Annual Air Monitoring Network Plan

For

Santa Barbara County

July 2012

Prepared by the

Santa Barbara County
Air Pollution Control District

Annual Air Monitoring Network Plan for Santa Barbara County

Table of Contents

List of Tables

List of Figures

1.0 Introduction

This report describes the network of ambient air quality monitors in Santa Barbara County. This report was prepared to meet the requirements for an annual network plan as listed in Title 40, Part 58, Section 10 of the Code of Federal Regulations (40 CFR 58.10). The language of 40 CFR 58.10 is included in Appendix A of this report. The regulations require that this annual monitoring network plan be submitted to the U.S. Environmental Protection Agency (EPA) by July 1 of each year. The plan must be made available for public inspections for at least 30 days prior to submission to EPA. This plan was made available for public review and comment from May 28 to June 29, 2012.

This review is used to determine if the State and Local Air Monitoring Station (SLAMS) network in Santa Barbara County meets the U.S. Environmental Protection Agency (EPA) criteria for station siting based on the EPA monitoring objectives. This network review ensures that the data collected by the SLAMS air monitoring network in Santa Barbara County is representative and will satisfy the data needs of EPA, California Air Resources Board (CARB), and the Santa Barbara County Air Pollution Control District (SBCAPCD).

This network plan includes SLAMS monitors which are federal reference methods (FRM), federal equivalent methods (FEM), or approved regional methods (ARM). Special purpose monitors (SPM) are also included in this plan. The SPMs in Santa Barbara County consist of a number of Prevention of Significant Deterioration (PSD) sites operated by the SBCAPCD or private contractors. There are a number of major oil and gas developments in Santa Barbara County with permits for the production, processing and transportation of oil and gas. These oil and gas permits trigger the PSD monitoring requirements.

1.1 Network Design

The air monitoring network in Santa Barbara County consists of SLAMS and SPM operated by the SBCAPCD, California Air Resources Board (CARB) and private contractors. The monitoring network is designed to cover the diverse range of topography, meteorology, emissions and air quality in Santa Barbara County, while adequately representing the population in the county.

This network review is used to determine if the monitoring system meets the monitoring objectives defined in 40 CFR 58 Appendix D. The three basic monitoring objectives as described in Appendix D are:

1) Provide air pollution data to the general public in a timely manner.

2) Support compliance with ambient air quality standards and emissions strategy development.

3) Support for air pollution research studies.

1.2 Stations

In order to support the air quality management work indicated in the three basic air monitoring objectives, the network is designed with a variety of monitoring site types. There are six general site types:

1) Highest concentrations expected to occur in the area.

2) Typical concentrations in areas of high population density.

3) Impact of significant sources on air quality.

4) General background concentration levels.

5) Regional pollutant transport among populated areas.

6) Air pollution impact on visibility, vegetation damage or other welfare-based impacts.

There are 16 ambient air monitoring stations located in Santa Barbara County. The map in Figure 1.1 shows the location of each site. These sites are operated for different objectives. There are six SLAMS stations which are sited to measure the typical concentrations in areas of high population density or to monitor the impacts of regional pollution. Two of these sites (Santa Barbara and Santa Maria) are operated by CARB. The other four SLAMS sites (Goleta, El Capitan, Lompoc H Street, and Santa Ynez) are operated by SBCAPCD.

There are ten sites which were installed as part of the PSD network to measure the impacts of stationary sources and to measure regional air quality. These sites are classified as SPM. Carpinteria, Exxon LFC 1, Lompoc HS & P, Nojoqui, Paradise Road, and VAFB STS were installed with ozone monitors to measure regional air quality in Santa Barbara County. Of these sites, Paradise Road and Exxon LFC 1 have measured the highest Ozone concentrations in the county. The Nojoqui monitoring station was located in a pass between the northern and southern portions of Santa Barbara County to measure transport between the two portions of the county. Exxon LFC 1, West Campus, Lompoc HS & P, and VAFB STS contain monitors to measure the impacts of nearby sources. Lompoc Odor, LFC Odor and Ellwood Odor are located near oil and gas processing facilities to monitor odorous compounds: hydrogen sulfide and total reduced sulfur. Table 1.1 lists the sites in Santa Barbara County and identifies the site's EPA AQS identification code, type of site, and operator. The sites in the table are numbered to match the site numbers of the map shown in Figure 1.1.

