



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

APR 08 2014

Mr. Paul D. Miller, P.E.
Administrator, Office of Environmental Compliance
Assessment Division
Louisiana Department of Environmental Quality
Post Office Box 4301
Baton Rouge, LA 70821-4301

Dear Mr. Miller:

Thank you for your correspondence submitting the Louisiana Department of Environmental Quality's (LDEQ) 2013 Annual Monitoring Network Plan. The U.S. Environmental Protection Agency (EPA) has completed its analysis of the LDEQ's 2013 Annual Monitoring Network Plan to ensure it meets those requirements of 40 CFR Part 58 and its appendices that confer approval authority on the Regional Administrator, now delegated to the Associate Director for Air.

We appreciate your cooperation and work to submit your 2013 network plan. The network assessment process presents an opportunity for the EPA and the LDEQ to collaborate on the air monitoring network design. See 40 CFR Part 58 App. D, 1.1.2. The EPA has reviewed your plan, including the information for nitrogen dioxide for the LDEQ Ambient Air Monitoring Network.

I am pleased to inform you that your 2013 ambient air monitoring network plan is approved in accordance with 40 CFR §58.10. Details of our review of your air monitoring network are provided in the enclosure.

We look forward to our continued collaborative work with the LDEQ on your 2014 ambient air monitoring network plan. If you have any questions, please contact me at (214) 665-3102, or your staff may contact Ms. Maria Martinez, Air Quality Analysis Section Chief, of my staff at (214) 665-2230.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Thomas H. Diggs".

Thomas H. Diggs
Associate Director for Air

Enclosure

Louisiana Department of Environmental Quality (LDEQ)
2013 Annual Ambient Air Monitoring Network Plan Technical Comments

The Environmental Protection Agency (EPA) has reviewed your 2013 Annual Ambient Air Monitoring Network Plan and our comments are provided below. In addition to the network plan, EPA's review includes additional information provided by LDEQ identified below.

Nitrogen Dioxide (NO₂)

Area-wide NO₂ Monitor

The EPA Region 6 approves the NO₂ monitor at the Kenner site (Air Quality System, AQS #22-051-1001) to meet the requirements for the area-wide NO₂ monitoring for the New Orleans core-based statistical area (CBSA) as required by 40 CFR Part 58, App. D, 4.3.3.

RA40

We note your plans to use the NO₂ monitors at the Capitol site (AQS #22-033-0009) in Baton Rouge and the Westlake site (AQS #22-019-0008) in Lake Charles to help protect susceptible and vulnerable populations under the "RA40" national requirement. The EPA Region 6 approves that the NO₂ monitors at the Capitol and Westlake sites meet the requirements for the susceptible and vulnerable populations for NO₂ monitoring as required by 40 CFR Part 58, App. D, 4.3.4.

Ozone (O₃)

Lafayette Metropolitan Statistical Area (MSA)

On February 28, 2013, the revised county definitions for MSAs were released. *See* 75 FR 37246 – 37252 (June 28, 2010). The U.S. Census Bureau has included the revised MSA definitions in their updated population estimates for 2012. The Lafayette MSA now consists of 5 parishes: Lafayette, St. Martin, Acadia, Iberia, and Vermilion. According to the revised 2012 U.S. Census population estimates, the Lafayette MSA is approximately 474,415.

According to 40 CFR Part 58, App. D, 4.1 and Table D-2, two O₃ monitors are required in MSAs greater than 350,000 population with the most recent 3-year design value concentrations greater than or equal to 85% of any O₃ NAAQS. Eighty-five percent of the current 2008 8-hour O₃ NAAQS (75 parts per billion, ppb) is 63.75 ppb; therefore, a design value of 64 ppb or greater triggers this monitoring requirement in MSAs greater than 350,000.

Currently, LDEQ operates one O₃ monitor for the Lafayette MSA at the Lafayette site (Air Quality System, AQS #22-055-0007). For the Lafayette O₃ monitor, the 2012 and preliminary 2013 8-hour O₃ design value is at 72 ppb and 69 ppb, greater than 85% of the 8-hour O₃ National Ambient Air Quality Standards (NAAQS). Since the new population estimate for the Lafayette MSA is over 350,000 and the Lafayette site O₃ monitor is reading greater than 85% of the 8-hour O₃ NAAQS, an additional O₃ monitoring site is now required in the Lafayette MSA by the existing O₃ monitoring regulations. *See* 40 CFR Part 58, App. D, 4.1 and Table D-2.

We look forward to working with LDEQ on the second O₃ monitoring site for the Lafayette MSA for the 2014 network plan.

Sulfur Dioxide (SO₂)

Chalmette Vista (AQS #22-087-0007)

The SO₂ monitor, Pollutant of Concern (POC)-1, at the Chalmette Vista site was appropriately relabeled as a state or local air monitoring stations (SLAMS) in the network plan and EPA's national air monitoring database (AQS database). However, the SO₂ monitor, POC-2 and POC-3, at the Chalmette Vista site are still labeled as special purpose monitors (SPM). Please change the SO₂ monitor, POC-2 and POC-3, to SLAMS in AQS.

Shreveport Airport (AQS #22-015-0008)

LDEQ has informed us that the Shreveport Airport site began operation on January 1, 2013. We note that the Shreveport Airport SO₂ monitor is operational according to the EPA AQS database.

Lead (Pb)

LaPlace (AQS #22-095-0003)

The 2013 network plan identifies the LaPlace site as Neighborhood Scale instead of Middle Scale as approved in the LDEQ 2011 ANR letter. The monitoring scale was changed without notification in the 2012 network plan, and remains changed in the 2013 network plan. We request that LDEQ discuss potential network changes with EPA prior to making changes in the network plan. Any request for a system modification under 40 CFR § 58.14(c) should be submitted to EPA Region 6 for concurrence.

Particulate Matter (PM)

PM_{2.5} Data Exclusion Request

At the time the network plan was submitted, LDEQ was in the process of submitting a data exclusion request for the PM_{2.5} Federal Equivalent Method (FEM) beta-attenuation monitors (BAMs) instruments. EPA has since received the PM_{2.5} Data Exclusion Request for the continuous Federal Equivalent Method (FEM) BAMs and concluded its review. In the March 27, 2014 letter, EPA Region 6 reviewed LDEQ's 2013 PM_{2.5} Data Exclusion Request for the continuous FEM BAMs to ensure it meets the requirements of 40 CFR 58.11(e) and to determine PM_{2.5} NAAQS comparability. Each site was individually reviewed to determine whether the data will be excluded from comparison to the PM_{2.5} NAAQS and evaluated applicable requirements for the continuous PM_{2.5} air monitoring network. In order to reconcile all proposed network changes in the March 27, 2014 letter, LDEQ will need to formally submit the requested network changes. This information can be addressed in the 2014 network plan.

