State of Florida

Public Service Commission

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-M-E-M-O-R-A-N-D-U-M-

DATE: August 28, 2013

TO: Ann Cole, Commission Clerk, Office of Commission Clerk

FROM: Charles W. Murphy, Senior Attorney, Office of the General Counsel CM

RE: Docket 130007

Please add the attached discovery responses to the Commission's Docket file in Docket No. 130007.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

In a format similar to Exhibit MD-2, please provide the operational characteristics of the combustion turbine units that FPL is proposing to retire.

A.

See attached documents for each of the sites/technologies being replaced.

OPERATIONAL CHARACTERISTICS OF A GAS TURBINE AT FPL'S FORT MYERS PLANT

Generation Technology – (GE 7B units)

- Gas Turbine for peaking and emergency applications

Plant Peak Capacity/ GT:

	Natural Gas	Oil(ULSD)
Summer (95°F / 50% RH)	N/A	54.0 MW
Winter (35°F / 60% RH)	N/A	59.5 MW

Unit Performance Data:

Base Average Net Operating Heat Rate (Natural Gas) @ 75°F / 60% RH	N/A
Base Average Net Operating Heat Rate (Oil: ULSD) @ 75°F / 60% RH	14,000 Btu/kWh (HHV)
Time to reach 50% load (Nat. Gas)	N/A
Time to reach 50% load (Oil: ULSD)	5 minutes

Fuel Type and Base Load Typical Usage @ 75°F:

Fuel	Natural Gas
Natural Gas Consumption	N/A
Fuel	Light Oil (ULSD)
Light Oil Consumption	3038 gal/hr

Base Load Air Emissions @ 75°F:	Natural Gas	Oil(ULSD)
NO_x (@ 15% O_2)	N/A	158 ppmvd

Water Balance:

- Water- N/A

Linear Facilities:

- PFM - Light oil delivered to site by truck facilities

OPERATIONAL CHARACTERISTICS OF A GAS TURBINE AT FPL'S LAUDERDALE PLANT

Generation Technology – (Pratt & Whitney FT4)

- Gas Turbine for peaking and emergency applications

Plant Peak Capacity/ GT:

	Natural Gas	Oil(Jet A)
Summer (95°F / 50% RH)	35 MW	35 MW
Winter (40°F / 60% RH)	38 MW	38 MW

Unit Performance Data:

- Base Average Net Operating Heat Rate (Natural Gas) @ 75°F / 60% RH — 16000 Btu/kWh (HHV)
- Base Average Net Operating Heat Rate (Oil: Jet A) @ 75°F / 60% RH — 16000 Btu/kWh (HHV)
- Time to reach 50% load (Nat. Gas) — 7 minutes
- Time to reach 50% load (Oil: Jet A) — 8 minutes

Fuel Type and Base Load Typical Usage @ 75°F:

- Fuel — Natural Gas
- Natural Gas Consumption — 400000 scf/hr

- Fuel — Light Oil (ULSD)
- Light Oil Consumption — 3234 gal/hr

Base Load Air Emissions @ 75°F:	Natural Gas	Oil(ULSD)
NO_x (@ 15% O_2)	92 ppmvd	169 ppmvd

Water Balance:

- None

Linear Facilities:

- PFL – Light oil delivered to site via pipeline

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

In a format similar to Exhibit JEE-5 (column 1), please provide the fixed and variable annual total revenue requirements in 2013 dollars for each plan identified by witness Enjamio.

A.

Please see attached table 20-1.

Table 20-1

Year	Combustion Technology Change Plan		Hybrid Plan		Retire Plan	
	Fixed Revenue Requirements ($millions, Nominal $)	Variable Revenue Requirements ($millions, Nominal $)	Fixed Revenue Requirements ($millions, Nominal $)	Variable Revenue Requirements ($millions, Nominal $)	Fixed Revenue Requirements ($millions, Nominal $)	Variable Revenue Requirements ($millions, Nominal $)
2013	0	2,630	0	2,630	0	2,630
2014	7	3,078	4	3,078	0	3,078
2015	37	3,298	23	3,298	0	3,298
2016	248	3,528	232	3,531	156	3,536
2017	548	3,709	533	3,709	465	3,703
2018	636	4,278	626	4,278	586	4,258
2019	636	4,654	628	4,654	688	4,607
2020	766	5,102	746	5,103	1,017	4,997
2021	808	5,417	793	5,418	1,147	5,285
2022	801	5,435	790	5,435	1,149	5,313
2023	791	5,833	783	5,833	1,148	5,718
2024	789	6,127	780	6,127	1,125	6,003
2025	965	6,489	959	6,489	1,130	6,425
2026	1,137	6,909	1,135	6,910	1,241	6,864
2027	1,345	7,311	1,348	7,311	1,480	7,272
2028	1,565	7,652	1,565	7,652	1,674	7,627
2029	1,696	8,120	1,700	8,120	1,810	8,103
2030	1,835	8,633	1,847	8,633	1,955	8,623
2031	1,963	9,159	1,978	9,159	2,086	9,153
2032	2,202	9,977	2,219	9,977	2,348	9,973
2033	2,616	11,167	2,639	11,167	2,789	11,167
2034	2,790	11,952	2,820	11,952	2,950	11,932
2035	2,876	12,733	2,976	12,733	3,057	12,707
2036	3,259	14,140	3,320	14,140	3,435	14,117
2037	3,429	15,049	3,482	15,049	3,588	15,037
2038	3,545	16,056	3,596	16,056	3,647	16,047
2039	3,742	17,100	3,816	17,100	3,853	17,103
2040	3,902	18,034	3,969	18,034	4,008	18,045
2041	4,110	19,257	4,163	19,257	4,186	19,270
2042	4,310	20,584	4,361	20,584	4,383	20,598
2043	4,622	22,414	4,682	22,414	4,708	22,430
2044	4,900	24,051	4,955	24,051	4,965	24,088
2045	5,080	25,667	5,134	25,667	5,152	25,695
2046	5,075	27,234	5,136	27,234	5,186	27,261
2047	5,112	28,983	5,184	28,983	5,222	29,007

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

In a format similar to Exhibit JEE-5 (column 1), please provide the fixed and variable annual total revenue requirements (in nominal dollars) assuming a plan in which FPL takes no action with respect to the new 1-hour NO_2 standard.

A.

Please note that a "no action" plan is not viable. As explained in the testimony of FPL witness LaBauve, FPL's older-generation peaking gas turbines at the Lauderdale, Port Everglades, and Ft Myers plants are subject to EPA's newly revised National Ambient Air Quality Standard ("NAAQS") for Nitrogen Dioxide ("N02"), which implemented a new 1-hour standard. FPL has information showing that these facilities will cause off-site impacts in excess of the new standard. FPL does not have the discretion of taking no action in this situation. Please see the June 3, 2013 letter from FPL to DEP that is attached as Exhibit RRL-4 to Mr. LaBauve's testimony.

Notwithstanding that a "no action" plan is not legally permissible; FPL is providing the requested information in the attached table.

Table 21-1

No Action Plan

Year	Fixed Revenue Requirements ($millions, Nominal $)	Variable Revenue Requirements ($millions, Nominal $)
2013	0	2,630
2014	0	3,078
2015	0	3,298
2016	141	3,536
2017	423	3,711
2018	522	4,280
2019	531	4,654
2020	638	5,104
2021	689	5,421
2022	696	5,435
2023	698	5,833
2024	697	6,128
2025	969	6,489
2026	1,149	6,910
2027	1,360	7,311
2028	1,573	7,652
2029	1,727	8,120
2030	1,872	8,633
2031	2,004	9,159
2032	2,241	9,977
2033	2,659	11,167
2034	2,838	11,952
2035	3,005	12,733
2036	3,366	14,140
2037	3,532	15,049
2038	3,632	16,056
2039	3,850	17,100
2040	4,000	18,034
2041	4,187	19,257
2042	4,379	20,584
2043	4,705	22,414
2044	4,969	24,051
2045	5,152	25,667
2046	5,167	27,234
2047	5,240	28,983

Notes:

This plan does not meet the new 1-hour NO2 standard and therefore is not viable.

Assumptions are consistent with those used in FPL's Ten Year Power Plant Site Plan 2013-2022.

The GTs at PFL and PPE have an end of life in 2025, and are retired from service and replaced with 5 new CTs at that time.

The PFM GTs have an end of life in 2035 and are retired from service and replaced with 3 new CTs at that time.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

In a format similar to Exhibit JEE-5 (column 1), please provide the fixed and variable annual total revenue requirements (in 2013 dollars) assuming a plan in which FPL takes no action with respect to the new 1-hour NO_2 standard.

A.

Please refer to the response to Interrogatory 21. Although a viable no-action plan is not possible, the requested information is provided in the attached table.

Table 22-1

No Action Plan

Year	Fixed Revenue Requirements ($millions, 2013 $)	Variable Revenue Requirements ($millions, 2013 $)
2013	0	2,630
2014	0	2,865
2015	0	2,857
2016	114	2,850
2017	318	2,784
2018	364	2,988
2019	345	3,024
2020	386	3,086
2021	388	3,051
2022	364	2,847
2023	340	2,843
2024	316	2,780
2025	409	2,740
2026	451	2,715
2027	497	2,674
2028	535	2,604
2029	547	2,572
2030	552	2,545
2031	550	2,513
2032	572	2,547
2033	632	2,653
2034	628	2,643
2035	619	2,620
2036	645	2,708
2037	630	2,683
2038	603	2,664
2039	594	2,640
2040	575	2,591
2041	560	2,575
2042	545	2,562
2043	545	2,596
2044	536	2,593
2045	517	2,575
2046	482	2,543
2047	455	2,518

Notes:

This plan does not meet the new 1-hour NO2 standard and therefore is not viable.

Assumptions are consistent with those used in FPL's Ten Year Power Plant Site Plan 2013-2022.

The GTs at PFL and PPE have an end of life in 2025, and are retired from service and replaced with 5 new CTs at that time.

The PFM GTs have an end of life in 2035 and are retired from service and replaced with 3 new CTs at that time.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 23 and 24, please refer to the FPL witness Domenech's testimony

On page 3, the witness discusses "Target NOx" and "Baseline NOx" at three FPL sites. Please complete the table below summarizing the "Target NOx" and "Baseline NOx" at the three FPL sites.

Site	Target Nox	Baseline NOx
PFL		
PFM		
PPE		

A.

Site	Target Nox	Baseline NOx
PFL	37	157.5
PFM	65	157.7
PPE	46	157.5

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 23 and 24, please refer to the FPL witness Domenech's testimony

On page 4, the witness testifies that stack test results that were collected over the past 10 to 15 years while operating on liquid fuel. In this context, please answer the following. Questions:
a. Over the past 10 to 15 years, what percentage of operation was liquid fuel operation?
b. What would the Baseline NOx be if FPL assumed operation on natural gas?

A.

a. The following table summarizes the percentage of liquid fuel operation at GT sites over the past 10 years:

Site	% Liquid Fuel Operation (10-Year Average)	
PFL	13%	
PFM	100% - only operates on fuel oil	
PPE	16%	

b. The following table summarizes the Baseline NOx estimates assuming operation natural gas:

Site	Baseline NOx on Gas (ppm)	
PFL	91.8	
PFM	N/A - only operates on fuel oil	
PPE	91.8	

FPL's technical analysis used NOx values from fuel oil operation as Baseline NOx because fuel oil operation is essential to the mission of the GT peakers, particularly when gas is in short supply such as emergency conditions or during customer peak demand periods. Under these types of conditions, it is critical that the GTs operate on fuel oil without violating the one-hour NO_2 standard.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 25-30, please refer to the FPL witness LaBauve's testimony.

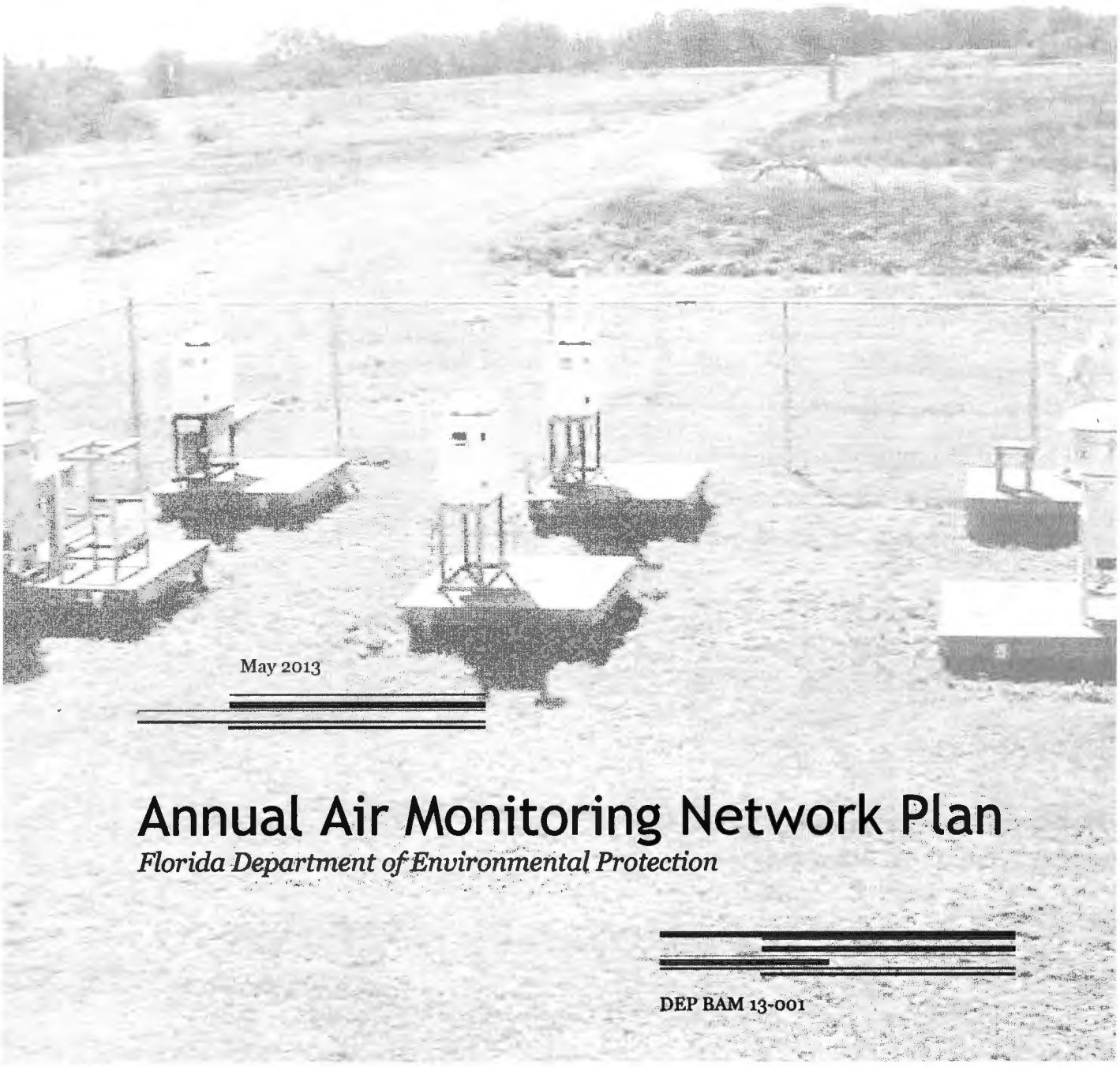
On page 3, in describing EPA conclusions, the witness states that "there existed significant exposures from mobile sources which warranted revision of the standard and the implementation of new road-side NO_2 emission monitors."
a. Does FPL know where the road-side monitors will be located?
b. If yes, please identify the location of the monitors which would be most impacted by FPL's NO_2 Compliance Project.
c. Could reduced vehicular traffic or more efficient vehicles reduce the NO_2 emissions that the monitors may detect at a given time and location?

A.

a. In its 2010 revision of the NO_2 NAAQS, EPA determined that new NO_2 roadside monitors would be needed in major metropolitan areas to protect susceptible and vulnerable populations. EPA provided states a list of Urban Areas with populations greater than 500,000 where additional monitoring was needed within 50 meters from the edge of the nearest traffic lane. The EPA list for Florida (Attachment I, Pages 66-69) identified additional roadside monitors which would be needed including the Miami-Fort Lauderdale-Pompano Beach and the Cape Coral-Fort Myers metropolitan areas. In DEP's May 2013 Annual Air Monitoring Network Plan (provided as Attachment I, Pages 1-65), additional near-road NO_2 monitors are proposed for location in Ft Lauderdale (Sunrise Blvd and I-95), Tampa (I-275 west of Ashley Street), Jacksonville (Pepsi Place at I-95), and Orlando (I-4 and Bridge No-750014). [The link to DEP's 2013 Plan is http://www.dep.state.fl.us/air/air_quality/techrpt/amp13.pdf]

b. See answer to 25.a. and Attachment I, Pages 1-65.

c. While FPL is aware that reduced vehicular traffic and implementation of lower emission standards for vehicles can reduce roadside impacts to the 1-hour NO_2 standard from mobile sources, FPL does not know when or to what extent these reductions may occur in the future.



May 2013

Annual Air Monitoring Network Plan

Florida Department of Environmental Protection

DEP BAM 13-001

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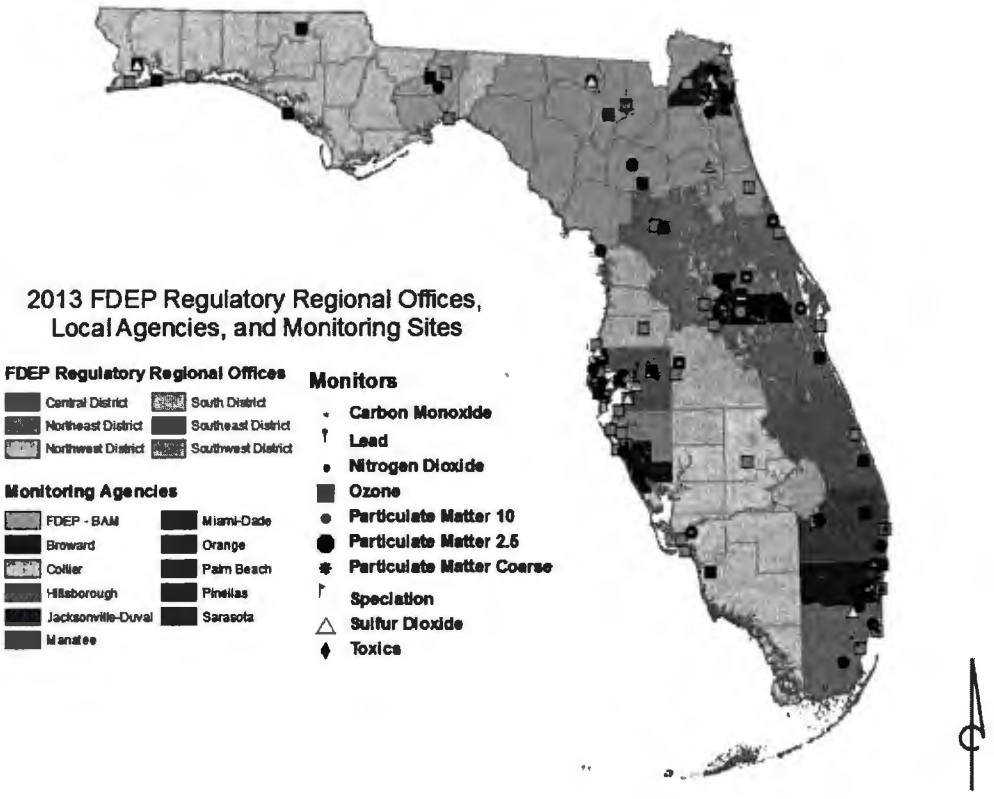
Introduction

Florida is the 4th most populous state and the Florida Department of Environmental Protection (FDEP) has created an air monitoring network that covers over 90% of the 19,317,568 people living here. This network is designed to comply with federal requirements and to provide the public with air quality information.

As Figure 1 depicts, the ambient air monitoring sites are concentrated in areas of high population density, along the coasts and in the interior portion of the state near interstates. In addition, the FDEP has established three rural monitoring sites, one in the panhandle and one in the northern and southern areas of the peninsula to create representative sites for comparison to regional background levels of pollution.

Figure 1: Site Locations for Florida's Ambient Air Monitoring Network



The map also details the many agencies that work together to monitor Florida's air quality. The FDEP has 6 regional offices and the headquarters in Tallahassee, which monitor throughout the state in areas where local government programs do not monitor the air quality. Local governments assist the FDEP in

the operation of the statewide monitoring network in Broward, Duval, Hillsborough, Manatee, Miami-Dade, Orange, Palm Beach, Pinellas, and Sarasota Counties. The FDEP is responsible for assuring the statewide network meets the federal requirements.