Figure 1.1
Map of Monitoring Network in Santa Barbara County

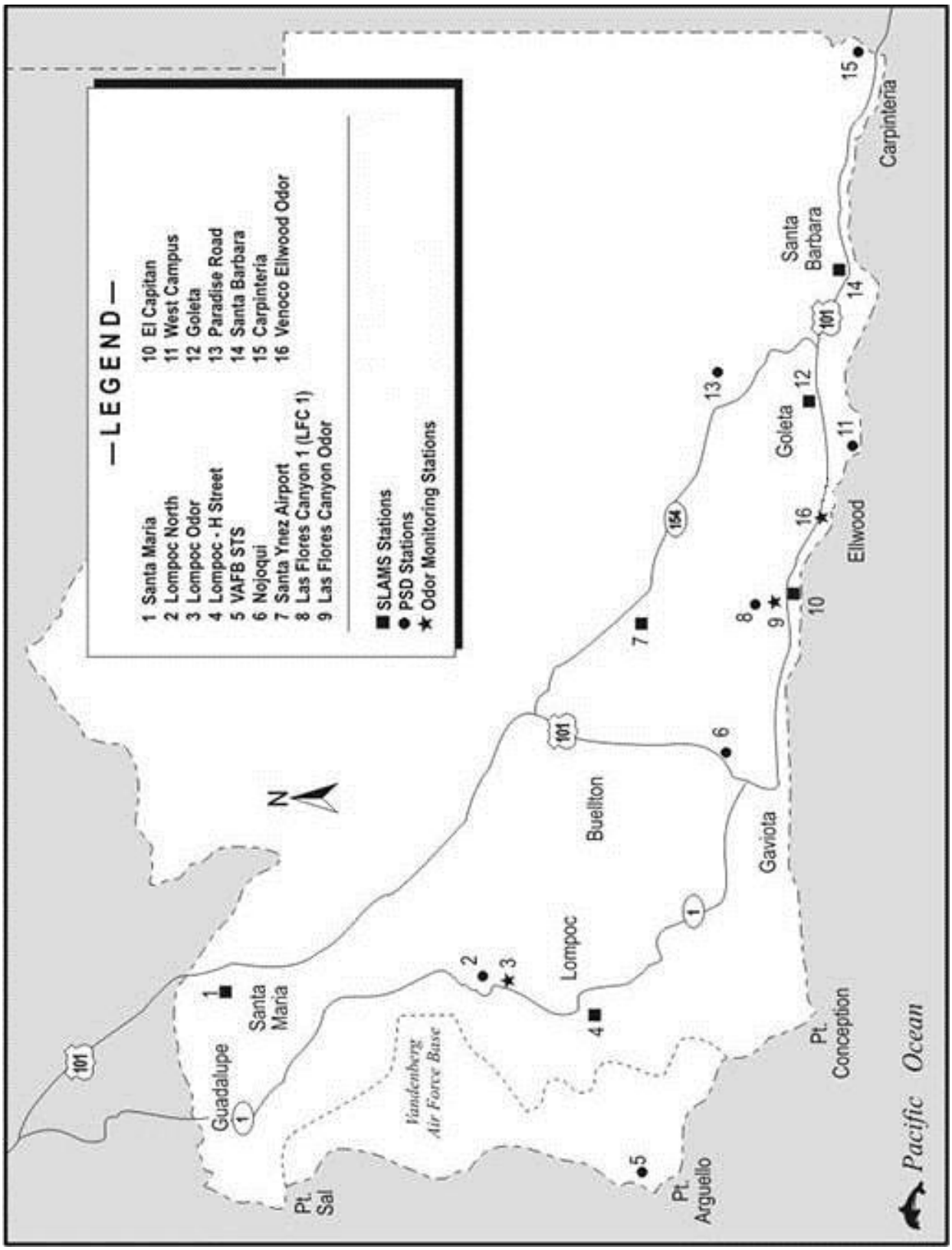

Table 1.1
Monitoring Network in Santa Barbara County

No.	Site Name	Site Code	Type	Operator
1	Santa Maria	060831008	SLAMS	CARB
2	Lompoc HS & P	060831013	PSD	Contractor
3	Lompoc Odor	060831022	PSD	Contractor
4	Lompoc H Street	060832004	SLAMS	SBCAPCD
5	VAFB STS	060834003	PSD	SBCAPCD
6	Nojoqui	060831018	PSD	SBCAPCD
7	Santa Ynez	060833001	SLAMS	SBCAPCD
8	Exxon LFC 1	060831025	PSD	SBCAPCD
9	LFC Odor	060831037	PSD	SBCAPCD
10	El Capitan	060830008	SLAMS	SBCAPCD
11	West Campus	060831020	PSD	Contractor
12	Goleta	060832011	SLAMS	SBCAPCD
13	Paradise Road	060831014	PSD	Contractor
14	Santa Barbara – Canon Perdido	060830011	SLAMS	CARB
15	Carpinteria	060831021	PSD	Contractor
16	Ellwood Odor	060831032	PSD	Contractor

1.3 Monitors

Many of the sites in the monitoring network serve multi-purposes. They may be ideal for background concentration for one pollutant while also measuring the impact of transport for another pollutant. To clarify the nature of the link between the general monitoring objectives, site types, and physical location of a particular monitor, the concept of spatial scale of representativeness is defined. The goal of locating monitors is to correctly match the spatial scale represented by the sample of monitored air with the spatial scale most appropriate for the monitoring site type, air pollutant to be measured, and the monitoring objective. The scales of representativeness of most interest for the monitoring site types are described as follows:

1) Microscale – Defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.

2) Middle scale – Defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometer.

3) Neighborhood scale – Defines concentrations within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometers range.

4) Urban scale – Defines concentrations within an area of city like dimensions, on the order of 4 to 50 kilometers.

5) Regional scale – Defines usually a rural area of reasonably homogeneous geography without large sources, and extends from tens to hundreds of kilometers.

Classification of the monitor by its type and spatial scale of representativeness aids in the interpretation of the monitoring data for a particular monitoring objective. Table 1.2 illustrates the relationship between the various site types that can be used to support the three basic monitoring objectives and the scales of representativeness that are generally most appropriate for that type of site.

Table 1.2
Relationship Between Site Types and Scales of Representativeness

Site Type	**Appropriate Siting Scales**
Highest concentration	Micro, middle, neighborhood (sometimes urban or regional for secondarily formed pollutants)
Population oriented	Neighborhood, urban
Source Impact	Micro, middle, neighborhood
General/background and regional transport	Urban, regional
Welfare-related impacts	Urban, regional

The sites and the monitors located at each site in Santa Barbara County are listed in Table 1.3. The table includes the spatial scale and monitoring objective for each monitored pollutant.

Table 1.3
Measured Parameters with Spatial Scale and Monitoring Objective

Parameter	O3	NO2	SO2	CO	PM-2.5 FEM	PM-2.5 Non-Fem	PM-10	THC	H2S	TRS
AIRS Pollutant Code	**44201**	**42602**	**42401**	**42101**	**88101**	**88501**	**81102**	**43101**	**42402**	**43911**
Carpinteria	**RS/HC**	**RS/BL**								
El Capitan	**RS/BL**	**RS/BL**	**RS/BL**				**RS/BL**	**RS/BL**		
Ellwood Odor									**NS/IM**	**NS/IM**
Goleta	**US/PO**	**US/PO**		**NS/PO**	**NS/PO**		**NS/PO**			
Las Flores Cyn 1	**RS/HC**	**NS/IM**	**NS/IM**	**NS/IM**			**NS/IM**	**NS/IM**		
LFC Odor									**NS/IM**	**NS/IM**
Lompoc H St.	**NS/PO**	**NS/PO**	**NS/PO**	**NS/PO**		**NS/PO**	**NS/PO**			
Lompoc HSP	**RS/BL**	**NS/IM**	**NS/IM**					**NS/IM**		
Lompoc Odor									**NS/IM**	**NS/IM**
Nojoqui	**RS/BL**	**RS/BL**								
Paradise Road	**RS/HC**	**RS/BL**								
Santa Barbara	**US/PO**	**US/HC**		**MS/HC**	**NS/HC**		**NS/HC**			
Santa Maria	**US/PO**	**US/PO**		**MS/PO**	**NS/PO**		**NS/PO**			
Santa Ynez	**US/PO**									
VAFB STS	**RS/BL**	**NS/IM**	**NS/IM**	**NS/IM**			**NS/IM**	**NS/IM**		
West Campus			**NS/IM**					**NS/IM**	**NS/IM**	**NS/IM**

