary Protective Coating	60
Specialty Coatings (limited by volume)	840	840	Multi-Color Coating	680
			Truck Bed Liner Coating	310
			Underbody Coating	430
			Uniform Finish Coating	540
			Adhesion Promoter	**540**[c]
			Any Other Coating Type	250
Surface Preparation Solvents	72	72	Solvents	25
Solvents for Plastics Surface Preparation				

a. Group I refers to vehicles such as passenger cars, large/heavy duty truck cabs and chassis, light and medium-duty trucks and vans, and motorcycles.
b. Group II refers to public transit buses and mobile equipment.
c. The effective dates for the **bolded categories – primer sealer, single stage coating and adhesion promoter** is January 1, 2010.

With the incorporation of new coatings categories, the coating categories currently contained in the rule would be either eliminated or subsumed into the new categories. The affected coating categories include multi-stage topcoat, metallic iridescent topcoat, primer sealer, primer surfacer, precoat, camouflage, specialty coating, and anti-glare safety coating. The VOC limit for solvents would be reduced from either 780 or 72 grams per liter (g/l) to 25 g/l.

General Requirements

The proposed rule amendments would prohibit the application, manufacturing, blending, repackaging for sale, supplying, offering for sale, distributing, or selling any coating that does not meet the proposed VOC limits, unless emissions are controlled by an emission control system.

The BAAQMD proposes to eliminate some recordkeeping requirements when the new VOC limits go into effect. These changes are discussed in greater detail in the sections below. Changes in recordkeeping would not, however, preempt requirements on limitations contained in a facility's permit to operate.

Requirements for Mobile Refinishing Operations

Mobile refinishers often operate in multiple locations and their operations are difficult to track and inspect. Therefore, it is difficult to determine the compliance status of these operations. While many established mobile franchises make efforts to comply with Rule 8-45, others may operate in the District for only a short time or illegally (with non-compliant coatings and without proper filtration and recordkeeping). To address this, provisions specific to mobile refinishing operations are being added to the rule.

Mobile refinishers would be required to register their operations with the District and upon request, notify the District of the location of their operations. Mobile refinishers would have to provide the District, on request, with a list of scheduled clients. During operations, mobile refinishers currently have to comply with the same requirements as stationary refinishers (i.e. use of compliant coatings and proper filtration equipment, and maintenance of records on coating and solvent use).

Administrative Requirements

The proposed amendments would require manufacturers and re-packagers of automotive coatings and components to provide additional written information on the following physical properties on the product label, product technical data sheets or the equivalent.

Effective, October 1, 2009, the proposed amendments would require manufacturers and re-packagers of automotive coatings and components to label all containers with the coating use category and the VOC content. The VOC content would also be required for cleanup and surface preparation solvents.

The proposed amendments would simplify recordkeeping requirements for automotive refinishing operations that are subject to Rule 8-45. Once the new VOC limits take effect, weekly records on the mix ratio of components in the coating and amount of coatings use, and daily records of mix ratios and the amount of each specialty coating would no longer be required. Monthly totals would be required. Operators would be required to keep rule specified records for a minimum of three years.

The proposed rule amendments would require that any person selling coatings keep rule specified records including records for the prohibition of sale requirement by maintaining a detailed log of each coating, coating component or solvent.

The clients of mobile refinishing operators who have had at least five automotive refinishing operations conducted in a year or had at least 25 vehicles refinished within a year would be required to maintain records of the mobile refinisher, dates of service and number of cars serviced. These new requirements would take effect on October 1, 2009.

Test Methods

There are several test methods that can be used to demonstrate compliance with the proposed rule amendment. These include methods for determining VOC, acid, metallic and exempt compound contents of coatings and solvents. Methods for determining control efficiency, transfer efficiency, and HVLP equivalency are also included.

Emission Reductions Expected

CARB estimated that implementation of the requirements and VOC limits of the SCM would result in an overall emissions reduction of 65 percent. Automotive refinishing is a fairly uniform practice throughout California and, consequently, the relative usage of coating is consistent. At the time the SCM was developed, most districts in California had identical VOC limits, with the exception of the South Coast Air Quality Management District (SCAQMD). Therefore, the reductions estimated for the Bay Area should be consistent with reductions estimated for the entire state.

Affected Area

The proposed rule amendments would apply to facilities under 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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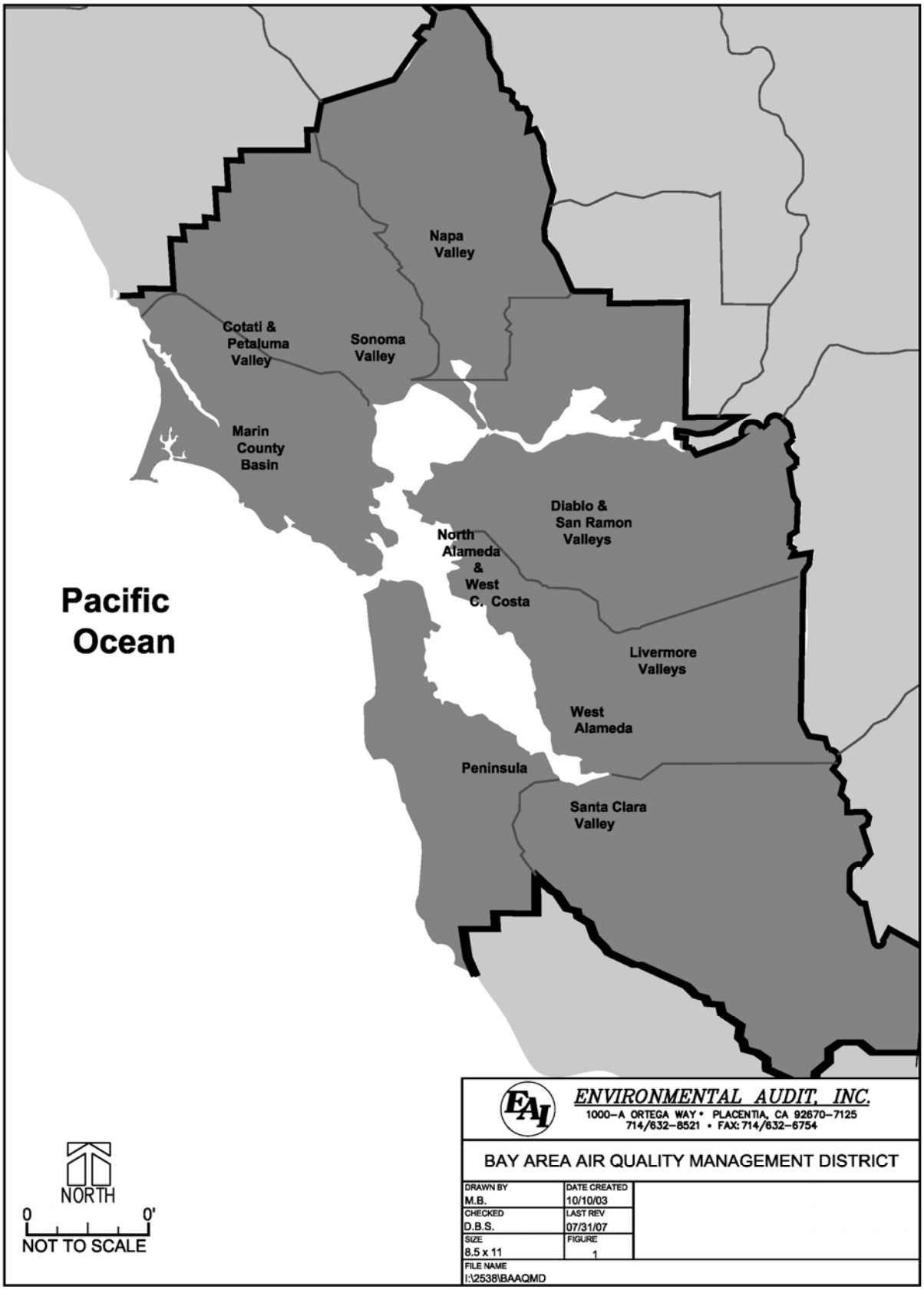
Napa Valley
Cotati & Petaluma Valley
Sonoma Valley
Marin County Basin
Diablo & San Ramon Valleys
North Alameda & West C. Costa
Pacific Ocean
Livermore Valleys
West Alameda
Peninsula
Santa Clara Valley
NORTH
0 0'
NOT TO SCALE
ENVIRONMENTAL AUDIT, INC.
1000-A ORTEGA WAY • PLACENTIA, CA 92670-7125
714/632-8521 • FAX: 714/632-6754
BAY AREA AIR QUALITY MANAGEMENT DISTRICT
DRAWN BY M.B.
DATE CREATED 10/10/03
CHECKED D.B.S.
LAST REV 07/31/07
SIZE 8.5 x 11
FIGURE 1
FILE NAME I:\2538\BAAQMD

Chapter 3

Environmental Checklist

ENVIRONMENTAL CHECKLIST FORM

1. Project Title:	Bay Area Air Quality Management District (BAAQMD) Proposed Amendments to Regulation 8, Rule 45.
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:	Daniel Belik, Planning and Research Division (415) 749-4786 or dbelik@baaqmd.gov
4. Project Location:	This rule amendment 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 rule amendment applies to automotive refinishing and mobile equipment coating operations which are generally found in industrial and commercial zones..
7. Zoning	The rule amendment applies to automotive refinishing and mobile equipment coating operations which are generally found in industrial and commercial zones.
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.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ 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
I.	**AESTHETICS.**				
	Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☐	☑

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 proposed amendments to Rule 8, Regulation 45 (Rule 8-45) are primarily focused on motor vehicle and mobile equipment coating operations. These types of facilities are most often located in commercial or industrial areas throughout the Bay Area. Scenic highways or corridors are generally not located in the vicinity of commercial or industrial areas.

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 amendments to Rule 8-45 would reduce VOC emissions from automotive refinishing operations by incorporating new VOC limits and operational standards. The proposed amendments to Regulation 8-45 are not expected to require construction of new structures. Facilities affected by the proposed rule amendments are expected to comply through the use of reformulated coatings with water based or VOC exempt solvent formulations. While not required, facilities may replace or retrofit existing spray booths and add heaters at facilities that convert from solvent to water-based coatings to assist in the coating drying process. The proposed rule amendments would also allow compliance through the use of air pollution control equipment, e.g., afterburners. Facilities are expected to comply through reformulation of coatings rather than air pollution control equipment because of the significant cost difference. Facilities affected by the proposed rule amendments are primarily located in industrial and commercial areas. The installation of air pollution control equipment, spray booths or heaters is expected to be within the confines of existing commercial or industrial facilities and no construction is expected to occur outside of the boundaries of existing facilities. The proposed amendments are not expected to require the construction of new structures that would degrade the existing visual character of a site, including but not limited to: trees, rock outcropings, or history buildings. Facilities may use reformulated compliant coatings in place of currently used coatings, but no change in operating practices is expected at affected facilities. The proposed amendments to Regulation 8-45 would also not require any new sources of light or glare, since no light generating equipment would be required to comply with the proposed rule amendments.

