MONTEREY BAY
Unified Air Pollution Control District
serving Monterey, San Benito, and Santa Cruz counties

Interim Air Pollution Control Officer
Ed Kendig

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

February 2, 2009

Rec'd e mail 2/2/09 2/2/09 3:50 pm

Mr. Carl Holm, Assistant Planning Director
Monterey County RMA / Planning Department
168 West Alisal Street, 2nd Floor
Salinas, Ca 93901

Sent Electronically To:
CEQAComments@co.monterey.ca.us
Original Sent by First Class Mail.

SUBJECT: 2007 MONTEREY COUNTY GENRAL PLAN DRAFT EIR (GPU5)

Dear Mr. Holm:

The Air District submits the following comments for your consideration:

4.7.2 ENVIRONMENTAL SETTING:

P. 4.7-2. Air Pollutants

Please note the Table 4.7-1, which is referenced in this section, is missing. This table was to summarize current State and federal Ambient Air Quality Standards (AAQS). Table 4.7-1 on page 4.7-6 of the DEIR presents the distribution of statewide wine fermentation emissions by month rather than information in a format that could be compared to applicable AAQSs. Current AAQSs are summarized in the attached PDF table and can be accessed at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. 1

P. 4.7-3. Ozone, Natural vs. Man-Made VOC

This section blends a discussion of natural and anthropogenic (man-made) emissions. The first and second sentences on this page indicate that current NCCAB emissions of VOC are estimated to be 100 to 125 tons per day and that most of the emissions come from the oak and coastal chaparral environment. As described in the first paragraph on page 4-7 of 2008 AQMP, these figures actually refer to naturally occurring VOC emissions and not man-made or anthropogenic emissions. The 2008 AQMP focuses on man-made emissions, which is the category of emissions subject to regulation. As illustrated in Figure 4-3 in the 2008 AQMP, 2007 NCCAB anthropogenic emissions of VOC are estimated to be 70 tons per day. 2

P. 4.7-3. Ozone, Natural vs. Man-Made NOx

Similarly, the third sentence indicates that NCCAB emissions of NOx are in the 1 to 5 ton per day range and are highest during wildfire events. Again, these figures pertain to naturally occurring emissions and not regional man-made NOx emissions. Man-made emissions of NCCAB NOx are illustrated in Figure 4-7 of the 2008 AQMP and are estimated to be 81 tons per day. The District would be glad to provide additional information on this subject. 3

P. 4.7-3. Ozone, Discussion of Federal Standard

The first sentence of the first full paragraph on this page indicates that on June 15, 2004 the EPA replaced the 1979 one-hour standard with more stringent 8-hour standard. The EPA adopted the 0.08 ppm 8-hour standard in 1997 and on June 15, 2004 the EPA designated the NCCAB as an attainment area for the 8-hour standard. The 1979 one-hour standard was then revoked one year later on June 15, 2005. The eight-hour federal standard adopted by EPA in 1997 is 0.08 ppm. Please refer to pages 5 through 7 of the District's 2007 Federal Maintenance Plan for further discussion. This can be accessed at http://www.mbuapcd.org/index.cfm?Doc=451. After the Maintenance Plan was prepared, EPA adopted a more stringent eight-hour standard of 0.075 ppm on March 12, 2008. 4

P. 4.7-3. Ozone, Discussion of State Standard

The second sentence of the second full paragraph on this page indicates that the new State 8-hour standard is 0.07 ppm. It should be noted that the State standard is 0.070 ppm, with three significant figures. This is important because it reduces round-off play when averaging data. Currently, the State ozone standard is more stringent (health protective) than the corresponding federal standard. 5

P. 4.7-3. Carbon Monoxide

State and federal standards were not exceeded during 2005-2007, which is the most recent three years of data. As part of the Environmental Setting discussion, it should be mentioned that ambient CO readings in the NCCAB are low and have a history of being well within applicable standards. 6

P. 4.7-3. Nitrogen Oxides

In order to relate this section to the NCCAB, the Draft EIR should have specified that major sources of NO_x in the NCCAB include exhaust emissions from on-road motor vehicles, off-road mobile sources and industrial sources. These are illustrated in Figure 4-5 of the 2008 AQMP. There are no refineries in the NCCAB. 7

The NCCAB is designated attainment for the State NO_2 standard and Unclassified/Attainment for the federal NO_2 standard. Current NCCAB designations for all criteria pollutants are presented in Table 2-2 on page 2-5 of the 2008 AQMP.