Spatial Scale:
- MI - Microscale
- MS - Middle Scale
- NS - Neighborhood Scale
- US - Urban Scale
- RS - Regional Scale
- NG - National and Global scale

Monitoring Objective:
- HC - Highest concentration
- PO - Population Oriented
- IM - Source Impact
- BL - Background Levels
- WR - Welfare-related impacts

2.0 Monitoring Requirements

EPA regulations specify the minimum number of sites at which state and local air agencies must deploy monitors. Santa Barbara County meets or exceeds EPA's minimum requirements. In practice, the state and local agencies find they need to deploy more monitors than required by the law. The additional monitors are needed to fulfill state and local purposes for monitoring that are in addition to the federal purposes. A number of monitors are required by permits issued to operate stationary emission sources. California State air quality standards are more stringent than national standards and require more monitors to show compliance with the state standards. Monitors are also used to keep the public informed of the actual air quality conditions where they live and work. Also, due to the complex topography in Santa Barbara County, more monitors than the minimum required by EPA are needed to properly characterize the air quality in the county.

The requirements for numbers of monitors appear in Appendix D of Part 58 of the CFR. For ozone, PM2.5, and PM10, the required minimum number is based on the population of an area and the severity of the air quality for the pollutant in the area. For other pollutants, no monitoring is required unless an area exceeds or is close to exceeding a national ambient air quality standard. For purposes of the minimum requirements, the areas are defined by the metropolitan statistical areas (MSAs) developed by the U.S. Census Bureau. Santa Barbara County is part of the Santa Barbara – Santa Maria MSA. It covers the major cities in our county and has a population count of 423,895 based on the 2010 U.S. Census.

2.1 Ozone (O3)

The minimum monitoring requirements for ozone are listed in Table 2.1. Santa Barbara County has 12 ozone monitors which meet the requirements of EPA. Santa Barbara County has a design value of .073 ppm based on 2009 – 2011 data which meets the federal 8-hour ozone standard of 0.075 ppm. Santa Barbara County is non-attainment for the state 8-hour ozone standard. Seven sites recorded concentrations of ozone in excess of the federal standards in 2011. Those sites are: Carpinteria, El Capitan, Exxon LFC, Paradise Road, Santa Barbara, Santa Ynez and Lompoc HS and P. Those same seven sites in addition to Goleta and Nojoqui Summit recorded concentrations of ozone in excess of the state standards in 2011. The other sites with ozone monitors are Santa Maria, Vandenberg Air Force Base STS and Lompoc H Street. None of these sites recorded concentrations in excess of any federal or state ozone standards. These sites are used to keep the public informed of air quality in areas of major population. The data are used in air quality index (AQI) reporting and air quality mapping.

Table 2.1
Minimum Monitoring Requirements for Ozone

MSA	County	Pop. (year)	8-hour Design Value (years)	Min. # Monitors Required	# Monitors Active	Monitors Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	423,895 (2010)	.073 ppm 2009 - 2011	2	12	0

2.2 Carbon Monoxide (CO)

There are no EPA minimum requirements for the number of CO monitoring sites. Continued operation of existing SLAMS CO sites is required until discontinuation is approved by the EPA. There are four SLAMS CO monitors located at Goleta, Lompoc H Street, Santa Barbara and Santa Maria which are used to measure the impacts of high population exposure. There are also CO monitors located at Exxon LFC1 and VAFB STS which are required by operating permit conditions issued to nearby sources.

2.3 Nitrogen Dioxide (NO2)

On January 22, 2010, EPA strengthened the health-based NAAQS for NO2. The rule also established new ambient air monitoring and reporting requirements. One “near road” monitor will be required in urban areas with a population greater than or equal to 500,000 people. A second monitor is required near another major road in areas with either a population greater than or equal to 2.5 million people or a road segment with an annual average daily traffic count greater than or equal to 250,000 vehicles. One community wide monitor is required in urban areas with a population of greater than or equal to 1 million people. Santa Barbara does not meet any of these criteria so no additional monitors will be required. Continued operation of existing SLAMS NO2 sites is required until discontinuation is approved by the EPA. There are five SLAMS NO2 monitors. Goleta, Lompoc H Street, Santa Barbara, and Santa Maria are used to measure the impacts of high population exposure and El Capitan monitors the pollutant on a regional scale There are six other sites which measure NO2: Carpinteria, Exxon LFC 1, Nojoqui, Paradise Road, Lompoc HS & P, and VAFB STS. These monitors are required by operating permit conditions of nearby sources and are used to measure the impact of sources on regional ozone formation. Table 2.2 lists the minimum monitoring requirements for Nitrogen Dioxide.

Table 2.2
Minimum Monitoring Requirements for Nitrogen Dioxide

MSA	County	Pop. (year)	Daily DesignValue (years)	Annual Design Value	Min. # Monitors Required	# Monitors Active	Monitors Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	423,895 (2010)	41 ppb 2009-2011	9 ppb 2011	0	11	0

2.4 Sulfur Dioxide (SO2)

EPA strengthened the primary NAAQS for SO2 on June 2, 2010. The rule established a new 1 hour standard and revised the monitoring requirements. Monitors will be required based on Core Based Statistical Areas (CBSAs) based on a population weighted emissions index for the area. Three monitors will be required in CBSAs with index values of 1,000,000 or more. Two monitors will be required in CBSAs with index values less than 1,000,000 but greater than 100,000; and 1 monitor will be required in CBSAs with index values greater than 5,000. Santa Barbara County will be required to operate one monitor. Continued operation of existing SLAMS SO2 sites is required until discontinuation is approved by the EPA. There are two SLAMS SO2 monitors at El Capitan and Lompoc H Street which are used to measure the impacts of high population exposure. There are four other sites which measure SO2: Exxon LFC 1, UCSB West Campus, Lompoc HS&P, and VAFB STS. These monitors are required by operating permit conditions of nearby sources and are used to measure the impact of sources on the surrounding air quality. New SO2 monitors must be operational by January 1, 2013. Table 2.3 lists the minimum monitoring requirements for SO2. No additional monitors will be required in Santa Barbara County.