Based upon these considerations, no significant adverse aesthetic impacts are expected from the implementation of the amendments to Regulation 8-45.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☑
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?	☐	☐	☐	☑

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 proposed amendments to Rule 8, Regulation 45 (Rule 8-45) are primarily focused on motor vehicle and mobile equipment coating operations. These types of facilities are most often located in commercial or industrial areas throughout the Bay Area. Agricultural resources are generally not located in the vicinity of industrial, institutional or 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 amendments to Regulation 8-45 would further reduce VOC emissions from automotive refinishing operations in order to reduce ozone levels in the Bay Area and reduce transport of air pollutants to neighboring air basins. Most facilities are expected to comply with Regulation 8-45 by the use of new formulations of automotive coatings. The proposed amendments are not expected to require the construction of new structures outside the confines of existing facilities. Any new or retrofit construction would occur at existing industrial or commercial facilities so no change in land use is expected. Therefore, the proposed rule amendments are not expected to convert any farmland to non-agricultural use of conflict with zoning for agricultural use or a Williamson Act contract.

Based upon these considerations, no significant adverse impacts to agricultural resources are expected from the implementation of the proposed rule amendment.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☐	☑
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☑
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☑
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☐	☑

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 tule 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_2), particulate matter less than 10 microns in diameter (PM10), particulate matter less than 2.5 microns in diameter (PM2.5), sulfur dioxide (SO_2) 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 25 monitoring stations. The 2007 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 oxides (NOx), and sulfur dioxides (SO_2). The Air District is not considered to be in attainment with the State PM10 and PM2.5 standards.

The 2007 air quality data from the BAAQMD monitoring stations are presented in Table 3-2. All monitoring stations were below the state standard and federal ambient air quality standards for CO, NO_2, and SO_2. The federal 8-hour ozone standard was exceeded one (1) day in the District in 2007, while the state standard was exceeded on nine (9) days. The Bay Area is designated as a non-attainment area for the California 1-hour ozone standard. The State 1-hour ozone standard was exceeded on four (4) days in 2007 in the District most frequently in the Eastern District (Livermore) (see Table 3-2).

All monitoring stations were in compliance with the federal PM10 standards. The California PM10 standards were exceeded on four (4) days in 2007, most frequently in San Jose. The Air District exceeded the federal PM2.5 standard on 14 days, most frequently in San Jose, in 2007 (see Table 3-2).

TABLE 3-1

Federal and State Ambient Air Quality Standards

	STATE STANDARD	FEDERAL PRIMARY STANDARD	MOST RELEVANT EFFECTS
AIR POLLUTANT	CONCENTRATION/ AVERAGING TIME	CONCENTRATION/ AVERAGING TIME	
Ozone	0.09 ppm, 1-hr. avg. > 0.070 ppm, 8-hr	0.75 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^3, annarithmetic mean > 50 µg/m^3, 24-hr average>	50 µg/m^3, annual arithmetic mean > 150 µg/m^3, 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^3, annual arithmetic mean>	15 µg/m^3, annual arithmetic mean> 35 µg/m^3, 24-hour average>	Decreased lung function from exposures and exacerbation of symptoms in sensitive patients with respiratory disease; elderly; children.
Sulfates	25 µg/m^3, 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^3, 30-day avg. >=	1.5 µg/m^3, 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 - 2007

MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM $_{10}$				PM $_{2.5}$				
	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
North Counties	(ppb)						(ppm)			(ppb)			(ppb)			(μm^3)				(μm^3)				
Napa	74	0	61	0	2	57	3.2	2.0	0	53	10	0	-	-	-	21.4	50	0	0	-	-	-	-	-
San Rafael	72	0	57	0	0	48	2.8	1.3	0	57	14	0	-	-	-	17.5	56	0	1	-	-	-	-	-
Santa Rosa	71	0	59	0	0	47	2.6	1.7	0	46	11	0	-	-	-	17.1	37	0	0	32.0	0	30.4	7.6	8.1
Vallejo	78	0	66	0	0	54	3.3	2.7	0	58	11	0	4	1.3	0	19.0	52	0	2	40.8	4	36.2	9.8	9.8
Coast/Central Bay																								
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	7	1.6	0	-	-	-	-	-	-	-	-	-
San Francisco	60	0	49	0	0	45	2.5	1.6	0	69	16	0	6	1.5	0	21.9	70	0	2	45.2	5	29.3	8.7	9.3
San Pablo	74	0	51	0	0	47	2.4	1.2	0	52	12	0	5	1.6	0	20.6	57	0	2	-	-	-	-	-
Eastern District																								
Benicia	83	0	71	0	1	n/a	1.1	0.6	0	39	n/a	0	7	n/a	0	n/a	31	0	0	-	-	-	-	-
Bethel Island	93	0	78	0	4	73	1.1	0.8	0	48	8	0	5	1.5	0	18.8	49	0	0	-	-	-	-	-
Concord	105	1	81	0	4	73	2.2	1.4	0	49	11	0	5	1.7	0	16.8	52	0	2	46.2	7	34.0	8.4	8.9
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	9	2.0	0	-	-	-	-	-	-	-	-	-
Fairfield	89	0	67	0	0	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livermore	120	2	91	1	3	77	3.3	1.8	0	52	13	0	-	-	-	19.8	75	0	2	54.9	3	34.8	9.0	9.3
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	8	1.7	0	-	-	-	-	-	-	-	-	-
Pittsburg	100	1	74	0	2	70	2.8	1.5	0	51	10	0	7	2.2	0	19.4	59	0	4	-	-	-	-	-
South Central Bay																								
Fremont	79	0	68	0	0	58	2.5	1.6	0	58	14	0	-	-	-	19.6	61	0	1	51.2	2	30.4	8.7	9.4
Hayward	75	0	65	0	0	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redwood City	77	0	69	0	0	51	5.5	2.3	0	57	13	0	-	-	-	19.6	56	0	1	45.4	1	31.0	8.3	8.9
San Leandro	71	0	54	0	0	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Santa Clara Valley																								
Gilroy	91	0	70	0	0	70	-	-	-	-	-	-	-	-	-	-	-	-	-	21.5	0	n/a	n/a	n/a
Los Gatos	84	0	65	0	0	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose Central	83	0	68	0	0	61	3.5	2.7	0	65	17	0	-	-	-	22.0	69	0	3	57.5	9	38.3	10.7	11.1
San Jose, Tully Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.6	78	0	3			-	-	-
San Martin	96	1	73	0	4	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunnyvale	77	0	68	0	0	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Days over Standard		**4**		**1**	**9**				**0**			**0**			**0**			**0**	**4**		**14**			

(ppm) = parts per million, (pphm) = parts per hundred million, (ppb) = parts per billion

TABLE 3-3

Bay Area Air Quality Summary
Days over standards

YEAR	OZONE			CARBON MONOXIDE				NO_2	SULFUR DIOXIDE		PM10		PM2.5
	1-Hr	8-Hr		1-Hr		8-Hr		1-Hr	24-Hr		24-Hr*		24-Hr**
	Cal	Nat	Cal	Nat	Cal	Nat	Cal	Cal	Nat	Cal	Nat	Cal	Nat
1996	34	-	-	0	0	0	0	0	0	0	0	3	-
1997	8	-	-	0	0	0	0	0	0	0	0	4	-
1998	29	16	-	0	0	0	0	0	0	0	0	5	-
1999	2	9	-	0	0	0	0	0	0	0	0	12	-
2000	12	4	-	0	0	0	0	0	0	0	0	7	1
2001	15	7	-	0	0	0	0	0	0	0	0	10	5
2002	16	7	-	0	0	0	0	0	0	0	0	6	5
2003	19	7	-	0	0	0	0	0	0	0	0	6	0
2004	7	0	-	0	0	0	0	0	0	0	0	7	1
2005	9	1	-	0	0	0	0	0	0	0	0	6	0
2006	18	12	-	0	0	0	0	0	0	0	0	15	10
2007	4	1	9	0	0	0	0	0	0	0	0	4	14

* 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

Table 3-4 (BAAQMD, 2007) contains a summary of ambient air toxics monitoring data of TACs measured at monitoring stations in the Bay Area by the District in 2003.

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.

TABLE 3-4

Summary of 2003 BAAQMD Ambient Air Toxics Monitoring Data

Compound	LOD (ppb)(1)	% of Samples < LOD(2)	Max. Conc. (ppb) (3)	Min. Conc. (ppb) (4)	Mean Conc. (ppb) (5)
Acetone	0.30	0	121.4	0.6	6.80
Benzene	0.10	1.78	2.4	0.5	0.401
1,3-butadiene	0.15	75.7	0.89	0.075	0.12
Carbon tetrachloride	0.01	0	0.16	0.09	0.108
Chloroform	0.02	62.5	1.47	0.01	0.024
Ethylbenzene	0.10	44.2	0.90	0.05	0.135
Ethylene dibromide	0.02	100	0.01	0.01	0.01
Ethylene dichloride	0.10	100	0.05	0.05	0.05
Methylene chloride	0.50	82.9	3.40	0.25	0.356
Methyl ethyl ketone	0.20	7.7	5.80	0.1	0.496
Metyl tert-butyl ether	0.30	32.9	4.80	0.15	0.532
Perchloroethylene	0.01	42.4	0.28	0.005	0.026
Toluene	0.10	0.2	6.0	0.05	1.062
1,1,1-Trichloroethane	0.05	72.3	2.47	0.025	0.084
Trichloroethylene	0.05	93.8	0.33	0.025	0.029
Trichlorofluoromethane	0.01	0	.046	0.18	0.266
1,1,2-trichlorotrifluoroethane	0.01	0	1.16	0.06	0.077
Vinyl chloride	0.30	100	0.15	0.15	0.15
m/p-xylene	0.10	2.8	3.40	0.05	0.535
o-xylene	0.10	27.9	1.30	0.05	0.186

NOTES: Table 3-4 summarizes the results of the BAAQMD gaseous toxic air contaminant monitoring network for the year 2003. These data represent monitoring results at 19 of the 20 separate sites at which samples were collected. Data from the Fort Cronkhite "clean-air" background site was not included. Data from the Oakland-Davie Stadium site was available from January through March.

(1) "LOD" is the limit of detection of the analytical method used.
(2) "% of samples < LOD" is the percent of the total number of air samples collected in 2003 that had pollutant concentrations less than the LOD.
(3) "Maximum Conc." is the highest daily concentration measured at any of the 19 monitoring sites.
(4) "Minimum Conc." is the lowest daily concentration measured at any of the 19 monitoring sites.
(5) "Mean Conc." is the arithmetic average of the air samples collected in 2003 at the 19 monitoring sites. In calculating the mean, samples with concentrations less than the LOD were assumed to be equal to one half the LOD concentration.

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. Regulation 8-45 was first adopted in 1989 to set VOC limits on various types of paints and surface preparation solvents used in automotive refinishing. The objectives of the proposed rule amendments are to further reduce VOC emissions from automotive refinishing by incorporating the VOC limits and operations standards contained in the CARB's SCM for Automotive Coatings and Control Measure SS1 of the 2005 Ozone Strategy. Because the proposed amendments directly implement a control measure from the 2005 Ozone Strategy, the proposed amendments to Regulation 8-45 are in compliance with the local air quality plan. The amendments to Regulation 8-45 are expected to provide beneficial impacts by reducing VOC emission associated with the use of automotive coatings, which in turn will contribute to attaining the state and federal ambient air quality standards. Therefore, the proposed rule amendments do not conflict or obstruct with the implementation of an applicable air plan.