This Air Monitoring Network Plan is an annual report that is issued by the FDEP. It is a requirement of the Code of Federal Regulations (40 CFR 58) that were established by the US Environmental Protection Agency (EPA). The purpose of this report is to provide evidence that current regulations are being met for our air monitoring network, to detail any changes proposed for the 18 months following its publication, and to provide specific information on each of the state's existing and proposed monitoring sites. To meet the requirements for public inspection, this plan was posted on the FDEP website: http://www.dep.state.fl.us/air/air_quality/reports.htm for the 30 days, from May 29th to July 1st. Comments from the public were accepted during that time.

Changes for This Year

The majority of changes in the monitoring plan this year are in response to the NO_2 near road monitoring requirements, the National Core (NCore) monitoring requirements, and the SO_2 monitoring requirements.

Ft. Lauderdale is establishing a near road NO_2 monitoring site, AQS site # 12-011-0035. This site will include trace level CO, and $PM_{2.5}$, to meet monitoring requirements. It will also include black carbon and an ultra fine particle counter. The NCore site for the Ft. Lauderdale area is being moved. In a major setback, a new NCore site needed to be found, since the proposed site, 011-1002 will be impacted by the construction of a waste water treatment facility making it inappropriate for the NCore site. They have located an alternative in Davie. They have also included the additional following monitoring for the proposed NCore site; trace CO, trace SO_2, lead and NO_y.

The Hillsborough County near road NO_2 monitoring site, AQS site # 12-057-1111, is the only one in phase 1 of the phased implementation plan in Florida. It will be established adjacent to an elevated portion of I-275 by the end of 2013. This site will include trace level CO and $PM_{2.5}$ to meet monitoring requirements. It will also include black carbon and an ultra fine particle monitor. Hillsborough County intends to add an additional lead site near one of the large lead emitting facilities. They will also be adding an SO_2 and $PM_{2.5}$ site in the Apollo Beach Community when a suitable location is secured to address community concerns.

The City of Jacksonville is installing a near road NO_2 monitoring site near Pepsico Place on I-95. This site will also include CO and $PM_{2.5}$ monitors to meet the monitoring requirements. They also anticipate introducing lead monitoring, though not required, near the largest lead emitter for the county.

Orlando will be installing the near road NO_2 site along I-4 near the SR 408 exchange. This site will also include CO and $PM_{2.5}$ monitors to meet monitoring requirements.

Palm Beach County is changing the plan that was made last year to add an additional NO_2 instrument at 20 Mile Bend, opting instead to deal with the re-location of the AG Holley site, which had to be moved due to the sale of the property by the state. The $PM_{2.5}$ Federal Equivalent Method (FEMs) instruments at AQS Site #12-099-0008 and #12-099-0009 are being changed to a non-regulatory network type since the data produced fail to meet the Federal Reference Method like tests.

In response to the new SO_2 monitoring rules, 3 new SO_2 monitors will be added to the FDEP network. A new site will be launched near Crystal River in Citrus County. In addition, SO_2 monitors will be added to existing sites at the Winter Haven site in Polk County and at the Port Manatee site in Manatee County.

General Information

There are many influences on the design of the monitoring network. The two largest drivers that change are the federal requirements and the continuing growth of population to the state. These and other considerations are listed below in the design principles. Other information specified by the federal regulations is contained in this section.

Network Design Principles

The principles that guide network design for Florida Department of Environmental Protection are:

1) Sites meet the federal Code of Regulations (CFR) for number, type and placement of monitors.
2) Attention will be paid to historic areas of exceedances or violations where the contributing industry or population has been maintained.
3) There will be sufficient ozone and fine particle pollution monitors to maintain the Air Quality Index (AQI) reporting to large (350,000 population) communities.
4) During network design, weight will be given to monitors that have long historical records.
5) Sites will be established with the intent for indefinite monitoring, with an expectation of at least five years.
6) Partnerships with private entities will be used judiciously.
7) Any monitoring required by State Implementation Plans (SIP) will continue.
8) Since much of the monitoring in Florida is conducted in counties operated by local programs, coordination with the local programs will be maintained to achieve a quality state-wide network.

To address the requirement in 40 CFR Part 58.10(b)(7), all sites with Federal Reference Method (FRMs) are suitable for comparison to the annual $PM_{2.5}$ national ambient air quality standards (NAAQS). Palm Beach County has been operating two Federal Equivalent Method (FEM) instruments for $PM_{2.5}$. They have reviewed the resulting data and determined that agreement for the FEM with the FRM is not sufficient for the data produced to be used in designation. These 2 monitors are requested to be made part of the non-regulatory network. The instruments will continue to be used to report the AQI. The FDEP has kept the current network design which includes all of the current State/Local Air Monitor Stations (SLAMS) and Special Purpose Monitors (SPM) monitoring sites posted on its web site for the last several years and will continue to do so.

The network plan is organized first by the largest metropolitan statistical areas (MSAs) with shared monitoring responsibilities and then by our regional offices with all of the MSAs for which they are responsible listed together. The Florida Department of Environmental Protection is made of 6 regional offices and the headquarters in Tallahassee. There are 9 county agencies which assist the FDEP in the operation of the statewide monitoring network in their perspective counties. The details of the plan are in the Network Description below. The MSA or micropolitan statistical area and the counties that the MSA includes are identified for each agency. In several cases, more than one agency operates within the boundaries of the MSA, so the MSA name may be repeated for each agency with responsibility for monitoring within the MSA boundaries. The requirements for the plan are listed last. The requirements for the minimum number of monitoring sites are based on both the population, which is listed for each MSA and the concentration of ozone, $PM_{2.5}$ and PM_{10}. The recently calculated Population Weighted

Emission Index (PWEI) is listed for areas with a PWEI over 5,000 where sulfur dioxide will be required to be monitored.

The AQI is reported and updated hourly on Florida Department of Environmental Protection's website at: http://www.dep.state.fl.us/air/airquality.htm. It is available in both graphical and text versions. The data to support this website are collected from all the continuous monitors in the state. These data are also shared with the voluntary AIRNOW site hosted by EPA's contractor, Sonoma Technology, Inc.

The plan is required to provide evidence that siting and operation of each monitor meets the requirements of appendices A, C, D and E of 40 CFR, Part 58. Appendix A covers quality assurance requirements for SLAMS, SPMs and Prevention of Significant Deterioration (PSD) air monitoring. These requirements are met with three basic functions of the air monitoring community. The first requirement is to have approved standard operating procedures (SOP), Quality Management Plan (QMP) and Quality Assurance Project Plans (QAPP), which are in place and updated as needed. The most recent QAPP was approved April 2007 for all criteria pollutants except $PM_{2.5}$ and the $PM_{2.5}$ QAPP was approved July 2011 and is currently under revision. The current Quality Management Plan was approved March 2009. The second requirement is auditing of instrument performance and management systems. The DEP Quality Assurance staff complete these activities for all agencies throughout the state. And the third requirement is the compiling of precision and bias records sent to EPA's Air Quality System (AQS) database quarterly. The $PM_{2.5}$ collocation specifications are met by each agency operating a FRM $PM_{2.5}$ running at least one collocated FRM. This collocation requirement is addressed with the $PM_{2.5}$ FEMs running. One of the FEMs is collocated with an FRM, as required. The total number of agencies running collocated FRM $PM_{2.5}$ instruments is 16, more than the requisite 15% of the 28 FRMs in operation. All FRMs in Florida are Thermo (formally, R&P) 2025s. The FEM is a MetOne BAM 1020. The requirements of Appendix A are met by a combination of all of these activities.

Appendix C describes the general instrument requirements. The monitoring network providing data for designations is made up of federally approved instrumentation. The instruments are described in the network plan. Many of the $PM_{2.5}$ instruments used to report the AQI are not federally approved instruments, but are suited to the climate in Florida and are subjected to the same quality assurance and quality control requirements as those used for designations.

Appendix D contains the monitor siting requirements. Sites within the air monitoring network are established using these requirements. In order to assure that they continue to be met, the sites are reviewed annually by the FDEP audit staff. The results of these reviews are used to determine if the sites meet the siting requirements. Any discrepancies are dealt with at least annually when the siting reviews are assessed.

Additional information about network design can be found in chapter 1 of the Annual Air Report available at: http://www.dep.state.fl.us/Air/publications/techrpt/amr.htm

NCore

Florida is required to have at least two sites for NCore monitoring. Building on the Speciation Trends Network (STN), EPA favored two sites in the largest MSAs in the state, the Miami-Fort Lauderdale-Miami Beach area with more than 5 million in population and the Tampa-St. Petersburg-Clearwater area with over 2 million in population. The site in the Miami-Fort Lauderdale-Miami Beach area had to be relocated due to the construction plans for a source that would influence the site. EPA has approved an alternative site in Davie, near the location of the originally approved site. The EPA Office of Air Quality Policy and Standards (OAQPS) decided that the original NCore network design left a gap in the coverage for the southeast. They requested FDEP operate a rural NCore site at the St. Marks National Wildlife Refuge, taking advantage of the already present Interagency Monitoring of Protected Visual Environments (IMPROVE) monitoring for particulate and the FDEP ozone site. FDEP agreed to operate the site with the understanding that EPA would provide the additional instrumentation. Details of the sites can also be seen on EPA's website: http://www.epa.gov/ttn/amtic/ncore/index.html.

The intent of the NCore sites is to have a network made of largely population oriented sites and some rural sites that take advantage of multi-pollutant monitoring. The proposed replacement site for the Miami-Fort Lauderdale-Miami Beach area is AQS site #12-011-0034 is in Davie, Florida. It is anticipated to be operational in the spring of 2014.

In the Tampa Bay area, the proposed NCore site is AQS site # 12-057-3002, Sydney. It was the site of a large and intense nitrogen deposition study, the Bay Regional Atmospheric Chemistry Experiment (BRACE). It has also been running the trace SO_2, CO and NO_y since 2004. Since the primary use of the NCore sites is air quality trends analysis, and Sydney is not in a built out portion of the county, its location makes it ideal for tracking trends which reflect the addition of population, as Florida is still a fast growing state.

SO_2 Monitoring Additions

Changes in the SO_2 regulations require that additional monitors are added to the current network. Ambient monitoring is required for Core Based Statistical Areas (CBSAs) whose PWEI was above 5,000. A single monitor is required when the PWEI is above 5,000 and 2 monitors are required when the PWEI is above 100,000 with a unit of million persons-tons per year. The PWEI values listed here were provided by the US EPA. There are 3 additional SO_2 monitors needed. They will be required in Citrus, Polk and Manatee Counties. A new site will be launched near Crystal River in Citrus County. In addition, SO_2 monitors will be added to existing sites at the Winter Haven site in Polk County and at the Port Manatee site in Manatee County.

Table 1: SO2 Monitoring Requirements

CBSA Statistical Areas	2012 Census Population	PWEI 2012 NEI	PWEI SO2 Needed	SO2 Monitors in Place
Miami-Fort Lauderdale-Pompano Beach	5,762,717	147,762	2	3
Broward County	1,815,137			
Miami-Dade County	2,591,035			
Palm Beach County	1,356,545			
Tampa-St. Petersburg-Clearwater	2,842,878	94,280	2	7
Orlando-Kissimmee-Sanford	1,793,267	13,157	1	1
Jacksonville	1,377,847	32,408	1	5
North Port-Bradenton-Sarasota	720,042	5,030	1	
Lakeland	616,158	10,666	1	
Palm Bay-Melbourne-Titusville	547,307	3,003		
Cape Coral-Fort Myers	645,293	770		
Deltona-Daytona Beach-Ormond Beach	496,950	243		
Pensacola-Ferry Pass-Brent	461,227	13,122	1	1
Port St. Lucie-Fort Pierce	432,683	3,780		
Homosassa Springs	139,360	9,456	1	

NO_2 Monitoring

There are several monitoring requirements associated with NO_2. There is a requirement for monitoring of the vulnerable and susceptible population. There are community-wide monitoring requirements for areas with a population over 1 million, and there are near road monitoring requirements for areas with populations over 500,000 that will be phased in over time according to the rule. The areas with population over 1 million are due to have their sites operational by January 1, 2014. In Florida, those areas are Tampa, Fort Lauderdale, Jacksonville and Orlando. Several requirements of the NO_2 regulations were described in detail in the 2012 Air Monitoring Plan Addendum and are repeated here for continuity.

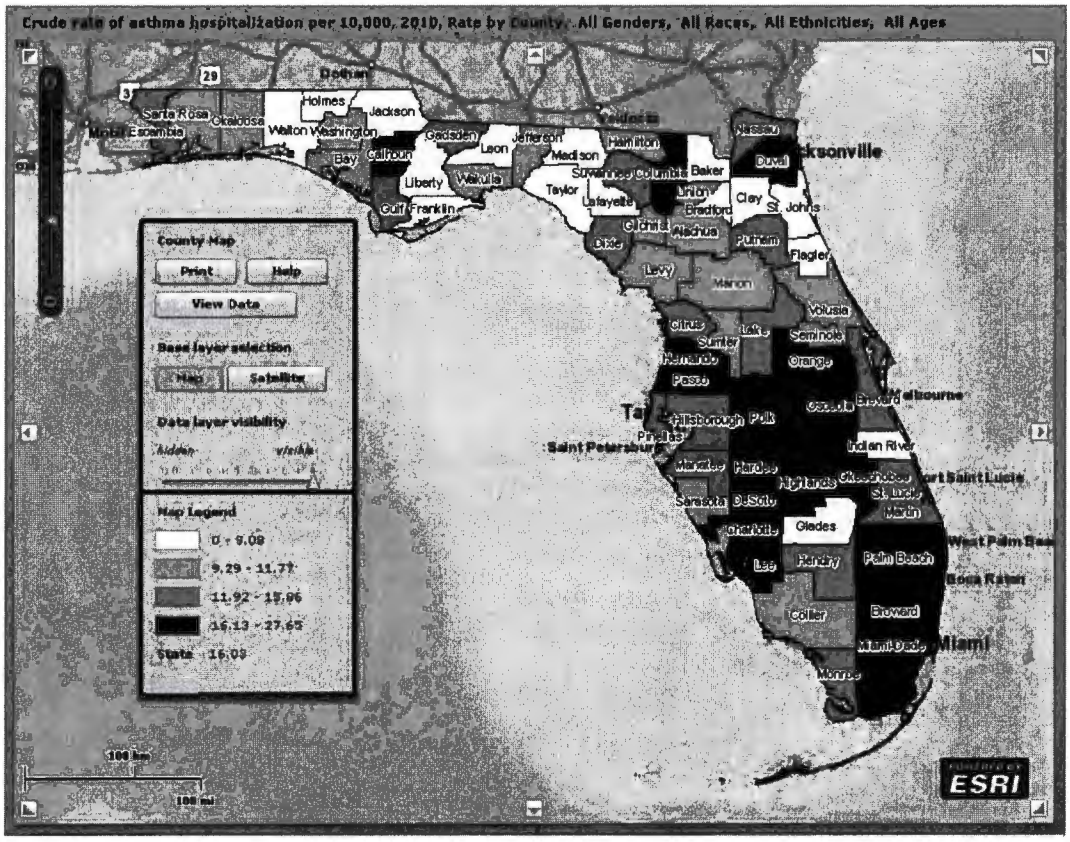
Table 2: No2 Monitoring Required by 2010 NAAQS

CBSAs with Population over 500,000	Population (2010)	AADT ≥250,000	Required Near road Monitors	Required Community Wide Monitor	Currently Monitoring?	Total
Bradenton-Sarasota-Venice	702,281		1		Yes	1
Cape Coral-Fort Myers	618,754		1			1
Jacksonville	1,345,596		1	1	Yes	2
Lakeland-Winter Haven	602,095		1			1
Miami-Fort Lauderdale-Pompano Beach	5,413,212	*	2	1	Yes	3
Orlando-Kissimmee	2,134,411		1	1	Yes	2
Palm Bay-Melbourne-Titusville	543,376		1			1
Tampa-St. Petersburg-Clearwater	2,783,243		2	1	Yes	3
	Population >2.5 million requires 2 near road					14
	AADT≥ 250,000 requires 2 near road					

Vulnerable and Susceptible Monitoring

Florida participates in the Environmental Public Health Tracking supported by the US Centers for Disease Control. That program examines health and environmental data to help federal, state and local agencies plan, apply and develop environmental public health actions. The higher crude rate of asthma hospitalizations is an indicator of the vulnerable and susceptible communities in Florida. Miami-Dade County ranks among the higher rates in the state. Therefore, the NO_2 site, AQS# 12-086-0027, University of Miami, Rosenstiel, will be designated as a vulnerable and susceptible monitoring site for NO_2. Figure 2 provides Florida's crude rate of asthma hospitalization by county.

Figure 2: Florida Rate of Crude Asthma Hospitalization



Community-wide NO_2 Monitoring

Community-wide NO2 monitoring sites are required in each CBSA of 1 million people or more. There are 4 such CBSAs in Florida.

Table 3: Community-wide Designated Monitors

CBSA Name	County	Site Name	NO2 AQS Site Number
Jacksonville	Duval	Kooker Park	12-031-0032
Miami-Fort Lauderdale-Miami Beach	Broward	John U Lloyd State Park	12-011-8002
Orlando	Orange	Winter Park	12-095-2002
Tampa-St. Petersburg-Clearwater	Pinellas	Azalea Park	12-103-0018

Near Road NO_2 Network

Two of Florida's counties with CBSAs of over 2.5 million people, Miami-Fort Lauderdale-Miami Beach and Tampa-St. Petersburg-Clearwater, participated in the pilot work for the near road NO_2 network. The development of the location of these sites was made in tandem with the creation of the Technical Assistance Document (TAD), developed by EPA to aid states and local monitoring agencies in the implementation of required near road NO2 monitoring stations. These areas are both monitored by local governments, the Environmental Protection & Growth Management, Pollution Prevention, Remediation and Air Quality Division in Fort Lauderdale and the Environmental Protection Commission of Hillsborough County in Tampa. Table 4 contains the site and monitor specific information for these areas.

Additionally, the CBSAs with a population over 1 million people are required to have their near road sites operational by January 1, 2014. Those areas are Jacksonville and Orlando. These areas are both monitored by local governments, City of Jacksonville Environmental Division Air Branch in Jacksonville and Orange County Environmental Protection Division in Orlando. They have worked through the TAD to determine the appropriate location of their monitoring sites. Table 5 contains the site and monitor specific information for these areas.