P. 4.7-4. Particulate Matter

To relate this section to the NCCAB, please note that primary sources of particulate matter in the NCCAB include fugitive dust from unpaved roads, agricultural tilling, agricultural wind-blown fugitive dust, prescribed fires and construction dust. These are summarized in Table 4-2 of the District's 2005 Particulate Matter Plan, which is available at http://www.mbuapcd.org/index.cfm?Doc=358. 8

P. 4.7-4. Volatile Organic Compounds

The third sentence indicates that major sources of VOCs include oil refineries, and oil-fired power plants. There are no oil refineries or oil fired power plants in the NCCAB. Major sources of VOCs in the NCCAB include exhaust emissions from on-road motor vehicles, solvent evaporation, and exhaust emissions from off-road mobile sources (See Figure 4-3 from the 2008 AQMP). Wineries are a minor contributor to regional VOCs representing less than 1% of the NCCAB VOC inventory. 9

P. 4.7-5. Wine Fermentation Discussion

The sixth paragraph on this page ends in a comma. Please complete the sentence or make the necessary typographical correction. 10

P. 4.7-5. Discussion on Wine Making Process

The extended discussion on how wine is made, while informative, deviates from the general discussion on VOCs and would fit better in a separate section. 11

P. 4.7-6. Table 4.7-1, Statewide Wine Fermentation

The monthly distribution of wine fermentation emissions shown in the table would be more informative if they were specific to the amount of wine actually fermented in Monterey County. Also, the discussion introduces the fermentation figures as being harvest figures. Because wine grapes can be exported to other areas, the amount of wine grapes harvested in Monterey County is not relevant unless the Draft EIR specifies 12

- the amount of grapes that are grown locally
- the amount and increase of the local harvest that is fermented locally
- the amount and increase / decrease of local harvest that is shipped outside Monterey County
- and a comparison of the potential increase in emissions from Monterey County fermentation and wine aging, compared to the decrease in emissions (VMT) that would be avoided by a decrease in shipment of local grapes to out-of-County grape processers / winemakers and wine agers.

P. 4.7-7. Table 4.7-1, Toxic Air Contaminants

The first sentence in the third paragraph on this page indicates that CARB has listed particulate matter as a TAC. The sentence should be corrected to specify that this listing pertains to diesel particulate matter (diesel exhaust) and not particulate matter in general. 13

P. 4.7-7. Attainment Status

Many of the designations described in this section are dated. Please refer to Table 2-2 on page 2-5 of the 2008 AQMP for current designations. For instance, in relation to the State ozone standard, the ARB's most recent designation (July 26, 2007) shows that the NCCAB is nonattainment. The moderate nonattainment and nonattainment transitional designations are no longer applicable. The first sentence of the second paragraph under Attainment Status states that EPA has designated the NCCAB as a moderate maintenance 14

area for ozone. There is no such thing as a moderate maintenance area and EPA has designated the NCCAB as an attainment area for ozone. 14

P. 4.7-8. Air Quality Monitoring Data
Please note that Table 4.7-2 referenced in this section is missing. This table was to summarize the most recent three years of data for Monterey County. Table 4.7-2 in the DEIR (page 4.7-11) summarizes wine fermentation and aging emissions. 15

P. 4.7-8. Air Quality Monitoring Data
The third sentence in this section indicates that the Salinas station is the monitoring station for Monterey County. Please note that the Salinas site is not the only air monitoring station operated in Monterey County as there are two other air monitoring stations: one in King City and one in Carmel Valley. Including data from these sites would more accurately portray air quality in Monterey County. 16

4.7.3 REGULATORY FRAMEWORK:

P. 4.7-8. EPA
The second sentence in this section states that the NAAQS are set to the maximum ambient (background) level considered safe. The NAAQS are set according to the maximum safe level in the ambient breathable outdoor air, and according to background. Background is typically a much lower concentration than levels that include man-made emissions. 17

P. 4.7-8. CARB
It should be noted that State law vests California Air Resources Board (CARB) with direct authority to regulate pollution from motor vehicles registered in California, as well as fuels and consumer products sold in the State. 18