III b, c, d, and f.
Construction Emissions: It is expected that operators of affected facilities will comply with the proposed rule amendments using reformulated coating products and the proposed amendments do not require any construction directly. Facilities who decide to use reformulated coatings may need to install, replace or retrofit spray booths and add heaters. No major construction activities are expected related to the proposed rule amendments as the equipment (spray booths, heaters) would generally come prefabricated requiring minor assembly, so no significant air quality impacts associated with construction activities are expected.

Operational Emissions: Regulation 8-45 was first adopted in 1989 to set VOC limits on various types of paints and surface preparation solvents used in automotive refinishing. In October 2005, CARB estimated that implementation of the requirements and VOC limits of the SCM would result in an overall emission reduction of 65 percent. Table 3-5 presents the VOC emissions in the BAAQMD by each coating category and the expected VOC emission reduction based on CARB's estimated reductions. The amendments to Regulation 8-45, would further reduce VOC emissions from automotive refinishing operations by about 3.7 tons per day or about 63 percent of the Bay Area automotive refinishing emissions, providing an environmental benefit. The Bay Area is not yet in attainment of state ozone standards, so the region must implement all feasible measures to reduce the pollutants that form ozone (NOx and VOC).

Historically, some members of industry identified seven areas of potential concern that they believe could result in increased indirect VOC emissions due to a requirement to lower the VOC content of coatings. Those concerns are addressed below and are based on CARB's Staff Report for the Proposed Suggested Control Measure (SCM) for Automotive Coatings (CARB, 2005) which is summarized below and incorporated by this reference.

Will the use of lower VOC automotive coatings result in a thicker film coating?

No. In previous rulemakings on coatings, some industry representatives contended that lower VOC coatings are formulated with high solids contents and were therefore difficult to handle during

application, tending to produce a thick film when applied. A thicker film supposedly indicates that a smaller surface area is covered with a given amount of material, thereby increasing VOC emissions per unit area covered as compared to higher VOC coatings. Although high solids, low VOC coatings are being used, the recommended film thickness for these coatings is similar to that for higher VOC coatings. Thus, a lower VOC coating would cover the same or larger surface area than a higher VOC coating (CARB, 2005).

TABLE 3-5

Estimated VOC Emissions and Reductions From Major Categories Due to Implementation of Regulation 8, Rule 45

Coating Category	VOC Emissions (tpd)	Emission Reductions (tpd)	Percent Reductions (%)
Clear Coating	0.52	0.31	60
Color Coating	2.48	1.68	68
Pretreatment Coating	0.07	0.04	59
Primer	0.34	0.19	56
Single Stage Coating	0.55	0.32	58
Uniform Finish Coating	0.02	0.01	63
Solvents	1.83	1.11	65
TOTAL	**5.81**	**3.66**	**63**

Will the use of lower VOC automotive coatings result in illegal thinning of the product?

Excessive thinning is not expected to be a problem because many of the coatings already comply with the SCM limits. Additionally, the VOC limit for color coatings is expected to be met with the use of water-borne formulations. Even if some thinning occurs, thinning would likely be done with water or exempt solvents. As a result, the potential for excessive thinning is minor and concerns about significant adverse air quality impacts are unfounded (CARB, 2005).

Will the use of lower VOC automotive coatings require additional priming for proper adhesion to the substrate?

No. Automotive coatings primers are currently solvent-borne coatings, and many already meet the VOC limits in the proposed SCM. Manufacturers' data show that substrate preparation for low VOC color coatings is similar to substrate preparation for higher VOC color coatings. No instances of poor adhesion between primers and low VOC color coatings are expected (CARB, 2005).

Will the use of lower VOC automotive coatings require the use of more topcoats?

In previous rulemakings on coatings, some industry representatives have claimed that the proposed lower VOC limits would yield products that provide inferior coverage, resulting in the use of more coatings to provide the same coverage as their higher VOC counterparts. This is not the case with automotive coatings. In fact, some low VOC water-borne automotive coatings currently sold and used in the United States provide greater coverage than solvent-borne automotive coatings. Manufacturers and current users of water-borne automotive coatings have indicated that coverage is superior to that of solvent-borne coatings, and therefore do not require the application of additional coats to achieve the necessary coverage (CARB, 2005).

Will the use of lower VOC automotive coatings require more frequent recoating?

No. Water-borne automotive coatings have been used successfully by the majority of the automobile manufacturers for several years; they are also used in manufacturer's vehicle processing centers, where cars are touched up prior to distribution in the United States. Data from the automotive coatings sector do not support the claim that lower VOC automotive coatings require more frequent recoating (CARB, 2005).

Will the use of lower VOC automotive coatings result in product substitution by the end-users?

There are currently available low VOC automotive coatings with performance characteristics comparable to higher VOC automotive coatings, therefore it is not anticipated that spray technicians will substitute a product from a higher VOC category. Typically, manufacturers market coatings as a system and will not warranty the products' performance if the user deviates from the recommended usage. Additionally, the products within each automotive coatings category are specific to certain applications, and do not lend themselves to use in another coating category (CARB, 2005).

Will the use of lower VOC automotive coatings result in coatings with higher reactivity?

Using the Maximum Incremental Reactivity (MIR) scale as the basis for comparing reactivities of VOCs it is true that, on a per gram basis, some VOCs used in water-borne coatings are more reactive than some VOCs used in solvent-borne coatings. For example, using the MIR scale as a basis, a typical VOC used in water-borne coatings, such as propylene glycol, is two to three times more reactive than a typical mineral spirits. However, less reactive solvents such as mineral spirits are not extensively used in automotive coatings. Automotive coatings tend to have solvents with higher reactivity such as xylenes and toluene. The reactivity of propylene glycol is approximately one-third the reactivity, on a gram for gram basis, of xylenes and toluene. Additionally, it is anticipated that manufacturers will incorporate the use of water and exempt solvents when formulating to meet the lower VOC limits of the proposed SCM. Based on this information, CARB concluded that the total reactivity of the lower VOC automotive coatings will be less than the reactivity of the higher VOC automotive coatings (CARB, 2005).

Based on the above, the reformulation of these automotive coatings are expected to result in less than significant air quality impacts.

Secondary Criteria Pollutant Emissions: Secondary criteria pollutant emissions could be generated if new, gas-fired space heaters are installed in affected spray booths in facilities where operators replace solvent-borne coatings with water based coatings to comply with the proposed VOC limits. Secondary criteria pollutant emissions from spray booth heaters would depend on the number of facilities that would install heaters. From a review of converted shops, District staff have found that shops supplement heating equipment not with spray booth heaters, but with hand-held forced air blowers/heaters. These are electrically powered. The SCAQMD, in developing amendments for their similar rule, estimated secondary emissions from facilities that may install heaters within their jurisdiction (an estimated 82 facilities). The number of affected facilities within the jurisdiction of the BAAQMD is less, so it is expected that fewer of these heaters would be installed. Even though the District staff review has demonstrated a lack of need for spray booth heaters, using the secondary criteria emissions estimates of affected facilities within the jurisdiction of the SCAQMD provides a conservative estimate of potential emissions in the BAAQMD (see Table 3-6) if additional spray booth heaters were installed. Secondary criteria pollutant emissions estimated for spray booth heaters are not expected to exceed the significance thresholds for criteria pollutants. Therefore, the proposed amendments to Regulation 8-45 are not expected to be significant for secondary criteria pollutants.

TABLE 3-6

Secondary Criteria Emissions from Additional Auto Body Heaters

Description	VOC (lbs/day)	NOx (lbs/day)	SOx (lbs/day)	CO (lbs/day)	PM (lbs/day)
Auto Body Heater Emissions(1)	1.8	33.8	0.2	9.1	2.0
Significance Threshold	80	80	--	--	80
Significant	NO	NO	--	--	NO

(1) Source: SCAQMD, 2005

Toxic Air Contaminants: The purpose of the proposed amendments to Regulation 8-45 is to control VOC emissions from refinishing coatings applied to automobile and mobile equipment primarily by limiting the VOC content of affected coatings. Regulation 8-45 does not directly regulate toxic air contaminant emissions, but may indirectly control TAC emissions to the extent that TACs are also classified as VOCs. Some existing compliant coating formulations contain TACs such as carbon black cobalt compounds, ethylbenzene, formaldehyde, methyl ethyl ketone, ethylene based glycol ethers, trichloroethylene, toluene, xylene, zinc oxide, and isocyanates.

Conventional solvents include chemicals such as toluene, xylene, methyl alcohol, Stoddard Solvent, methyl ethyl ketone, isopropyl alcohol, ethylene glycol monobutyl ether (EGBE), ethylene glycol monomethyl ether (EGME), and ethylene glycol monoethyl ether (EGEE). The coatings and solvents being reformulated to comply with the proposed control measures are such chemicals as propylene glycol monomethyl ethers, de-propylene glycol monomethyl ethers (DPM), methyl esters (soy-based) acetone, 3-ethoxypropanoic acid (an ethyl ester), and isopropyl alcohol, as well as water. Table 3-7 provides a summary of toxicity data associated with conventional and products commonly used in reformulated coatings and surface preparation and cleaning solvents.

In general replacement solvents for reformulated products are for the most part common chemicals used in a wide variety of industrial and consumer applications. Their widespread use is indicates that users have the ability to use these compounds in a safe manner. Current cleaning formulations contain materials that are as toxic as or more toxic than formulations expected to be used to comply with proposed control measures. Thus, the possible increased use of potentially toxic materials in reformulated solvents/coatings are expected

TABLE 3-7

Toxicity of Conventional and Replacement Solvents

Solvents	TLV (ACGIH) (ppm)	PEL (OSHA) (ppm)	STEL[2] (ACGIH) (ppm)	IDLH (NIOSH) (ppm)
Conventional Solvents				
Toluene	50	200		500
Xylene	100	100	150	900
MEK	200	200	300	3000
Stoddard Solvent	100	500	Not Available	3448
Ethyl Alcohol	1000	1000	Not Available	3300[3]
Methyl Alcohol	200	200	250	6000[3]
Isopropyl Alcohol	400	400	500	2000[3]
EGBE	25	50	Not Available	700
EGEE	5	200	Not Available	500
EGME	5	25	Not Available	200
Replacement Solvents				
Acetone	750	1000	1000	2500[3]
Texanol	Not Established	Not Established	Not Established	Not Established
Di-Propylene Glycol	Not Established	Not Established	Not Established	Not Established
Propylene Glycol	3.21[1]	Not Established	Not Established	Not Established
Ethylene Glycol	39	Not Established	Not Available	Not Established
PCBTF	25[4]	Not Established	Not Established	Not Established
1,1,1-trichloroethane	350	350	450	700
Methylene Chloride	50	500	Not Available	2300
n-Butyl Acetate	150	150	200	1700[3]
t-Butyl Acetate	200	200	Not Available	1500[3]
Isobutyl Acetate	150	200	250	1300[3]
Methyl Acetate	200	200	250	3100[3]
TDI	0.005	0.02	0.02	2.5
HDI	0.005[4]	Not Established	Not Established	Not Established
MDI	0.005	0.02	0.02	7.33

(1) 2007 AIHA Workplace Environmental Exposure Level; (2) STEL = short-term exposure limit (usually 15 minutes); and (3) Based on 10 percent of the lower explosive limit.

to be balanced by a concurrent decrease in the use of materials in currently used products that are typically more toxic, so toxic air contaminant impacts would not be expected to increase compared to existing conditions. According to the most recent studies conducted for the technological assessment, the new compliant cleaners are being formulated with water-based solutions, soy-based (composed of methyl esters),

acetone, methyl acetate, and isopropyl alcohol blends with acetone and water which have a low toxicity (SCAQMD, 2006). The human health impacts analysis performed in the Final EIR for the 2000 Suggested Control Measure for Architectural Coatings examined the potential increased long-term (carcinogenic and chronic) and short-term (acute) human health impacts associated with the use of various replacement solvents in compliant coating formulations. It was concluded that the general public and coating applicators would not be exposed to either long-term or short-term health risk due to the application of compliant coatings (CARB, 2007).