PM₁₀ Collocated BAMS

According to the 2013 network plan, LDEQ is operating collocated PM₁₀ continuous BAM instruments at the Lafayette USGS site (AQS #22-055-0007) for testing purposes. According to AQS, the two PM₁₀ BAMs have been operating since November 24, 2009. Please note that collocation for PM₁₀ is only required for manual methods (Federal Reference Method, FRM). Collocation is not required for PM₁₀ continuous monitoring which includes the BAMs. The operation of an additional continuous PM₁₀ BAM instrument at the Lafayette USGS site is not required to meet minimum network requirements and can be discontinued. Please confirm with EPA the discontinuance for the PM₁₀ BAM instrument. This information can be addressed in the 2014 network plan.

Site Approvals:

Near-Road Monitoring Site

We acknowledge LDEQ's work in establishing the required near-road monitoring site for the New Orleans CBSA. The New Orleans Near Road site located near the west bound lanes of Interstate 610

prior to the merge with west bound Interstate 10 near the Orleans-Jefferson Parish line meets the requirements for the near-road monitors for NO₂, carbon monoxide (CO) and PM_{2.5}. See 40 CFR Part 58, App. D, 4.3.2, 4.2.1 and 4.7.1(b)2, respectively. In addition, EPA Region 6 approves LDEQ's plans to install a meteorological tower for the following parameters at the New Orleans Near Road site: wind speed, wind direction and traffic count. Please provide the AQS ID for the New Orleans Near-Road site and the probe height for the monitors. This information will need to be addressed in the 2014 network plan.

Meteorological Equipment

The request to decommission the meteorological equipment collecting data for wind speed and wind direction at the Kenner (AQS #22-051-1001), Lake Charles Lighthouse Lane (Lighthouse) and Denham Springs sites was approved on January 22, 2014 through separate communications. According to federal requirements, meteorological measurements are only required at the photochemical assessment monitoring stations (PAMS) and National Core (NCore) multipollutant sites. See 40 CFR Part 58, App. D, Table D-6 and 40 CFR Part 58, App. D, 3(b). The Kenner, Lighthouse and Denham Springs sites are not required PAMS or NCore sites; therefore, the meteorological parameters are not required or entered in EPA's AQS database. The Kenner site is a SLAMS site but is still not required to report meteorological measurements. The Lighthouse site monitors for volatile organic compounds for LDEQ's use and is not in AQS. We understand that the Denham Springs site only monitors for wind speed and wind direction and is also not in AQS.

The discontinuance of the meteorological data for wind speed and wind direction at these sites does not compromise the data collection needed for implementation of PAMS and NCore, and the 40 CFR Part 58, App. D ambient air monitoring requirements are met. We understand that LDEQ decommissioned the meteorological equipment and Denham Springs site as of January 31, 2014. Please document this information in the 2014 annual network plan submittal.

In addition, we note that the Chalmette High School (AQS #22-087-0009) wind speed resultant (Parameter Code 61103) and wind direction resultant (Parameter Code 61104) parameters have been removed from the EPA AQS database.

General Comments

As LDEQ works to prepare its 2014 network plan, discussions are needed regarding the required monitors, station type, monitoring objectives, spatial scales and MSAs in Table A and B.



State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE

July 1, 2013

Mr. Thomas Diggs
Associate Director for Air
USEPA Region 6-6PDQ
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Dear Mr. Diggs:

As per 40 CFR, Part 58, Subpart B, attached is the 2013 Louisiana Annual Network Assessment for your review. On June 1, 2013, this plan was placed on 30-day public notice on the Louisiana Department of Environmental Quality's public website. No comments were received as of July 1, 2013.

LDEQ is currently in the process of setting up the New Orleans Near Road air monitoring site and the goal is to have it operational on January 1, 2014. The site will monitor for NO_x, CO, PM_{2.5} and MET data.

Also, as per 40 CFR 58.11(e), the Department is in the process of requesting the Region to remove PM_{2.5} BAM data from comparison to the National Ambient Air Quality Standards (NAAQS) because of inconsistent and unreliable measurements from the BAM monitor.

If you have any questions please do not hesitate to contact me at 225-219-3550 or Yasooob Zia at 225-219-3719.

Sincerely,

A handwritten signature in cursive script that reads "Paul D. Miller".

Paul D. Miller, P.E.
Administrator

Enclosure: 2013 Louisiana Annual Network Assessment

c: Ms. Maria Martinez, EPA: 6PD-Q
Ms. Kara Allen, EPA: 6PD-Q

2013 Louisiana Annual Network Assessment



**Louisiana Department of Environmental Quality
Office of Environmental Compliance
Assessment Division**

June 1, 2013

The Louisiana Department of Environmental Quality's (LDEQ) Air Field Services section has operated State and Local Ambient Monitoring Stations (SLAMS), Photochemical Assessment Monitoring Stations (PAMS), Special Purpose Monitoring Stations (SPMS), and National Core Network (NCore) Ambient Air Monitoring Station as a requirement of the Code of Federal Regulations (CFR), Title 40, Part 58. These stations measure ambient air concentrations of those pollutants for which standards have been established in 40 CFR Part 50. Data acquired from the stations are submitted into the EPA's Air Quality System (AQS) where it is judged against the National Ambient Air Quality Standards (NAAQS). Access to this information is available through EPA's website (www.epa.gov). Conformance of the network to Appendix D (Network Design Criteria) and Appendix E (Probe and Path Siting Criteria) is determined using an Annual Review of the air quality surveillance system which states are required to provide for in 40 CFR 58.10. The location for this ruling is available in Docket ID No. EPA-HQ-OAR-2004-0018 in the <http://www.regulations.gov> index. The review is also used to ensure that the network is continuing to meet the objectives of the air monitoring program. The three basic objectives of the air monitoring program are follows:

1. Provide air pollution data to general public in a timely manner. Data can be presented to the public in a number of different ways including through air quality maps, newspapers, internet sites, and as a part of weather forecasts and public advisories.
2. Support compliance with ambient air quality standards and emissions strategy development. Data from the monitors for National Ambient Air Quality Standards (NAAQS) pollutants will be used for comparing an area's air pollution levels against the NAAQS. Data of various types can be used in the development of attainment and maintenance plans. Data can also be used to track trends to determine the impact of air pollution abatement control measures on improving air quality. In monitoring locations near major air pollution sources, source-oriented monitoring data can provide insight into how well industrial sources are controlling their pollutant emissions.
3. Support for air pollution research studies such as health effects assessments.