P. 4.7-9. MBUAPCD
The overall role of the MBUAPCD should be mentioned before introducing the specific construction mitigation measures. For reference, as required by the California Clean Air Act and Amendments (HSC Section 40910 et seq.) and the Federal Clean Air Act and Amendments (42 U.S.C. Section 7401 et seq.), the District is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, education and public information activities related to air pollution. California Health and Safety Code Sections 39002, et seq. and 40000, et seq. require local air districts to be the primary enforcement mechanism for controlling pollution from local business and industry. Air districts must have rules and regulations for the attainment and maintenance of federal and state ambient air standards. 19

P. 4.7-10. MBUAPCD
The first header indicates that the MBUAPCD has mitigation measures for heavy duty equipment. The measures listed are specific to heavy duty diesel equipment. Also, a typo in the hyphenated word "non-zone season" in the 4th bullet in this section needs to be corrected to read "non-ozone season". 20

P. 4.7-11. MBUAPCD Air Quality Management Plan
The operative Air Quality Management Plan (AQMP) was adopted by the Air Board in august 2008. It integrated the Association of Monterey Bay Area Government's "Monterey Bay Area 2008 Regional Forecast" for population, housing and employment. Before discussing the District's 2008 AQMP for ozone, it would be helpful to mention two other important air plans the District has developed for the region: 21

SB 656 Particulate Matter Plan (December 2005)
This plan outlines measures to make progress toward achieving the State PM_{10} standard by reducing fugitive dust, especially along the ag/urban interface, as well as emissions of particulate matter from diesel exhaust through education about Best Management Practices and grant incentives.

2007 Federal Maintenance Plan
This plan describes how the federal ozone standard will be maintained in our area.

P. 4.7-11. Table 4.7-2, AQMP VOC Aging & Fermentation Emissions
A numerical artifact (16510.8257) appears in this table for the year 2030 Wine Aging category. The number from the AQMP is 0.8257 tons per day. 22

P. 4.7-12. Rules 201 and 417
In the second bullet, please correct the text following the rule name for Rule 207, which makes this sentence hard to follow. Also, in the following paragraph, wineries may be subject to prohibitory Rule 417, Storage of Organic Liquids, whether or not they are exempt from Rule 201. While Rule 417 applies primarily to storage of petroleum based liquids, it would be applicable to wineries if vapor pressure and tank size met the criteria of the rule. 23

4.7.4 PROJECT IMPACTS:

P. 4.7-12. Thresholds of Significance
It should be noted that the 137 lbs/day construction related threshold for NO_x only applies to non-typical construction equipment (page 7-2 District's 2008 CEQA Guidelines). Typical equipment, which includes scrappers, tractors, dozers, graders, loaders and rollers, are accommodated in the District's emission inventory. 24

P. 4.7-13. Thresholds of Significance
Similar to the prior comment, the last paragraph under 4.7.4.1 should be modified to state that emissions of ozone precursors, including NOx and VOC, from typical construction equipment are accommodated in the inventory. 25

P. 4.7-15. AQ-1, Table 4.7-3, Population Consistency
This section concludes that the 2007 General Plan is consistent with the population 26

growth projected in the MBUAPCD's AQMP and therefore impacts associated with AQ-1 are less than significant. However, the comparisons are based on the outdated 2004 AMBAG population figures for Monterey County for 2030, which were used in the 2004 AQMP. AMBAG's 2008 population forecast for 2030 is 515,549 and is lower than the 602,790 population figure for 2030 shown in Table 4.7-3 for the 2007 General Plan. The 2007 General Plan population forecast for 2030 is 87,241 persons greater than the applicable 2008 AMBAG forecasts for 2030, and would make the General Plan Update inconsistent with the applicable AQMP and a significant impact to air quality in the region. 26

P. 4.7-15. AQ-1, Table 4.7-3, Demographic Figures
Please explain why the Population, VMT, Housing Units and Employment "With Project" figures decrease between 2000 and 2030, despite the General Plan Update's accommodating greater population, housing and VMT. 27

P. 4.7-15 & 16. AQ-1, MBUAPCD AQMP
The significance determination section uses the generic name Clean Air Plan for the District's AQMP for ozone. Please specify which plan is being referred to (2004 or 2008) and note that the actual name of the document is the Air Quality Management Plan. As already specified, herein, the operative AQMP was approved in August 2008. 28