In addition to toxic air contaminants used as VOCs, some TACs are metals typically found in pigments in some auto refinish paints. CARB's ATCM adopted in 2001, ATCM for Emissions of Hexavalent Chromium and Cadmium from Motor Vehicle and Mobile Equipment Coatings eliminated the use of these two TACs in coatings in California. In 2008, the US EPA promulgated 40 CFR Part 63, Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. This rule, effective throughout the nation, controls emissions of chromium, lead, manganese, nickel and cadmium. It requires that, with some exceptions for minor coating activities, coatings be applied in spray booths with a particulate filter that is 98% efficient. This reduces risk from exposure to these HAPs in paint overspray. The national standard also reduced emissions of methylene chloride used to strip paint, but this is rarely used in vehicle refinishing.

CARB expects that future compliant materials will contain less hazardous materials (or will contain nonhazardous materials) as compared to previous solvent-borne coatings, and cleaning solvents, resulting in an environmental benefit because the reformulated coatings and solvents are less toxic than previous solvent-borne coatings and solvents. The long-term and short-term human health impacts associated with the use of various replacement solvents in compliant coating formulations were evaluated by CARB. It was concluded that the general public and coating applicators would not be exposed to either long-term (carcinogenic or chronic) or short-term (acute) health risks due to exposure to alternative solvents (CARB, 2007). In addition, the proposed amendments to Rule 8-45 do not exempt tertiary butyl acetate as a VOC, based on concerns about toxicity and lack of long term health rsik assessments. A number of cleaners are water-based which is not expected to generate toxic air contaminants. Therefore, the proposed amendments are not expected to result in an increase in toxic air contaminants.

III c. CEQA Guidelines indicate that cumulative impacts of a project shall be discussed when the project's incremental effect is cumulatively considerable, as defined in CEQA Guidelines §15065(c). The overall impact of the proposed amendment to the rule is a decrease in VOC emissions. Therefore, the cumulative air quality impacts of the proposed rule amendments are expected to be beneficial.

In June, 2005, the District's Board of Directors adopted a resolution recognizing the link between global climate change and localized air pollution impacts. Climate change, or global warming, is the process whereby emissions of anthropogenic pollutants, together with other naturally-occurring gases, absorb infrared radiation in the atmosphere, leading to increases in the overall average global temperature.

While carbon dioxide (CO_2) is the largest contributor to global warming, methane, halogenated carbon compounds, nitrous oxide, and other species also contribute to climate change. Gases in the atmosphere can contribute to the greenhouse effect both directly and indirectly. Direct effects occur when the gas itself is a greenhouse gas (GHG). While there is relative agreement on how to account for these direct effects of GHG emissions, accounting for indirect effects is more problematic. Indirect effects occur when chemical

transformations of the original compound produce other GHGs, when a gas influences the atmospheric lifetimes of methane, and/or when a gas affects atmospheric processes that alter the radiative balance of the earth (e.g., affect cloud formation).

VOCs have some direct global warming effects. However, they may be considered greenhouse gases due to their indirect effects. VOCs react chemically in the atmosphere to increase concentrations of ozone and may prolong the life of methane. The magnitude of the indirect effect of VOCs is poorly quantified and depends on local air quality. Global warming not only exacerbates ozone formation, but ozone formation exacerbates global warming. Consequently, reducing VOCs to make progress towards meeting California air quality standards for ozone will help reduce global warming.

The use of hand held forced air blowers/heaters on waterborne color coats would result in a negligible increase in energy consumption and, subsequently, a negligible increase in CO_2 emissions. However, this small potential increase in CO_2 emissions would likely be offset by the reduction in VOC emissions (which contribute to the GHG emissions) due to the implementation of the reduced VOC limits. Also, the use of waterborne coatings results in a smaller waste stream. Operators typically use a concentrator that allows paint solids to settle from leftover paint and water used to wash spray equipment. The settled paint is filtered and concentrated and allowed to dry. The filtered water may be re-used for cleaning or allowed to evaporate. Ultimately, there is less solvent to be transported for reclamation or disposal through incineration resulting in less CO_2 emissions than from solvent-based coatings.

District VOC rules typically allow a facility to reduce emissions to the atmosphere through the use of air pollution abatement equipment as an option to the use of low-VOC products. Such abatement equipment may be thermal or catalytic oxidizers or carbon adsorbtion. These devices are rarely a cost-effective solution except in the largest facilities, however, if they were employed, emissions of GHG be expected to increase due to the use of natural gas to fire an oxidizer. Historically, low-VOC products have been successfully implemented (CARB, 2008). Because extensive use of air pollution control equipment is not expected to occur due to the proposed rule amendments, no significant increase in GHG emissions are expected.

III e. The proposed project is not expected to result in an increase in odors. The amendments to Regulation 8-45 propose new VOC standards for reducing emissions from automotive refinishing and mobile equipment coating operations. Affected facilities are expected to comply by reformulating coatings with water-based and lower VOC materials. Potential odor impacts associated with the proposed amendments to Regulation 8-45 are not expected to be significant because: (1) the affected facilities are existing facilities located in industrial or commercial areas with appropriate controls in place; (2) the use of any new compliant materials are expected to replace existing automobile and mobile equipment refinishing coating materials such that no additional odors are expected to be generated; (3) the use of future compliant materials must comply with all applicable BAAQMD rules and regulations; and (4) some of the future compliant materials with lower VOC contents may result in lower odor impacts compared to the current materials in use.

Water-based coatings have less solvent than existing solvent-based coatings. Facilities that convert to water-based coatings are assumed to have a beneficial effect on odors. As part of the Final Environmental Assessment for SCAQMD Rule 1151, the SCAQMD compared short-term exposure concentrations of common solvents with odor thresholds (see Table 3-8). The estimated concentrations for the existing conventional VOCs xylene and toluene were estimated to exceed their odor thresholds. Other solvents more commonly used in reformulated coatings (PCBTF and acetone) are expected to be below the applicable odor

thresholds. Therefore, no significant additional odor impacts are expected to result from the proposed amendments to Regulation 8-45.

TABLE 3-8

VOC Concentrations and Odor Thresholds(1)

Component	VOC Conc. (ug/m3)	Odor Threshold (ppm)	Odor Threshold (ug/m3)	Exceeds Odor Threshold
Xylene	1,194	0.08	346	Yes
Toluene	1,094	0.16	602	Yes
Methyl Ethyl Ketone	398	2	5,886	No
PCBTF	895	1	7,370	No
Acetone	1,591	3.6	26,531	No
Tertiary-Butyl Acetate	766	4	18,965	NO

(1) Source: SCAQMD, 2005

Based upon these considerations, no significant adverse air quality impacts are expected from the implementation of the proposed rule amendments. In fact, the proposed rule amendments are expected to provide beneficial air quality impacts by reducing VOC emissions.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
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?	☐	☐	☐	☑

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 areas affected by the proposed rule amendments 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 areas affected by the proposed rule amendments are located in industrial, institutional, or commercial areas throughout the Bay Area. The affected areas have been graded to develop various industrial, institutional, or commercial structures. Native vegetation, other than landscape vegetation, has generally been removed from areas to minimize safety and fire hazards. Any new development would fall under compliance with the City or County General Plans.

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. The proposed rule amendment would only affect equipment or processes related to the automotive and mobile equipment coating operations located at existing facilities in industrial or commercial areas, which have already been greatly disturbed. The primary method of compliance will be to reformulate affected coatings with water-based or exempt solvent formulations. The amendments to Rule 8-45 are not expected to require the construction of any new buildings or other structures. Should air pollution control equipment or heaters be installed, they are expected to be installed within the confines of existing facilities. In general, industrial or commercial areas do not typically support riparian habitat, federally protected wetlands, or migratory corridors. Additionally, special status plants, animals, or natural communities are not expected to be found on or in close proximity to the affected facilities.

The proposed rule amendment would not conflict with local policies or ordinances protecting biological resources, nor local, regional, or state conservation plans, because it will only affect operations at existing automotive and mobile equipment refinishing coating facilities located in industrial and commercial areas. Additionally, the proposed rule amendment will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan for the same reason

Based upon these considerations, no significant adverse impacts to biological resources are expected from the implementation of the proposed rule amendments.

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

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 areas with automotive coating facilities affected by the proposed rule amendments are primarily located in industrial, or commercial areas throughout the Bay Area. These sites have already been graded to develop industrial, or commercial facilities and are typically surrounded by uses of similar kind. Cultural resources are generally not located within these areas.

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 amendments that would apply to automotive refinishing operations. The automotive refinishing operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial, or commercial facilities. New automotive refinishing operations are expected to be installed in similar areas, and would be compliant with the amendments of the proposed Regulation 8-45. The existing areas have been graded and developed. No new construction activities are expected to be required outside of the existing facility boundaries (outside of already developed areas) due to the adoption of the proposed amendments to Regulation 8-45. Therefore, no significant adverse impacts to cultural resources are expected due to the proposed amendments to Regulation 8-45.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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:	☐	☐	☐	☑
• 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.	☐	☐	☐	☑
• Strong seismic groundshaking?	☐	☐	☐	☑
• Seismic–related ground failure, including liquefaction?	☐	☐	☐	☑
• 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 amendments are expected to be located primarily in industrial and commercial areas throughout the Bay Area.

The affected areas with automotive refinishing facilities 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. The automotive refinishing operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. Facilities who decide to use reformulated coatings may need to install, replace or retrofit spray booths and add heaters. However, these would not add significantly to the overall weight of existing facilities. No major construction activities are expected related to the proposed rule amendments as the equipment (spray booths, heaters) would generally come prefabricated requiring minor assembly.

New industrial, institutional, or commercial structures must be designed to comply with the Uniform Building Code Zone 4 requirements. The local cities and counties are responsible for assuring that new construction complies with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. 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 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 no major construction activities are expected due to implementation of the proposed amendments to Regulation 8-45.

VII b. The automotive refinishing operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. Facilities who decide to use reformulated coatings may need to install, replace or retrofit spray booths and add heaters. No major construction activities are expected related to the proposed rule amendments as the equipment (spray booths, heaters) would generally come prefabricated requiring minor assembly. Construction activities are expected to remain within the confines of existing facilities. Therefore, the proposed amendments are not expected to result in soil erosion or the loss of topsoil as no major construction activities would be required.