This review has several goals:

- o Determine if the network needs any modifications to continue to meet its monitoring objective and data needs (through termination of existing stations, relocation of stations, or establishment of new stations); and
- o Investigate ways to improve the network to ensure that it provides adequate, representative, and useful air quality data.

Monitoring Plans for July 2013-June 2014

Under EPA's NCore design guidelines, the state of Louisiana is required to operate one NCore level 2 site, which is the Capitol site. The remaining sites in the state will all be PAMS, SLAMS, STN, or SPMs. Table A summarizes number and type of monitors located in each MSA population. Table B lists specific information about analytes monitored at each site and which MSA is covered by this location. Finally, Table C lists information regarding the PAMS network. The PAMS network plan exceeds the minimum monitoring requirements. Currently Capitol, Pride, Dutchtown, and Bayou Plaquemine are PAMS sites.

The collocated PM10 continuous BAM units at the Lafayette site and the collocated PM2.5 continuous BAM units at the Alexandria site are for testing purposes in order to evaluate against FRM data as well as how two of the same units compare running side by side.

Additional proposed changes to the current Network are as follows:

- NO_x- LDEQ is working to site a near-road monitor in New Orleans by January 1, 2014.
- Speciation, PM, VOC, and CO sites will remain unaltered in the 2013/2014 plan.
- SO₂ – Shreveport Airport began operation on January 1, 2013
- LDEQ is in the process of petitioning the region for exclusion of the comparison of the data from PM2.5 continuous BAM monitors to the NAAQS standards.

In the event of projected budget cuts for fiscal year 2013/2014, LDEQ and EPA will work closely to minimize the impact of the cuts and to ensure continued public health.

Table A.

MSA/CSA Population ¹	MSA	Number of Monitors Currently Required	Number of Existing Monitors	Proposed Network
1,000,000-4,000,000	<i>New Orleans</i>			
	Ozone	2	4	4
	Nitrogen Oxides	2	1	2
	Sulfur Dioxide	1	2	2
	Carbon Monoxide	0	0	1
	PM2.5 FRM	2	3	4
	PM2.5 continuous	1	4	4
	PM10	2-4	2	2
	Lead	1	1	1
350,000-1,000,000	<i>Baton Rouge</i>			
	Ozone	4	8	8
	Nitrogen Oxides	3	8	8
	Trace Level reactive Nitrogen Oxides; NOy	2	2	2
	Sulfur Dioxide	1	1	1
	Trace Level Sulfur Dioxide	1	1	1
	PM2.5 FRM	2	4	4
	PM2.5 Speciation	1	1	1
	PM2.5 continuous	1	2	2
	PM10	1-2	1	1
	PM Coarse	1	1	1
	Lead	1	2	2
	Carbon Monoxide	0	0	0
	Trace Level Carbon Monoxide	1	1	1
	PAMS	2-4	4	4

¹Metropolitan Statistical Area, July 1, 2012, United States Census Bureau

²<http://www.census.gov/popest/data/metro/totals/2012/files/CBSA-EST2012-alldata.csv>

³No monitor required based on most recent 3-year design value <85% of NAAQS

MSA/CSA Population ¹	MSA	Number of Monitors Currently Required	Number of Existing Monitors	Proposed Network
350,000-1,000,000	<i>Shreveport</i>			
	Ozone	2	2	2
	Sulfur Dioxide	1	1	1
	PM2.5 FRM	0 ²	1	1
	PM2.5 continuous	1	1	1
	PM2.5 Speciation	0	1	1
	PM10	0-1	1	1
	<i>Lafayette</i>			
	Ozone	1	1	1
	PM2.5 FRM	0 ²	1	1
50,000-350,000	PM2.5 continuous	0 ²	1	1
	PM10	1-2	1	1
	<i>Lake Charles</i>			
	Ozone	1	3	3
	Nitrogen Oxides	1	1	1
	Sulfur Dioxide	1	1	1
	PM2.5 FRM	0 ²	2	2
	PM2.5 continuous	0	1	1
	<i>Alexandria</i>			
	PM2.5 FRM	0 ²	1	1
50,000-350,000	PM2.5 continuous	0	1	1
	Ozone	0	0	0

¹Metropolitan Statistical Area, July 1, 2012, United States Census Bureau
<http://www.census.gov/popest/data/metro/totals/2012/files/CBSA-EST2012-alldata.csv>
²No monitor required based on most recent 3-year design value <85% of NAAQS

MSA/CSA Population ¹	MSA	Number of Monitors Currently Required	Number of Existing Monitors	Proposed Network
50,000-350,000	<i>Monroe</i>			
	Ozone	1	1	1
	Sulfur Dioxide	0	0	0
	PM2.5 FRM	0 ²	1	1
	PM2.5 continuous	0	1	1
50,000-350,000	<i>Houma / Thibodaux</i>			
	Ozone	1	1	1
	PM2.5 FRM	0 ²	1	1
	PM2.5 continuous	0	1	1
	<i>Other Areas</i>			
50,000-350,000	<i>Hammond – FRM</i>	1	1	1
50,000-350,000	<i>Hahnville – Ozone</i>	1	1	1
<50,000	<i>Garyville – Ozone</i>	0	1	1
<50,000	<i>Convent – Ozone</i>	1	1	1
<50,000	<i>New Roads – Ozone</i>	0	1	1

¹Metropolitan Statistical Area, July 1, 2012, United States Census Bureau
<http://www.census.gov/popest/data/metro/totals/2012/files/CBSA-EST2012-alldata.csv>
²No monitor required based on most recent 3-year design value <85% of NAAQS

Table B. *Special purpose monitors must run for 24 months before they are applicable to the NAAQS.