Table 2.3
Minimum Monitoring Requirements for Sulfur Dioxide

MSA	County	Pop. (year)	Daily Design Value (years)	Min. # Monitors Required	# Monitors Active	Monitors Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	423,895 (2010)	6 ppb 2009-2011	1	7	0

2.5 Particulate Matter (PM10)

The minimum monitoring requirements for PM10 are listed in Table 2.4. There are five SLAMS PM10 monitors located at Santa Barbara, El Capitan, Goleta, Lompoc H Street, and Santa Maria. There are two PSD sites which measure PM10: Exxon LFC 1 and VAFB STS. These monitors are required by operating permit conditions of nearby sources and are used to measure the impact of nearby sources on the surrounding air quality.

Table 2.4
Minimum Monitoring Requirements for PM10

MSA	County	Pop. (year)	Daily DesignValue (years)	Min. # Monitors Required	# Monitors Active	Monitors Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	423,895 (2010)	50 ug/m3 2009 – 2011	0-1	5	0

2.6 Particulate Matter (PM2.5)

The minimum monitoring requirements for PM2.5 are listed in Table 2.5. There are four PM2.5 monitors located at Santa Barbara, Santa Maria, Goleta, and Lompoc H Street. Santa Barbara and Santa Maria had FRM samplers but were removed in June 2010 and were replaced with FEM real time samplers. A FEM real time sampler was installed at Goleta in January 2010. Lompoc H Street has a real time sampler however, it is not FEM approved.

Table 2.5
Minimum Monitoring Requirements for PM2.5

MSA	County	Pop. (year)	Annual Design Value (years)	Daily Design Value (years)	Monitors Required	Monitors Active	Monitors Needed
Santa Barbara – Santa Maria, CA	Santa Barbara County	423,895 (2010)	9.8 ug/m3 2009 – 2011	21 ug/m3 2009 - 2011	0	3	0

2.7 Lead (Pb)

EPA substantially strengthened the NAAQS for lead on October 15, 2008. The level of the primary standard was revised from 1.5 ug/m3 down to 0.15 ug/m3 measured as total suspended particles (TSP). The secondary standard was revised to be identical to the primary standard. Monitors are required in areas with sources that emit one ton or more per year of lead and in urban areas with a population of 500,000 or greater. The population of Santa Barbara County is below the 500,000 threshold, therefore no population oriented lead monitors are required. The highest emission inventory of lead in Santa Barbara County is the Santa Barbara Municipal airport with 0.4 tons per year. Since this is below the threshold, no source oriented lead monitors are required.

2.8 Recent or Proposed Modifications to the Network

Plans for the next 18 months include relocating the Santa Ynez monitoring station to a new location. Pepper trees have become overgrown to the north of the site and the probe no longer meets siting criteria. A location has been secured and installation will begin when once a lease agreement is finalized.

Other plans include evaluating and possibly switching PM10 sampling methods from 1 in 6 day hi-vol samplers to real time BAMS samplers at Exxon LFC1, El Capitan, and VAFBSTS.

2.9 Additional Monitors

Santa Barbara County operates some monitors which are not required by 40 CFR 58.10. These sites and monitors are included in the network review for reference only and not to show compliance with any requirements even though they are operated under the same quality assurance/control guidelines as the FRM monitors.

There are four stations which are set up near oil and gas processing facilities to monitor for two odorous compounds: Hydrogen sulfide (H2S) and total reduced sulfur (TRS). These monitors are located at the following stations: Lompoc Odor, LFC Odor, Ellwood Odor, and UCSB West Campus.

Total Hydrocarbon monitors (THC) are also located at some of the PSD monitoring stations located near oil and gas processing facilities. These sites are: El Capitan, Exxon LFC 1, Lompoc HS&P, West Campus, and VAFBSTS.

All of the monitoring stations listed in this report also measure wind speed, wind directions and ambient temperature. These data are used for modeling and tracking.

3.0 Additional information on PM2.5 monitors

This section includes information for a couple of elements required to be in the annual network plan that relate specifically to PM2.5. One required element relates to whether data for a PM2.5 monitor can be used to determine compliance with the national annual PM2.5 air quality standard. This is termed as the suitability for comparison to the annual standard. The other element requires information regarding the review process followed by air agencies when changes are made to the location of a PM2.5 monitor that is violating a PM2.5 NAAQS.

3.1 Comparison to annual PM2.5 NAAQS

Only data from a PM2.5 FRM or FEM can be used in regulatory determinations of compliance with the annual PM2.5 NAAQS and that the monitor be located at a neighborhood scale. For a PM2.5 monitor to be representative at a neighborhood scale, the concentration values measured by the monitor should be representative of concentrations expected over an area with dimensions of a few kilometers. Therefore the monitor should not be located too close to a hot spot of PM2.5 concentrations that extends over distances less than a few hundred meters. All of the PM2.5 FRM and FEM monitors in Santa Barbara County are sited to be representative of a neighborhood scale and meet this suitability requirement.

3.2 Review of changes to PM2.5 network

The PM2.5 network of FRM monitors in California was largely established in 1999 and completed in 2000. There were two monitors located in Santa Barbara and Santa Maria as part of this larger network in California. CARB removed these two monitors and replaced them with real-time FEM monitors. SBCAPCD and CARB discussed this change, and will discuss any proposed changes made to the network of PM2.5 monitors in Santa Barbara County prior to any formal changes.

4.0 Quality Assurance and Data Submittal

All data collected from the monitors in the Santa Barbara County network are reviewed for quality assurance by the SBCAPCD with the exception of the Santa Barbara and Santa Maria monitoring stations which are reviewed and processed by CARB.

4.1 Annual performance evaluation

Annual performance evaluations challenge the monitors with known concentrations of audit gases to evaluate the accuracy of the monitors. The SLAMS sites in Santa Barbara County are audited on an annual basis by the CARB. The PSD stations are evaluated by an independent contractor who audits the monitors on a quarterly basis.

4.2 Data submittal

Digital records of the data including precision and accuracy data are submitted to EPA by uploading the records to their air quality system data base (AQS). These records are submitted within 90 days following the end of each quarterly reporting period.