VII c – e. The automotive refinishing operations that already exist are located within the confines of existing industrial or commercial facilities so no major construction activities are expected. Since the industrial or commercial facilities already exist, no additional structures are expected to be constructed on a geologic unit or soil that is unstable or that would become unstable, or potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse. Likewise, no structures are 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. Compliance with the Uniform Building Code would minimize the impacts associated with existing geological hazards. 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 amendments to Regulation 8-45.

Based upon these considerations, no significant geology and soils impacts are expected from the implementation of the proposed rule amendments.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

Setting

Many of the affected facilities handle and process large quantities of flammable, hazardous, and acutely hazardous materials. Accidents involving these substances can result in worker or public exposure to fire, heat, blast from an explosion, or airborne exposure to hazardous substances.

The potential hazards associated with handling such materials are a function of the materials being processed, processing systems, and procedures used to operate and maintain the facilities where they exist. The hazards that are likely to exist are identified by the physical and chemical properties of the materials being handled and their process conditions, including the following events.

- **Toxic gas clouds:** Toxic gas clouds are releases of volatile chemicals (e.g., anhydrous ammonia, chlorine, and hydrogen sulfide) that could form a cloud and migrate off-site, thus exposing individuals. "Worst-case" conditions tend to arise when very low wind speeds coincide with an accidental release, which can allow the chemicals to accumulate rather than disperse.

- **Torch fires (gas and liquefied gas releases), flash fires (liquefied gas releases), pool fires, and vapor cloud explosions (gas and liquefied gas releases):** The rupture of a storage tank or vessel containing a flammable gaseous material (like propane), without immediate ignition, can result in a vapor cloud explosion. The "worst-case" upset would be a release that produces a large aerosol cloud with flammable properties. If the flammable cloud does not ignite after dispersion, the cloud would simply dissipate. If the flammable cloud were to ignite during the release, a flash fire or vapor cloud explosion could occur. If the flammable cloud were to ignite immediately upon release, a torch fire would ensue.

- **Thermal Radiation:** Thermal radiation is the heat generated by a fire and the potential impacts associated with exposure. Exposure to thermal radiation would result in burns, the severity of which would depend on the intensity of the fire, the duration of exposure, and the distance of an individual to the fire.

- **Explosion/Overpressure:** Process vessels containing flammable explosive vapors and potential ignition sources are present at many types of industrial facilities. Explosions may occur if the flammable/explosive vapors came into contact with an ignition source. An explosion could cause impacts to individuals and structures in the area due to overpressure.

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 risks posed by operations at each facility are unique and determined by a variety of factors. The areas affected by the proposed amendments are typically located in industrial and commercial areas.

Regulatory Background

There are many federal and state rules and regulations that facilities handling hazardous materials 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.

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.

Affected facilities that store materials are required to have a Spill Prevention Control and Countermeasures (SPCC) Plan per the requirements of 40 Code of Federal Regulations, Section 112. The SPCC is designed to prevent spills from on-site facilities and includes requirements for secondary containment, provides emergency response procedures, establishes training requirements, and so forth.

The Hazardous Materials Transportation (HMT) Act is the federal legislation that regulates transportation of hazardous materials. The primary regulatory authorities are the U.S. Department of Transportation, the Federal Highway Administration, and the Federal Railroad Administration. The HMT Act requires that carriers report accidental releases of hazardous materials to the Department of Transportation at the earliest practical moment (49 CFR Subchapter C). The California Department of Transportation (Caltrans) sets standards for trucks in California. The regulations are enforced by the California Highway Patrol.

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 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.

Contra Costa County has adopted an industrial safety ordinance that addresses the human factors that lead to accidents. The ordinance requires stationary sources to develop a written human factors program that includes considers human factors as part of process hazards analyses, incident investigations, training, operating procedures, among others.

Discussion of Impacts

VII a - d. Though there are no provisions in the proposed rule amendment rule that would increase the total amount of automotive and mobile equipment coatings currently used by affected facilities. The amendments to Regulation 8-45 propose new VOC standards for automotive coatings and may result in reformulating these products with materials that have a low VOC content or contain water-based and or exempt VOC materials.

There are no provisions in the proposed control measures that would increase the total amount of coatings currently used by affected facilities. The use of new formulations of automotive coatings may alter the

chemical constituents of the solvents used in these operations. CARB concluded in the SCM for automotive coatings that resin manufacturers and coatings formulators will continue the trend of using less hazardous solvents such as PCBTF and propylene glycol in their compliant coatings. It is expected that future compliant coatings will contain less hazardous materials, or nonhazardous materials, as compared to conventional coatings, resulting in a net benefit regarding hazards (CARB 2005). In the SCM, CARB also recommended that each district assess the hazards associated with exempting tertiary butyl acetate (TBAC) as a VOC. Subsequently, several California air districts have partially or completely exempted TBAC in their automotive coating rules. Because of these exemptions and the potential for coatings to be reformulated using TBAC, this analysis includes a discussion of the potential impacts associated with the use of TBAC.

It is assumed that coatings would be reformulated as water based or with exempt solvents such as PCBTF or acetone. There are two hazards to be considered when evaluating hazard impacts from reformulating coatings and cleaning solvents; flammability and ignition/explosions. These hazards were evaluated as part of the SCAQMD's Final Environmental Assessment for Proposed Rule 1151 (SCAQMD, 2005) and is summarized herein. Reformulation with water-based coatings would reduce the risk of flammability, since solvents are not typically included as a significant part of the formulation of these coatings. As shown in Table 3-9, acetone has the same flammability rating as the conventional solvents that would be replaced (toluene, xylene, MEK). PCBTF's National Fire Protection Association (NFPA) Flammability Classification is the least of the solvents evaluated (1 = combustible if heated versus 3 = warning: flammable liquid flash point below 100ºF for TBAC and acetone). Therefore, no increase in flammability is expected due to reformulation.

The auto-ignition temperature of a substance is the temperature at or above which a material will spontaneously ignite (catch fire) without an external source of ignition, such as a spark or flame. Flash point is the lowest temperature at which a liquid would have a concentration in the air near the liquid surface which could be ignitable by an external source of ignition (spark or flame). The lower the flash point, the easier it is to ignite the material. TBAC has characteristics that are in the range of the conventional solvents (boiling points, evaporation rates, flash points and explosive limits, auto-ignition temperatures and vapor pressures) for the solvent it would replace. PCBTF also has characteristics that are similar to the solvents likely to be replaced; however, its auto ignition temperature is lower. While the auto-ignition temperature for PCBTF is the lowest of the solvents presented it is still 194°F (97°C) and the flashpoint temperature of 109°F is higher than both the replacement solvents evaluated.

Acetone has characteristics that are similar to the conventional solvents it would likely replace; however, the flash point temperature is the lowest compared to all solvents evaluated. Acetone vapors will not cause an explosion unless the vapor concentration exceeds 26,000 ppm. In contrast, toluene vapors can cause an explosion at 12,000 ppm; the concentration of MEK that could cause an explosion is 14,000 ppm; and the concentration of xylene vapors that could cause an explosion is even lower at 10,000 ppm. Under operating guidelines of working with flammable coatings under well-ventilated areas, as prescribed by the fire department codes, it would be difficult to achieve concentrated streams of such vapors. Therefore, reformulation is not expected to increase, and may actually reduce ignition or explosion hazards.

A number of safety practices and application techniques are recommended by the National Association of Corrosion Engineers (NACE) and the Society for Protective Coatings during the application of coatings and solvents including future compliant coatings and surface preparation and cleaning solvents. Safety practices

include worker isolation areas (applying coatings in restricted areas), use of protective clothing and equipment, use of respiratory protection and an employee education program to educate employees on potential hazards and measures to minimize exposure. Thus, applicators are not expected to require additional training regarding the proper handling or application of compliant coatings containing hazardous materials which will further reduce the applicator's exposure because these safety measures tend to be established in existing affected facilities (SCAQMD 2005).

TABLE 3-9

Chemical Characteristics for Common Solvents

Chemical Compounds	Boiling Point (F)	Flashpoint (F)	Vapor Pressure (mmHg @ 68 F)	Lower Explosive Limit (% by Vol.)	Auto-Ignition Temperature (^oC)	Flammability Classification (NFPA)*
Traditional/Conventional Solvents						
Toluene	231	40	22	1.3	530	3
Xylene	292	90	7	1.1	463	3
MEK	175	21	70	2.0	505	3
Isopropanol	180	53	33	2.0	394	3
Butyl Acetate	260	72	10	1.7	420	3
Isobutyl Alcohol	226	82	9	1.2	813	3
Stoddard Solvent	302-324	140	2	0.8	230	2
Petroleum Distillates (Naptha)	314-387	105	40	1.0	550	4
EGBE	340	141	0.6	1.1	472	2
EGME	256	107	6	2.5	285	2
EGEE	275	120	4	1.8	235	2
Potential Replacement Solvents						
Acetone	133	1.4	180	2.6	465	3
Di-Propyl Glycol	451	279	30	1	n/a	1
Propylene Glycol	370	210	0.1	2.6	371	1
Ethylene Glycol	388	232	0.06	3.2	398	1
Texanol	471	248	0.1	0.62	393	1
t-Butyl Acetate	208	59	34	1.5	518	3
PCBTF	282	109	5.3	0.9	97	1

Source: SCAQMD, 2005
*National Fire Protection Association. 0 = minimal; 1 = slight; 2 = moderate; 3 = serious; 4 = severe

The fire departments regulate spray application of flammable or combustible liquids. They require no open flame, spark-producing equipment or exposed surfaces exceeding the ignition temperature of the material being sprayed within the area. For open spraying, as would be the case for the field application (mobile refinishing) of acetone-based coatings, no spark-producing equipment or open flame shall be within 20 feet horizontally and 10 feet vertically of the spray area. Anyone not complying with the guidelines would be in violation of the current fire codes. If the flammable coating container will be exposed to direct sunlight or heat, storage in cool water is recommended. Finally, all metal containers involving the transfer of five gallons or more should be grounded and bonded.

Based upon the above considerations, hazard impacts are expected to be less than significant. Any increase in future compliant coating materials would be expected to result in a concurrent reduction in the number of accidental releases of hazardous materials associated with coating use since less hazardous materials are expected to be used. If manufacturers use solvents such as Texanol, propylene glycol, etc., in future compliant water-borne coatings, no significant adverse hazard impacts would be expected to occur, because in general, these solvents are less flammable solvents as rated by the NFPA. Reformulation is not expected to increase, and may actually reduce ignition or explosion hazards.

VII e – f. In general, the purpose of the proposed rule amendment is to achieve VOC emission reductions through lowering VOC content limits for automobile coatings, which will ultimately improve air quality and reduce adverse human health impacts related to poor air quality. Since automobile refinishing coatings operations would be occurring at existing industrial or commercial facilities, implementation of the proposed rule amendment is not expected to increase or create any new hazards which could adversely affect public/private airports located in close proximity to the affected sites. Therefore, no significant adverse impacts on an airport land use plan or on a private air strip are expected.