Site Name AQS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Alexandria 22-079-0002	8105 Tom Bowman Dr	Lat = 31.18 Long = -92.41	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	General Background	Regional	Yes	Alexandria
			PM2.5	SPMS	Continuous BAM	Continuous	General Background		Yes*	
			PM2.5	SPMS	Continuous BAM	Continuous	General Background		Yes*	
Baker LSP 22-033-0014	1400 West Irene Rd	Lat = 30.59 Long = -91.25	Lead	SLAMS	Gravimetric	Every 6 th day	Source Oriented	Neighbor -hood	Yes	Baton Rouge
			PM2.5	SLAMS NCORE	Sequential FRM	24 hrs every day	High Pop. Density		Yes	
Capitol 22-033-0009	1061-A Leesville Ave.	Lat = 30.46 Long = -91.18	PM2.5	SLAMS	Sequential FRM (Collocated)	24 hrs every 12 th day	High Pop. Density	Neighbor -hood	Yes	Baton Rouge
			PM2.5	SLAMS NCORE	Continuous BAM	Continuous	High Pop. Density		Yes*	
			PM10	SLAMS	Continuous BAM	Continuous	High Pop. Density		Yes	
			PM2.5	STN NCORE	Chemical Speciation	24 hrs every 3 rd day	High Pop. Density		No	
			SO ₂ Trace- level	SLAMS NCORE	U.V. Fluorescence	Continuous	High Pop. Density		Yes	
			Ozone	SLAMS NCORE	U.V. Absorption	Continuous	High Pop. Density		Yes	
			CO Trace- level	PAMS NCORE	Nondispersive Infrared	Continuous	High Pop. Density		No	

*LDEQ is in the process of petitioning to the region for exclusion of PM2.5 Continuous BAM.

Table B. (cont.)

Site Name AQS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Capitol (cont)	1061-A Leesville Ave.	Lat = 30.46 Long = -91.18	NOx	SLAMS NCORE	Chemilumin- escence	Continuous	High Pop. Density RA40	Neighbor -hood	Yes	Baton Rouge
			NOy Trace- level	PAMS NCORE	Chemilumin- escence	Continuous	High Pop. Density	No		
			VOC	PAMS SLAMS	Canisters; Trigger Canisters	8 3-hr samples daily during ozone season and every 6 th day otherwise, also 24 hrs every 6 th day; 25 min when triggered	High Pop. Density	No		
LSU 22-033-0003	East End Aster Lane	Lat = 30.42 Long = -91.18	Lead	SLAMS NCORE	Gravimetric	Every 6 th day	High Pop. Density	Middle	Yes	Baton Rouge
			PM Coarse	SLAMS NCORE	Continuous BAM	Continuous	High Pop. Density		No	
			NOx	SLAMS	Chemilumin- escence	Continuous	High Concentration		Yes	
			Ozone	SLAMS	U.V. Absorption	Continuous	High Concentration		Yes	
			VOC	SPMS	Trigger Canisters	25 min when triggered	High Concentration		No	

Table B. (cont.)

Site Name AQS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Bayou Plaquemine 22-047-0009	65180 Bellevue Rd.	Lat = 30.22 Long = -91.32	Ozone	PAMS SLAMS	U.V. Absorption	Continuous	High Concentration	Neighbor- hood	Yes	Baton Rouge
			NOx	PAMS SLAMS	Chemilumin- escence	Continuous	High Pop. Density		Yes	
			PM2.5	SPMS	Sequential FRM	24 hrs every 3 rd day	Population Oriented		Yes	
			NOy Trace- level	PAMS SLAMS	Chemilumin- escence	Continuous	High Pop. Density		No	
			VOC	PAMS SLAMS	Canisters; Trigger Canisters	4 3-hr samples daily during ozone season and 8 3-hr samples every 6 th day otherwise; also 24 hrs every 6 th day; 25 min when triggered	Population Oriented		No	
Carlyss 22-019-0002	Hwy 28 & Hwy 108	Lat = 30.14 Long = -93.37	Ozone	SLAMS	U.V. Absorption	Continuous	General Background	Neighbor- hood	Yes	Lake Charles
Carville 22-047-0012	Hwy 141	Lat = 30.22 Long = -91.13	Ozone	SLAMS	U.V. Absorption	Continuous	General Background	Regional	Yes	Baton Rouge
			NOx	SPMS	Chemilumin- escence	Continuous	Source Oriented	Neighbor- hood	Yes	
			VOC	SPMS	Trigger Canisters	25 min when triggered	Source Oriented	Neighbor- hood	No	

Table B. (cont.)

Site Name AQIS ID #	Address/ Location	Latitude/ Longitude Coordinates		Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
		Lat =	Long =								
Convent 22-093-0002	St. James Courthouse Hwy 44 @ Canatella	Lat = 29.99 Long = -90.82		Ozone	SLAMS	U.V. Absorption	Continuous	General Background	Neighor- hood	Yes	St James
				Ozone	SLAMS	U.V. Absorption	Continuous	High	Urban	Yes	Shreveport
Dutchtown 22-005-0004	11153 Kling Rd.	Lat = 30.2383 Long = -90.97		Ozone	PAMS SLAMS	U.V. Absorption	Continuous	General Background	Neighor- hood	Yes	Baton Rouge
				NOx	PAMS SLAMS	Chemilumin- escence	Continuous	General Background		Yes	
							4 3-hr cans every 3 rd day ozone season and 8 3-hr cans every 6 th day otherwise 25 min when triggered	Population Oriented		No	
French Settlement 22-063-0002	16627 Perrilloux Ln @ Hwy 16	Lat = 30.32 Long = -90.81		NOx	SLAMS	Chemilumin- escence	Continuous	High Concentration General Background	Neighor- hood	Yes	Baton Rouge
				Ozone	SPMS	U.V. Absorption	Continuous	High Concentration General Background		Yes	

Table B. (cont.)