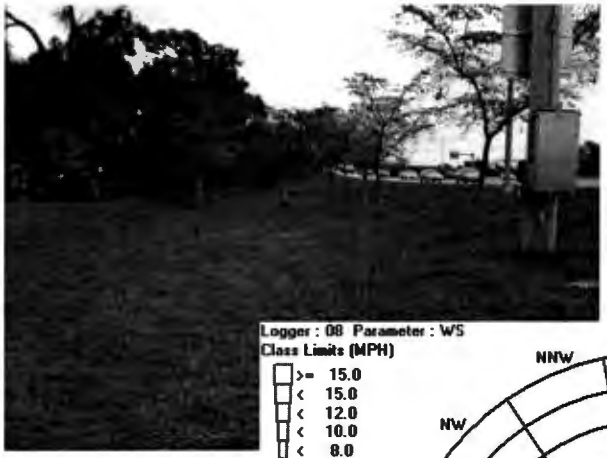
Table 4: Initial NO2 Near Road Sites for Fort Lauderdale and Tampa

AQS Number	12-011-0035	12-057-1111
City (CBSA)	Fort Lauderdale	Tampa
Site Name	Sunrise Blvd	Julian B. Lane Park
Location Latitude	26.132389	27.95555
Location Longitude	-80.169806	-82.46714
Address	Southbound I-95 just south of Sunrise Blvd	601 W. Laurel Street
Target	I-95 and Sunrise Blvd on the west side of I-95	I-275 West of Ashley St.
AADT	306,000	190,500
Heavy Duty AADT	35,129	15,240
FEAADT	622,161	327,660
NO_2	Photolytic	Photolytic
Objective	Mobile	Mobile
Spatial Scale	Micro	Micro
Operating Schedule	Continuous	Continuous
Access	30m to the lane	60' to the wall, +4' to lane (wall height is 24', probe height is 15')
Owner of Land	FL Department of Transportation	City of Tampa
Other Monitored Parameters	Trace CO, (TEI)	Trace CO, (T-API)
	Black Carbon Aethelometer, (Teledyne -API)	Black Carbon Aethelometer, (Teledyne -API)
	Ultra-fine Particle Counter, (TSI, Incorporated)	Ultra-fine Particle Counter, (T-API)
	Continuous $PM_{2.5}$ FEM, (vendor unknown)	Continuous $PM_{2.5}$ FEM, (vendor unknown)
	Wind at 3 & 10 meters with vertical measurement, (RM Young)	Wind at 5 and 10 meters

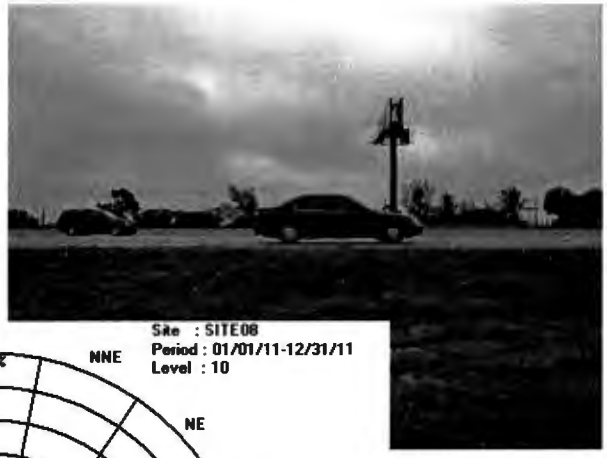
AQS Number	12-011-0035	12-057-1111
City (CBSA)	Fort Lauderdale	Tampa
Comments	No roadside structures	Interstate is East-West oriented on this segment, site is south of the road.
	The shelter is an 8' x 20' converted shipping crate with an 8' fence.	Road surface is ~16' above grade with an 8' sound barrier

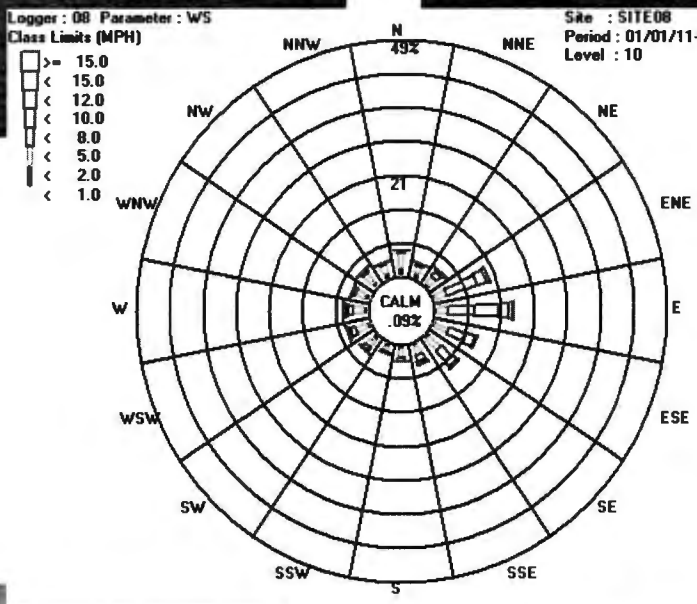
Additional Information for the Initial NO_2 Near Road Site for Fort Lauderdale

Looking North



Looking East



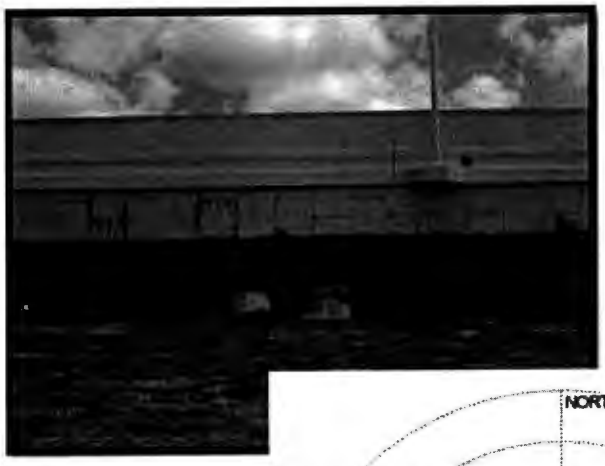


Looking South

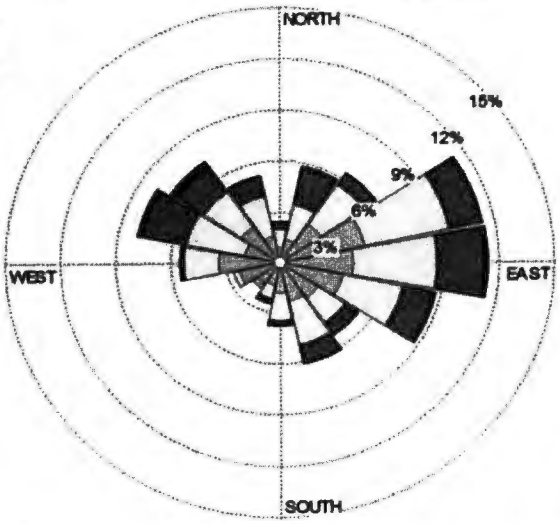
Looking West

Additional Information for the Initial NO_2 Near Road Site for Tampa

Looking North



Looking East



Looking South

Looking West

Table 5: NO2 Near Road Sites for Jacksonville and Orlando

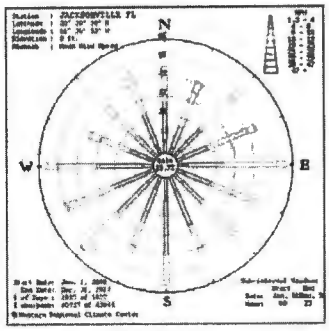
AQS Number	12-031-0108	12-095-0009
City (CBSA)	Jacksonville	Orlando
Site Name	Pepsi Place	I-4
Location Latitude	30°15'46" N	28.534646 N
Location Longitude	81°36'24.6" W	81.384411 W
Address	Proximal to 5880 BOWDENDALE Ave. (exact address TBD with JEA meter/pole)	525 S Division Ave Orlando
Target	I-95 between BOWDEN RD. & SR 202	Bridge No-750014
AADT	139000	195773
Heavy Duty AADT	13205	12921
FEAADT	304062	312062
NO_2	Chemiluminescent TEI-42i	Chemiluminescent TEI-42i
Objective	Mobile	Mobile
Spatial Scale	Micro	Micro
Operating Schedule	Continuous	Continuous
Access	20 m at end of Pepsi Place-West from Bowden Road	49.5 m currently, but in the next few years, with road widening, it will be 15 m from the Division Avenue location
Owner of Land	City of Jacksonville	FDOT
Other Monitored Parameters	Trace CO, (TEI-48i)	CO
	Continuous $PM_{2.5}$ FEM Sharp 5014i	Continuous $PM_{2.5}$ FEM Sharp 5014i
	Wind at 3 & 10 meters with vertical measurement, (RM Young)	Wind at 3 & 10 meters with vertical measurement

Additional Information for the NO_2 Near Road Site for Jacksonville

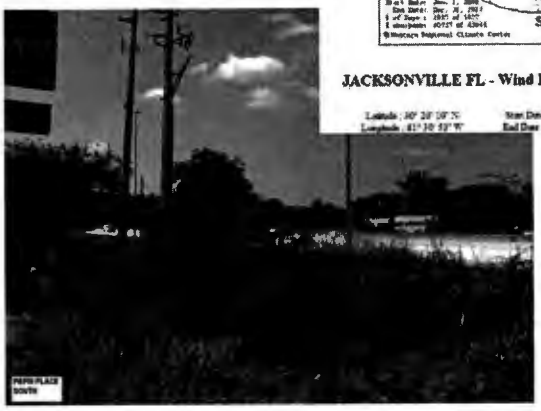
Looking North

Looking East

JACKSONVILLE FL



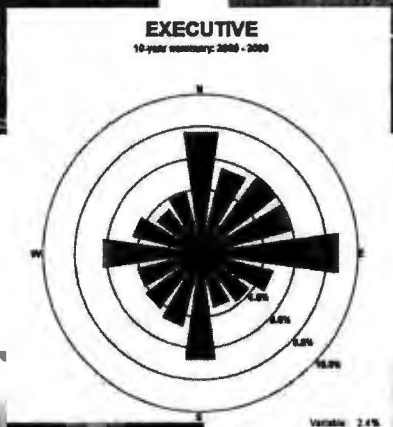
JACKSONVILLE FL - Wind Frequency Table (percentage)



Additional Information for the NO_2 Near Road Site for Orlando

Looking South

Looking West



Looking North

Looking East

Monitoring Network and Requirements

The ambient air monitoring network with the changes expected by the close of 2014 is described below. It is followed by the requirements of the network.

Florida Monitoring Network

MSA Network Description

METROPOLITAN STATISTICAL AREA: MIAMI - FT LAUDERDALE - MIAMI BEACH (MIAMI-DADE, BROWARD AND PALM BEACH COUNTIES)

Broward County

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
011-0010	600 NW 19 AVENUE	SLAMS	SO2	TEI 43C	SOURCE	NBH	CONTINUOUS	SOURCE MONITORING	SU 5/1/92 VOCATIONAL TRAINING (#28)
	17-2890.362N-583.251E	SLAMS	CO	TEI 48C	HI CONC	NBH	CONTINUOUS	TO MONITOR TRENDS	SU 1/1/92 SLAMS 4/27/92
		SLAMS	PM10	WEDDING	POPULATION	NBH	1/6 DAY	TO MONITOR TRENDS	SU 7/19/94
		NON-REG	TOXICS		POPULATION	NBH	1/6 DAY	BASELINE MONITORING	SU 11/21/09
011-0033	4001 SW 142nd Ave, Davie	SLAMS	OZONE	TEI 49I	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 1/09
	17-2883.955N-566.147E	SPM	PM2.5	R & P1400A	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	VISTA VIEW PARK
011-0034	*3205 SW 70TH AVE*	*PROP NCORE*	*PM_{10}*	*Tisch*	*POPULATION*	*URBAN*	*1/6 DAY*	*NEEDED BY REGULATION*	*SU 04/1/2014*
	17-2885.161N-575.912E	*PROP NCORE*	*$PM_{2.5}$*	*R&P 2025*	*POPULATION*	*NBH*	*DAILY*	*NEEDED BY REGULATION*	*SU 04/1/2014*
		PROP NCORE	*PM_{10}*	*R&P 2025*	*POPULATION*	*NBH*	*DAILY*	*NEEDED BY REGULATION*	*SU 04/1/2014*
		PROP NCORE	*SO2*	*TECO 43CTL*	*POPULATION*	*NBH*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU 04/1/2014*
		PROP NCORE	*CO*	*TECO 48CTL*	*POPULATION*	*NBH*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU 04/1/2014*
		PROP NCORE	*NOY*	*TECO NOY*	*POPULATION*	*NBH*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU 04/1/2014*
		PROP NCORE	*Pb*	*R&P 2025*	*POPULATION*	*NBH*	*1/6 DAY*	*NEEDED BY REGULATION*	*SU 04/1/2014*
		PROP NCORE	*OZONE*	*TECO49C*	*POPULATION*	*NBH*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU 04/1/2014*
		PROP NCORE	*$PM_{2.5}$*	*TEOM*	*POPULATION*	*URBAN*	*CONTINUOUS*	*USED FOR AQI*	*SU 04/1/2014*
		CSN	*$PM_{2.5}$*	*MET ONE*	*POPULATION*	*NBH*	*1/6 DAY*	*TRENDS NETWORK*	*SU 04/1/2014*
		CSN	*EC/OC*	*URG 3000N*	*POPULATION*	*NBH*	*1/3 DAY*	*TRENDS NETWORK*	*SU 04/1/2014*
		NON-REG	*TOXICS*		*POPULATION*	*NBH*	*1/6 DAY*	*BASELINE MONITORING*	*SU 04/1/2014*
011-0035	*I-95 South /Sunrise Blvd*	*SLAMS*	*NO2*	*TEL-API*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SLAMS	*CO*	*TECO48ITL*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SPM	*BC*	*TAPI*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SPM	*Ultra Fine*	*TSI*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SLAMS	*PM2.5*	*TEI 1400 AB*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
011-1002	3205 SW 70TH AVE	PROP NCORE	PM10	WEDDING	POPULATION	URBAN	1/6 DAY	NEEDED BY REGULATION	SU 1/1/92 U OF F AQ RES Relocating to Davie site
	17-2885.161N-575.912E	PROP NCORE	PM2.5	R&P 2025A	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 1/1/99 COLOCATED1/6/99
		PROP NCORE	PM2.5	R & P 1400AB	POPULATION	URBAN	CONTINUOUS	USED FOR AQI	SU 3/1/01
		TREND	PM2.5	MET ONE	POPULATION	NBH	1/6 DAY	TRENDS NETWORK	
		TREND	CARBON	URG 3000N	POPULATION	NBH	1/3 DAY	TRENDS NETWORK	SU 4/1/09
		NON-REG	TOXICS		POPULATION	NBH	1/6 DAY	BASELINE MONITORING	VOC MONITORING
011-2003	1951 NE 48TH ST	SLAMS	OZONE	TEI 49i	POPULATION	NBH	CONTINUOUS	RELIED ON FOR SPATIAL	SU 1/1/89 MET POMPANO BEACH (#1)
	17-2907.993N-590.166E	SLAMS	PM2.5	R&P 2025	POPULATION	URBAN	1/3 DAY	INTERPOLATION	RELOCATED FROM SITE 18
011-5005	4010 WINSTON PARK BLVD	SLAMS	PM10	WEDDING	SOURCE	NBH	1/6 DAY	SOURCE MONITORING	SLAMS 10/31/95 SD TEMP. 4/00 (#30)
	17-2908.456N-582.089E	NON-REG	TOXICS		POPULATION	NBH	1/6 DAY	BASELINE MONITORING	VOC MONITORING #30
		SLAMS	PM2.5	R&P 2025B	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 10/1/09
011-8002	JOHN U LLOYD STATE PK	SLAMS	OZONE	TECO49C	HI CONC	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 1/1/85 (#25)
	17-2885.443N-588.870E	SLAMS	NO2	TECO 42	HI CONC	URBAN	CONTINUOUS	ASSIST FORECASTING	SU 7/8/90
		NON-REG	TOXICS		POPULATION	NBH	1/6 DAY	BASELINE MONITORING	SU Nov 2009

MSA Network Description

METROPOLITAN STATISTICAL AREA: MIAMI - FT LAUDERDALE - MIAMI BEACH (MIAMI-DADE, BROWARD AND PALM BEACH COUNTIES)

Miami-Dade County

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
086-0019	US27 & SR821	SLAMS	SO2	TEI 43C	SOURCE	NBH	CONTINUOUS	TRENDS MONITORING	SU 8/18/87 PENNSUCO
	17-2864.469N-561.837E								
086-0027	UNIV MIAMI ROSENSTIEL	SLAMS	NO2	TEI 42C	POPULATION	NBH	CONTINUOUS	ASSIST IN FORECASTING	SU 1/30/85 MET
	17-2846.153N-584.031E	SLAMS	OZONE	TEI 49i	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 3/7/84
086-0029	PERDUE MED CNTR	SLAMS	OZONE	TEI 49C	HI CONC	URBAN	CONTINUOUS	USED FOR AQI	SU 5/1/85 MET
	17-2829.900N-567.600E								TEMP MOVE AFTER ANDREW
086-0031	16000 S DIXIE HWY	SLAMS	CO	API 300E	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 7/1/91 SLAMS 4/27/92
086-0033	7700 NW 186th ST	SLAMS	PM 2.5	R&P 2025B	POPULATION	NBH	1/3 DAY	MONITORING GROWTH	5/4/2005
	17-2869.23-567.45								PALM SPRINGS N FIRE STATION
086-0034	SW 127 Avenue	SLAMS	CO	TEI 48C	POPULATION	MIDDLE	CONTINUOUS	TRENDS MONITORING	SU 4/27/05 KENDALL WASD
	17-2730.23-560.70								
086-1016	NW 20TH ST FIRE STA	SLAMS	PM10	ANDERSEN 120(	HI CONC	MIDDLE	1/6 DAY	NEEDED BY REGULATION	SU 1/1/85
	17-2852.959N-579.582E	SLAMS	PM2.5	R&P 2025B	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 2/4/99 DAILY COLLOCATED
		SPM	PM2.5	R&P 1400A	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	AIRNOW POLLING 7/15/03
086-4002	864 NW 23RD ST (ANNEX)	SLAMS	NO2	TEI 42i	HI CONC	NBH	CONTINUOUS	ASSIST IN FORECASTING	SU 1/1/1984
	17-2853.408N-579.163E	SLAMS	CO	API 300E	HI CONC	NBH	CONTINUOUS	TRENDS MONITORING	SU 1/1/76
086-6001	325 NW 2ND AVE	SLAMS	PM2.5	R&P 2025B	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 1/27/99 , HOMESTEAD DAILY
	17-2817.102N-551.949E	SPM	PM2.5	R&P 1400A	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 2/10/04

MSA Network Description

METROPOLITAN STATISTICAL AREA: MIAMI - FT LAUDERDALE - MIAMI BEACH (MIAMI-DADE, BROWARD AND PALM BEACH COUNTIES)

Palm Beach County

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
099-0008	*36145 SR 80*	*Non-Reg*	*PM2.5*	*BAM 1020*	*SOURCE*	*NBH*	*CONTINUOUS*	*USED FOR AQI*	*SU 5/1/08*
	17-2951.800N-532.450E								
099-0009	980 CRESTWOOD BLVD N	SLAMS	OZONE	TEI 49i	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 3/1/00
	17-2956.846N-576.194E	SLAMS	PM25	R&P 2025A	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 12/99 COLLOCATED
		Non-Reg	*PM25*	*BAM*	*POPULATION*	*NBH*	*CONTINUOUS*	*USED FOR AQI*	*SU 7/9/07 ROYAL PALM WWTP*
099-0020	1199 LANTANA RD	SLAMS	OZONE	TEI 49i	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	A.G. HOLLEY SU 8/11/04, LANTANA
	17-2941.34N-593.52E	SPM	NO2	TEI 42i	POPULATION	NBH	CONTINUOUS	ASSIST IN FORECASTING	SU 10/08
		SLAMS	PM10	BAM 1020	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	Replacing 099-2005
099-2005	225 S CONGRESS	SLAMS	PM2.5	R&P 2025B	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 5/31/01
	17-2926.170N-590.023E								
099-0021	*20800 SR 80*	*SPM*	*NO2*	*TEI 42i*	*SOURCE*	*MIDDLE*	*CONTINUOUS*	*COMPLIANCE*	*20 Mile Bend*
	17-2951.281N-561.220E								

Summary of Sites/Monitors for the Miami - Ft Lauderdale - Miami Beach MSA (MIAMI-DADE, BROWARD AND PALM BEACH COUNTIES)

	Current	Proposed
Total Number of Sites	10	20

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Lead	0	1	1
Carbon Monoxide	5	6	2
Ozone	7	8	3
Nitrogen Dioxide	4	5	3
Total Nitrogen (Noy)	0	1	1
PM2.5 Speciation	0	1	1
Sulfur Dioxide	2	3	2
PM10	5	6	3
PM 2.5	16	17	6
Total	39	48	22