VII g. No impacts on emergency response plans are anticipated from the proposed rule amendments that would apply to existing industrial or commercial facilities. The automotive coating operations which already exist are located within the confines of existing industrial or commercial facilities. The proposed rule amendments neither require, nor are likely to result in, activities that would impact the emergency response plan, and new industrial, institutional, or commercial development would consider emergency response as part of the City/County General Plans prior to approval. As discussed under VII a through d above, it is expected that replacement coatings will general be less toxic than currently used solvents.

VII h. No increase in hazards related to wildfires are anticipated from the proposed rule amendment. The automotive coating operations affected by the proposed rule amendment that already exist are located within the confines of existing industrial or commercial facilities. No increase in exposure to wildfires will occur due to the proposed rule amendment.

Based upon these considerations, no significant adverse hazards and hazardous materials impacts are expected from the implementation of the proposed rule amendments.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY. Would the project:					
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☑
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)?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
e)	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
f)	Otherwise substantially degrade water quality?	☐	☐	☐	☑
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?	☐	☐	☐	☑
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☑
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?	☐	☐	☐	☑
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑

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 industrial and commercial facilities affected by the proposed rule amendments are located throughout the Bay Area. Affected areas are generally surrounded by other industrial, institutional, or commercial facilities. 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 areas 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, which have been updated in 2005 as the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. 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 constituents 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, f. The wastewater and water quality impacts associated with reformulated automotive coatings were evaluated as part of CARB's SCM for Automotive Coatings (CARB, 2005). Discharge of wastewater from automotive coatings facilities to a sanitary sewer can result in the solids portion of the coating accumulating in sewage treatment sludge preventing its beneficial use. Some contaminants pass through and are discharged to lakes, rivers, bays, and oceans. Although the practice is illegal, facility operators may introduce hazardous substances to the sewer system by washing down areas containing over spray and allowing that water to enter the sewer system.

The use of reformulated automotive coatings is not expected to adversely impact water quality. The use of exempt solvents (e.g., acetone and PCBTF) is expected to result in equivalent or fewer water quality impacts than currently used solvents (such as toluene, xylenes, mineral spirits, and methyl ethyl ketone), since the exempt solvents are less toxic. Further, because currently available compliant color coatings are already using water-based technology, no additional water quality impacts from future compliant water-based coatings are expected, although use of water based coatings is expected to increase (CARB, 2005). Finally, the rule amendments are not expected to promote the use of compliant coatings formulated with hazardous solvents that could create adverse water quality impacts. Reformulated coatings are expected to contain less hazardous materials (CARB, 2005). CARB evaluated the potential impact on water due to increased used on TBAC and concluded that the potential risk to surface waters is expected to be low, assuming the material is stored, used and disposed of in accordance with applicable regulations (CARB, 2005). Therefore, the proposed rule amendments are not expected to result in increase violation of any water quality standards or waste discharge requirements, and no decrease in water quality is expected.

VIII b. The automotive refinishing and mobile coating operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial, institutional, or commercial facilities. The 2005 Ozone Strategy addressed the impacts of control measures on water demand. The proposed amendments to Regulation 8-45 are not expected to require a substantial increase in water use. The increase in water use associated with the manufacture of automotive coatings in the SCAQMD was estimated to be 5,396 gallons per day (SCAQMD, 2005). The increased use of water in the Bay Area is expected to be less because fewer automotive coating facilities operate in the Bay Area than in southern California. Conservatively assuming that the rule amendments could result in a maximum increase of about 5,000 gallons, no significant increase in water use is expected due to the reformulation and manufacture of water-based compounds. The proposed amendments are not expected to deplete groundwater

supplies or interfere with groundwater recharge. Therefore, no significant impacts on groundwater supplies are expected due to the proposed amendments to Regulation 8-45.

VIII c - e. Automotive coating operations are expected to comply by reformulating coatings with lower VOC or water-based materials. All affected equipment is primarily located in industrial or commercial areas, where storm water drainage has been controlled and no construction activities outside of the existing facilities are expected to be required. Therefore the proposed amendments are not expected to substantially alter the existing drainage or drainage patterns, result in erosion or siltation, alter the course of a stream or river, or substantially increase the rate or amount of surface water runoff in a manner that would result in flooding onsite or offsite. Nor are the proposed amendments expected to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed amendments are not expected to substantially degrade water quality. Therefore, no significant adverse impacts to storm water runoff are expected.

VIII g – i. The automotive refinishing and mobile equipment coating operations affected by the proposed rule amendments are primarily located within industrial and commercial areas. No major construction activities outside the boundaries of existing facilities are expected due to the adoption of the proposed amendments to Regulation 8-45. Industrial and commercial facilities are generally located to avoid flood zone areas and other areas subject to flooding. The proposed amendments are not expected to require substantial additional construction activities, 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. The automotive refinishing coating operation facilities affected by the proposed rule amendments are located within industrial and commercial areas. No major construction activities are expected outside of the boundaries of the existing facilities due to the adoption of the proposed amendments to Regulation 8-45. The proposed amendments are 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.

Based upon these considerations, no significant adverse hydrology and water quality impacts are expected from the implementation of the proposed rule amendments.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	**LAND USE AND PLANNING.** Would the project:				
a)	Physically divide an established community?	☐	☐	☐	☑
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?	☐	☐	☐	☑
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

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 amendments are primarily located in commercial and industrial 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. The automotive refinishing and coating operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. Industrial and commercial facilities affected by the proposed rule amendments are expected to comply by reformulating coatings with lower VOC and water-based materials. Any changes are expected to be made within the confines of existing facilities as no major construction activities are expected outside of the confines of the existing facilities is expected to be required due to the adoption of the proposed amendments to Regulation 8-45.

Based upon these considerations, no significant adverse impacts to land use are expected due to the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑

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 amendments are primarily located in industrial and 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. The automotive refinishing and coating operations affected by the proposed rule amendment already exist and are primarily located within the confines of existing industrial and commercial facilities. The proposed rule amendments are not associated with 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. Therefore, no impacts on mineral resources are expected.

Based upon these considerations, significant mineral resource impacts are not expected from the implementation of the proposed rule amendments.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
b)	Expose persons to or generate of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d)	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
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 amendments are primarily located in industrial and commercial areas throughout the Bay Area. A majority of the affected areas are surrounded by other industrial and commercial facilities and related activities.

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-d. The automotive refinishing operations affected by the proposed rule amendment already exist and are primarily located within the confines of existing industrial and commercial facilities. The proposed rule amendments impose limitations on the VOC emissions from these operations. Affected facilities are expected to comply by making a change in formulation of automotive refinishing coatings.

Operators that choose to use water-based automotive coatings to comply with VOC limits may need to replace or retrofit existing spray booths. Since installation is expected to be comprised of installation of pre-fabricated equipment, no heavy construction equipment is expected to be required and noise impacts associated with construction activities would be less than significant.

Modifications or changes associated with the implementation of the proposed amendments will take place at existing facilities that are located in industrial and commercial settings. The existing noise environment at each of the affected facilities is typically dominated by noise from existing equipment onsite, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Noise from the proposed project is not expected to be produced in excess of current operations at each of the existing facilities. Each facility affected will comply with all existing noise control laws or ordinances. Occupational Safety and Health Administration (OSHA) and California-OSHA (Cal/OSHA) have established noise standards to protect worker health. Noise impacts from the proposed rule amendments are expected to be less than significant.

XI. e-f. Though some of the facilities affected by the proposed project may be located at sites within an airport land use plan, or within two miles of a public airport, the addition of new or modification of existing equipment would not expose people residing or working in the project area to the same degree of excessive noise levels associated with airplanes. All noise producing equipment must comply with local noise ordinances and applicable OSHA or Cal/OSHA workplace noise reduction requirements. Based upon the above considerations, significant noise impacts are not expected from the implementation of the proposed project.

Based upon these considerations, significant noise impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 areas affected by the proposed rule amendments are primarily located in industrial and 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. Construction activities are not expected to be associated with the proposed rule amendments. Implementation of the proposed rule amendment at each affected facility is not expected to involve the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. In the event that new employees are hired, it is expected that the number of new employees at any one facility would be small. Human population within the jurisdiction of the BAAQMD is anticipated to grow regardless of implementing the proposed project. As a result, the proposed project is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the district or population distribution.

XII b-c. Because the proposed rule amendment include modifications and/or changes at existing facilities located in industrial and commercial settings, the proposed project is not expected to result in the creation of

any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people or housing elsewhere in the Bay Area. Based upon these considerations, significant population and housing impacts are not expected from the implementation of the proposed project.

Based upon these considerations, significant population and housing impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
Police protection?	☐	☐	☐	☑
Schools?	☐	☐	☐	☑
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑

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 areas affected by the proposed rule amendments are primarily located in industrial or 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. Implementation of the proposed rule amendments is not anticipated to significantly alter current operations at existing affected facilities. Although facilities will likely switch to using new formulations of automotive coatings, the overall use of coatings at any one facility is not expected to change to the extent that would increase the chances for fires or explosions requiring a response from local fire departments. As

shown in Section VI – Hazards and Hazardous Materials of this Negative Declaration, the hazard characteristics of the VOC exempt solvents are similar to the hazardous characteristics of the conventional VOC solvents. Further, additional inspections at affected facilities associated with the use of the new formulations by city building departments or local fire departments are not expected to be necessary because it is expected that most compliant coatings will be formulated using water-based technologies. Compliant solvents will have similar hazard attributes to existing conventional coatings. Therefore, the proposed project is not expected to increase the need or demand for additional public services (e.g., fire departments, police departments, schools, parks, government, et cetera) above current levels.

As noted in the "Population and Housing" discussion above, the proposed rule amendments are not expected to induce population growth in any way because the local labor pool (e.g., workforce) is expected to be sufficient to accommodate any additional activities that may be necessary at affected facilities and operation of new or modified equipment is not expected to require additional employees. Therefore, there will be no increase in local population and thus no impacts are expected to local schools or parks.

Based upon these considerations, significant public services impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☑

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 areas affected by the proposed rule amendments are located in industrial and commercial areas throughout the Bay Area. Public recreational land uses are generally located adjacent to these areas.

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. As discussed under "Land Use" above, there are no provisions of the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments; no land use or planning requirements will be altered by the proposed rule amendments. Further, the proposed rule amendments would not increase the use of existing neighborhood and regional parks or other recreational facilities or include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment because the proposed rule amendments are not expected to induce population growth.

Based upon these considerations, significant recreation impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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?	☐	☐	☐	☑
d) Substantially increase hazards because of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☐	☑
f) Result in inadequate parking capacity?	☐	☐	☐	☑
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 cross 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 state and county level. Planning for interstate highways is generally done by the California Department of Transportation.

Most local counties maintain a transportation agency that has the duties of transportation planning and administration of improvement projects within the county and implements the Transportation Improvement and Growth Management Program, and the congestion management plans (CMPs). The CMP identifies a system of state highways and regionally significant principal arterials and specifies level of service standards for those roadways.