4.3 Annual certification

The data are certified for their accuracy and completeness on an annual basis and a certification letter is submitted to the regional EPA administrator by May 1 of each year.

5.0 Detailed Site Information

The tables in this section give detailed information relating to the sites and monitors. They are presented to show compliance with the monitoring requirements found in 40 CFR 58.10.

Table 5.1
Carpinteria Monitoring Station Details

Site Name	**Carpinteria**				
AQS ID	060831021				
GIS coordinates	Lat 34° 24' 10.97" Long 119° 27' 28.62"				
Location	Located in a rural setting NE of the City of Carpinteria				
Address	Gobernador Road, Carpinteria, CA 93013				
County	Santa Barbara County				
Dist. to road	200 meters				
Traffic count	20 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**			
Sampling method	TAPI 400e	TEI 42C			
Analysis method	N/A	N/A			
Start date	1/1/86	1/1/86			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	4.1 m	4.1 m			
Distance from supporting structure	1.3 m	1.3 m			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	None	None			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	8.8 s	8.4 s			
Frequency of one-point QC check (gaseous)	Bi-weekly	Bi-weekly			
Last annual performance evaluation (gaseous)	12/01/11	12/01/11			

Table 5.2
El Capitan Monitoring Station Details

Site Name	**El Capitan**				
AQS ID	060830008				
GIS coordinates	Lat 34° 27' 44.8" Long 120° 1' 31.8"				
Location	Behind maintenance yard of campground				
Address	US Hwy 101, El Capitan State Beach, CA 93117				
County	Santa Barbara County				
Dist. to road	100 meters				
Traffic count	50000 Vehicles per day				
Groundcover	Grass and dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**	**SO2**	**THC**	**PM10**
Sampling method	TAPI 400e	TAPI 200e	TEI 43i	TEI 51i-LT	SA 1200
Analysis method	N/A	N/A	N/A	N/A	Weighed by SBCAPCD
Start date	6/1/78	6/1/78	6/1/78	6/1/78	6/1/78
Operation schedule	Continuous	Continuous	Continuous	Continuous	1 in 6 day
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	3.8 m	3.8 m	3.8 m	3.8 m	4.1 m
Distance from supporting structure	1.2 m	1.2 m	1.2 m	1.2 m	1.5 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Distance between collocated monitors	N/A	N/A	N/A	N/A	2 m
Unrestricted airflow	360°	360°	360°	360°	360°
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	10.9 s	11.1 s	13.4 s	10.8 s	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A	Monthly
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	Weekly	N/A
Last annual performance evaluation (gaseous)	4/20/11	4/20/11	4/20/11	4/20/11	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/20/11 11/30/11

Table 5.3
Ellwood Odor Monitoring Station Details

Site Name	**Ellwood Odor**				
AQS ID	060831032				
GIS coordinates	Lat 34° 25' 49.30" Long 119° 53' 51.18"				
Location	Located in a vehicle storage lot				
Address	Hollister Ave, Goleta, CA				
County	Santa Barbara County				
Dist. to road	100 meters				
Traffic count	20000 Vehicles per day				
Groundcover	Asphalt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**H2S**	**TRS**			
Sampling method	ML 8850	TEI 43i			
Analysis method	N/A	N/A			
Start date	4/1/00	4/1/00			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	3.5	3.5			
Distance from supporting structure	1.1	1.1			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	None	None			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	14.9 s	14.9 s			
Frequency of one-point QC check (gaseous)	Bi-Weekly	Bi-Weekly			
Last annual performance evaluation (gaseous)	12/05/11	12/05/11			

Table 5.4
Goleta Monitoring Station Details

Site Name	**Goleta**				
AQS ID	060832011				
GIS coordinates	Lat 34° 26' 43.8" Long 119° 49' 42"				
Location	In field behind Lutheran Church				
Address	380 N. Fairview Ave., Goleta, CA				
County	Santa Barbara County				
Dist. to road	150 meters				
Traffic count	14000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**	**CO**	**PM10**	**PM2.5 FEM**
Sampling method	TAPI 400e	TAPI 200e	TAPI 300e	BAM 1020	BAM 1020
Analysis method	N/A	N/A	N/A	N/A	NA
Start date	1/1/1980	1/1/1992	5/1/1982	1/1/10	1/1/10
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	4.5 m	4.5 m	4.5 m	7.0 m	7.0 m
Distance from supporting structure	2.1 m	2.1 m	2.1 m	2.0 m	2.0 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	8.4 s	9.1 s	9.3 s	N/A	N/A
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Bi-Weekly	Bi-Weekly
Last annual performance evaluation (gaseous)	5/05/11	5/05/11	5/05/11	N/A	N/a
Last two semi-annual flow rate audits for PM monitors				5/05/11 11/30/2011	5/05/11 11/30/2011

Table 5.5
Las Flores Canyon #1 Monitoring Station Details

Site Name	**Las Flores Canyon #1**				
AQS ID	060831025				
GIS coordinates	Lat 34^{o} 29' 23.1" Long 120^{o} 2' 48.9"				
Location	North end of canyon behind an oil and gas facility				
Address	Calle Real US Hwy 101, El Capitan, CA				
County	Santa Barbara County				
Dist. to road	3200 meters				
Traffic count	50000 Vehicles per day				
Groundcover	Grass and dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**	**SO2**	**CO**	**PM10**
Sampling method	TAPI 400e	TAPI 200e	TEI 43i	TEI 48i	SA 1200
Analysis method	N/A	N/A	N/A	N/A	Weighed by SBCAPCD
Start date	4/1/88	4/1/88	4/1/88	4/1/88	4/1/88
Operation schedule	Continuous	Continuous	Continuous	Continuous	1 in 6 day
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	3.5 m	3.5 m	3.5 m	3.5 m	4.0 m
Distance from supporting structure	1.2 m	1.2 m	1.2 m	1.2 m	1.6 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Distance between collocated monitors	N/A	N/A	N/A	N/A	N/A
Unrestricted airflow	360^{o}	360^{o}	360^{o}	360^{o}	360^{o}
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	9.6 s	12.6 s	14.5 s	9.9 s	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A	Monthly
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	Weekly	N/A
Last annual performance evaluation (gaseous)	4/19/2011	4/19/2011	4/19/2011	4/19/2011	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	4/19/2011 11/30/2011