Site Name AQIS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
French Settlement (cont)	16627 Perrilloux Ln @ Hwy 16	Lat = 30.32 Long = -90.81	PM2.5	SPMS	Continuous TEOM	Continuous	General Background	Neighbor- hood	No	Baton Rouge
			VOC	SPMS	Canisters; Trigger Canisters	25 min when triggered	Population Oriented		No	
Garyville 22-095-0002	E. Azaela St.	Lat = 30.06 Long = -90.62	Ozone	SLAMS	U.V. Absorption	Continuous	General Background	Regional	Yes	St John the Baptist
Geismar 22-047-0005	Hwy 75	Lat = 30.24 Long = -91.06	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Pop. Density	Neighbor- hood	Yes	Baton Rouge
Hammond 22-105-0001	21549 Old Covington Hwy	Lat = 30.50 Long = -90.38	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Pop. Density	Neighbor- hood	Yes	New Orleans
Hahnville 22-089-0003	1 River Park Drive	Lat = 29.98 Long = -90.36	Ozone	SLAMS	Sequential FRM (Collocated)	24 hrs every 12 th day	High Pop. Density	Neighbor- hood	Yes	St Charles
Houma 22-109-0001	4047 West Park Ave. at Hwy 24	Lat = 29.68 Long = -90.78	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Pop. Density	Neighbor- hood	Yes	New Orleans
Kenner 22-051-1001	100 West Temple Pl.	Lat = 30.04 Long = -90.27	NOx	SLAMS	Chemilumin- escence	Continuous	High Pop. Density Area-wide	Urban	Yes	New Orleans
			Ozone	SLAMS	U.V. Absorption	Continuous	High Concentration		Yes	
			PM2.5	SLAMS	Sequential FRM	24 hrs everyday	High Pop. Density		Yes	
			PM2.5	SPMS	Continuous TEOM	Continuous	High Pop. Density		No	

Table B. (cont.)

Site Name AQS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Lafayette USGS 22-055-0007	700 Cajundome	Lat = 30.2383 Long = -92.04	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Pop. Density	Neigh- bor- hood	Yes	Lafayette
			PM2.5	SPMS	Continuous BAM	Continuous	High Pop. Density		Yes*	
			PM10	SLAMS	Continuous BAM	Continuous	High Pop. Density		Yes	
			PM10	SPMS	Continuous BAM	Continuous	High Pop. Density		Yes	
			Ozone	SLAMS	U.V. Absorption	Continuous	High Pop. Density		Yes	
Lake Charles McNeese University 22-019-0010	Common & E. McNeese	Lat = 30.18 Long = -93.21	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Pop. Density	Neigh- bor- hood	Yes	Lake Charles
			Lead	SLAMS	Gravimetric	Every 6 th day	Source Oriented	Neigh- bor- hood	Yes	New Orleans
LaPlace 22-095-0003	115 Garden Grove	Lat = 30.04 Long = -90.46678	Lead	SLAMS	Gravimetric (Collocated)	Every 6 th day	Source Oriented	Neigh- bor- hood	Yes	New Orleans
			Ozone	SLAMS	U.V. Absorption	Continuous	Source Oriented	Neigh- bor- hood	Yes	New Orleans
Madisonville 22-103-0002	1421 Hwy 22 West	Lat = 30.43 Long = -90.20	PM2.5	SPMS	Continuous TEOM	Continuous	Source Oriented	Neigh- bor- hood	No	New Orleans
			PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Pop. Density	Neigh- bor- hood	Yes	New Orleans
Marrero 22-051-2001	Patriot & Allo St.	Lat = 29.88 Long = -90.09	Ozone	SPMS	U.V. Adsorption	Continuous	General Background	Urban	Yes	New Orleans
			SO2	SPMS	U.V. Fluorescence	Continuous	General Background	Urban	Yes	New Orleans
Meraux 22-087-0004	4101 Mistrot Drive	Lat = 29.94 Long = -89.92	H2S	SPMS	U.V. Fluorescence	Continuous	General Background	Urban	No	New Orleans

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Table B. (cont.)

Site Name AQS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Meraux (cont.)	4101 Mistrot Drive	Lat = 29.94 Long = -89.92	VOC	SPMS	Trigger Canisters	25 min when triggered	General Background	Urban	No	New Orleans
			PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	General Background	Neighbor- hood	Yes	Monroe
Monroe 22-073-0004	5296 Southwest Rd.	Lat = 32.51 Long = -92.05	PM2.5	SPMS	Continuous BAM	Continuous	General Background	Neighbor- hood	Yes*	Monroe
			Ozone	SLAMS	U.V. Absorption	Continuous	General Background			
New Orleans City Park 22-071-0012	Florida & Orleans Ave.	Lat = 29.99 Long = -90.10	PM2.5	SPMS	Continuous TEOM	Continuous	High Pop. Density	Neighbor- hood	No	New Orleans
			PM10	SLAMS	Continuous BAM	Continuous	High Pop. Density			
New Orleans Near-Road	I610 at West End Blvd.	Lat = 29.99 Long = -90.12	Ozone	SLAMS	U.V. Absorption	Continuous	High Pop. Density	Neighbor- hood	Yes	New Orleans
			NOx	SLAMS	Chemilumin- escence	Continuous	High Concentration			
New Orleans Near-Road	Hwy 415	Lat = 30.68 Long = -91.37	CO	SLAMS	Gas Filter Correlation	Continuous	High Concentration	Micro- scale	Yes	New Orleans
			PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Concentration			
New Roads 22-077-0001	Hwy 415	Lat = 30.68 Long = -91.37	Ozone	SLAMS	U.V. Absorption	Continuous	General Background	Neighbor- hood	Yes	Point Coupee
Port Allen 22-121-0001	3758 Hwy 1	Lat = 30.50 Long = -91.21	PM2.5	SLAMS	Sequential FRM	24 hrs every day	High Concentration	Neighbor- hood	Yes	Baton Rouge
			PM2.5	SPMS	Continuous BAM	Continuous	High Concentration			
Port Allen 22-121-0001	3758 Hwy 1	Lat = 30.50 Long = -91.21	NOx	SLAMS	Chemilumin- escence	Continuous	High Concentration	Neighbor- hood	Yes*	Baton Rouge
			Ozone	SLAMS	U.V. Absorption	Continuous	High Concentration			

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Table B. (cont.)