Discussion of Impacts

XV a-b. Compliance with the proposed rule amendments is expected to be achieved through coating reformulations. The proposed rule amendments are not expected to cause a significant increase in traffic relative to the existing traffic load and capacity of the street systems surrounding the affected facilities. The proposed amendments would have no affect on existing automotive coating operations that would change or cause additional transportation demands or services. The proposed rule amendments are not expected to exceed, either individually or cumulatively, the current level of service of the areas surrounding the affected facilities. The work force at each affected facility is not expected to increase as a result of the proposed rule amendment and operation-related traffic is expected to be minimal. Thus, the traffic impacts associated with the proposed rule amendment are expected to be less than significant.

XV c. Though some of the facilities that will be affected by the proposed rule amendment may 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, actions that would be taken to comply with the proposed rule amendment are not expected to significantly influence or affect air traffic patterns. Further, the proposed rule amendment

would not be expected to affect navigable air space. Thus, the proposed project would not result in a change in air traffic patterns including an increase in traffic levels or a change in location that results in substantial safety risks.

XV d - e. The siting of each affected facility is expected to be consistent with surrounding land uses and traffic/circulation in the surrounding areas of the affected facilities. Thus, the proposed rule amendments are not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the affected facilities. The proposed rule amendments are not expected to alter the existing long-term circulation patterns, nor are they expected to require a modification to circulation, thus, no long-term impacts on the traffic circulation system are expected to occur. The proposed rule amendments do not involve construction of any roadways, so there would be no increase in roadway design feature that could increase traffic hazards. Emergency access at each affected facility is not expected to be impacted by the proposed rule amendment. Further, each affected facility is expected to continue to maintain their existing emergency access gates and will not be impacted by the proposed rule amendment.

XV f. No additional parking will be needed because the work force at each facility is not expected to increase as a result of the proposed rule amendments. Therefore, the proposed rule amendment will not result in significant adverse impacts on parking.

XV g. Operation activities resulting from the proposed project are not expected to conflict with policies supporting alternative transportation since the proposed project does not involve or affect alternative transportation modes (e.g. bicycles or buses) because the construction and operation activities related to the proposed project will occur solely in existing industrial, commercial, and institutional areas.

Based upon these considerations, significant transportation/traffic impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements needed?	☐	☐	☐	☑
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?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

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 most 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 maintain within the local jurisdiction.

Discussion of Impacts

XVI a, b, d and e. The automotive coating operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. The proposed rule amendments are not expected to generate a substantial amount of additional wastewater. The impacts on wastewater treatment requirements or wastewater treatment facilities are expected to be less than significant and were further discussed in Section VIII a and f above.

XVI c. Industrial or commercial facilities are expected to comply with the proposed rule amendments by reformulating coatings. Therefore, the proposed amendments are not expected to alter the existing drainage or require the construction of new storm water drainage facilities. Nor are the proposed amendments 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. Therefore, no significant adverse impacts on storm drainage facilities are expected.

XVI f and g. Automotive coatings may be classified as hazardous waste if they contain substances listed as toxic or meet other hazard criteria. Because of the high coast of may automotive refinishing coatings, they are used generally in small quantities with little waste. Implementation of the proposed amendments is not expected to increase the amount of coatings used or the waste generated, require additional waste disposal capacity or generate waste that does not meet applicable local, state or federal regulations. The proposed amendments would lower VOC content limits for certain coatings. No change in the amount or character of solid or hazardous waste streams is expected to occur.

Waste paint thinner is usually generated when paint guns and other paint equipment are cleaned. The waste paint thinner is usually collected and mixed with waste paint. In most cases, waste coatings in liquid form must be managed as hazardous waste. The reduction of solvents in automotive coatings is not expected to result in non-hazardous liquid waste coatings. Solvent-based automotive coatings waste will still be classified as hazardous due to ignitability characteristics (CARB, 2005).

It is anticipated that coating formulations will continue the trend of using less hazardous solvents such as PCBTF and propylene glycol in their compliant coatings. It is expected that future compliant coatings will contain less hazardous materials, or nonhazardous materials, as compared to conventional coatings, resulting in a net benefit.

Coating facilities that have filter-type paint booths also generate paint booth exhaust filters. Paint booth exhaust filters are changed every few weeks to few months depending on the amount of painting being done. Waste paint filters need to be tested for ignitability and toxicity characteristics. It is rare that a paint booth filter will meet the definition of hazardous waste assuming that only typical automotive coatings have been used (CARB, 2005). Waste filters are typically thrown into the trash for disposal at a sanitary landfill. It is not anticipated that the proposed rule amendments will increase the quantity or toxicity of paint booth exhaust filters. The proposed rule amendments is not expected to increase the volume of solid or hazardous wastes from automotive coating operations that would require disposal at existing municipal or hazardous waste disposal capacity. Facilities are expected to continue to comply with all applicable federal, state, and local statutes and regulations related to solid and hazardous wastes.

Based upon these considerations, significant impacts to utilities and service systems are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☑
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)	☐	☐	☐	☑
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☑

Discussion of Impacts

XVII a. The proposed rule amendments do not 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, as discussed in the previous sections of the CEQA checklist. The proposed rule amendments are expected to result in emission reductions from industrial and commercial automotive refinishing facilities, thus providing a beneficial air quality impact and improvement in air quality. As discussed in Section IV, Biological Resources and Section V, Cultural Resources, no significant adverse impacts are expected to biological or cultural resources.

XVII b-c. The proposed amendments are expected to result in emission reductions of VOCs from affected automotive refinishing operations, thus providing a beneficial air quality impact and improvement in air quality. The proposed rule amendments are part of a long-term plan to bring the Bay Area into compliance with the state ambient air quality standards for ozone, thus reducing the potential health impacts due to ozone exposure. The proposed rule amendments do not have adverse environmental impacts that are limited individually, but cumulatively considerable when considered in conjunction with other regulatory control projects. The proposed rule amendments are not expected to have environmental effects that will cause

substantial adverse effects on human beings, either directly or indirectly. No significant adverse environmental impacts are expected.

Chapter 4

References

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PROPOSED AMENDMENTS TO REGULATION 8, RULE 45: MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS CEQA COMMENTS AND RESPONSES

One comment was received that requests an exemption for tertiary butyl acetate (TBAC). The CEQA project, amendments to Regulation 8, Rule 45, does not propose to exempt TBAC, however, the comment and staff's response are included here for completeness.

APPENDIX A
COMMENTS AND RESPONSES

Daniel Pourreau, Pd.D., Technical Advisor, LyondellBasell Industries, e-mail dated October 28, 2008 and letter via e-mail dated November 14, 2008

LyondellBasell developed and produces tertiary butyl acetate (TBAC), and supports the reduction of VOC limits. Mr. Pourreau had met with staff (August 27) to discuss the use of TBAC in auto refinishing operations. Staff was requested to conduct a health risk assessment on the use of TBAC in auto refinishing operations in the Bay Area. The staff report does not indicate that this has been done.

Comment: The staff report contains some inaccuracies regarding TBAC. Additional toxicological studies and a peer-reviewed risk assessment on the primary metabolite (tertiary-butyl alcohol, TBA) have been performed since CARB's 2005 "Environmental Impact Assessment of Tertiary-Butyl Acetate." These studies confirm that TBAC has low acute and subchronic toxicity, is not a reproductive or developmental toxin and is unlikely to be a human carcinogen. Even if BAAQMD were to conclude that the CARB concerns were justified, a risk assessment should be conducted.

Response: Toxicological information regarding TBAC is mixed. Some scientific studies indicate that TBAC is a relatively non-toxic compound. However, there are also studies that indicate that TBAC is potentially carcinogenic. According to Budroe, et al. (2004) "TBAC has been demonstrated to be substantially metabolized to TBA in rats, and a positive TBA genotoxicity study suggests that TBA may cause oxidative DNA damage. TBA has been shown to induce tumors in both rats and mice, and the Office of Environmental Health Hazard Assessment has calculated an oral cancer potency factor for TBA. Therefore, TBAC should be considered to pose a potential cancer risk to humans because of the metabolic conversion to TBA."

Manufacturers currently produce automotive coatings that are compliant with the proposed VOC limits. Staff does not believe it is good policy to recommend an exemption for a potential carcinogen that may replace solvents that, toxicologically, are relatively innocuous, particularly if such an exemption is not necessary to achieve compliance.

Comment: District staff stated that no long-term health studies were conducted for TBAC, however, this is also true for parachlorobenzotrifluoride (PCBTF), a

currently exempt compound. PCBTF emissions will increase under the proposed amendments.

Response: Staff is aware that long-term health studies are also lacking for PCBTF. Staff is also aware that PCBTF has been used to meet the compliance limits in some automotive refinish coatings, particularly clear coatings.

Comment: Much more is known about the toxicity of TBAC and its metabolite, TBA, than PCBTF. According to a 1992 NTP study, PCBTF does not appear to be a mutagen, or genotoxic, but this does not exclude the possibility that it may be a carcinogen in mice or rats. Because PCBTF was exempted in Reg. 8-45 without a definitive determination as to its toxicity, BAAQMD should exempt TBAC.

Response: PCBTF was exempted in District coating rules in 1995, following the EPA's determination of negligible photochemical reactivity. The staff report recommending an exemption for PCBTF states:

> It must be noted that, in the case of PCBTF and VMS (volatile methyl siloxanes), numerous toxicity studies have been done, as is required for listing under the EPA's Significant New Alternatives Program (SNAP). These include acute and subchronic mammalian studies, genotoxicity and ecotoxicity (fish). The results of these studies indicate that the material is not toxic, mutagenic or carcinogenic, therefore, do not indicate a need to further study the compounds. However, because they do not measure long term exposure, neither can one state unequivocally that there are no long term exposure effects.

The District continuously reevaluates policies underlying rule development activities. The development of the Board-adopted Stratospheric Ozone Policy in 1991, as an example, is the result of reconsideration of exemptions granted in the 1980's for compounds that were shown to have deleterious environmental effects. BAAQMD staff and statewide efforts have become much more precautionary in terms of granting exempt compound status since that time. The data on PCBTF, however, does not suggest it is a likely carcinogen, unlike some data available for TBAC. Staff will continue to monitor PCBTF studies for additional data.

Comment: The metabolism of TBAC is well understood. Most experts conclude that TBAC and TBA are not mutagenic, genotoxic or likely human carcinogens. The mode of action by which TBA causes tumors in male rats (α-2μ-globulin nephropathy) does not exist in other species of rats, mice, female rats of the same species, or humans. However, the California Office of Environmental Health Hazard Assessment (OEHHA) has disputed this conclusion and suggested a hypothetical cancer risk factor for humans. This is not an official agency position and has not been validated by the California Scientific Review Panel or Cancer Identification Committee. Therefore, TBAC should not be considered a carcinogen for these amendments.

Response: Subchronic studies identified the kidney as the target organ in both male and female rats. Male rat kidney effects have been discounted by some scientific review panels due to α-2μ-globulin accumulation, an effect that some say is not relevant to human health. However, Doi, et al. (2007) looked at the role of α-2μ-globulin in male rat kidney tumors and concluded, "These results suggest that while α-2μ-globulin nephropathy may contribute to the renal tumor response, the

critical component(s) of the nephropathy most closely associated with the development of tumors cannot clearly be identified. Thus, reliance on evidence of α-2μ-globulin-associated nephropathy in determining the potential human hazard from chemicals that cause renal tubular tumor cells in rats may need to be reconsidered." Therefore, it is uncertain whether α-2μ-globulin nephropathy is the mode of action by which TBA causes tumors in male rats. The involvement of α-2μ-globulin in the renal pathology caused by TBA in male rats has been interpreted differently among different pathologists.