PM2.5 Breakout

	Current	Proposed
Daily FRMs	5	5
1/3 FRMs	3	3
Continuous	5	6
Collocated	3	3

Number of Non-Criteria Pollutant Monitors

	Current	Proposed
Toxics	3	3
Ultrafine	0	1
BC	0	1

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

METROPOLITAN STATISTICAL AREA: TAMPA - ST PETERSBURG - CLEARWATER (HILLSBOROUGH, PINELLAS, PASCO AND HERNANDO COUNTIES)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
Hillsborough County									
057-0030	3910 MORRISON AV	SPM	PM2.5	R & P 1400AB	POPULATION	NBH	CONTINUOUS	USED FOR AQI	PALMA CEIA TEOM 8/02
	17-3090.662N-351.583E								
057-0081	SIMMONS PARK	SLAMS	OZONE	TEI 49C	HI CONC	URBAN	CONTINUOUS	USED FOR AQI	SU 6/14/78 MET
	17-3069.100N-355.544E	SLAMS	SO2	TEI 43C	HI CONC	URBAN	CONTINUOUS	FOR EFFECTIVENESS OF NEW REGULATIONS	SU 1/1/78 SLAMS 4/27/92
057-0083	GARDINIER	SPM	PM10	R & P 1400AB	SOURCE	MIDDLE	CONTINUOUS	SOURCE MONITORING	SU 4/1/95
	17-3082.701N-363.890E								
057-0100	2909 N 66th ST	SPM	LEAD	HI VOL	SOURCE	MIDDLE	1/6 DAY	SOURCE MONITORING	SU 4/2/10 KENLY ELEMENTARY
057-0109	9851 HWY 41 SOUTH	SLAMS	SO2	TEI 43C	SOURCE	NBH	CONTINUOUS	SOURCE MONITORING	SU 10/96 EAST BAY SLAMS 11/13/96
	17-3081.853N-363.758E								MET; REPLACED GIANTS CAMP
057-1035	DAVIS ISLAND	SLAMS	PM10	R & P 1400AB	SOURCE	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 12/1/85 TEOM USED FOR AQI
	17-3089.908N-356.851E	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 1/1/73 MET
		SLAMS	SO2	TEI 43C	POPULATION	NBH	CONTINUOUS	FOR EFFECTIVENESS OF NEW REGULATIONS	SU 1/1/74
057-1065	5121 GANDY BLVD	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 9/1/89 MET MARINE RESERVE
	17-3086.060N-348.560E	SLAMS	NO2	TEI 42C	HI CONC	NBH	CONTINUOUS	HISTORIC TREND	SU 4/1/90 NO, Nox
		SPM	PM2.5	R & P 1400AB	HI CONC	NBH	CONTINUOUS	USED FOR AQI	1/1/2004
057-1066	1700 N 66TH ST	SLAMS	LEAD	ANDERSEN 2000	SOURCE	MIDDLE	1/6 DAY	SOURCE MONITORING	SU 1/2/90 GULF COAST LEAD
	17-3093.400N-364.000E								COLLOCATED
057-1073	6811 E 14th ST	SPM	LEAD	HI VOL	SOURCE	MIDDLE	1/6 DAY	SOURCE MONITORING	SU 10/31/97
	17-3093.990N-364.310E								PATENT SCAFFOLDING
057-3002	SYDNEY RD	NCORE	OZONE	TEI 49C	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	SYDNEY SU 01/01/04, MET
	17-3093.83N-378.98E	NCORE	NOy	TEI 42CLE	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 01/01/04
		NCORE	CO_TL	TEI 48CLE	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 01/01/05
		NCORE	SO2_TL	TEI 43CLE	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 01/01/06
		NCORE	PM2.5	R&P 2025	POPULATION	URBAN	DAILY	NEEDED BY REGULATION	SU 01/01/04 COLLOCATED
		NCORE	PM10	R&P 2025	POPULATION	URBAN	DAILY	NEEDED BY REGULATION	SU 1/4/04 Collocated FOR PMCOARSE
		NCORE	PMcoarse	R&P 2025	POPULATION	URBAN	DAILY	NEEDED BY REGULATION	SU 01/21/010
		NCORE	PM2.5	R & P 1400AB	POPULATION	URBAN	CONTINUOUS	USED FOR AQI	SU 01/01/05
		NCORE	PM10	1200	POPULATION	URBAN	1/6 DAY	NEEDED BY REGULATION	SU 01/04/04
		NCORE	PM10-Pb	2025	POPULATION	URBAN	1/6 DAY	NEEDED BY REGULATION	SU 01/04/04
		STN	EC/OC	URG 3000N	POPULATION	URBAN	1/3 DAY	BASELINE MONITORING	SU 01/01/07
		STN	PM2.5	METONE	POPULATION	URBAN	1/3 DAY	TRENDS NETWORK	SU 1/2004
		NATTS	TOXICS		POPULATION	URBAN	1/6 DAY	BASELINE MONITORING	VOC/CARBONYL/METAL MONITORING
057-1111	*601 W LAUREL ST*	*SLAMS*	*NO2*	*TEL-API*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SLAMS	*CO*	*TECO48ITL*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SPM	*BC*	*TAPI*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SPM	*Ultra Fine*	*T-API 651*	*SOURCE*	*MICRO*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
		SLAMS	*PM2.5*	*TEI 5014i*	*SOURCE*	*MIDDLE*	*CONTINUOUS*	*NEEDED BY REGULATION*	*SU DECEMBER 2013*
New Site	*2806 Poinsettia Ave*	*SPM*	*LEAD*	*HI VOL*	*SOURCE*	*MICRO*	*1/6 DAY*	*SOURCE MONITORING FOR POPULATION*	*JOHNSON CONTROLS*
New Site	*Apollo Beach Community*	*SPM*	*PM2.5*	*TEOM 1400AB*	*SOURCE*	*NBH*	*CONTINUOUS*	*SOURCE MONITORING FOR POPULATION*	
		SPM	*SO2*	*TEI 43C*	*POPULATION*	*NBH*	*CONTINUOUS*	*SOURCE MONITORING FOR POPULATION*	

MSA Network Description

METROPOLITAN STATISTICAL AREA: TAMPA - ST PETERSBURG - CLEARWATER (HILLSBOROUGH, PINELLAS, PASCO AND HERNANDO COUNTIES)

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
				Pasco County					
101-0005	30908 WARDER RD	SLAMS	OZONE	TEI 49C	POPULATION	URBAN	CONTINUOUS	URBAN SPRAWL	SU 09/07/00 MET, SAN ANTONIO
	17-3134.500N-372.000E								
101-2001	3452 DARLINGTON RD	SLAMS	OZONE	TEI 49C	HI CONC	URBAN	CONTINUOUS	URBAN SPRAWL	HOLIDAY
	17-3119.882N-327.447E								SU 1/17/92 MET SLAMS 4/27/92

MSA Network Description

METROPOLITAN STATISTICAL AREA: TAMPA - ST PETERSBURG - CLEARWATER (HILLSBOROUGH, PINELLAS, PASCO AND HERNANDO COUNTIES)

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
				Pinellas County					
103-0004	2435 SHARKEY RD	SLAMS	OZONE	API 400E	HI CONC	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 7/1/78 CLEARWATER JC
	17-3095.000N-329.227E								
103-0012	1313 19TH ST N	SLAMS	PM10	ANDERSEN 1200	HI CONC	NBH	1/6 DAY	TRENDS MONITORING	SU 4/1/92 SLAMS 7/20/92
	17-3074.275N-336.490E								WOODLAWN
103-0018	7200 22ND AVE N	SLAMS	OZONE	TEI 49I	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 4/6/78 AZALEA PARK MET
		SLAMS	NO2	TEI 42I	POPULATION	NBH	CONTINUOUS	FORECAST ASSISTANCE	SU 1/1/78 NO, NOX
		SLAMS	PM10	ANDERSEN 1200	POPULATION	NBH	1/6 DAY	NEEDED BY REGULATION	SU 4/1/92 SLAMS 7/20/92
		SLAMS	PM2.5	R&P 2025 B	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 01/01/99 COLLOCATED 1/12 DAY
		SPM	PM2.5	R&P 1400AB	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 05/01/01
		NON REG	TOXICS		POPULATION	NBH	1/6 DAY	BASELINE MONITORING	VOC/CARBONYL/METAL MONITORING
103-0023	10100 SAN MARTIN	SLAMS	SO2	TEI 43C	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 1/1/79 DERBY LANE
	17-3082.975N-340.173E								
103-0026	8601 60th St. North	NATTS	BC	Magee Sci AE21	POPULATION	NBH	CONTINUOUS	BASELINE MONITORING	SU MET; SKYVIEW, PINELLAS PK
	17-3043.60N-359.17E	CSN	PM2.5	Metone	POPULATION	NBH	1/6 DAY	BASELINE MONITORING	SU 9/04 SPECIATION
		CSN	EC/OC	URG 3000N	POPULATION	NBH	1/6 DAY		SVOC/CR-06
		NATTS	TOXICS		POPULATION	NBH	1/6 DAY	BASELINE MONITORING	VOC/SVOC/Carbonyl/PAHs/Metal/Cr+6 monitoring
103-1009	1360 SANDY LANE	SLAMS	PM2.5	R&P 2025	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 9/12/03
	17-3096.80-324.73								
103-2008	13280 34TH ST N	SLAMS	CO	TEI 48C	HI CONC	MICRO	CONTINUOUS	TRENDS MONITORING	SU 4/1/93 SLAMS 7/1/93 GATEWAY
	17-3086.245N-334.583E								
103-3004	1301 ULMERTON	SLAMS	PM10	GWC 1200	HI CONC	MIDDLE	1/6 DAY	TRENDS MONITORING	SU 7/31/88 COLLOCATED 1/12 DAY
	17-3086.730N-325.320E								MOTORPOOL
103-5002	17-3108.174N-332.880E	SLAMS	PM10	ANDERSEN 1200	POPULATION	NBH	1/6 DAY	TRENDS MONITORING	SU 11/1/88; SLAMS 7/20/92; EASTLAKE
		SLAMS	OZONE	API 400E	HI CONC	URBAN	CONTINUOUS	USED FOR AQI	SU 1/1/77 MET
		SPM	PM2.5	R&P 1400AB	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 9/5/07
103-5003	40671 US 19 NORTH	SLAMS	SO2	TEI 43C	SOURCE	NBH	CONTINUOUS	TRENDS MONITORING	SU 9/18/98 MET OAKWOOD
	17-3113.970N-329.14E								SLAMS 12/1/98

Summary of Sites/Monitors for the Tampa - St Petersburg - Clearwater MSA (Hillsborough, Pinellas, Pasco and Hernando Counties)

	Current	Proposed
Total Number of Sites	22	25

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Lead	4	5	4
Carbon Monoxide	2	3	1
Ozone	9	9	2
Nitrogen Dioxide	2	3	1
Noy	1	1	1
PM2.5 Speciation	2	2	0
Sulfur Dioxide	6	7	3
PM10	7	8	4
PM 2.5	8	10	6
Total	41	48	22

PM2.5 Breakout

	Current	Proposed
Daily FRMs	2	2
1/3 FRMs	1	1
1/6 FRMs	2	2
Continuous	4	6
Collocated	2	2

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

METROPOLITAN STATISTICAL AREA: ORLANDO - KISSIMMEE (LAKE, ORANGE, OSCEOLA AND SEMINOLE COUNTIES)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
069-0002	1901 JOHNS LAKE RD	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	MONITORING EXTENDED COUNTY OF LARGE MSA	SU 06/01/00 MET LOST LAKE ELM, CLERMONT
	17-3155.400N-429.220E								
095-0008	7005 WINEGARD RD	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 9/1/88
	17-3147.400N-4623660E								
095-2002	MORSE BLVD & DENNING	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 1/1/76 WINTER PARK
	17-3163.490N-464.515E	SLAMS	CO	TEI 48C	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 3/23/78 MET
		SLAMS	NO2	TEI 42I	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 1/1/81
		SLAMS	SO2	TEI 43C	HI CONC	NBH	CONTINUOUS	FOR EFFECTIVENESS OF NEW REGULATIONS	SU 1/1/76
		SLAMS	PM10	ANDERSEN 120(	POPULATION	NBH	1/6 DAY	NEEDED BY REGULATION	SU 5/1/91 SLAMS 5/4/91 COLLOCATED
		SLAMS	PM2.5	R&P 2025	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 01/01/99 DAILY COLLOCATED
		SPM	PM2.5	R&P 1400ab	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 06/01/00
		NON-REG	TOXICS		POPULATION	NBH	1/6 DAY	BASELINE MONITORING	VOC/CARBONYL MONITORING
	AJACENT TO I-4	*SLAMS*	*NO2*	*TEI 42I*	*SOURCE*	*MIDDLE*	*CONTINUOUS*	*NEEDED BY REGULATION*	*PENDING EPA FUNDING*
		SLAMS	*CO*	*TEI 48C*	*SOURCE*	*MIDDLE*	*CONTINUOUS*	*NEEDED BY REGULATION*	*PENDING EPA FUNDING*
097-2002	8706 W SR 192	SLAMS	OZONE	TEI 49C	HI CONC	URBAN	CONTINUOUS	URBAN SPRAWL	SU 9/1/93 KISSIMMEE FIRE STATION
	17-3135.679N-437.601E								SLAMS 10/6/93 MET
117-1002	SEMINOLE C.C.(AG COMP)	SLAMS	OZONE	TEI 49C	HI CONC	URBAN	CONTINUOUS	MONITORING EXTENDED COUNTY OF LARGE MSA	SU 1/1/80 SANFORD MET
	17-3179.640N-469.730E	SLAMS	PM10	R & P 1400 AB	POPULATION	NBH	CONTINUOUS	MONITORING EXTENDED COUNTY OF LARGE MSA	SU 12/22/00
		SLAMS	PM2.5	R&P 2025 A	POPULATION	NBH	1/3 DAY	MONITORING EXTENDED COUNTY OF LARGE MSA	SU 02/01/99 COLLOCATED

Summary of Sites/Monitors for the Orlando - Kissimmee MSA (Lake, Orange, Osceola and Seminole Counties)

	Current	Proposed
Total Number of Sites	5	6

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Lead	0	0	0
Carbon Monoxide	1	2	2
Ozone	5	5	2
Nitrogen Dioxide	1	2	2
Sulfur Dioxide	1	1	1
PM10	2	2	2
PM 2.5	3	3	3
Total	13	15	12

PM2.5 Breakout

	Current	Proposed
Daily FRMs	1	1
1/3 FRMs	1	1
Continuous	1	1
Collocated	2	2

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

METROPOLITAN STATISTICAL AREA - JACKSONVILLE (BAKER, CLAY, DUVAL, NASSAU AND ST. JOHNS COUNTIES)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
003-0002	OSCEOLA RANGER OFFICE	SPM	OZONE	TEI 49C	BACKGROUND	URBAN	CONTINUOUS	REGIONAL BACKGROUND	SU 01/01/96 OLUSTEE MET
	17-3341.350N-360.900E								
031-0032	2900 BENNET/KOOKER PK	SLAMS	SO2	TEI 43i	HI CONC	NBH	CONTINUOUS	TRENDS MONITORING	SU 1/1/74
	17-3358.243N-438.923E	SLAMS	NO2	TEI 42i	HI CONC	NBH	CONTINUOUS	ED TO ASSIST IN FORECAST	SU 1/6/75
		SPM	PM2.5	R&P 2025	POPULATION	NBH	DAILY	COMMUNITY RESPONSE	SU 07/16/09
		SLAMS	PM10	R&P 1400AB	HI CONC	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 2/1/08
031-0077	13333 LANIER RD	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 1/1/79 SHEFFIELD SCHOOL
	17-3371.662N-443.615E	SPM	PM2.5	R&P 1400AB	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 9/1/08
031-0080	1605 MINERVA ST	SLAMS	SO2	TEI 43i	SOURCE	MIDDLE	CONTINUOUS	SOURCE MONITORING	SU 1/1/79 SOUTHSIDE PLAYGROUND
	17-3350.000N-437.260E	SLAMS	CO	TEI 48C	HI CONC	NBH	CONTINUOUS	TRENDS MONITORING	SU 10/18/79
031-0081	6801 CEDAR BAY RD	SLAMS	SO2	TEI 43i	SOURCE	MIDDLE	CONTINUOUS	SOURCE MONITORING	SU 1/1/78
031-0084	ROSSELL/COPELAND	SLAMS	PM10	R&P 1400AB	HI CONC	MIDDLE	CONTINUOUS	NEEDED BY REGULATION	SU 12/1/87 COLLOCATED SD 9/29/02 CONVERT TO CONTINUOUS 2/11/08
	17-3352.640N-432.168E	SLAMS	CO	TEI 48C	HI CONC	MIDDLE	CONTINUOUS	TRENDS MONITORING	SU 1/1/80SLAMS 1/1/81
031-0097	6241 FORT CAROLINA RD	SLAMS	S02	TEI 43C	POPULATION	DPULATIO	CONTINUOUS	TRENDS MONITORING	SU 9/7/91
031-0098	14932 MANDARIN ROAD	SLAMS	PM2.5	R&P 2025B	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 06/01/99 DAILY
	17-3333.810N-438.920E	SPM	PM2.5	R&P 1400AB	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 1/1/2004
031-0099	9429 MERRILL ROAD	SLAMS	PM2.5	R&P 2025B	POPULATION	NBH	DAILY	NEEDED BY REGULATION	SU 06/01/99 DAILY COLLOCATED
	17-3358.150N-447.340E								SUNNY ACRES
031-0100	13600 Wm. DAVIS PARKWAY	SLAMS	OZONE	TEI 49i	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 9/1/02
	17-3347.598N-456.366E	SPM	PM2.5	R&P 1400AB	POPULATION	URBAN	CONTINUOUS	USED FOR AQI	SU 1/1/04 MAYO CLINIC
031-0106	4770 CISCO DR	SPM	OZONE	TEI 49i	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 9/28/2009
031-0107	1216 DAY AVE	SPM	CO	TEI 48i	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 5/3/2012
New site	*ROADSIDE NO2*	*SLAMS*	*NO2*	*TEI 42I*	*SOURCE*	*MIDDLE*	*CONTINUOUS*	*NEEDED BY REGULATION*	*PENDING EPA FUNDING*
	PEPSICO PLACE	*SLAMS*	*CO*	*TEI 48i*	*SOURCE*	*MIDDLE*	*CONTINUOUS*	*NEEDED BY REGULATION*	*PENDING EPA FUNDING*
New site	*Yellow Water Road*	*SPM*	*Lead*	*R&P 2025*	*POPULATION*	*NBH*	*1/6 Day*	*SOURCE IMPACT*	
089-0005	WATER PLT 5TH ST	SLAMS	SO2	TEI 43C	SOURCE	NBH	CONTINUOUS	SOURCE MONITORING	SU 1/1/76
089-0010	96160 NASSAU PLACE	SLAMS	PM2.5	TEI 1405	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 12/21/12, Yulee

Summary of Sites/Monitors for the Jacksonville MSA (Baker, Clay, Duval, Nassau and St. Johns Counties)

	Current	Proposed
Total Number of Sites	14	16

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Lead	0	1	0
Carbon Monoxide	3	4	1
Ozone	4	4	2
Nitrogen Dioxide	1	2	2
Sulfur Dioxide	5	5	1
PM10	2	2	2
PM 2.5	7	7	3
Total	22	25	11

PM2.5 Breakout

	Current	Proposed
Daily FRMs	3	3
1/3 FRMs	0	0
Continuous	4	4
Collocated	1	1

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

METROPOLITAN STATISTICAL AREA: SARASOTA - BRADENTON - VENICE (MANATEE AND SARASOTA COUNTIE									
AQS #	SITE ADDRESS/UTM	TYPE	POL.	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
081-3002	PORT MANATEE	SPM	OZONE	2B 202	HI CONC	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 4/1/92 SLAMS 12/98 MET
	17-3057.318N-347.461E								TEMPORARILY SD [illegible]
		SLAMS	*SO2*	*TELEDYNE 700*	*SOURCE*	*NBH*	*CONTINUOUS*	*NEEDED BY REGULATION*	*EXPECTED TO START 3RD QUARTER 2013*
081-4012	5502 33RD AVE W	SPM	OZONE	2B 202	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 2/99 SLAMS 12/98 GT BRAY MET
	17-3040.540N-340.060E								TEMPORARILY SD [illegible]
081-4013	5511 39TH STREET EAST	SPM	OZONE	2B 202	POPUATION	NBH	CONTINUOUS	USED FOR AQI	SU 1/99 MET SLAMS 12/98
	17-3036.950N-349.570E								[illegible]
115-0013	BEE RIDGE PARK	SPM	PM2.5	R&P 1400AB	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 5/1/08
	17-3019.350N-350.800E	SLAMS	PM2.5	R&P 2025	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 01/06/99 1/3 COLLOCATED
115-1005	LIDO PARK MCKINLEY DR	SLAMS	OZONE	TEI 49C	HI CONC	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 9/5/89 MET
	17-3021.250N-344.600E								
115-1006	4570 17TH STREET	SLAMS	OZONE	TEI 49I	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 10/1/99 PAW PARK MET
	17-3025.910N-353.620E	SPM	NO2	TEI 42C	POPULATION	NBH	CONTINUOUS	USED TO ASSIST IN FORECASTING	SU 05/01/00 SLAMS 05/00
		SLAMS	PM10	R&P 1400A	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 9/19/03 T,RH,PRECIP
115-2002	2015 JACKSON RD	SPM	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 9/1/03
	17-2996.88N-364.91E	SPM	PM2.5	TEI 1405	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 3/09

Summary of Sites/Monitors for the Sarasota - Bradenton - Venice MSA (Manatee and Sarasota Counties)

	Current	Proposed
Total Number of Sites	7	7

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Lead	0	0	0
Carbon Monoxide	0	0	0
Ozone	6	6	2
Nitrogen Dioxide	1	1	0
PM2.5 Speciation	0	0	0
Sulfur Dioxide	0	1	1
PM10	1	1	1
PM 2.5	3	3	3
Total	11	12	7