Site Name AQIS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Port Allen (cont.)	3758 Hwy 1	Lat = 30.50 Long = -91.21	SO2	SLAMS	U.V. Fluorescence	Continuous	High Concentration	Neighbor -hood	Yes	Baton Rouge
			VOC	SPMS	Trigger Canisters	25 min when triggered	Population Oriented		No	
Pride 22-033-0013	11245 Port Hudson Rd.	Lat = 30.70 Long = -91.05	NOx	PAMS SLAMS	Chemilumin- escence	Continuous	High Concentration	Neighbor -hood	Yes	Baton Rouge
			Ozone	PAMS SLAMS	U.V. Absorption	Continuous	High Concentration		Yes	
			VOC	PAMS SLAMS	Canister; Trigger Canisters	4 3-hr samples every 3 rd day ozone season and 8 3-hr samples every 6 th day otherwise, also 24 hrs every 6 th day; 25 min when triggered	Population Oriented		No	
Shreveport Airport 22-015-0008	1425 Airport Dr.	Lat = 32.53 Long = -93.75	Ozone	SLAMS	U.V. Absorption	Continuous	High Pop. Density	Neighbor -hood	Yes	Shreveport
			PM2.5	SPMS	Continuous TEOM	Continuous	General Background		No	
			PM2.5	SPMS	Chemical Speciation	24 hrs every 6 th day	General Background		No	
			PM10	SLAMS	Continuous BAM	Continuous	High Pop. Density		Yes	
			SO2	SLAMS	U.V. Fluorescence	Continuous	High Pop. Density		Yes	

Table B. (cont.)

Site Name AQIS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Shreveport Calumet 22-017-0008	Midway St.	Lat = 32.47 Long = -93.79	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	High Pop. Density	Neighbor -hood	Yes	Shreveport
			PM2.5	SLAMS	Sequential FRM (Collocated)	24 hrs every 12 th day	High Pop. Density		Yes	
Thibodaux 22-057-0004	194 Thorough- bred Park	Lat = 29.76 Long = -90.77	Ozone	SLAMS	U.V. Absorption	Continuous	General Background	Neighbor -hood	Yes	Houma
			PM2.5	SPMS	Continuous TEOM	Continuous	General Background		No	
Vinton 22-019-0009	2284 Paul Bellow Rd.	Lat = 30.2383 Long = -93.58	PM2.5	SLAMS	Sequential FRM	24 hrs every 3 rd day	Regional Transport	Neighbor -hood	Yes	Lake Charles
			Ozone	SPMS	U.V. Absorption	Continuous	General Background		Yes	
Westlake 22-019-0008	2646 John Stine Rd.	Lat = 30.26 Long = -93.28	Ozone	SLAMS	U.V. Absorption	Continuous	High Pop. Density	Neighbor -hood	Yes	Lake Charles
			SO2	SLAMS	U.V. Fluorescence	Continuous	High Pop. Density		Yes	
			NOx	SLAMS RA40	Chemilumin- escence	Continuous	High Pop. Density RA40		Yes	
			PM2.5	SPMS	Continuous TEOM	Continuous	High Pop. Density		No	
			VOC	SPMS	Canisters; Trigger Canisters	24 hrs every 6 th day; 25 min when triggered	Population Oriented		No	

Table B. (cont.)

Special Purpose Monitors										
Site Name AQS ID #	Address/ Location	Latitude/ Longitude Coordinates	Pollutant Measured	Station Type	Sampling Method	Operating Schedule	Monitoring Objective	Spatial Scale	NAAQS Comparable	MSA Represented
Chalmette Vista 22-087-0007	24 E. Chalmette Circle	Lat = 29.94 Long = -89.98	PM2.5	SPMS	Sequential FRM	24 hrs every 6 th day	Source Oriented	Neighbor -hood	Yes	New Orleans
			PM2.5	SPMS	Continuous BAM	Continuous	Source Oriented		Yes*	
			PM10	SLAMS	Continuous BAM	Continuous	Source Oriented		Yes	
Lake Charles Lighthouse Lane SPECIAL3	Lighthouse Lane & Bayou D'Inde Pass	Lat = 30.22 Long = -93.31	SO ₂	SLAMS	U. V. Fluorescence	Continuous	Source Oriented	Neighbor -hood	Yes	Lake Charles
			H ₂ S	SPMS	U. V. Fluorescence	Continuous	Source Oriented		No	
			VOC	SPMS	Trigger Canisters	25 min when triggered	Source Oriented		No	
Southern University 22-033-2002	Isabel Herson St.	Lat = 30.53 Long = -91.19	VOC	SPMS	Trigger Canisters	25 min when triggered	Population Oriented	Neighbor -hood	No	Baton Rouge

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Table C. PAMS Network Plan

Site Name	Site Type	Pollutant	Sampling Frequency	Sampling Period		
Capitol 22-033-0009	2	Speciated VOC	Eight 3-hr canisters daily (0000, 0300, 0600, 0900, 1200, 1500, 1800, 2100 LST)	June-August		
		TNMOC	Hourly	January-December		
		NO, NO ₂ , NO _x	Hourly	January-December		
		NO _y	Hourly	January-December		
		CO (ppb level)	Hourly	January-December		
		Ozone	Hourly	January-December		
		SO ₂ (low level)	Hourly	January-December		
		Wind Speed*	Hourly	January-December		
		Wind Direction*	Hourly	January-December		
		Temperature	Hourly	January-December		
		Relative Humidity	Hourly	January-December		
		UV Radiation	Hourly	January-December		
		Barometric Pres.	Hourly	January-December		
		Solar Radiation	Hourly	January-December		
		Precipitation	Hourly	January-December		
		PM10	Hourly	January-December		
		Mixing Height	Hourly	January-December		
Lead	Every 6 Days	January-December				
Site Name	Site Type	Pollutant	Sampling Frequency	Sampling Period		
Bayou Plaquemine 22-047-0009	3/1	Speciated VOC	Four 3-hr canisters daily (i.e. 0300-0600, 0600-0900, 1500-1800, 1800-2100 LST)	June-August		
		TNMOC	Hourly	January-December		
		NO _y	Hourly	January-December		
		Ozone	Hourly	January-December		
		Wind Speed*	Hourly	January-December		
		Wind Direction*	Hourly	January-December		
		Temperature	Hourly	January-December		
		Relative Humidity	Hourly	January-December		
		Barometric Pres.	Hourly	January-December		
		Solar Radiation	Hourly	January-December		
		Site Name	Site Type	Pollutant	Sampling Frequency	Sampling Period
		Bayou Plaquemine	3/1	NO, NO ₂ , NO _x	Hourly	January-December