Table 5.6
Las Flores Canyon Odor Monitoring Station Details

Site Name	**Las Flores Canyon Odor**				
AQS ID	060831037				
GIS coordinates	Lat 34° 27' 52.3" Long 120° 02' 41.9"				
Location	Located in a parking lot at the entrance to Las Flores Canyon				
Address	Calle Real US Hwy 101, El Capitan, CA				
County	Santa Barbara County				
Dist. to road	100 meters				
Traffic count	50000 Vehicles per day				
Groundcover	Gravel				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**H2S**				
Sampling method	API 101e				
Analysis method	N/A				
Start date	2/1/88				
Operation schedule	Continuous				
Sampling season	All Year				
Probe height	3.5				
Distance from supporting structure	1.1				
Distance from obstructions on roof	None				
Distance from obstructions not on roof	None				
Distance from trees	None				
Unrestricted airflow	360°				
Probe material	Glass & Teflon				
Residence time	12.7 s				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	4/19/2011				

Table 5.7
Lompoc HS&P Monitoring Station Details

Site Name	**Lompoc HS&P**				
AQS ID	060831013				
GIS coordinates	Lat 34^{o} 43' 31.19" Long 120^{o} 25' 43.28"				
Location	Located North of Lompoc near an oil processing facility				
Address	2988 Harris Grade Rd, Lompoc, CA 93436				
County	Santa Barbara County				
Dist. to road	2000 meters				
Traffic count	100 Vehicles per day				
Groundcover	Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**	**SO2**		
Sampling method	TEI 49i	TEI 42c	TEI 43i		
Analysis method	N/A	N/A	N/A		
Start date	1/1/86	1/1/86	1/1/86		
Operation schedule	Continuous	Continuous	Continuous		
Sampling season	All Year	All Year	All Year		
Probe height	4.7	4.7	4.7		
Distance from supporting structure	1.6	1.6	1.6		
Distance from obstructions on roof	None	None	None		
Distance from obstructions not on roof	None	None	None		
Distance from trees	None	None	None		
Unrestricted airflow	360^{o}	360^{o}	360^{o}		
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon		
Residence time	7.3 s	9.0 s	9.5 s		
Frequency of one-point QC check (gaseous)	Bi-weekly	Bi-weekly	Bi-Weekly		
Last annual performance evaluation (gaseous)	11/30/11	11/30/11	11/30/11		

Table 5.8
Lompoc H Street Monitoring Station Details

Site Name	**Lompoc H Street**					
AQS ID	060832004					
GIS coordinates	Lat 34° 38' 16.2" Long 120° 27' 27"					
Location	Parking lot behind gas company					
Address	128 S. H Street, Lompoc CA 93436					
County	Santa Barbara County					
Dist. to road	13 meters					
Traffic count	10000 Vehicles per day					
Groundcover	Asphalt					
Representative area	MSA (Santa Barbara – Santa Maria, CA)					
Pollutant	**O3**	**NO2**	**SO2**	**CO**	**PM10**	**PM2.5 Non-FEM**
Sampling method	TAPI 400e	TAPI 200e	TEI 43i	TAPI 300	BAM 1020	BAM 1020
Analysis method	N/A	N/A	N/A	N/A	N/A	N/A
Start date	1/1/84	5/1/91	1/1/84	1/1/84	8/1/09	9/1/08
Operation schedule	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Sampling season	All Year	All Year	All Year	All Year	All Year	All Year
Probe height	5.3 m	5.3 m	5.3 m	5.3 m	7.0 m	7.0 m
Distance from supporting structure	1.3 m	1.3 m	1.3 m	1.3 m	2.0 m	2.0 m
Distance from obstructions on roof	None	None	None	None	None	None
Distance from obstructions not on roof	15 m	15 m	15 m	15 m	15 m	15 m
Distance from trees	None	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°	360°
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A	N/A
Residence time	6.7 s	8.1 s	7.4 s	6.7 s	N/A	N/A
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	N/A	No
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A	Bi-Weekly	Bi-Weekly
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	Weekly	N/A	N/A
Last annual performance evaluation (gaseous)	7/21/2011	7/21/2011	7/21/2011	7/21/2011	N/A	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	8/03/2011 12/6/2011	8/03/2011 12/6/2011

Table 5.9
Lompoc Odor Monitoring Station Details

Site Name	**Lompoc Odor**				
AQS ID	060831022				
GIS coordinates	Lat 34^{o} 43' 08.37" Long 120^{o} 25' 57.94"				
Location	Located near an oil processing facility				
Address	2988 Harris Grade Rd, Lompoc, CA 93436				
County	Santa Barbara County				
Dist. to road	1000 meters				
Traffic count	100 Vehicles per day				
Groundcover	Dirt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**H2S**	**TRS**			
Sampling method	TEI 45C	TEI 43i			
Analysis method	N/A	N/A			
Start date	2/1/88	2/1/88			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	3.5	3.5			
Distance from supporting structure	1.1	1.1			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	None	None			
Unrestricted airflow	360^{o}	360^{o}			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	12.0 s	12.0 s			
Frequency of one-point QC check (gaseous)	Bi-Weekly	Bi-Weekly			
Last annual performance evaluation (gaseous)	12/06/11	12/06/11			

Table 5.10
Nojoqui Monitoring Station Details

Site Name	**Nojoqui**				
AQS ID	060831018				
GIS coordinates	Lat 34° 31' 38.9" Long 120° 11' 47.4"				
Location	Located at the top of Nojoqui pass just off of US Hwy 101				
Address	US Hwy 101 & Nojoqui Pass, Gaviota Ca 93117				
County	Santa Barbara County				
Dist. to road	200 meters				
Traffic count	30000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**			
Sampling method	TAPI 400e	TEI 42i			
Analysis method	N/A	N/A			
Start date	7/1/87	7/1/87			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	3.0 m	3.0 m			
Distance from supporting structure	1.0 m	1.0 m			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	None	None			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	12.6 s	15.2 s			
Frequency of one-point QC check (gaseous)	Weekly	Weekly			
Last annual performance evaluation (gaseous)	7/19/2011	7/19/2011			