An expert panel review of a study of mice showing TBA mouse thyroid tumors has been questioned and/or discounted by some reviewers due to its irrelevance to human health. However, according to Budroe et al. (2004), "It should be noted that US EPA has adopted the following science policy positions: 1) it is presumed that chemicals that produce rodent thyroid tumors may pose a carcinogenic hazard for human thyroid, and 2) in the absence of chemical-specific data, humans and rodents are presumed to be equally sensitive to thyroid cancer due to thyroid-pituitary disruption." (Hill, et al. 1998)

Since the development of the Automotive Coating SCM, CARB has developed an Architectural Coatings SCM and amendments to the statewide Consumer Products Regulation. In both of these efforts, CARB did not exempt TBAC as a VOC.

Comment: OEHHA's hypothetical cancer risk factor allows staff to estimate the potential cancer risk in the auto refinish industry, which is not possible with PCBTF. Both the San Joaquin and South Coast districts conducted risk assessments as part of their rulemaking efforts. BAAQMD should do the same.

Response: San Joaquin and South Coast districts conducted risk analyses as part of the proposal to exempt (at least partially) TBAC. A risk analysis for such an exemption is appropriate, as it evaluates the effect of a proposed action. A risk analysis for the lack of an exemption is not warranted.

Further, evaluation of risk involves many variables, in addition to judgment as to whether the modeled risk is acceptable. In CARB's analysis, they found a cancer risk that varied (depending on the example and assumptions used) between less than one in one million to no more than eleven in one million. San Joaquin's analysis found a cancer risk that varied from less than one in one million to no more than 11.7 in one million. San Joaquin modeled seven auto refinishing facilities, in which the closest receptor was 36 meters away. In the Bay Area, there are a number of auto refinish facilities, particularly in San Francisco, where the nearest receptors are much closer. To properly model the various parameters that contribute to risk, site-specific meteorological data should be used and this is rarely available for smaller facilities.

Comment: The potential for occupational exposure is negligible since precautions are routinely taken to avoid inhalation of solvent vapors and skin exposure to isocyanates in automotive refinish coatings. Precautions include isolating and ventilating the area, donning protective clothing, and using breathing apparatus.

Response: Staff agrees with this comment.

Comment: The potential for near-source or environmental exposure is likely negligible. TBAC has been exempted in 49 states and the San Joaquin and South Coast districts. The statement (in the staff report) that compliant coatings for auto refinish do not rely on TBAC is irrelevant and incorrect. The NPCA and several manufacturers have stated that TBAC is a useful compliance tool. We have identified several coating suppliers that offer TBAC-based coatings. TBAC is not listed as toxic, is not an ozone depleter and is not a greenhouse gas.

Response: Manufacturers do consider TBAC a useful compliance tool and some have stated that they may develop coatings containing TBAC were it exempted in the Bay Area and the rest of California. Some manufacturers already produce coatings containing TBAC. However, coatings without TBAC are currently available and are being used that do not exceed the proposed VOC limits.

Further, the South Coast only provided a limited exemption for TBAC under its automotive coatings rule, Rule 1151. In Rule 1151, TBAC is only exempt in primers (not color topcoats or clear coatings). At the time amendments to Rule 1151 were adopted in 2005, the South Coast concluded that there were available non-TBAC formulations for color topcoats and clear coatings, but that lower-VOC formulations for primers had not yet been developed. Today, non-TBAC formulations are available to meet the lower VOC limits for all categories.

Comment: LyondellBasell again requests that BAAQMD conduct a CEQA analysis on the use of TBAC in automotive refinish operations and base the decision to exempt the compound on this analysis. LyondellBassell also requests that incorrect statements regarding the toxicity of TBA and TBAC and the use of TBAC in the staff report be corrected.

Response: Regardless of the findings of a risk assessment, staff chooses to apply the precautionary principle, which states that if an action might cause harm to the public or environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on the advocate for the action. This is the basis of the District's toxics management policy.

A VOC exemption encourages the use of a compound, particularly so in the case of TBAC because it is a useful solvent in coating formulations. An exemption would run contrary to the California Green Chemistry Initiative and proponents of the exemption have not adequately shown that TBAC does not have potentially deleterious health effects. OEHHA staff, whose mission is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances has not recommended that TBAC be exempted as a VOC. District staff agrees.

References used in this response:

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November 14, 2008

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Re: Comments on Draft Amendments to BAAQMD Regulation 8, Rule 45: Motor Vehicle and Mobile Equipment Coating Operations and Staff Report.

Dear Mr. Douglas,

As the developer and producer of tertiary-butyl acetate (TBAC) and a leading supplier of solvents to the coatings and cleaning industries, LyondellBasell Industries appreciates the opportunity to comment on the draft amendments to rule 8.45. As I stated in my September 5th letter to you, we support the AQMD's proposal to reduce the VOC content limit of coating and solvent cleaning operations. This will result in substantial reductions in the amount of ozone and particulate matter formed from these operations' emissions.

I also appreciate the recent opportunity to meet with you and your colleagues to discuss the use of TBAC in this application. At this meeting, I requested that the BAAQMD include TBAC in the CEQA analysis for rule 8.45 and base its decision to exempt TBAC on a fair and thorough assessment of its potential risks and benefits. I was left with the impression that the BAAQMD would act on this request. However, your staff report suggests otherwise.

The purpose of these comments is to ask that you correct some inaccuracies in the report and reconsider your decision to not conduct a risk assessment on the use of TBAC in this application. As I mentioned during our meeting, additional toxicological studies[1] and a peer-reviewed risk assessment[2] on its primary metabolite have become available since CARB's 2005 environmental Impact assessment and Automotive Coatings SCM. These studies and expert testimonials confirm that TBAC has low acute and subchronic toxicity, is not a reproductive or developmental toxin (studies are in fact available) and is unlikely to be a human carcinogen. However, even if the BAAQMD were to disregard these new stuides and assume that CARB's speculative concerns are still justified, it cannot conclude that using TBAC in this application would present a risk without actually assessing it.

[1] References to new studies were provided to you in my September 5th letter.
[2] http://www.techstreet.com/cgi-bin/detail?product_id=1094024

Staff's stated reason for not recommending an exemption for TBAC at this time is that there are no long-term health studies to make a definitive determination about its chronic toxicity. However, this is also true of PCBTF, a solvent the BAAQMD has already exempted, for which no chronic studies exist, and whose emissions will significantly increase as a result of the proposed rule 8.45 amendments.

In fact, much less is known about the toxicity of PCBTF than of TBAC. However, the authors of a 1992 NTP subchronic study on PCBTF did conclude:

"*Based on the data obtained in these studies, (PCBTF) might be expected to induce renal tubular cell tumors in male F344/N rats in long term studies, as has been shown with other chemicals which induce an accumulation of α2μ-globulin in the kidney (Swenberg et al., 1989). (PCBTF) does not appear to be a mutagen, and there is little reason to suspect that it would be genotoxic. However, this does not exclude the possibility that (PCBTF) may be a carcinogen in mice or female rats, or at sites in male rats in addition to the kidney.*"

There is much less toxicological information available today on PCBTF than on TBAC or its metabolite tert-butanol. The information that is available *suggests that it may have similar long term effects in laboratory animals as well as other unknown effects*. Since the inability to make a definitive determination on the chronic toxicity of PCBTF did not prevent the BAAQMD from exempting it in this application, it is not a valid reason to further delay the exemption of TBAC.

Unlike PCBTF, the metabolism of TBAC is well understood. It metabolizes quickly and predominantly to tertiary-butanol (TBA), whose chronic toxicity has been investigated (NTP 1995). So the chronic data for TBA is a useful predictor of the chronic toxicity of TBAC and although definitive conclusions cannot be made, most experts who have reviewed the data conclude that TBA and TBAC are not mutagenic, genotoxic or likely human carcinogens. The data conclusively show that TBA causes tumors only in male rat kidneys, by a mode of action (MOA) known as α-2u-globulin nephropathy. This MOA does not exist in other species of rats, in mice, in female rats of the same species, or in humans.

However, OEHHA staff has disputed this conclusion and has suggested a hypothetical cancer risk factor for humans based on these tumors. It is important to note that OEHHA's speculation is not the agency's official position on TBA or TBAC nor has it been validated by California's Scientific Review Panel or Cancer Identification Committee, the authority for declaring chemicals carcinogens in California. No regulatory agency, including OEHHA, has classified either TBA or TBAC as possible or probable human carcinogens. Therefore, neither TBA nor TBAC are listed carcinogens or toxics or should be considered carcinogens for the purpose of rulemaking.

Nonetheless, OEHHA's hypothetical cancer risk factor for TBAC does allow staff to conservatively estimate the potential chronic risk of TBAC use in this application, even if the relevance to humans is questionable. This is not possible with PCBTF. So even though a comparative analysis of TBAC and PCBTF–based coatings is not possible, a potential chronic risk calculation for the use of TBAC-based automotive coatings is clearly within staff's capabilities. Both the SCAQMD and SJVUAPCD conducted these risk assessments as part of their CEQA analysis when they proposed the exemption of TBAC in automotive refinish coatings. They concluded that TBAC use would not pose a significant risk. I see no reason why BAAQMD staff cannot do the same.

The potential for occupational overexposure is negligible since precautions are routinely taken to avoid inhalation of solvent vapors and skin exposure to sensitizing isocyanates in automotive refinish coatings. These precautions include isolating and ventilating the area where the coatings are applied and the donning of a protective suit and self-contained breathing apparatus by the painter. This practice is illustrated on the cover of your staff report and discussed in the CEQA document.

The potential for near-source or environmental overexposure is also likely to be negligible. This has been demonstrated in previous CEQA analyses conducted by the SCAQMD (rules 1151 and 1113) and SJVUAPCD (Rule 4612) for these operations. Both the South Coast and San Joaquin Valley have exempted TBAC in automotive refinish coatings, as have 49 States. So the statement that compliant products for automotive refinishing do not rely on TBAC is not only irrelevant but incorrect. The NPCA and several manufacturers of automotive refinish coatings are on record stating that TBAC is a useful VOC compliance tool. We have identified several suppliers of automotive refinish coatings that offer compliant TBAC-based coatings. TBAC is also not a listed toxic, ozone depleter or greenhouse gas. Suggestions to the contrary in the staff report are not based on fact and should be deleted.

We again respectfully request that the BAAQMD conduct a CEQA analysis on the use of TBAC in automotive refinishing operations and base its decision to exempt it (or not) on the results of this analysis, not speculation or whim. We also request that the incorrect statements about TBA's and TBAC's toxicity and its supposed lack of use in automotive refinish coatings be corrected in the final staff report. Thank you for considering these comments and those in my previous letter. Please call me if you need additional information.

Sincerely,

Daniel B. Pourreau, Ph.D.
Technical Advisor

cc via email: Robert Cave, Dan Belik, Brian Bateman, Henry Hilken, Jim Sell (NPCA), Supervisor Jerry Hill (Chair, BAAQMD Board)