(cont.)					
Pride 22-033-0013	1/3	Speciated VOC	Four 3-hr cans every 3 days (i.e. 0300-0600, 0600-0900, 1500-1800, 1800-2100 LST)	Hourly	June-August
		TNMOC		Hourly	January-December
		NO, NO ₂ , NO _x		Hourly	January-December
		Ozone		Hourly	January-December
		Wind Speed*		Hourly	January-December
		Wind Direction*		Hourly	January-December
		Temperature		Hourly	January-December
		Relative Humidity		Hourly	January-December
		Barometric Pres.		Hourly	January-December
		Solar Radiation		Hourly	January-December
Dutchtown 22-005-0004	1/3	Speciated VOC	Four 3-hr cans every 3 days (i.e. 0300-0600, 0600-0900, 1500-1800, 1800-2100 LST)	Hourly	June-August
		NO, NO ₂ , NO _x		Hourly	January-December
		Ozone		Hourly	January-December
		Wind Speed*		Hourly	January-December
		Wind Direction*		Hourly	January-December

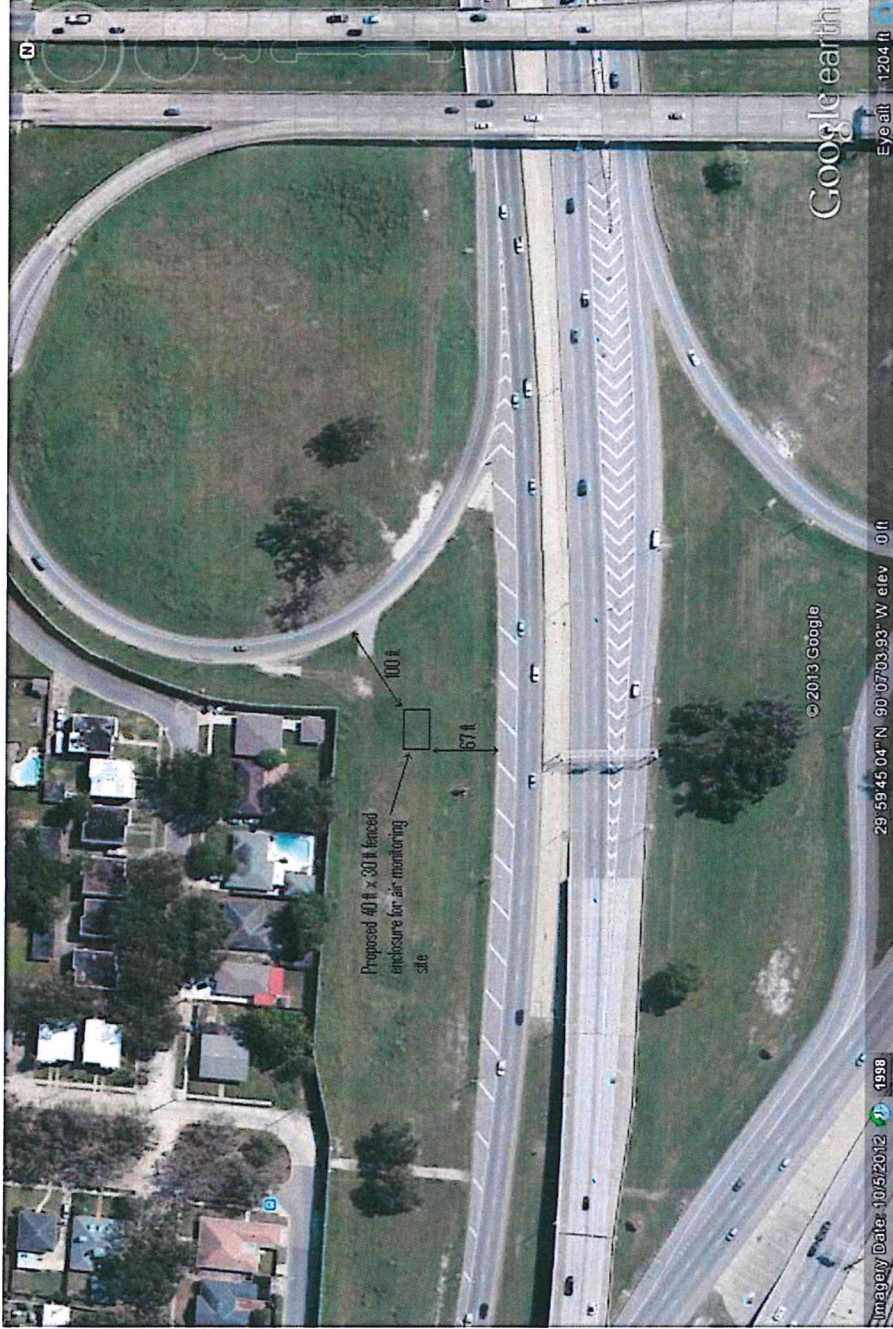
*Wind speed and direction reported to AQS as resultant wind speed and resultant wind direction
 Site pictures can be found at <http://www.deq.louisiana.gov/portal/tabid/2466/Default.aspx> by clicking on the desired location on the site map.

Near-Road Site Documentation

The new monitoring requirements recently imposed on state, local and tribal air pollution control agencies for the revised standard for nitrogen dioxide (NO₂) require the establishment of a near-roadway monitoring network to ensure the collection of data necessary for determining compliance with the standards as well as to promote human health and a cleaner environment. Concentrations of emissions near major roads have been measured to be approximately 30% to 100% higher than those measured away from them. In the NO₂ NAAQS, EPA has required changes to NO₂ monitoring that will focus monitoring resources to capture short-term NO₂ concentrations near heavily trafficked roads, to assess area-wide (or community-wide) NO₂ concentrations, and to assess NO₂ concentrations in low-income or minority at-risk communities. The state, local and tribal air monitoring agencies are required by these regulations to install near-road NO₂ monitoring stations at locations where peak hourly NO₂ concentrations are expected to occur within the near-road environment in larger urban areas. The air pollution control agencies are required to consider traffic volumes, fleet mix, roadway design, traffic congestion patterns, local terrain or topography, and meteorology in determining where required near-road NO₂ monitors should be placed. There are other factors that impact the selection of a near-road monitoring station including satisfying siting criteria, site logistics (e.g., gaining access to property and safety) and population exposure. The establishment of this network will require the state, local and tribal air pollution control agencies to purchase new equipment and work closely with the local DOT agencies to ensure the unique siting criteria are met.