PM2.5 Breakout

	Current	Proposed
Daily FRMs	0	0
1/3 FRMs	1	1
Continuous	2	2
Collocated	1	1

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

AGENCY - FDEP TALLAHASSEE AMS (001)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN AREA: TALLAHASSEE (LEON, JEFFERSON AND WAKULA COUNTIES)									
073-0012	TALLAHASSEE COM COL	SLAMS	OZONE	TECO 49i	HI CONC	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 6/98 SLAMS 7/1/98 MET
	16-3370.320N-754.670E	SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 01/01/99 FLOW RATE CHANGED FROM 3 to 1 LPM 9/9/05.
		SLAMS	PM2.5	R&P2025	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 01/01/99, COLLOCATED 1/12 DAY(2007) 01/01/02
		SPEC	PM2.5	METONE	POPULATION	NBH	1/6 DAY	PART OF THE CSN AT THE HIGHEST CONCENTRATION SITE	SU 01/02/02 SPECIATION
		SPEC	EC/OC	URG	POPULATION	NBH	1/6 DAY	PART OF THE CSN AT THE HIGHEST CONCENTRATION SITE	SU 10/04/2009
073-0013	MICC. GREENWAYS	SLAMS	OZONE	TECO 49i	HI CONC	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 9/15/00 MET
	16-3375.620N-768.850E								
073-1005	RT 16 WAKULLA WORK STA	SPM	PM2.5	TEOM	POPULATION	URBAN	CONTINUOUS	TO UNDERSTAND THE IMPACT OF FIRE ON PM2.5	SU 8/7/96 APALACHICOLA NATIONAL FOREST; CHANGED TO PM2.5 7/11/03
	16-3362.000N-762.500E								
129-0001	ST MARKS WILDLIFE REF	SLAMS	OZONE	TECO 49i	REGIONAL TRANSPORT	URBAN	CONTINUOUS	USED TO UNDERSTAND SPATIAL BEHAVIOR	SU 04/16/01 MET
	16-3332.330N-773.520E	*NCORE*	*NOy*				*CONTINUOUS*	*RURUAL N-CORE*	*TO BE PROVIDED BY EPA*
		NCORE	*CO_TL*				*CONTINUOUS*	*RURUAL N-CORE*	*TO BE PROVIDED BY EPA*
		NCORE	*SO2_TL*				*CONTINUOUS*	*RURUAL N-CORE*	*TO BE PROVIDED BY EPA*
		NCORE	*PM2.5*				*1/3 DAY*	*RURUAL N-CORE*	*TO BE PROVIDED BY EPA*
		NCORE	*PM10*				*1/3 DAY*	*RURUAL N-CORE*	*TO BE PROVIDED BY EPA*
		NCORE	*PM2.5*				*CONTINUOUS*	*RURUAL N-CORE*	*TO BE PROVIDED BY EPA*
									WITH IMPROVE FOR SPECIATION

Summary of Sites/Monitors for Tallahassee MSA (Jefferson, Leon and Wakula Counties)

	Current	Proposed
Total Number of Sites	4	4

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	1	2
1/6	1	1
Continuous	2	3
Collocated	1	1

1

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Carbon Monoxide	0	1	0
Ozone	3	3	2
Nitrogen Dioxide	0	0	0
Noy	0	1	0
PM2.5 Speciation	1	1	0
Sulfur Dioxide	0	1	0
PM10	0	1	0
PM 2.5	4	6	0
Total	6	13	2

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
AGENCY - FDEP NORTHWEST FLORIDA DISTRICT (001)									
METROPOLITAN STATISTICAL AREA: PANAMA CITY - LYNN HAVEN (BAY COUNTY)									
005-0006	ST ANDREWS PARK	SLAMS	OZONE	TECO 49i	HI CONC	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 7/13/00 MET
	16-3356.450N-621.970E	SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU FEB 2009

Summary of Sites/Monitors for the Panama City - Lynn Haven MSA (Bay County)

Number of Criteria Pollutant Monitors

		Current	Proposed	Required
Ozone		1	1	1
PM 2.5		1	1	0
	Total	2	2	1

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	0	0
Continuous	1	1
Collocated	0	0

MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: PENSACOLA - FERRY PASS - BRENT (ESCAMBIA AND SANTA ROSA COUNTIES)									
033-0004	ELLYSON IND PARK	SLAMS	OZONE	TECO 49i	POPULATION	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 1/1/75 MET
	16-3376.800N-480.400E	SLAMS	SO2	TECO 43i	SOURCE	NBH	CONTINUOUS	USED TO SEE EFFECTIVENESS OF NEW	SU 1/1/76
		SPM	PM2.5	TEOM	HI CONC	NBH	CONTINUOUS	NEEDED TO MONITOR HIGH CONCENTRATION	SU 2/98
		SLAMS	PM2.5	R&P 2025	POPULATION	NBH	1/3 DAY	USED FOR AQI	SU 01/01/99 1/3 COLLOCATED
033-0018	PENSACOLA NAS	SLAMS	OZONE	TECO 49i	HI CONC	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 10/21/80 MET
	16-3359.419N-473.975E								
113-0015	1500 WOODLAWN WAY, GULF	SLAMS	OZONE	TECO 49i	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 3/9/05 WOODLAWN BEACH MIDDLE SCH
	16-3364.59N-499.228E	SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 2/19/08

Summary of Sites/Monitors for Pensacola MSA (Escambia and Santa Rosa Counties)

	Current	Proposed
Total Number of Sites	3	3

Number of Criteria Pollutant Monitors

		Current	Proposed	Required
Ozone		3	3	2
Nitrogen Dioxide		0	0	0
Sulfur Dioxide		1	1	0
PM10		0	0	0
PM 2.5		3	3	0
	Total	7	7	2

PM2.5 Breakout

	Current	Proposed
Daily FRMs	0	0
1/3 FRMs	1	1
Continuous	2	2
Collocated	1	1

MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: FORT WALTON BEACH - CRESTVIEW - DESTIN (OKALOOSA COUNTY)									
091-0002	720 LOVEJOY RD NW	SLAMS	OZONE	TECO 49i	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 12/1/08 Mary Esther
	16-3366.097N-532.054E	SPM	PM10	TEOM	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 1/30/2013

Number of Criteria Pollutant Monitors

		Current	Proposed	Required
Ozone		1	1	1
PM10		1	1	1
	Total	2	2	2

Outside - MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
NOT IN A METROPOLITAN STATISTICAL AREA: BONIFAY (HOLMES COUNTY)									
059-0004	BONIFAY AIRPORT	SPM	OZONE	TECO 49i	BACKGROUND	REGION	CONTINUOUS	REGIONAL BACKGROUND	SU 9/1/96 MET
	16-3413.350N-633.450E	SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	REGIONAL BACKGROUND	SU 6/14/07

Number of Criteria Pollutant Monitors

		Current	Proposed	Required
Ozone		1	1	0
PM 2.5		1	1	0
	Total	2	2	0

PM2.5 Breakout

	Current	Proposed
Continuous	1	1

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

AGENCY - FDEP NORTHEAST FLORIDA DISTRICT (002)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: GAINESVILLE (ALACHUA AND GILCHRIST COUNTY)									
001-0023	5400 NW 43RD ST	SLAMS	PM2.5	R&P 2025	POPULATION	NBH	1/3 DAY	TRENDS MONITORING	SU 01/01/99 COLLOCATED
	17-3286.550N-365.400E								Millhopper
001-3011	100 SAVANNAH BLVD	SLAMS	OZONE	TECO 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 8/1/97, SLAMS 7/1/98
	17-3269.080N-374.33 E	SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	USED FOR AQI	MET PAYNES PRAIRIE

Summary of Sites/Monitors for Gainesville MSA (Alachua and Gilchrist Counties)

	Current	Proposed
Total Number of Sites	2	2

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	1	1	1
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	0	0	0
PM 2.5	2	2	0
Total	3	3	1

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	1	1
Continuous	1	1
Collocated	1	1

MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: PALM COAST (FLAGLER COUNTY)									
001-3011	206 SAWGRASS RD	SLAMS	OZONE	TECO 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	FLAGLER CO REC AREA, BUNNELL

Summary of Sites/Monitors for Palm Coast MSA (Flagler County)

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	1	1	1
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	0	0	0
PM 2.5	0	0	0
Total	1	1	1

Outside - MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
MICROPOLITAN STATISTICAL AREA: LAKE CITY (COLUMBIA COUNTY)									
023-0002	VETERAN'S DOMICILE	SLAMS	OZONE	TECO 49C	POPULATION	NBH	CONTINUOUS	TO MONITOR THE IMPACT OF HIGH TRAFFIC	SU 11/01/00 VETERAN'S DOMICILE MET
	17-3339.470N-344.070E	SPM	PM25	TEOM	POPULATION	NBH	CONTINUOUS	RURAL MONITORING	SU 5/17/07
NOT IN A METROPOLITAN STATISTICAL AREA: WHITE SPRINGS (HAMILTON COUNTY)									
047-0015	COUNTY RD 137	SLAMS	SO2	TECO 43C	SOURCE	MIDDLE	CONTINUOUS	SOURCE MONITORING	SU 9/18/82 WHITE SPRINGS, OXYCHEM
	17-3365.500N-328.700E	SPM	PM25	TEOM	SOURCE	NBH	CONTINUOUS	RURAL MONITORING	SLAMS 4/27/92 MET TEOM 11/6/01 PM2.5 TEOM 5/17/07
MICROPOLITAN STATISTICAL AREA: PALATKA (PUTNUM COUNTY)									
107-1008	COMFORT ROAD	SLAMS	SO2	TECO 43C	SOURCE	NBH	CONTINUOUS	SOURCE MONITORING	SU 8/15/91 BARGE PORT
	17-3284.278N-437.598E	SLAMS	PM10	TEOM	SOURCE	NBH	CONTINUOUS	SOURCE MONITORING	SU 8/28/02, TEOM 12/13/02

Outside - MSA Network Description

	Current	Proposed	Required
Ozone	1	1	0
Sulfur Dioxide	2	2	0
PM10	1	1	0
PM 2.5	2	2	0
Total	6	6	0

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

AGENCY - FDEP CENTRAL FLORIDA DISTRICT (003)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: PALM BAY - MELBOURNE - TITUSVILLE (BREVARD COUNTY)									
009-0007	401 FLORIDA AVENUE	SLAMS	OZONE	TECO 49C	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 3/1/00 MELBOURNE MET
	17-3103.060N-536.510E	SLAMS	PM25	R&P 2025	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 3/1/00
		SLAMS	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 10/25/07
		SLAMS	PM10	TEOM	SOURCE	URBAN	CONTINUOUS	NEEDED BY REGULATION	FAY PARK SU 11/1/08
009-4001	400 S. 4TH ST	SLAMS	OZONE	TECO 49C	HI CONC	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 9/15/88 COCOA BEACH MET
	17-3131.500N-537.700E								

Summary of Sites/Monitors for Palm Bay - Melbourne - Titusville MSA (Brevard County)

	Current	Proposed
Total Number of Sites	2	2

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	2	2	2
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	1	0
PM10	1	1	0
PM 2.5	2	3	0
Total	5	7	2

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	1	1
Continuous	1	1
Collocated	0	0

MSA Network Description

METROPOLITAN STATISTICAL AREA: OCALA (MARION COUNTY)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
083-0003	SE 17TH ST & SE 30TH AVE	SLAMS	OZONE	TECO49C	HI CONC	NBH	CONTINUOUS	MONITORING GROWTH IMPACT	SU 5/98 YMCA MET SLAMS 7/1/98
	17-3227.200N-392.950E	SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 01/07/99 Cont 11/27/07
083-0004	692 NW 30TH AVE	SLAMS	OZONE	TECO 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 11/8/00 MET SHERIFF'S DEPT IMPOUND
	17-3229.710N-385.910E								

Summary of Sites/Monitors for Ocala MSA (Marion County)

	Current	Proposed
Total Number of Sites	2	2

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	2	2	1
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	0	0	0
PM 2.5	1	1	0
Total	3	3	1

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	0	0
Continuous	1	1
Collocated	0	0

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

METROPOLITAN STATISTICAL AREA: DELTONA-DAYTONA BEACH-ORMOND BEACH (VOLUSIA COUNTY)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
127-2001	5200 SPRUCE ST	SLAMS	OZONE	TECO 49C	HI CONC	URBAN	CONTINUOUS	USED FOR AQI	SU 1/1/92 PORT ORANGE MET
	17-3219.869N-500.591E								
127-5002	1185-A DUNN AVE	SLAMS	OZONE	TECQ 49C	HI CONC	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 1/1/92 DAYTONA MET
	17-3230.711N-494.831E	SLAMS	PM10	TEOM	POPULATION	NBH	CONTINUOUS	TRENDS MONITORING	SU 6/26/98
		SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 01/04/99 CONT 12/20/07
		SLAMS	PM2.5	R&P 2025	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 2009

Summary of Sites/Monitors for Deltona - Daytona Beach - Ormond Beach MSA (Volusia County)

	Current	Proposed
Total Number of Sites	2	2

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Lead	0	0	0
Ozone	2	2	2
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	1	1	0
PM2.5	2	2	2
Total	5	5	4

PM2.5 Breakout

	Current	Proposed
Daily FRMs	0	0
1/3 FRMs	1	1
Continuous	1	1
Collocated	0	0

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

AGENCY - FDEP SOUTHWEST FLORIDA DISTRICT (004)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: LAKELAND (POLK COUNTY)									
105-6005	SIKES ELEMENTARY SCHOOL	SLAMS	OZONE	TECO 49	HI CONC	URBAN	CONTINUOUS	NEEDED BY REGULATION	SU 6/92 LAKELAND
	17-3090.755N-401.588E	*SLAMS*	*SO2*		*Source*	*NBH*	*CONTINUOUS*	*NEEDED BY REGULATION*	*PWEI: 14,040*
105-6006	FL BAPTIST CHILD HOME	SLAMS	OZONE	TECO 49	HI CONC	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 6/17/92 LAKELAND MET
	17-3100.652N-404.435E	SLAMS	PM2.5	R&P 2025	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 1/1/99 COLLOCATED
		SPM	PM2.5	TEOM	SOURCE	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 8/30/07
		SLAMS	PM10	TEOM	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 10/23/07

Summary of Sites/Monitors for Lakeland MSA (Polk County)

	Current	Proposed
Total Number of Sites	2	2

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	1	1
Continuous	1	1
Collocated	1	1

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	2	2	1
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	1	1
PM10	1	1	1
PM2.5	2	2	1
Total	5	6	4

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

Outside - MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
MICROPOLITAN STATISTICAL AREA: HOMOSASSA SPRINGS (CITRUS COUNTY)									
017-0005	Power Line Road	SPM	PM2.5	R&P 2025	POPULATION	URBAN	1/3 DAY	MONITORING GROWTH IMPACT	SU 3/4/99 RUN FOR FL POWER CORP BY AMBIENT AIR SERVICES
	17-3206.85N-334.370E								COLOCATED: CRYSTAL RIVER
New site	*Crystal River Preserve S P*	*SLAMS*	*SO2*		*Source*	*NBH*	*CONTINUOUS*	*NEEDED BY REGULATION*	*PWEI: 14,903*

	Current	Proposed
Total Number of Sites	1	2

	Current	Proposed	Required
Ozone	0	0	0
Sulfur Dioxide	0	1	1
PM10	0	0	0
PM 2.5	1	1	0
Total	2	2	3

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	1	1
Continuous	0	0
Collocated	0	0

MSA Network Description

AGENCY - FDEP SOUTH FLORIDA DISTRICT (005)									
AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
MICROPOLITAN STATISTICAL AREA - SEBRING (HIGHLANDS COUNTY)									
055-0003	123 MAIN DRIVE	SPM	OZONE	TECO 49C	BACKGRND	REGIONAL	CONTINUOUS	REGIONAL BACKGROUND	SU 06/14/01
	17-3007.230N-466.270E								

Summary of Sites/Monitors for Sebring MSA (Highlands County)

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	1	1	0
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	0	0	0
PM2.5	0	0	0
Total	1	1	0

MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: CAPE CORAL - FT MYERS (LEE COUNTY)									
071-0005	FT MYERS WTP	SLAMS	PM10	TEOM	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	REPLACED PM10 1200 2/22/01
	17-2942.575N-412.492E	SLAMS	PM2.5	R&P 2025	POPULATION	NBH	1/3 DAY	NEEDED BY REGULATION	SU 01/01/99 COLLOCATED
		SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 12/10/06
071-2002	5505 ROSE GARDEN RD.	SLAMS	OZONE	TECO 49	HI CONC	URBAN	CONTINUOUS	USED FOR MAPPING	SU 5/7/01 CAPE CORAL
	17-2936.507N-402.380E								MOVED FROM 071-2001
071-3002	FTMYERS BEACH	SLAMS	OZONE	TECO 49	POPULATION	UBAN	CONTINUOUS	NEEDED BY REGULATION	SU 12/1/95 SCHOOL & BAY MET
	17-2925.550N-406.330E								BAY OAKS PARKS

Summary of Sites/Monitors for Cape Coral - Ft. Myers MSA (Lee County)

	Current	Proposed
Total Number of Sites	3	3

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	2	2	2
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	1	1	1
PM2.5	2	2	1
Total	5	5	4

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	1	1
Continuous	1	1
Collocated	1	1

MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: NAPLES - MARCO ISLAND (COLLIER COUNTY)									
021-0004	LAUREL OAK ELEMENTARY	SPM	OZONE	TECO 49C	POPULATION	URBAN	CONTINUOUS	MONITORING GROWTH IMPACT	SU 09/26/01 MET
	17-2905.57N-428.99E	SPM	PM2.5	TEOM	POPULATION	URBAN	CONTINUOUS	MONITORING GROWTH IMPACT	SU 3/2/05

Summary of Sites/Monitors for Naples - Marco Island MSA (Collier County)

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	0	0
Continuous	1	1
Collocated	0	0

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	1	1	1
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	0	0	0
PM2.5	1	1	0
Total	2	2	1

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

MSA Network Description

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
AGENCY - FDEP SOUTHEAST FLORIDA DISTRICT (006)									
METROPOLITAN STATISTICAL AREA: FT PIERCE (ST LUCIE COUNTY)									
085-0005	STUART	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 6/11/10
	17-3005.5764N-575.221E	SPM	PM2.5	TEOM	POPULATION	NBH	CONTINUOUS	USED FOR AQI	SU 6/11/10
111-0013	SAVANNAS	SLAMS	OZONE	TEI 49C	POPULATION	NBH	CONTINUOUS	NEEDED BY REGULATION	SU 2/24/11
	17-3029.719N-568.120E								

Summary of Sites/Monitors for Ft. Pierce MSA (St. Lucie County)

	Current	Proposed
Total Number of Sites	2	2

PM2.5 Breakout

	Current	Proposed
1/3 FRMs	0	0
Continuous	1	1
Collocated	0	0

Number of Criteria Pollutant Monitors

	Current	Proposed	Required
Ozone	2	2	2
Nitrogen Dioxide	0	0	0
Sulfur Dioxide	0	0	0
PM10	0	0	0
PM2.5	1	1	0
Total	3	3	2

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

IMPROVE NETWORK

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
METROPOLITAN STATISTICAL AREA: NONE									
129-0001	ST MARKS WILDLIFE REF	SPM	PM2.5	IMPROVE	BACKGROUND	URBAN	1/3 DAY	NEEDED BY REGULATION	SU 2000
017-9000	CHASSAHOWITZKA WILDLIFE	SPM	PM2.5	IMPROVE	TRANSPORT	URBAN	1/3 DAY	NEEDED BY REGULATION	SU 1993
086-0030	EVERGLADES NATIONAL	SPM	PM2.5	IMPROVE	BACKGROUND	URBAN	1/3 DAY	NEEDED BY REGULATION	SU 1988

IMPROVE NETWORK

AQS #	SITE ADDRESS/UTM	TYPE	POL	SAMPLER	MONITORING OBJECTIVE	SPATIAL SCALE	OPERATING SCHEDULE	STATEMENT OF PURPOSE	COMMENTS
IRL141	STUART	SPM	OZONE	CASTNET	TRANSPORT	URBAN	CONTINUOUS	CASTNET	SU 2010 REGULATORY STATUS
SUM156	SUMATRA	SPM	OZONE	CASTNET	TRANSPORT	URBAN	CONTINUOUS	CASTNET	SU 2010 REGULATORY STATUS

Current Sites are in black
Proposed Sites are in green
Deleted sites are in red

List of abbreviations:

AQI	Air Quality Index
CASTNET	Clean Air Status and Trends Network
CO	Carbon Monoxide
FRM	Federal Reference Method
HI CONC	High Concentration
IMPROVE	Interagency Monitoring of Protected Visual Environments
MET	Implies that wind speed and wind direction instruments are on site
NBH	Neighborhood
NCORE	Proposed N-Core
NO2	Nitrogen Dioxide
NON-REG	Non-regulatory Monitoring
PM2.5	Particulate matter with aerodyanmic diameter of 2.5 micro meter
PM10	Particulate matter with aerodyanmic diameter of 10 micro meter
SLAMS	State and Local Air Monitoring Stations
SO2	Sulfur Dioxide
SPM	Special Purpose Monitors
S SPEC	Supplemental Speciation
SU	Start Up
TREND	Specaiton Trends Network
VOC	Volatile Organic Compound