P. 4.7-16. AQ-1, Table 4.7-4, VOC Fermentation Emissions
Please note that the fermentation emission factors for red and white wine used in Table 4.7-4 are actually from ARB (ARB Area Source Methods, Chapter 5.1, March 2005) and not EPA. The factors in the table are higher than those used in the AQMP, which were from Chapter 9.12.2 of EPA's AP-42 document. The AQMP used EPA's factors of 4.6 and 1.8 lbs/kgal for red and white respectively, rather than the 6.2 and 2.5 lb/kgal factors shown in the table. If the same factors were applied as used in the 2008 AQMP, estimated fermentation emissions associated with 10 full scale and 40 artisan wineries would be lower than the 905.3 lbs/day shown in the table. 29

P. 4.7-16. AQ-1, Table 4.7-4, VOC Aging Emissions
The calculations for the red and white aging related emission factors (0.02782 and 0.02583 lbs/kgal) given in the table appear to be off by a factor of 1,000 and do not work out as shown in the table. Please verify the units of the factors and make any necessary corrections to the table. 30

P. 4.7-17. AQ-1, Buildout Significance Conclusion
It is concluded that air quality impacts associated with buildout by 2092 would be less than significant because of the beneficial policies in the 2007 General Plan and Area Plans. However, consistency with the AQMP is determined by consistency with the population forecasts in the AQMP, not area plans. Also, the expected air quality benefits of the 2007 General Plan and local Area Plans are not quantified. Since the 2092 buildout date is beyond the forecast horizon of the 2008 AQMP and AMBAG population forecasts, the significance conclusion cannot be supported. 31

Moreover, even if the "encouragement" and "promotion" activities cited as mitigation in various policies in pages 4.7-13 et seq. were actually undertaken, encouragement and promotion do not guarantee that anything quantifiable or enforceable would result, so this text and any implied mitigation should be eliminated from the EIR.

Mobile Source Emissions Associated with Growth
The Air District does not have regulatory authority over mobile sources.
Without stable funding to ensure the availability of public transit, the air quality benefits of this alternative to single-occupancy automobiles should be constrained; this potential mitigation should be better evaluated. 31
What evidence exists to support an inference that employees would bike or walk to work (how many people, how often, and what amount of VMT would be reduced)?

Area Source Emissions Associated with Growth
A significant reduction to ozone precursors and particulate matter could be accomplished by restricting the installation and operation of wood-burning fireplaces and stoves. Many cities have adopted this strategy to reduce their project's air quality impacts to less-than-significant levels. The following is suggested for implementation by the County as a standard condition:

"The construction, installation or operation of a wood-burning fireplace or a wood-burning stove shall be prohibited in perpetuity on all residential properties. Only EPA-certified natural gas/liquefied petroleum gas (LPG) fireplaces/ stoves shall be constructed, installed or operated. This restrictive covenant shall be recorded on the title of all parcels in the project and shall run with the land. All Building Plans and Building Permits shall include this express condition."

P. 4.7-20. AQ-2, Significance Determination – The second paragraph is rather disjointed and should be rewritten. 32

P. 4.7-20. AQ-2, Mitigation Measure AQ-1
The disjointed sentence following OS-10.5 should also be rewritten. 33

P. 4.7-20. AQ-2, 2030 Significance Conclusion
Implementation of MBUAPCD's mitigation measures by policy for construction activities and equipment is a very good idea. However, there is no guarantee that they would reduce emissions unless they are quantified and enforced to reduce emissions to a less-than-significant level... Consequently, the conclusion of a less than significant impact is speculative at this time. Also, the construction related mitigation measures referenced should read AQ-1 and AQ-2 rather than AQ1 though AQ-3 and the referenced planning horizon should be 2030 rather than buildout. 34

P. 4.7-21. AQ-2, Buildout Significance Conclusion
The same comments as applied to the 2030 planning horizon also apply here. 35

P. 4.7-22. AQ-3, Appendix A EMFAC Calculation 36

The third full sentence on this page indicates that the methodology and traffic data input to the EMFAC2007 on-road motor vehicle emission model are provided in Appendix A of the DEIR. However, Appendix A contains the Notice of Preparation and the referenced calculations cannot be found or reviewed. As a result, it was not possible to evaluate this information. 36

P. 4.7-22. Table 4.7-5, Entrained Paved Road Dust
The EMFAC model only estimates exhaust emissions for PM10 and PM2.5, but not entrained road dust for paved road dust. Since entrained road dust emissions increase with VMT, the entrained road dust calculations should be added to the exhaust emissions and the corresponding conclusions updated to reflect the revised totals. 37