Table 5.11
Paradise Road Monitoring Station Details

Site Name	**Paradise Road**				
AQS ID	060831014				
GIS coordinates	Lat 34° 32' 39.97" Long 119° 47' 29.27"				
Location	Located in Los Padres National Forest off of Paradise Rd				
Address	Paradise Road, Los Padres National Forrest CA 93105				
County	Santa Barbara County				
Dist. to road	800 meters				
Traffic count	100 Vehicles per day				
Groundcover	Trees and brush				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**			
Sampling method	TEI 49i	TEI 42i			
Analysis method	N/A	N/A			
Start date	1/1/86	1/1/86			
Operation schedule	Continuous	Continuous			
Sampling season	All Year	All Year			
Probe height	5.0 m	5.0 m			
Distance from supporting structure	1.8 m	1.8 m			
Distance from obstructions on roof	None	None			
Distance from obstructions not on roof	None	None			
Distance from trees	20 m	20 m			
Unrestricted airflow	360°	360°			
Probe material	Glass & Teflon	Glass & Teflon			
Residence time	7.0 s	10.0 s			
Frequency of one-point QC check (gaseous)	Bi-weekly	Bi-weekly			
Last annual performance evaluation (gaseous)	7/20/11	7/20/11			

Table 5.12
Santa Barbara Monitoring Station Details

Site Name	**Santa Barbara**				
AQS ID	060830011				
GIS coordinates	Lat 34^{o} 25' 39.76" Long 119^{o} 41' 27.04"				
Location	In parking lot of the National Guard Armory				
Address	700 E. Canon Perdido, Santa Barbara CA 93103				
County	Santa Barbara County				
Dist. to road	35 meters				
Traffic count	10000 Vehicles per day				
Groundcover	Asphalt				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**PM2.5**	**PM2.5 FEM**	**PM10**	
Sampling method	TAPI 400	R & P 2000	BAM 1020	BAM 1020	
Analysis method	N/A	Weighed by VCAPCD lab	N/A	N/A	
Start date	5/1/02	5/1/02	7/1/10	5/1/02	
Operation schedule	Continuous	1 in 6 day	Continuous	Continuous	
Sampling season	All Year	All Year	All Year	All Year	
Probe height	6.0 m	7.0 m	7.0 m	7.0 m	
Distance from supporting structure	2.5 m	2.0 m	2.0 m	2.0 m	
Distance from obstructions on roof	None	None	None	None	
Distance from obstructions not on roof	None	None	None	None	
Distance from trees	None	None	None	None	
Unrestricted airflow	360^{o}	360^{o}	360^{o}	360^{o}	
Probe material	Glass & Teflon	N/A	N/A	N/A	
Residence time	4.9 s	N/A	N/A	N/A	
Is it suitable for comparison against the annual PM2.5?	N/A	Yes	Yes	No	

Note: This site is owned and operated by CARB. Data in this table are provided for reference only.

Table 5.13
Santa Maria Monitoring Station Details

Site Name	**Santa Maria**				
AQS ID	060831008				
GIS coordinates	Lat 34^{o} 56 34.31Long 120^{o} 26' 8.25"				
Location	Located on second floor of small office building				
Address	906 S. Broadway, Santa Maria CA 93454				
County	Santa Barbara County				
Dist. to road	60 meters				
Traffic count	30000 Vehicles per day				
Groundcover	Roof				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**PM2.5**	**PM2.5 FEM**	**PM10**	
Sampling method	TAPI 400	R & P 2000	BAM 1020	BAM 1020	
Analysis method	N/A	Weighed by Ventura APCD lab	N/A	N/A	
Start date	5/1/99	5/1/99	7/1/10	7/1/09	
Operation schedule	Continuous	1 in 6 day	Continuous	Continuous	
Sampling season	All Year	All Year	All Year	All Year	
Probe height	9.0 m	9.0 m	9.0 m	7.0 m	
Distance from supporting structure	3.0 m	2.0 m	2.0 m	2.0 m	
Distance from obstructions on roof	None	None	None	None	
Distance from obstructions not on roof	None	None	None	None	
Distance from trees	None	None	None	None	
Unrestricted airflow	360^{o}	360^{o}	360^{o}	360^{o}	
Probe material	Glass & Teflon	N/A	N/A	N/A	
Residence time	6.1 s	N/A	N/A	N/A	
Is it suitable for comparison against the annual PM2.5?	N/A	Yes	Yes	No	

Note: This site is owned and operated by CARB. Data in this table are provided for reference only

Table 5.14

Santa Ynez Monitoring Station Details

Site Name	**Santa Ynez**				
AQS ID	060833001				
GIS coordinates	Lat 34° 36' 30.2" Long 120° 4' 29.0"				
Location	Santa Ynez airport office building				
Address	900 Airport Rd., Santa Ynez, CA				
County	Santa Barbara County				
Dist. to road	600 meters				
Traffic count	7000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**				
Sampling method	TAPI 400e				
Analysis method	N/A				
Start date	1/1/1980				
Operation schedule	Continuous				
Sampling season	All Year				
Probe height	5.5 m				
Distance from supporting structure	2.0 m				
Distance from obstructions on roof	None				
Distance from obstructions not on roof	None				
Distance from trees	5 m *				
Unrestricted airflow	180°				
Probe material	Glass & Teflon				
Residence time	16.5 s				
Frequency of one-point QC check (gaseous)	Weekly				
Last annual performance evaluation (gaseous)	5/03/11				

* Note: Pepper trees planted north of the probe have become overgrown and are preventing unrestricted airflow from the north. This site has been in operation since 1980. Historical pollution roses from a period of time prior to the trees being planted show that high ozone predominately occurs with westerly winds, a direction of unrestricted airflow. The Santa Barbara APCD is currently relocating this site.