Network Monitoring Requirments

Metropolitan statistical areas	2012 Census Population	PM2.5 Annual DV	PM2.5 24 hour DV	PM2.5 Monitors Needed	Coll. Cont. PM2.5	Ozone Design Value	Ozone Needed	PM10 Compare to Med Cut Pt	PM10 Needed	N-Core	Lead Req.	PWEI 2012 NEI	PEWI SO2 Needed	Roadside NO2	Comm-wide NO2	RA 40 NO2	Roadside CO Needed
Miami-Fort Lauderdale-Pompano Beach	5,762,717	7.5	15	msa: 2		msa	3		msa: 2	1		147,762	2	2	1		
Broward County	1,815,137	6.7	15	2	1	59	1	< 120	1								1
Miami-Dade County	2,591,035	7.5	14	2	1	65	2	< 120	1							1	
Palm Beach County	1,356,545	6.1	14	2	1	63	1	< 120	1								
Tampa-St. Petersburg-Clearwater	2,842,878	7.7	16	2	1	72	2	< 120	2	1	2	94,280	2	2	1		1
Hernando	173,422			0													
Hillsborough	1,277,746	7.5	16	2	1	72	2	< 120	1								
Pasco	470,391			0		67	2										
Pinellas	921,319	7.7	16	1	1	67	2	< 120	2								
Orlando-Kissimmee-Sanford	1,793,267	7.4	17	2	1	73	2	< 120	2			13,157	1	1	1		1
Jacksonville	1,377,847	8.1	21	2	1	65	2	< 120	2			32,408	1	1	1		1
North Port-Bradenton-Sarasota	720,042	7	15	1	1	71	2	< 120	1			5,030	1	1			
Lakeland	616,158	7.5	16	1	1	69	2	< 120	1			10,666	1	1			
Palm Bay-Melbourne-Titusville	547,307	6.5	14	1	1	65	2	< 120	1			3,003		1			
Cape Coral-Fort Myers	645,293	7	14	1	1	64	2	< 120	1			770		1			
Deltona-Daytona Beach-Ormond Beach	496,950	7.2	16	0		64	2	< 120	0		1	243		1			
Pensacola-Ferry Pass-Brent	461,227	9.0	20	0		73	2	< 120	0			13,122	1				
Port St. Lucie-Fort Pierce	432,683	8.9*	17*	0		61	1	< 120	0			3,780					
Tallahassee	369,391	9.6	23	0		66	2	< 120	0			170					
Naples-Marco Island	332,427	8.7*	18*	0		59	0	< 120	0			109					
Ocala	335,125	9.4*	19*	0		66	1	< 120	0			101					
Gainesville	274,232	7.7	20	0		65	1	< 120	0			1,601					
Crestview-Fort Walton Beach-Destin	190,083	<10	<29	0		67	1	< 120	0			28					
Panama City-Lynn Haven	171,903	9.4*	20*	0		69	1	< 120	0			2,437					
Punta Gorda (Charlotte Co)	162,449	<10	<29	0		~63	0	< 120	0			21					
Sebastian - Vero Beach	140,567	<10	<29	0		~62	0	< 120	0			15					
Palm Coast (Flagler Co)	98,359	<10	<29	0		~63	0	< 120	0			9					

PM2.5 Design Value (DV) cut-point: Annual-10.7 Daily-29.75 Ozone DV cut-point: 63.75 PM10 Medium cut-point:120 * Based on TEOM data ** incomplete data

Micropolitan Statistical Areas	2012 Census Pop.	PM2.5 Annual DV	PM2.5 24 hour DV	PM2.5 Monitors Needed	Coll. Cont. PM2.5	O3 DV	Ozone Needed	PM10 Compare to Med Cut Pt	PM10 Needed	N-Core	Lead Req.	PWEI 2012 NEI	PEWI SO2 Needed
Homosassa Springs (Citrus Co)	139,360	7.2	17	0		>63.75	0					9,456	1
Sebring (Highlands Co)	98,128			0		64	0					41	
Key West-Marathon (Monroe Co)	74,809			0		>63.75	0					66	
Palatka (Putnam Co)	73,263			0		>63.75	0					1,608	
The Villages (Sumter Co)	101,620					>63.75	0					11	
Lake City (Columbia Co)	67,966					>63.75	0					8	

Clewiston (Hendry Co)	37,447				>63.75	0				9
Okeechobee (Okeechobee Co)	39,467				>63.75	0				17
Arcadia (Desoto Co)	34,712				>63.75	0				1
Wauchula (Hardee Co)	27,514				>63.75	0				3

$PM_{2.5}$ FEM/FRM Analysis for Palm Beach County

The ambient air monitoring program in Florida has historically operated $PM_{2.5}$ continuous monitors primarily to support forecasting and reporting of the Air Quality Index (AQI). These monitors supply data every hour to update the AQI on the FDEP web site as well as on national web sites such as AIRNow (www.airnow.gov). These monitors have always been part of Florida's $PM_{2.5}$ monitoring program. Over the last few years, a number of $PM_{2.5}$ continuous monitors have been approved as Federal Equivalent Methods (FEMs). By utilizing an approved FEM, any subsequent data produced from the method may be eligible for comparison to EPA's health based standard known as the NAAQS. The primary advantage of operating a $PM_{2.5}$ continuous FEM is that it can support both the AQI, while also supplying data that are eligible for comparison to the NAAQS. Thus, a network utilizing $PM_{2.5}$ continuous FEMs can minimize the number of filter-based FRMs operated in the network, which are primarily used for comparison to the NAAQS. These filter-based FRMs are resource intensive in that they require field operations as well as pre- and post-sampling laboratory analysis which results in data not being available for approximately 2-4 weeks after sample collection.

The Palm Beach County monitoring program has been working with a $PM_{2.5}$ continuous FEM including deployment at two sites to evaluate its performance. Although the $PM_{2.5}$ continuous FEMs are automated methods, these methods still require careful attention in their set-up, operation, and validation of data. Once enough data were collected, the performance of these methods was compared to collocated FRMs. That evaluation is explained further below and includes recommendations on the use of the data from these methods.

Request for Exclusion of $PM_{2.5}$ Continuous FEM data from Comparison to the NAAQS

In accordance with the PM NAAQS rule published on January 15th, 2013 (78 FR 3086) and specific to the provisions detailed in §58.10 (b)(13) and §58.11 (e), the data from the following monitors is requested to be set aside for comparison to the NAAQS.

While this method has been in use for more than four years in Palm Beach County, the data produced have not been comparable to the data from the FRMs. After assessing the comparability of the $PM_{2.5}$ FEM data to the data from the collocated FRMs for the network, the data from sites listed below have been determined not to meet the

comparability requirements. Detailed one-page assessments from which the information described below was obtained are included at the end of this section.

Table 6: Request for Exclusion of PM2.5 Continuous FEM Data

Sites with $PM_{2.5}$ continuous FEMs that are collocated with FRMs:		
Site Name	Belle Glade	Royal Palm
City	Belle Glade	Royal Palm Beach
Site ID	12-099-0008	12-099-0009
Cont POC	3	3
Method Description	Met One BAM 1020	Met One BAM 1020
$PM_{2.5}$ Cont. Begin Date	1/1/2011	1/1/2009
$PM_{2.5}$ Cont End Date	12/31/2012	12/31/2012
Continuous/ FRM Sampler pairs per season	Winter = 163 Spring = 156 Summer = 160 Fall = 170 Total = 649	Winter = 245 Spring = 259 Summer = 239 Fall = 247 Total = 990
Slope (m)	1.34	1.16
Intercept (y)	0.04	1.39
Meets bias requirement	No	No
Correlation (r)	0.94	0.80

Period of Exclusion of Data from the $PM_{2.5}$ Continuous FEMs

The above table details the period of available data by monitor on which the recommendation to exclude $PM_{2.5}$ continuous FEM data are based. Per EPA Regional Office approval, these data will be loaded or moved, as necessary, to EPA's AQS database in a manner where the data are only used for the appropriate monitoring objective, i.e. use data for AQI. Additionally, new data will continue to be loaded as generated for the next 18 months (intended to represent the period until December 31 of 2014) in the same manner or until such time as any requested change in monitoring objective is approved by the EPA Regional Office.

$PM_{2.5}$ Continuous FEM data for Reporting the AQI

While the data from the monitors above is requested not to be used for comparison to the NAAQS, analysis suggests that the data are of sufficient comparability to collocated FRMs that they be used in AQI reporting. Therefore, with EPA Regional Office approval, these data will be reported on the FDEP web site and to AIRNow (www.airnow.gov). Additionally, the data will be stored in EPA's AQS database coded to be used for "acceptable AQI" reporting (i.e., parameter code 88502) so that data users will know that these data are appropriate for use in AQI calculations.

Continued Operation of $PM_{2.5}$ Monitors to Support NAAQS and AQI Reporting

While the data from the monitors listed above is requested to be set aside for comparison to the NAAQS, $PM_{2.5}$ FRMs will operate to support the objective of comparison to the NAAQS. $PM_{2.5}$ continuous monitors will continue to be used for AQI calculation and reporting. Each of these FRM and $PM_{2.5}$ continuous monitors will be operated at the locations previously described in this plan and at the locations that meet the objectives of the Network Design Criteria for Ambient Air Quality Monitoring described in Appendix D to Part 58.

Assessments

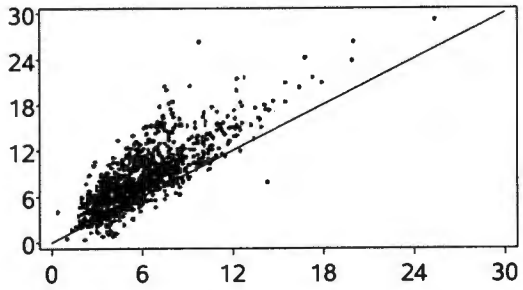
The following one-page assessments are locations where our agency has collocated $PM_{2.5}$ FRM and continuous FEM monitors. Each of these assessments is represented in the Table 6 above.

PM 2.5 Continuous Monitor Comparability Assessment

Site 12-099-0009: Royal Palm Beach, FL

FRM: R & P Model 2025 PM2.5 Sequential w/WINS-GRAVIMETRIC (118), PM2.5 - Local Conditions (88101), POC=1
Cont: Met-One BAM-1020 W/PM2.5 SCC-Beta Attenuation (731), PM2.5 Raw Data (88501), POC=3

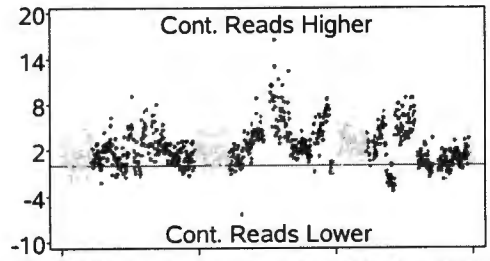
Cont. (y) vs. FRM (x) PM 2.5 ($\mu g/m^3$)



y = 1.16x + 1.39
R = 0.80

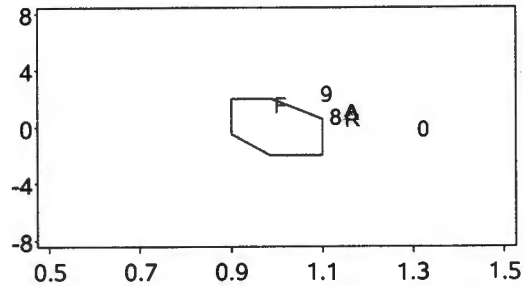
— 1:1 line

Cont. minus FRM PM 2.5 ($\mu g/m^3$)



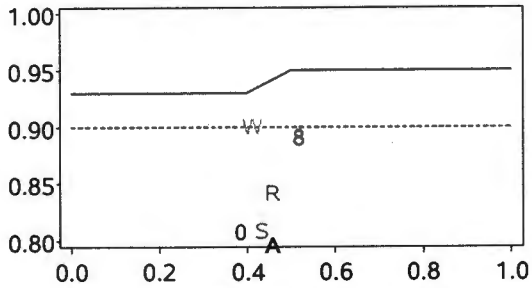
O Winter O Spring O Summer O Fall

Additive (y) vs. Multiplicate (x) Bias



A=AllData, 8=2008, 9=2009, 0=2010
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 8=2008, 9=2009, 0=2010
W=Winter, R=Spring, S=Summer, F=Fall

Mean PM 2.5 ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**990**	**6.0**	**8.4**	**1.39**
Winter	245	6.6	8.5	1.30
Spring	259	6.7	8.7	1.30
Summer	239	5.3	9.1	1.70
Fall	247	5.5	7.4	1.35
2008	349	6.0	7.8	1.29
2009	316	5.9	9.1	1.55
2010	325	6.2	8.4	1.35

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 3 ug/m^3)	Bias
AllData	**990**	**44.4**	**884**	**42.8**
Winter	245	32.4	233	30.5
Spring	259	31.6	230	36.2
Summer	239	73.3	211	70.6
Fall	247	41.7	210	35.9
2008	349	34.2	304	31.3
2009	316	63.0	288	58.5
2010	325	37.2	292	39.3

Data Source: EPA AQS Data Mart

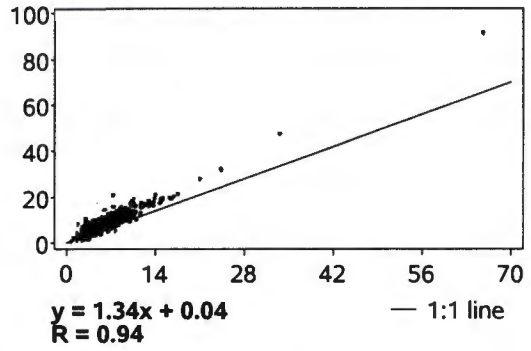
Generated on: May 9, 2013

PM 2.5Continuous Monitor Comparability Assessment

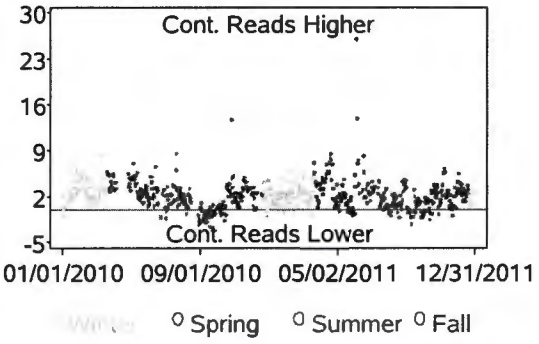
Site 12-099-0008: Belle Glade, FL

FRM: R & P Model 2025 PM2.5 Sequential w/WINS-GRAVIMETRIC (118), PM2.5 - Local Conditions (88101), POC=1
Cont: Met One BAM-1020 Mass Monitor w/VSCC-Beta Attenuation (170), PM2.5 - Local Conditions (88101), POC=3

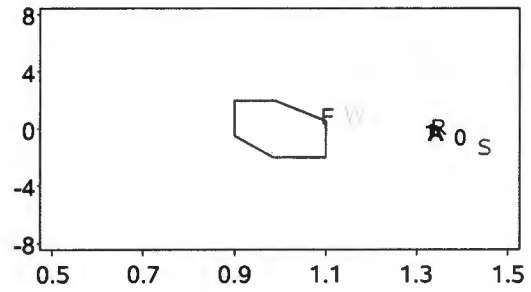
Cont. (y) vs. FRM (x) PM 2.5 ($\mu g/m^3$)



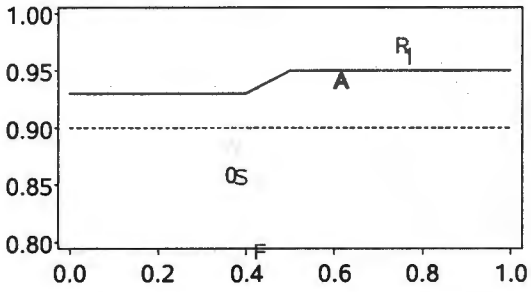
Cont. minus FRM PM 2.5 ($\mu g/m^3$)



Additive (y) vs. Multiplicate (x) Bias



R (y) vs. FRM CCV (x)



Mean PM 2.5 ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**649**	**6.4**	**8.6**	**1.35**
Winter	163	7.2	9.7	1.36
Spring	156	8.3	11.6	1.41
Summer	160	4.8	6.0	1.25
Fall	170	5.3	7.0	1.33
2010	303	6.4	8.6	1.35
2011	346	6.4	8.5	1.34
2012	0	.	.	.

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 3 ug/m^3)	Bias
AllData	**649**	**35.4**	**582**	**37.6**
Winter	163	38.3	161	38.1
Spring	156	43.0	155	43.0
Summer	160	23.0	123	28.7
Fall	170	37.3	143	38.7
2010	303	33.5	279	38.2
2011	346	37.0	303	36.9
2012	0	.	.	.

Data Source: EPA AQS Data Mart

Generated on: May 9, 2013

Monitoring Network Equipment

The condition of the FDEP monitoring network equipment must be evaluated annually in accordance with our 105 Grant Air Planning Agreement. The summary of the evaluation is attached. All equipment in operation is in good condition but the network is being upgraded over the next few years to take advantage of advances in diagnostics to increase efficiency.

Property Inventory - 105 Grant Commitment Report
As of: 5/24/2013

Property No.	Description	Location	Acquisition Date	Age	Initial Cost	Serial Number	Condition	Status
093877	Bios DC2	(Central District Office)	01/10/11	2	$0.00	B403		Active
100359	Thermo Environmental Instruments, Inc 146C	B1071008	12/18/97	15	$9,272.10	146C-60152-326		Active
100360	Thermo Environmental Instruments, Inc 146C	B1071008	12/18/97	15	$9,272.10	146C-60275-326		Active
100361	Thermo Environmental Instruments, Inc 146C	B0470015	12/18/97	15	$9,272.10	146C-60276-326		Active
100505	Aluma Tower	E0712002	11/19/97	16	$1,617.35	n/a		Active
100506	Aluma Tower	G0730012	11/19/97	16	$1,617.36	n/a		Active
100507	Aluma Tower	C0830003	11/19/97	16	$1,617.35	AT71198-102-3		Active
101913	Thermo Environmental Instruments, Inc 49C	E0210004	11/06/98	15	$7,829.00	49C-61989-333		Active
101914	Thermo Environmental Instruments, Inc 49C	C0972002	11/06/98	15	$7,829.00	49C-61990-333		Active
101915	Thermo Environmental Instruments, Inc 49C	(Weigh Lab Room B107)	11/06/98	15	$7,829.00	49C-62032-333		Active
101916	Thermo Environmental Instruments, Inc 49C	Z0992101	11/06/98	15	$7,829.00	49C-62057-333		Active
101917	Thermo Environmental Instruments, Inc 49C	B0350004	11/06/98	15	$7,829.00	49C-62058-333		Active
101919	Thermo Environmental Instruments, Inc 49C	(AC-16 Shelf A)	11/06/98	15	$7,829.00	49C-62060-333		Active
101920	Thermo Environmental Instruments, Inc 49C	(Weigh Lab Room B107)	11/06/98	15	$7,829.00	49C-62064-333		Active
101921	Thermo Environmental Instruments, Inc 49C	D1056006	11/06/98	15	$7,829.00	49C-62075-333		Active
101922	Thermo Environmental Instruments, Inc 49C	E0712002	11/06/98	15	$7,829.00	49C-62076-333		Active
101923	Thermo Environmental Instruments, Inc 49CPS	F1110013	11/06/98	15	$6,152.00	49CPS-61885-333		Active
101924	Thermo Environmental Instruments, Inc 49CPS	(AC-16 Shelf A)	11/06/98	15	$6,152.00	49CPS-61894-333		In Storage
101925	Thermo Environmental Instruments, Inc 49CPS	Z0992101	11/06/98	15	$6,152.00	49CPS-61904-333		Active
101926	Thermo Environmental Instruments, Inc 49CPS	B0350004	11/06/98	15	$6,152.00	49CPS-61905-333		Active