P. 4.7-23. Table 4.7-6, Year 2000 Existing Environment
The year of the existing environment in this table is taken as the year 2000, which is no longer representative of the existing environment. The existing environment should be a year closer to the time the Notice of Preparation for GPU5 was submitted, which was 2007. 38

P. 4.7-24. Table 4.7-7, VOC Winery Emissions
The same comments as applied to Table 4.7-4 apply here. Please verify the units of the factors and make any necessary corrections to the table. 39

P. 4.7-33. MM AQ-6. Construction Contracts
As written, this mitigation measures does not ensure that emissions would be less than significant. One-size-fits-all does not work, especially in an industry that uses various models, model years and configurations of equipment on each job. IN addition, project location and meteorological conditions are factors that affect air quality; a project in a remote area that would not result in unhealthful emissions would be evaluated differently from a project in an area of dense urban development. The Air District suggests that construction equipment should comply with applicable State laws and regulations, and Air District thresholds of significance. 40

P. 4.7-33. AQ-7, Development of Sensitive New Land Uses
As written, this mitigation measures is precatory; it is not enforceable. Given the County's authority over land use decisions, if the County chooses not to implement the siting recommendations in the California Environmental Protection Agency / California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective, it would be more helpful to simply notify prospective residents of the potential long-term health impacts, as in being done in Fresno County. 41

Section 4.16, Climate Change

Inasmuch as the narrative in Chapter 4.16 is based on Appendix B - Methodology, comments are focused on it. 42

Vehicular Emissions

Off-road vehicular emissions are not included. Agricultural off-road emissions are estimated but the methodology used is very limiting.

Trying to establish the "unincorporated-only" emissions (see above) all VMT on County roads and 25% of the VMT on state highways have been included. This appears to be based on a 75%/25% split in population between City and County residents. Please explain the basis for this split.

Initially, there seems to be a "source" mix-up. In the text it refers to Bruso but the table refers to Forney. Please explain.

Please explain why they fugitive CH4 emissions from gas transmission were not included.

Landfill Emissions

Emission factors from ICLEI/CACP Software are cited but there is not relation to the emission factor, or its derivation. ICLEI does not generate emission factors. What methodology was used?

43

The document states that 97% of the solid waste goes to landfills that are flared, or have landfill gas to energy technologies. It also specifies that EPA has estimated flaring efficiency to be 75%. This efficiency factor was used to estimate all of Monterey's net CH4 emissions. This generates a couple of concerns:

It did not differentiate between the flaring and the landfill gas to energy technologies. These efficiencies are different.

The flaring efficiency states that the 75% of CH4 is converted to CO2. What are the resulting CO2 emissions?

Agricultural Equipment Fuel Use

The method compares the proportion of agricultural acreage in Monterey to that in all of California and then apportions the state GHG emissions for agriculture proportionately. The use of this method should be explained. (The ARB has a model (OFFROAD) which is used to estimate criteria emissions from off-road motor vehicle sources, including agricultural equipment. It has already apportioned this usage by county and air basin and have projected the growth and controls out to the future. This model is for criteria pollutants and does not include factors for CO2, CH4, or N2O like the on-road equivalent (EMFAC), but it does include estimated fuel usage. At least the CO2 (which is the majority of the associated GHG emissions) could be estimated by using the fuels usage and the CCAR's fuel-based emission factor.)

The ARB method would be doubly useful in that it would also allow for the estimation of all off-road equipment, including construction, industrial, and recreational. Please explain why this method was not used.

General Comments on Forecasting Methodology 43

The document states that fuel efficiency and low carbon fuel standards were used in estimating future, but this did not include reduction on GHG emissions from heavy-duty vehicles. Please explain.

The document concludes that an 8% increase in renewables forecasted by PG&E would result in an equivalent 8% reduction in CO2. . This assumes that renewables have no CO2 emissions, which is not accurate. Renewables have reduced CO2 emissions, not zero CO2 emissions. Please explain.

Thank you for the opportunity to review the document.

Sincerely,

Jean Getchell
Supervising Planner
Planning and Air Monitoring Division

Attachment: Ambient Air Quality Standards

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		Federal Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15.0 µg/m^3		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		—		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	—	
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1 Hour	0.25 ppm (655 µg/m^3)		—	—	—
Lead[8]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average[9]	—		0.15 µg/m^3		
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[8]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calender year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

9. National lead standard, rolling 3-month average: final rule signed October 15, 2008.