Table 5.15
UCSB West Campus Monitoring Station Details

Site Name	**UCSB West Campus**				
AQS ID	060831020				
GIS coordinates	Lat 34° 24' 53.79" Long 119° 52' 46.24"				
Location	Located West of Deverouix slough near UCSB				
Address	UCSB West Campus, Santa Barbara, CA				
County	Santa Barbara County				
Dist. to road	0 meters				
Traffic count	0 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**SO2**	**H2S**	**TRS**	**THC**	
Sampling method	TEI 43i	TEI 43i	TEI 43i	51i-HT	
Analysis method	N/A	N/A	N/A	N/A	
Start date	6/1/99	6/1/99	6/1/99	6/1/99	
Operation schedule	Continuous	Continuous	Continuous	Continuous	
Sampling season	All Year	All Year	All Year	All Year	
Probe height	3.5	3.5	3.5	3.5	
Distance from supporting structure	1.1	1.1	1.1	1.1	
Distance from obstructions on roof	None	None	None	None	
Distance from obstructions not on roof	None	None	None	None	
Distance from trees	None	None	None	None	
Unrestricted airflow	360°	360°	360°	360°	
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	
Residence time	14.9 s	14.9 s	14.9 s	14.9 s	
Frequency of one-point QC check (gaseous)	Bi-Weekly	Bi-Weekly	Bi-Weekly	Bi-Weekly	
Last annual performance evaluation (gaseous)	4/21/2011	4/21/2011	4/21/2011	4/21/2011	

Table 5.16
VAFB STS Monitoring Station Details

Site Name	**VAFB STS**				
AQS ID	060834003				
GIS coordinates	Lat 34° 35' 45.10" Long 120° 37' 52.86"				
Location	Coastal hillside east of a gas turbine peaking power plant				
Address	South VAFB, Vandenburg AFB, CA				
County	Santa Barbara County				
Dist. to road	1000 meters				
Traffic count	1000 Vehicles per day				
Groundcover	Grass				
Representative area	MSA (Santa Barbara – Santa Maria, CA)				
Pollutant	**O3**	**NO2**	**SO2**	**CO**	**PM10**
Sampling method	TAPI 400e	TAPI 200e	TAPI 100e	TAPI 300	SA 1200
Analysis method	N/A	N/A	N/A	N/A	Weighed by SBCAPCD
Start date	6/1/88	6/1/88	6/1/88	6/1/88	6/1/88
Operation schedule	Continuous	Continuous	Continuous	Continuous	1 in 6 day
Sampling season	All Year	All Year	All Year	All Year	All Year
Probe height	4.5 m	4.5 m	4.5 m	4.5 m	5.0 m
Distance from supporting structure	1.0 m	1.0 m	1.0 m	1.0 m	1.5 m
Distance from obstructions on roof	None	None	None	None	None
Distance from obstructions not on roof	None	None	None	None	None
Distance from trees	None	None	None	None	None
Unrestricted airflow	360°	360°	360°	360°	360°
Probe material	Glass & Teflon	Glass & Teflon	Glass & Teflon	Glass & Teflon	N/A
Residence time	11.2 s	11.5 s	10.6 s	10.0 s	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A	Monthly
Frequency of one-point QC check (gaseous)	Weekly	Weekly	Weekly	Weekly	N/A
Last annual performance evaluation (gaseous)	12/06/11	12/06/11	12/06/11	12/06/11	N/A
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	N/A	8/03/2011 12/06/2011

Glossary of Acronyms

AQS	Air quality system
ARB	Air Resources Board
ARM	Approved regional method
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CO	Carbon monoxide
FEM	Federal equivalent method
FRM	Federal reference method
H2S	Hydrogen Sulfide
MSA	Metropolitan statistical area
NAAQS	National ambient air quality standard
NO2	Nitrogen dioxide
O3	Ozone
PM10	Particulate matter less than 10 microns in diameter
PM2.5	Particulate matter less than 2.5 microns in diameter
PSD	Prevention of significant deterioration
SBCAPCD	Santa Barbara County Air Pollution Control District
SLAMS	State and Local Air Monitoring Station
SO2	Sulfur dioxide
SPM	Special purpose monitor
THC	Total hydrocarbons
TRS	Total reduced sulfur
US EPA	United States Environmental Protection Agency

APPENDIX A

Regulatory language of 40 CFR 58.10

§ 58.10 Annual monitoring network plan and periodic network assessment.

(a)(1) Beginning July 1, 2007, the State, or where applicable local, agency shall adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, STN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and SPM monitoring stations. The plan shall include a statement of purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA.

(2) Any annual monitoring network plan that proposes SLAMS network modifications including new monitoring sites is subject to the approval of the EPA Regional Administrator, who shall provide opportunity for public comment and shall approve or disapprove the plan and schedule within 120 days. If the State or local agency has already provided a public comment opportunity on its plan and has made no changes subsequent to that comment opportunity, the Regional Administrator is not required to provide a separate opportunity for comment.

(3) The plan for establishing required NCore multi-pollutant stations shall be submitted to the Administrator not later than July 1, 2009. The plan shall provide for all required stations to be operational by January 1, 2011.

(b) The annual monitoring network plan must contain the following information for each existing and proposed site:

(1) The AQS site identification number.

(2) The location, including street address and geographical coordinates.

(3) The sampling and analysis method(s) for each measured parameter.

(4) The operating schedules for each monitor.

(5) Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.

(6) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.

(7) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual $PM_{2.5}$NAAQS as described in §58.30.

(8) The MSA, CBSA, CSA or other area represented by the monitor.

(c) The annual monitoring network plan must document how States and local agencies provide for the review of changes to a $PM_{2.5}$ monitoring network that impact the location of a violating $PM_{2.5}$ monitor or the creation/change to a community monitoring zone, including a description of the proposed use of spatial averaging for purposes of making comparisons to the annual $PM_{2.5}$ NAAQS as set forth in appendix N to part 50 of this chapter. The affected State or local agency must document the process for obtaining public comment and include any comments received through the public notification process within their submitted plan.

(d) The State, or where applicable local, agency shall perform and submit to the EPA Regional Administrator an assessment of the air quality surveillance system every 5 years to determine, at a minimum, if the network meets the monitoring objectives defined in appendix D to this part, whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate for incorporation into the ambient air monitoring network. The network assessment must consider the ability of existing and proposed sites to support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma), and, for any sites that are being proposed for discontinuance, the effect on data users other than the agency itself, such as nearby States and Tribes or health effects studies. For PM2.5, the assessment also must identify needed changes to population-oriented sites. The State, or where applicable local, agency must submit a copy of this 5-year assessment, along with a revised annual network plan, to the Regional Administrator. The first assessment is due July 1, 2010.

(e) All proposed additions and discontinuations of SLAMS monitors in annual monitoring network plans and periodic network assessments are subject to approval according to §58.14.