101927	Thermo Environmental Instruments, Inc 49CPS	C1275002	11/06/98	15	$6,152.00	49CPS-61941-333		Active
101928	Thermo Environmental Instruments, Inc 49CPS	D1056006	11/04/98	15	$6,152.00	49CPS-61958-333		Active
101930	Thermo Environmental Instruments, Inc 49CPS	E0550003	11/04/98	15	$6,152.00	49CPS-61961-333		Active
101931	Thermo Environmental Instruments, Inc 49CPS	(CMR Shop D101)	11/04/98	15	$6,152.00	49CPS-61976-333		Lost/Missing/Stolen
101932	Thermo Environmental Instruments, Inc 49CPS	(CMR Shop D101A)	11/04/98	15	$6,152.00	49CPS-61992-333		In Maintenance
103172	Thermo Environmental Instruments, Inc 43C	B0470015	04/14/99	14	$8,406.00	43C-63409-339		Active
103173	Thermo Environmental Instruments, Inc 43C	(Weigh Lab Room B107)	04/14/99	14	$8,406.00	43C-63427-339		Active
104332	Wells Cargo	B0890005	11/10/99	14	$7,660.00	1WC200J12X3042742		Active
104333	Wells Cargo EW2011	B0470015	11/10/99	14	$7,660.00	1WC200J14X3042743		Active
104334	Wells Cargo	C0090007	03/17/99	14	$7,660.00	1WC200J16X3042744		Active
105200	Chinook Engineering FTS	(Duval County)	12/14/99	13	$1,095.00	57-004506-00001		Active
105654	R&P Partisol 2025	C1275002	05/24/99	14	$11,981.80	2025A210659904		Active
105655	R&P Partisol 2025	C1171002	05/24/99	14	$11,981.80	2025A210639904		Active
105740	Environics 6103	(Standards Lab Room B105)	10/31/02	11	$11,310.30	2910		Active
105948	Sony Mavica	(AMS QA Room B105)	11/10/99	14	$903.95	123035		Active
106222	Thermo Environmental Instruments, Inc 42C	(Palm Beach County)	12/14/99	13	$8,489.00	3860-636		Active
106558	ESC 8816	(AC-16 Shelf A)	01/07/00	13	$4,025.00	3316		In Storage
106583	Met One Instruments 50.5	E0210004	03/21/00	13	$1,350.00	Y1712		Active
106584	Met One Instruments 50.5	D1010005	03/21/00	13	$1,350.00	Y1713		Active
106586	Met One Instruments 50.5	B0230002	03/21/00	13	$1,350.00	Y1696		Active
106605	Bios DC-2M	(Northeast District Office)	07/31/02	11	$3,147.25	B 1241		Active
106606	Bios DC-2	E0210004	08/21/02	11	$3,147.25	B 1242		Active
106634	Aluma Tower	C0090007	01/28/00	13	$1,590.00	AT91204-L1-4		Active
106635	Aluma Tower Met Tower	B0470015	01/28/00	13	$1,590.00	n/a		Active
106636	Aluma Tower	B0890005	01/28/00	13	$1,590.00	n/a		Active
106637	Aluma Tower	G0730013	01/28/00	13	$1,590.00	n/a		Active
106638	Aluma Tower	C0830004	01/28/00	13	$1,590.00	AT91204-L1-1		Active
106639	Aluma Tower	C0690002	01/28/00	13	$1,590.00	AT91204-4-8		Active
106640	Aluma Tower	B0230002	01/28/00	13	$1,590.00	n/a		Active
106641	Aluma Tower	G1290001	01/28/00	13	$1,590.00	n/a		Active
106642	Aluma Tower	A0050006	01/28/00	13	$1,590.00	AT91204-L1-#9		Active
106643	Aluma Tower	A1130015	01/28/00	13	$1,590.00	n/a		Active

	T-135							
106644	Aluma Tower	D1010005	01/28/00	13	$1,590.00	AT9120405-6		Active
106667	R&P Partisol 2025	(Trailer Dep 3658)	01/13/00	13	$11,124.34	2025A211439907		In Storage
106668	R&P Partisol 2025	A0330004	01/13/00	13	$11,124.34	2025A21191		Active
106669	R&P Partisol 2025	D1056006	01/13/00	13	$11,124.34	2025A211289906		Active
106670	R&P 1400AB	(A137G)	01/13/00	13	$11,124.34	140AB227839911		Active
106671	R&P 1400AB	(CMR Shop D101)	01/13/00	13	$11,124.34	140AB227829911		Awaiting Maintenance
106672	R&P 1400AB	B0013011	01/13/00	13	$18,961.69	140AB227819911		Active
106673	R&P 1400AB	A0330004	01/13/00	13	$18,961.69	140AB227849911		Active
106674	R&P 1400AB	(Orange County)	01/13/00	13	$18,961.69	140AB227859911		Active
106675	R&P Partisol 2025	(Ambient Air Services)	01/13/00	13	$18,961.67	2025A21159		Active
106677	Thermo Environmental Instruments, Inc 43C	(CMR Shop D101A)	02/03/00	13	$9,400.00	43C-65580-348		In Maintenance
106678	Thermo Environmental Instruments, Inc 49C	C0690002	03/17/00	13	$7,060.00	49C-65467-348		Active
106681	Thermo Environmental Instruments, Inc 49C	(Trailer Dep 06095)	03/17/00	13	$7,060.00	49C-65460-348		Active
106683	Thermo Environmental Instruments, Inc 49C	B0230002	03/17/00	13	$7,060.00	49C-65469-348		Active
106684	Thermo Environmental Instruments, Inc 49C	C1171002	03/17/00	13	$7,060.00	49C-65461-348		Active
106685	Thermo Environmental Instruments, Inc 49C	F1110013	03/17/00	13	$7,060.00	49C-65465-348		Active
106686	Thermo Environmental Instruments, Inc 49C	C0830004	03/17/00	13	$7,060.00	49C-67727-358		Active
106687	Thermo Environmental Instruments, Inc 49C	E0550003	03/17/00	13	$7,060.00	49C-65466-348		Active
106688	Thermo Environmental Instruments, Inc 49C	D1056005	03/17/00	13	$7,060.00	49C-65464-348		Active
106691	Thermo Environmental Instruments, Inc 43C	B1071008	03/17/00	13	$9,400.00	43C-65390-351		Active
106692	Thermo Environmental Instruments, Inc 49CPS	B0230002	03/21/00	13	$8,750.00	49CPS-65568-349		Active
106693	Thermo Environmental Instruments, Inc 49CPS	C1275002	03/17/00	13	$8,750.00	49CPS-65501-348		Active
106695	Thermo Environmental Instruments, Inc 49CPS	(CMR Shop D101A)	03/17/00	13	$8,750.00	49CPS-65502-348		Active
106696	Thermo Environmental Instruments, Inc 49CPS	C0830003	03/17/00	13	$8,750.00	49CPS-65576-349		Active
106700	Thermo	C0094001	03/17/00	13	$8,750.00	49CPS-65572-349		Active

	Environmental Instruments, Inc 49CPS							
106704	Thermo Environmental Instruments, Inc 146C	B0890005	03/17/00	13	$8,805.00	146C-65054-348		Active
106705	Thermo Environmental Instruments, Inc 146C	(AC-15 Shelf C)	03/17/00	13	$8,805.00	146C-63658-348		In Storage
106709	Thermo Environmental Instruments, Inc 146C	(CMR Shop D101)	03/17/00	13	$8,805.00	146C-65543-348		Active
106801	Bios DC-2	(CMR Shop D101A)	01/10/00	13	$3,261.00	B936		Active
107234	Opsis AR-500	(Weigh Lab Room B107)	05/08/00	13	$163,950.00	AR500-E-665		Active
107471	Chinook Engineering Streamline FTS	(CMR Shop D101A)	06/01/00	13	$1,120.00	991101		Active
108018	Hastings	(Standards Lab Room B105)	10/07/02	11	$3,125.00	1392900001		Active
108019	Hastings	(Standards Lab Room B105)	10/07/02	11	$3,125.00	1392900002		Active
108020	Hastings	(AMS QA Room B105)	10/07/02	11	$3,125.00	1392900003		Active
108180	Dasibi 5008	(AMS QA Room B105)	08/29/00	13	$12,580.00	873		Active
108298	Opsis 500	(Standards Lab Room B105)	08/01/00	13	$19,150.00	OC500-1-029		Active
108299	Aadco	(AMS QA Room B416)	07/10/00	13	$5,799.89	2673		Active
108720	Thermo Environmental Instruments, Inc 49CPS	(AC-14 Shelf C)	10/19/00	13	$7,875.00	49CPS-67727-358		Marked for Surplus
108760	Dasibi 5008	(AMS QA Room B105)	10/09/00	13	$13,388.75	860		Active
108830	R&P Partisol 2025	(AC-17 Shelf F)	09/26/00	13	$10,890.00	2025B213080007		Awaiting Maintenance
108916-109177	BGI Incorporated TriCal	(Standards Lab Room B105)	12/12/02	10	$2,028.00	65		Active
108995	BGI Incorporated TriCal	(AMS QA Room B105)	12/11/02	10	$2,028.00	66		Active
108997	BGI Incorporated TriCal	(AMS QA Room B105)	12/11/02	10	$2,028.00	67		Active
109126	BGI Incorporated TriCal	(AMS QA Room B105)	12/11/02	10	$2,028.00	68		Active
109177	BGI Incorporated TriCal	(CMR Shop D101A)	12/11/02	10	$2,028.00	69		Active
109194	Tektronix TDS3032	(CMR Shop D101D)	01/30/01	12	$3,821.41	B020425		Active
109195	Dasibi 5008	(AMS QA Room B105)	03/05/01	12	$13,388.75	910		Active
109218	R&P 1400AB	E0210004	03/20/01	12	$16,975.00	140AB234100012		Active
109219	R&P 1400AB	(AC-17 Shelf C)	03/20/01	12	$16,975.00	140AB233270011		Awaiting Maintenance
109220	R&P 1400AB	A1130015	03/20/01	12	$16,975.00	140AB233280011		Active
109222	R&P 1400AB	D1056006	03/02/01	12	$16,975.00	140AB233290011		Active
109620	Environics Portable Mass Flow System	(Standards Lab Room B105)	05/04/01	12	$7,495.00	FEPA001		Active
109621	Environics Portable Mass Flow System	(Standards Lab Room B105)	05/04/01	12	$7,495.00	FEPA002		Active
109622	Environics Portable Mass Flow System	(Standards Lab Room B105)	05/04/01	12	$7,495.00	FEPA003		Active
109727	EKTO	(Trailer DNR 2096)	03/20/01	12	$4,795.00	3200-13A		In Storage
110129	Wells Cargo WC200E	B0890010	02/18/03	10	$10,277.00	1WC200E1733049495		Active

110269	Quick Marquee	(AC-14)	04/13/01	12	$2,803.00	5221434		Marked for Surplus
110688	Aluma Tower	(CMR Shop Parking Lot)	08/27/01	12	$1,660.00	n/a		Marked for Surplus
110689	Aluma Tower	E0550003	08/27/01	12	$1,660.00	n/a		Active
110690	Aluma Tower	(CMR Shop Parking Lot)	08/27/01	12	$1,660.00	n/a		Active
110692	Aluma Tower	(CMR Shop Parking Lot)	08/21/00	13	$1,660.00	n/a		In Storage
110945	R&P 1400AB	A0590004	05/08/01	12	$16,975.00	140AB235500103		Active
110946	R&P 1400AB	C1275002	05/08/01	12	$16,975.00	140AB235430103		Active
111216	Met One Instruments 50.5	C0830004	10/15/01	12	$1,350.00	A5872		Active
111217	Met One Instruments 50.5	E0712002	10/15/01	12	$1,350.00	A5871		Active
111218	Met One Instruments 50.5	(CMR Shop D101)	10/15/01	12	$1,350.00	A5875		Active
111336	Adam 5000	(CMR Shop D101D)	12/07/01	11	$1,300.00	IAA0104612		Marked for Surplus
111365	Fisher Scientific	(Weigh Lab Room B107)	10/09/01	12	$1,198.13	108N0198		Active
111465	Weller WRS-3000	(CMR Shop D101B)	11/13/01	12	$1,494.00	n/a		Active
111487	R&P 1400AB	B1071008	11/13/01	12	$16,995.00	140AB238020110		Active
111524	Dasibi 5008	(AMS QA Bruce Ferrier)	11/15/01	12	$12,580.00	939		Active
111717	Opsis 150MM Cell	(AMS QA Room B105)	05/10/02	11	$3,600.00	n/a		Active
111718	Opsis 110 mm Cell	(AMS QA Room B105)	05/10/02	11	$2,600.00	n/a		Active
111719	Opsis	(Hillsborough County)	05/10/02	11	$12,950.00	n/a		Active
111720	Opsis OC500	(AMS QA Room B105)	05/10/02	11	$12,950.00	n/a		Active
111721	Opsis Optical Bench	(CMR Shop D101)	05/10/02	11	$21,870.00	n/a		Active
112109	R&P 1400AB	C0090007	02/07/02	11	$17,460.00	140AB239110201		Active
112110	Wells Cargo	A0590004	01/17/02	11	$10,812.00	1WC200J2223047926		Active
113711	Hastings	(AMS QA Room B105)	06/19/02	11	$3,294.85	1244400001		Active
113812	R&P ACCU	(AC-17 Shelf F)	09/05/02	11	$4,542.00	ACCUB305180101		In Storage
113829	Hastings Mass Flow Controller	(Standards Lab Room B105)	07/26/02	11	$1,629.00	AW02313002		Active
113830	Hastings Mass Flow Controller	(AMS QA Room B105)	07/26/02	11	$1,629.00	AW02313003		Active
113831	Hastings Mass Flow Controller	(AMS QA Room B105)	09/10/02	11	$1,629.00	AW02313004		Active
113832	Hastings Mass Flow Controller	(AMS QA Room B105)	09/10/02	11	$1,629.00	AW02313001		Active
114161	R&P 1400A	C0090007	12/25/02	10	$16,995.00	140AB242620208		Active
114162	R&P 1400A	C1275002	12/25/03	9	$16,995.00	140AB242930209		Active
114693	Met One Instruments 50.5	E0550003	01/16/03	10	$1,782.50	B5765		Active
114696	Met One Instruments 083D-1-35	E0550003	01/16/03	10	$1,142.50	B5989		Active
114706	Environics 6103	(AMS QA Room B105)	02/19/03	10	$11,310.30	3046		Active
114707	Environics 6103	(Standards Lab Room B105)	02/19/03	10	$11,310.30	3062		Active
115149	Lightning Master Corporation	B0890010	12/18/03	9	$2,334.00	n/a		Active
115150	Lightning Master Corporation	C0972002	12/18/03	9	$2,334.00	n/a		Active
115151	Lightning Master Corporation	C0690002	01/10/03	10	$2,334.00	202103112		Active
115152	Lightning Master	F1110013	01/10/03	10	$2,334.00	n/a		Active

	Corporation							
115153	Lightning Master Corporation	B1071008	12/18/03	9	$2,334.00	202103111		Active
115154	Lightning Master Corporation	B0013011	12/18/02	10	$2,334.00	202103452		Active
115155	Lightning Master Corporation	C0090011	12/18/02	10	$2,334.00	202103451		Active
115156	Lightning Master Corporation	E0713002	12/18/02	10	$2,334.10	n/a		Active
115157	Lightning Master Corporation	G0730013	01/06/03	10	$2,334.00	n/a		Active
115158	Lightning Master Corporation	G0730012	12/18/02	10	$2,334.00	304005441		Active
115159	Lightning Master Corporation	A0330004	02/25/03	10	$8,587.55	n/a		Active
115507	R&P 1400AB	C1171002	05/13/03	10	$17,460.00	140AB245470304		Active
115508	R&P 1400A	D1056006	05/13/03	10	$17,460.00	140AB245490304		Active
115569	R&P ACCU	(AC-17 Shelf F)	03/12/03	10	$4,690.00	ACCUB305790211		In Storage
115571	R&P ACCU	(AC-17 Shelf F)	03/12/03	10	$4,690.00	ACCUB305800211		In Storage
115792	Thermo Environmental Instruments, Inc 49C	F0850007	06/10/03	10	$5,720.80	49C-78831-389		Active
115794	Thermo Environmental Instruments, Inc 49CPS	(AC-16 Shelf A)	06/10/03	10	$8,127.00	49CPS-78833-389		In Storage
116105	Hastings	(AMS QA Room B105)	04/21/03	10	$1,310.00	16156		Active
116106	Hastings	(AMS QA Room B105)	04/21/03	10	$1,310.00	16157		Active
117061	Adam 5000E	(CMR Shop D101D)	05/27/03	10	$1,652.75	1154		Active
117062	Adam 5000E	(CMR Shop D101D)	05/27/03	10	$1,652.75	1155		Active
117063	Adam 5000E	(CMR Shop D101D)	05/27/03	10	$1,652.75	1156		Active
117235	Lightning Master Corporation	B0030002	07/17/03	10	$2,421.56	n/a		Active
117238	Lightning Master Corporation	D1010005	05/23/03	10	$2,421.67	n/a		Active
117237	Lightning Master Corporation	E0210004	07/17/03	10	$2,421.56	n/a		Active
117238	Environics	(AMS QA Room B105)	06/05/03	10	$1,310.00	16527		Active
117239	Environics	(AMS QA Room B105)	06/05/03	10	$1,310.00	16528		Active
117393	Calibration Bath	(Standards Lab Room B105)	06/10/03	10	$9,972.90	803050081		Active
117858	Foil Kit	(AMS QA Mary Clark)	07/17/03	10	$1,185.00	613		Active
117859	Foil Kit	(AMS QA Bruce Ferrier)	07/17/03	10	$1,185.00	614		Active
117860	Foil Kit	(Standards Lab Room B105 Cab D)	07/17/03	10	$1,185.00	631		Active
117862	Foil Kit	(AMS QA Room B105)	06/25/03	10	$1,185.00	AT03243003		Active
117863	MASS FLOW CONTROLLER	(AMS QA Room B105)	04/09/03	10	$1,592.96	AT03133039		Active
118079	Bios ML 800	(Standards Lab Room B105)	10/10/03	10	$33,075.00	n/a		Active
119262	ESC 8832	E0210004	08/12/04	9	$6,270.00	A0451		Active
119263	ESC 8832	B0013011	02/24/04	9	$6,270.00	A0457		Active
119264	ESC 8832	A1130015	08/12/04	9	$6,270.00	A0458		Active
119265	ESC 8832	C0090007	02/20/04	9	$7,220.00	A0463		Active
119266	ESC 8832	(A137D)	02/20/04	9	$7,220.00	A0464		In Storage
119267	ESC 8832	G0730012	08/12/04	9	$6,270.00	A0465		Active
119268	ESC 8832	E0713002	02/24/04	9	$6,270.00	A0466		Active

119269	ESC 8832	(A137D)	08/12/04	9	$6,270.00	A0467		In Storage
119270	ESC 8832	B0890005	02/24/04	9	$6,270.00	A0473		Active
119271	ESC 8832	G1290001	03/01/04	9	$6,270.00	A0487		Active
119272	ESC 8832	D1010005	03/01/04	9	$6,270.00	A0488		Active
119273	ESC 8832	E0550003	03/01/04	9	$6,270.00	A0489		Active
119274	ESC 8832	B0230002	03/01/04	9	$6,270.00	A0490		Active
119275	ESC 8832	(A137D)	03/01/04	9	$6,270.00	A0491		Active
119276	ESC 8832	A0330004	08/12/04	9	$6,270.00	A0492		Active
119277	ESC 8832	C0830003	03/01/04	9	$6,270.00	A0493		Active
119278	ESC 8832	B0890010	03/01/04	9	$6,270.00	A0494		Active
119279	ESC 8832	C1272001	03/01/04	9	$6,270.00	A0495		Active
119280	ESC 8832	B1071008	03/01/04	9	$6,270.00	A0496		Active
119281	ESC 8832	D1012001	03/01/04	9	$6,270.00	A0497		Active
119282	ESC 8832	D1056006	05/13/04	9	$7,220.00	A0588		Active
119263	ESC 8832	E0710005	08/12/04	9	$6,220.00	A0589		Active
119284	ESC 8832	C1171002	05/13/04	9	$6,270.00	A0590		Active
119285	ESC 8832	(A137D)	05/13/04	9	$6,270.00	A0591		Active
119286	ESC 8832	C0690002	05/13/04	9	$6,270.00	A0592		Active
119287	ESC 8832	C1275002	08/12/04	9	$6,270.00	A0593		Active
119288	ESC 8832	C0972002	05/13/04	9	$6,270.00	A0594		Active
119289	ESC 8832	B0350004	05/13/04	9	$6,270.00	A0595		In Storage
119290	ESC 8832	A0590004	05/13/04	9	$6,270.00	A0596		Active
119291	ESC 8832	D1056005	05/13/04	9	$6,270.00	A0597		Active
119292	ESC 8832	E0712002	05/13/04	9	$6,270.00	A0598		Active
119293	ESC 8832	(On Loan)	08/12/04	9	$6,270.00	A0599		In Storage
119294	ESC 8832	C0830004	05/13/04	9	$6,270.00	A0600		Active
119295	ESC 8832	(A137D)	05/13/04	9	$6,270.00	A0601		Active
119296	ESC 8832	C0094001	05/13/04	9	$6,270.00	A0602		Active
119297	ESC 8832	B0030002	05/13/04	9	$7,220.00	A0603		In Storage
119753	MASS FLOW CONTROLLER	(AMS QA Room B105)	03/25/04	9	$1,592.42	AT04093008		Active
119754	Aadco	(AC-14)	03/29/04	9	$6,297.00	2820		Active
120171	Chinook Engineering FTS	(Standards Lab Room B105 Cab I)	04/21/04	9	$1,835.00	HL1		Active
120172	Chinook Engineering FTS	(Standards Lab Room B105 Cab I)	04/21/04	9	$1,835.00	HL2		Active
121000	Lightning Master Corporation	G1290001	09/27/04	9	$2,810.00	304005441		Active
121305	Environics 6103	(Standards Lab Room B105)	09/01/04	9	$12,948.50	3285		Active
121345	Lightning Master Corporation	A0910002	07/16/04	9	$2,810.79	n/a		Active
121346	Lightning Master Corporation	D1056006	07/16/04	9	$2,810.80	n/a		Active
121347	Lightning Master Corporation	B0890005	07/16/04	9	$2,810.80	101100942		Active
121348	Lightning Master Corporation	D1012001	07/16/04	9	$2,810.80	n/a		Active
121816	R&P 1400AB	(A137G)	11/10/04	9	$17,460.00	140AB253220409		Active
121817	R&P 1400AB	C0830003	11/10/04	9	$17,460.00	140AB253230409		Active
121818	R&P 1400AB	E0710005	11/10/04	9	$17,460.00	140AB253240409		Active
121819	R&P 1400A	F0850007	11/10/04	9	$17,460.00	140AB253250409		Active
121882	Chinook Engineering FTS	(Standards Lab Room B105 Cab I)	10/28/04	9	$1,835.00	HL3		Active