Current EPA plans require the agencies to establish a subset of the required monitoring stations in urban areas of 1 million population or greater. The first near-road monitoring station in the State of Louisiana is to be installed and operating in the New Orleans area by January 1, 2014. DEQ followed the guidelines published by the EPA in the *Near-road NO₂ Monitoring Assistance Document* (<http://www.epa.gov/ttn/amtic/files/nearroad/NearRoadTAD.pdf>) published in June 2012 in choosing a suitable location for this monitoring site.

The site chosen for the near-road monitor is near the Louisiana Department of Transportation and Development (DOTD) traffic count station ranked 23rd overall in traffic count in Orleans Parish and also quite near the traffic count station ranked 8th in traffic count. It is near the west bound lanes of I-610 prior to the merge with west bound I-10 near the Orleans – Jefferson Parish line. A Google Earth photo of the proposed site is shown below:



LDEQ used the criteria as described in the Technical Assistance document to choose the site with the highest possible traffic count that was accessible for the near-road monitor. Our DOTD requires us to be at least 50 ft (15.2 meters) from all traffic lanes. The probe will be located approximately 80 feet (24.5 meters) from the nearest traffic lanes. Attached is a table showing reasons for the sites with higher traffic counts not being selected:

STATION	DISTRICT	PARISH_CODE	PARISH_NAME	CONTROL_SECTION	LOGMILE	ROUTE	MILEPOINT	YEAR1	ADTH	LATITUDE	LONGITUDE	FE-AADT	Location - Comments
221611	2	36	Orleans	283-08	2.634	US0090-Z	11.696	2011	155789	29.93774	-90.058	295999	Top of Crescent City Connection Bridge - Inaccessible
223591	2	36	Orleans	450-90	3.3	I-0010	234.52	2010	126555	29.95877	-90.09585	240455	I-10 at Broad - Insufficient area for monitoring building
222881	2	36	Orleans	450-90	2.899	I-0010	234.119	2010	124058	29.96253	-90.10106	235710	I-10 at Jeff Davis Parkway - Insufficient area for monitoring building
222511	2	36	Orleans	283-08	0.823	US0090-Z	13.507	2010	123040	29.94897	-90.08437	233776	US-90 at Superdome - Elevated
220201	2	36	Orleans	450-90	9.448	I-0010	239.34	2010	122656	29.99805	-90.04372	233046	I-10 at Alomaster- Insufficient area for monitoring building, RR blocks access
220191	2	36	Orleans	450-90	2.01	I-0010	240.668	2010	116249	30.00581	-90.02156	220873	I-10 at Navigation Canal - Insufficient area for monitoring building
223091	2	36	Orleans	450-90	0.94	I-0010	233.23	2010	110865	29.97278	-90.11072	210644	I-10 at Airline Highway - Elevated, insufficient area
223191	2	36	Orleans	450-90	4.763	I-0010	232.16	2010	110256	29.98754	-90.1162	209486	I-10 at Metairie Cemetery - Private Cemetery but near chosen site
222531	2	36	Orleans	450-90	4.52	US0090-Z	235.983	2010	109923	29.9604	-90.07654	208854	I-10 near Canal St - Elevated
221371	2	36	Orleans	283-08	9.81		9.81	2010	100391	29.92658	-90.03964	190743	West Bank US-90 at Terry Pkwy - Elevated
223051	2	36	Orleans	450-90	5.574	I-0010	236.794	2010	100329	29.96983	-90.06812	190625	I-10 at Esplanade - Elevated
222521	2	36	Orleans	006-03	4.339	US0090	257.479	2010	95844	29.95627	-90.08012	182104	I-10 at Tulane Ave. - Elevated
220080	2	36	Orleans	450-90	10.65	I-0010	241.87	2010	93894	30.01645	-90.01334	178399	I-10 north of Chef Menteur - Insufficient space
220060	2	36	Orleans	450-90	12.04	I-0010	243.26	2010	92387	30.02785	-90.00022	175535	I-10 near Rickett Drive - Insufficient space, limited accessibility
220181	2	36	Orleans	450-90	9.722	I-0010	240.942	2010	91372	30.00687	-90.01708	173607	I-10 near Old Gentilly Road - Insufficient space, limited accessibility
223061	2	36	Orleans	450-90	6.19	I-0010	237.41	2010	83978	29.97696	-90.0617	159558	I-10 near St. Anthony - Elevated
223121	2	36	Orleans	450-34	3.85	I-0610	3.85	2010	75395	29.99102	-90.06201	143251	I-610 at Pauget Street - Elevated
223101	2	36	Orleans	450-34	2.49	I-0610	2.49	2010	70891	29.99278	-90.08417	134683	I-610 east of City Park - Insufficient space, vegetation, Limited accessibility
223131	2	36	Orleans	450-34	4.26	I-0610	4.26	2010	70876	29.99145	-90.05519	134684	I-610 at Spain Street - Elevated
222501	2	36	Orleans	006-03	3.52	US0090	256.66	2010	70054	29.94663	-90.0881	133103	S. Claiborne at MLK Blvd - Inaccessible, Similar count
220211	2	36	Orleans	450-90	7.32	I-0010	238.54	2010	69323	29.98889	-90.0519	131714	I-10 at Music St. - Elevated, inaccessible RR track
219530	2	36	Orleans	450-90	15.82	I-0010	247.04	2010	69178	30.05546	-89.94624	131438	I-10 near Kingswood Drive - Insufficient space
223201	2	36	Orleans	450-34	0.74	I-0610	0.74	2010	68015	29.99548	-90.11314	129229	Closest to near-road site

Please note that the site is quite near the eighth highest traffic count site as well which is just south of the pictured area on I-10 and away from the elevated portion of the highway.

The site will initially include equipment to monitor nitrogen oxides (NO/NO₂/NO_x) by chemiluminescence, carbon monoxide (CO) by Gas Filter Correlation, and PM_{2.5} utilizing sequential FRM running 24 hours every three days. There will be a meteorological tower with sensors to measure wind speed and direction, and the sensor to perform traffic counts, utilizing the Wavetronix Radar Vehicle Sensing Device. The building will be able to house other monitoring equipment as required in the future.