121883	Chinook Engineering FTS	(Standards Lab Room B105 Cab I)	10/28/04	9	$1,835.00	HL4		Active
121892	Met One Instruments 50.5	C0972002	11/01/04	9	$1,420.00	D6936		Active
121894	Met One Instruments 50.5	E0713002	11/01/04	9	$1,420.00	D6938		Active
121895	Met One Instruments 50.5	(Missing)	10/21/04	9	$1,420.00	D6939		Lost/Missing/Stolen
122188	NovaLynx 355-A10900	(CMR Shop D101A)	08/23/04	9	$1,404.69	995472-U1		Active
122462	Opsis	(Weigh Lab Room B107)	05/25/05	8	$12,070.00	604		Active
123902	Opsis	(Weigh Lab Room B107)	05/25/05	8	$4,216.00	n/a		Active
124178	Wells Cargo TW122	(CMR Shop Parking Lot)	05/16/05	8	$9,534.25	1WC200E2353053636		Active
124417	Met One Instruments 083D-1-35	(CMR Shop D101B)	07/01/05	8	$1,515.45	D7561		Active
124758	Fluke 715/87V	(CMR Shop D101)	06/09/05	8	$1,081.00	8881056		Active
124759	Fluke 715/87V	(CMR Shop D101)	06/09/05	8	$1,081.00	8881048		Active
124760	Fluke 715/87V	(CMR Shop D101)	06/09/05	8	$1,081.00	8881046		Active
124761	Fluke 715/87V	(CMR Shop D101A)	06/09/05	8	$1,081.00	8881038		Active
124762	Fluke 715/87V	(South District Office)	07/14/05	8	$1,081.00	8881043		Active
124763	Fluke 715/87V	(Southwest District Office)	07/14/05	8	$1,081.00	8767140		Active
124764	Fluke 715/87V	A0330004	07/14/05	8	$1,081.00	8767074		Active
124765	Fluke 715/87V	(Northeast District Office)	07/14/05	8	$1,081.00	8767090		Active
124766	Fluke 43B	(CMR Shop D101)	06/09/05	8	$1,977.45	DM8860166		Active
125011	R&P Partisol 2025	(AC-16 Shelf C)	07/07/05	8	$11,890.00	2025B218010506		Awaiting Maintenance
125012	R&P 2025	(Orange County)	07/01/05	8	$11,890.00	2025B217930506		Active
126972	AALBORG GFM-17	(CMR Shop D101A)	02/27/06	7	$1,192.25	154938-1		Active
126973	AALBORG GFM-17	(LabA Cab1 Drawer3)	03/03/06	7	$1,154.25	154938-2		Active
127261	Thermo Environmental Instruments, Inc 49C	D1012001	03/21/06	7	$8,682.00	0536 114346		Active
127262	Thermo Environmental Instruments, Inc 49CPS	B0030002	03/21/06	7	$11,325.00	0536 114350		Active
127263	Thermo Environmental Instruments, Inc 49CPS	F0850007	03/21/06	7	$11,325.00	0536 114349		Active
127264	Thermo Environmental Instruments, Inc 49CPS	C0090007	03/21/06	7	$11,325.00	0536 114347		Active
127265	Thermo Environmental Instruments, Inc 49CPS	C0690002	03/21/06	7	$11,325.00	0536 114348		Active
127266	Thermo Environmental Instruments, Inc 49CPS	E0712002	03/21/06	7	$11,325.00	0536114351		Active
127267	Thermo Environmental Instruments, Inc 43C	B0890005	03/21/06	7	$12,606.00	0523012668		Active
127268	Thermo Environmental Instruments, Inc 48CTLE	(AC-17 Shelf B)	03/21/06	7	$11,355.00	0536 114345		In Storage
127352	Aadco Zero Air	(Standards Lab Room B105)	04/10/06	7	$4,205.00	2878		Active

	Generator							
127392	Fluke 8505A Multimeter	(Standards Lab Room B105)	04/10/06	7	$15,532.00	908852245		Active
127441	Aluma Tower	A0330018	04/03/06	7	$2,235.00	n/a		Active
127442	Aluma Tower T-135-35	F0850007	05/01/06	7	$2,235.00	n/a		Active
127465	Mykrolis FC-260V	(CMR Shop D101A)	03/28/06	7	$1,337.00	AA06103066		Active
127530	Fluke 715/87V	(Central District Office)	05/03/06	7	$1,295.05	9015198		Active
127531	Fluke 715/87V	F0850007	05/03/06	7	$1,295.05	9005307		Active
127612	ESC 8832	F0850007	04/21/06	7	$6,200.00	A1289		Active
127613	ESC 8832	A0050006	04/21/06	7	$6,200.00	A1288		Active
127614	ESC 8832	(A137D)	04/24/06	7	$6,200.00	A1287		In Storage
127615	ESC 8832	F1110013	04/21/06	7	$6,790.00	A1286		Active
128028	BK Precision 865	(CMR Shop D101D)	05/25/06	7	$1,090.00	113-01362		Active
128367	Bios ML 800	(Standards Lab Room B105)	07/06/06	7	$15,155.00	108053		Active
128690	Hastings MASS FLOW CONTROLLER	(LabA Cab1 Drawer4)	07/13/06	7	$1,375.00	3315400002		Active
128691	Hastings MASS FLOW CONTROLLER	(LabA Cab1 Drawer4)	07/13/06	7	$1,375.00	3315400081		Active
128692	Hastings MASS FLOW CONTROLLER	(LabA Cab1 Drawer4)	07/13/06	7	$1,375.00	3315400003		Active
132187	R&P 1400AB	(AC-17 Shelf C)	05/15/07	6	$24,964.00	140AB266790704		Awaiting Maintenance
132280	eLutions iRX	E0550003	05/14/07	6	$1,116.25	0809001693		Active
132281	Thermo Environmental Instruments, Inc 49iPS	A0590004	05/25/07	6	$9,361.00	0714922084		Active
132282	Thermo Environmental Instruments, Inc 49i	(CMR Shop D101)	05/25/07	6	$7,313.00	0714922083		Active
132487	R&P 1400AB	(AC-17 Shelf C)	05/08/07	6	$19,224.00	140AB267260705		Awaiting Maintenance
132884	Thermo Environmental Instruments, Inc 42i	(Weigh Lab Room B107)	06/28/07	6	$11,305.00	CM07230014		Active
133513	Chinook Engineering Streamline Pro	(CMR Shop D101A)	08/28/07	6	$3,548.00	M070802		CMR Loan
134155	R&P 1400AB	E0710005	11/20/07	6	$17,479.00	140AB268550709		Active
134321	ESC 8832	A0910002	01/03/08	5	$6,020.00	A2187		Active
134322	ESC 8832	(A137D)	01/03/08	5	$6,020.00	A2188		Active
134323	ESC 8832	(A137D)	01/03/08	5	$6,020.00	A2326K		Active
134548	R&P 1400AB	A0050006	02/15/08	5	$18,845.00	140AB270280801		Active
135127	Fluke 715/87V	(CMR Shop D101)	04/08/08	5	$1,300.78	9612035		Active
135128	Fluke 715/87V	(CMR Shop D101D)	04/08/08	5	$1,300.78	9612049		Active
135129	Fluke 715/87V	E0210004	04/08/08	5	$1,300.78	9612059		Active
135229	eLutions iRX	(AC-15 Shelf C)	04/08/08	5	$1,116.25	0809001626		Marked for Surplus
135231	eLutions iRX	(AC-15 Shelf C)	04/08/08	5	$1,116.25	0809001677		Marked for Surplus
135238	Aluma Tower T-135-35	A0910002	04/22/08	5	$2,367.50	AT-82070-T-4-1		Active
135239	Aluma Tower T-135-35	(CMR Shop Parking Lot)	04/22/08	5	$2,367.50	AT-82070-T-4-2		In Storage
135538	Wells Cargo EW2011	B0350004	05/28/08	5	$14,597.00	1WC200J2383058622		In Storage
135562	Wells Cargo EW2011	F0850007	05/28/08	5	$14,597.00	1WC200J2583058623		Active
137051	Thermo Environmental	A0910002	07/09/08	5	$7,533.50	0820431148		Active

	Instruments, Inc 49I-A1NAA							
137052	Thermo Environmental Instruments, Inc 49IPS-ANAA	(CMR Shop D101)	07/09/08	5	$10,165.00	0820430996		In Storage
137565	Thermo Environmental Instruments, Inc 1405	B0470015	09/05/08	5	$17,554.00	1405A202240808		In Storage
138290	ESC 8832	A0330018	02/11/09	4	$6,836.66	A3101K		Active
138291	ESC 8832	G0730013	02/11/09	4	$6,836.67	A3102K		Active
138292	ESC 8832	(A137D)	03/11/09	4	$6,836.67	A3103K		Active
138593	Chinook Engineering Streamline Pro	D1056006	03/06/09	4	$3,917.00	M081202		Active
138594	Chinook Engineering Streamline Pro	A0330004	03/06/09	4	$3,917.00	M081204		Active
138595	Chinook Engineering Streamline Pro	(CMR Shop D101)	03/06/09	4	$3,917.00	M080510		Active
138597	Met One Instruments 50.5	F0850007	04/20/09	4	$2,365.00	H11154		Active
139025	Thermo Environmental Instruments, Inc 49i-PS-ANAA	A0050006	05/04/09	4	$10,202.76	0913235776		Active
139174	Thermo Environmental Instruments, Inc 49i-A1NAA	A1130015	05/12/09	4	$7,569.45	CM09130039		Active
139697	Thermo Environmental Instruments, Inc 2025-AM	E0710005	06/29/09	4	$15,181.19	2025B225330905		Active
139698	Thermo Environmental Instruments, Inc 2025-AM	C0090007	06/29/09	4	$15,161.19	2025B225320905		Active
139699	Thermo Environmental Instruments, Inc 1405-AVF	G0730012	06/29/09	4	$17,705.76	1405A204650904		Active
139700	Thermo Environmental Instruments, Inc 1405-AVF	B0230002	06/29/09	4	$17,705.77	1405A204760905		Active
139701	Wells Cargo EW2011	(Douglas Building)	06/09/09	4	$16,922.25	1WC200J2693059622		Active
139702	Wells Cargo EW2011	G0730012	06/09/09	4	$16,922.25	1WC200J2893059623		Active
140120	Teledyne API 700E	(CMR Shop D101A)	10/15/09	4	$16,958.96	703-S		Active
140296	Thermo Environmental Instruments, Inc 2025B	E0710005	11/20/09	4	$12,575.80	2025B225830910		Active
140297	Thermo Environmental Instruments, Inc 2025B	B0010023	11/20/09	4	$12,575.80	2025B225910911		Active
140298	Thermo Environmental Instruments, Inc 2025B	C1171002	11/20/09	4	$12,575.81	2025B225920912		Active
140299	Thermo Environmental Instruments, Inc 2025B	G0730012	11/20/09	4	$12,575.81	2025B225930912		Active
140300	Thermo	B0010023	11/20/09	4	$12,575.80	2025B225940912		Active

	Environmental Instruments, Inc 2025B							
140301	Thermo Environmental Instruments, Inc 49I-A1NAA	G0730013	12/17/09	3	$7,936.32	CM09500013		Active
140302	Thermo Environmental Instruments, Inc 49I-A1NAA	G0730012	12/17/09	3	$7,936.32	CM09500014		Active
140303	Thermo Environmental Instruments, Inc 49I-A1NAA	A0050006	12/17/09	3	$7,936.32	CM09500015		Active
140304	Thermo Environmental Instruments, Inc 49I-A1NAA	A0590004	12/17/09	3	$7,936.32	CM09500016		Active
140305	Thermo Environmental Instruments, Inc 49I-A1NAA	G1290001	12/17/09	3	$7,936.33	CM09500017		Active
140306	Thermo Environmental Instruments, Inc 49IPS-ANAA	(A137A)	12/17/09	3	$9,808.00	035239567		In Storage
140307	Thermo Environmental Instruments, Inc 49IPS-ANAA	G1290001	02/03/10	3	$9,808.00	0935239568		Active
140308	Thermo Environmental Instruments, Inc 49IPS-ANAA	G0730012	12/17/09	3	$9,808.00	0935239569		Active
140309	Thermo Environmental Instruments, Inc 49IPS-ANAA	(CMR Shop D101A)	12/17/09	3	$9,808.00	0935239570		Active
140310	Thermo Environmental Instruments, Inc 49IPS-ANAA	G0730013	12/17/09	3	$9,808.01	0935239571		Active
140617	Teledyne API 700E	A0330004	06/16/10	3	$15,103.00	898-S		Active
140618	Teledyne API 700E	(A137E)	06/16/10	3	$15,103.00	896-S		In Storage
140619	Teledyne API 700E	(A137E)	06/16/10	3	$15,103.00	897-S		Active
140620	Teledyne API 700E	(CMR Shop D101)	06/16/10	3	$15,103.00	895-S		Active
140621	Teledyne API 700E	(A137E)	06/16/10	3	$15,103.00	899-S		In Storage
140622	Teledyne API 700E	(A137E)	06/16/10	3	$15,103.00	900-S		In Storage
140661	ESC 8832	(CMR Shop D101)	06/22/10	3	$9,017.50	A3730K		Active
140662	ESC 8832	B0470015	06/22/10	3	$9,017.50	A3731K		Active
140930	Vaisala WXT520	G1290001	06/30/10	3	$1,767.75	F2620012		Active
141098	Bios Definer Model 220 - M	(CMR Shop D101)	09/22/10	3	$1,890.00	120467		Active
141108	Bios Definer Model 220 - M	(CMR Shop D101A)	09/22/10	3	$1,890.00	120469		Active
141109	Bios Definer Model 220 - M	E0210004	09/22/10	3	$1,890.00	120460		Active
141110	Bios Definer Model 220 - M	(Northwest District Office)	09/22/10	3	$1,890.00	120461		Active
141111	Bios Definer Model 220 - M	(South District Office)	09/22/10	3	$1,890.00	120827		Active

141112	Bios Definer Model 220 - M	(CMR Shop D101A)	09/22/10	3	$1,890.00	120463		Active
141113	Bios Definer Model 220 - M	(Northwest District Office)	09/22/10	3	$1,890.00	120466		Active
141114	Bios Definer Model 220 - M	(Northeast District Office)	09/22/10	3	$1,890.00	120470		Active
141118	Bios Definer Model 220 - M	(Southeast District Office)	09/22/10	3	$1,890.00	120826		Active
141119	Bios Definer Model 220 - M	(Southwest District Office)	11/17/10	3	$1,890.00	120464		Active
141120	Bios Definer Model 220 - M	(Central District Office)	11/17/10	3	$1,890.00	120462		Active
141121	Bios Definer Model 220 - M	(CMR Shop D101A)	11/17/10	3	$1,890.00	120468		Active
141122	Bios Definer Model 220 - M	(Central District Office)	11/17/10	3	$1,890.00	120465		Active
141123	Bios Definer Model 220 - M	(CMR Shop D101A)	11/17/10	3	$1,890.00	120459		Active
141124	Bios Definer Model 220 - H	(CMR Shop D101A)	11/17/10	3	$1,890.00	120535		Active
141125	Bios Definer Model 220 - H	(CMR Shop D101A)	11/17/10	3	$1,890.00	120540		Active
141126	Bios Definer Model 220 - H	E0210004	11/17/10	3	$1,890.00	120544		Active
141130	Bios Definer Model 220 - H	(Northwest District Office)	11/17/10	3	$1,890.00	120537		Active
141131	Bios Definer Model 220 - H	(South District Office)	11/17/10	3	$1,890.99	120787		Active
141132	Bios Definer Model 220 - H	(CMR Shop D101A)	11/17/10	3	$1,890.99	120788		Active
141133	Bios Definer Model 220 - H	(Northwest District Office)	11/17/10	3	$1,890.99	120640		Active
141134	Bios Definer Model 220 - H	(Northeast District Office)	11/17/10	3	$1,890.99	120541		Active
141135	Bios Definer Model 220 - H	(Southeast District Office)	11/17/10	3	$1,890.99	120539		Active
141136	Bios Definer Model 220 - H	(Southwest District Office)	11/17/10	3	$1,890.99	120534		Active
141137	Bios Definer Model 220 - H	(Central District Office)	11/17/10	3	$1,890.99	120536		Active
141138	Bios Definer Model 220 - H	(CMR Shop D101A)	11/17/10	3	$1,890.99	120786		Active
141139	Bios Definer Model 220 - H	(Central District Office)	11/17/10	3	$1,890.99	120538		Active
141140	Bios Definer Model 220 - H	(CMR Shop D101A)	11/17/10	3	$1,890.99	120542		Active
141343	Dell Optiplex 780	F1110013	12/06/10	2	$621.90			Active
141344	Dell Optiplex 780	G0730012	12/06/10	2	$621.90	H8Y74P1		Active
141345	Dell Optiplex 780	A0590004	12/06/10	2	$621.90	HW955P1		Active
141346	Dell Optiplex 780	A0330018	12/06/10	2	$621.90	GP955P1		Active
141347	Dell Optiplex 780	(CMR Shop D101)	12/06/10	2	$621.90	1S955P1		Awaiting Maintenance
141348	Dell Optiplex 780	C0690002	12/06/10	2	$621.90	FP955P1		Active
141349	Dell Optiplex 780	D1056005	12/06/10	2	$621.90	2X955P1		Active
141350	Dell Optiplex 780	C0972002	12/06/10	2	$621.90	8YQ74P1		Active
141351	Dell Optiplex 780	E0712002	12/06/10	2	$621.90	J8Y74P1		Active
141352	Dell Optiplex 780	D1012001	12/06/10	2	$621.90	8X955P1		Active
141353	Dell Optiplex 780	(CMR Shop D101)	12/06/10	2	$621.90	C9Y74P1		Active

141354	Dell Optiplex 780	E0710005	12/06/10	2	$621.90	9YQ74P1		Active
141355	Dell Optiplex 780	A0330004	12/06/10	2	$621.90	CQ955P1		Active
141356	Dell Optiplex 780	B0890010	12/06/10	2	$621.90	1Q955P1		Active
141357	Dell Optiplex 780	B0015011	12/06/10	2	$621.90	JP955P1		Active
141358	Dell Optiplex 780	F0850007	12/06/10	2	$621.90	4YQ74P1		Active
141359	Dell Optiplex 780	A0050006	12/06/10	2	$621.90	3BYS3P1		Active
141360	Dell Optiplex 780	E0713002	12/06/10	2	$621.90	G6X74P1		Active
141361	Dell Optiplex 780	B1071008	12/06/10	2	$621.90			Active
141362	Dell Optiplex 780	E0550003	12/06/10	2	$621.90			Active
141363	Dell Optiplex 780	C1272001	12/06/10	2	$621.90	7Q955P1		Active
141364	Dell Optiplex 780	(A137H)	12/06/10	2	$621.90	29Y74P1		Active
141365	Dell Optiplex 780	D1010005	12/06/10	2	$621.90	5BYS3P1		Active
141366	Dell Optiplex 780	G0730013	12/06/10	2	$621.90	FQ955P1		Active
141367	Dell Optiplex 780	(A137H)	12/06/10	2	$621.90	J7Y74P1		Active
141368	Dell Optiplex 780	(A137H)	12/06/10	2	$621.90	1PY74P1		Active
141369	Dell Optiplex 780	(A137H)	12/06/10	2	$621.90	BR955P1		Active
141370	Dell Optiplex 780	C1275002	12/06/10	2	$621.90	H7Y74P1		Active
141371	Dell Optiplex 780	C0090007	12/06/10	2	$621.90	D5X74P1		Active
141372	Dell Optiplex 780	G1290001	12/06/10	2	$621.90	2ZQ74P1		Active
141373	Dell Optiplex 780	A1130015	12/06/10	2	$621.90	BQ955P1		Active
141374	Dell Optiplex 780	C0094001	12/06/10	2	$621.90			Active
141375	Dell Optiplex 780	C1171002	12/06/10	2	$621.90	JX974P1		Active
141376	Dell Optiplex 780	B0890005	12/06/10	2	$621.90	D9Y74P1		Active
141377	Dell Optiplex 780	B0350004	12/06/10	2	$621.90	6XQ74P1		Active
141378	Dell Optiplex 780	A0910002	12/06/10	2	$621.90	B5X74P1		Active
141379	Dell Optiplex 780	E0210004	12/06/10	2	$621.90	CP955P1		Active
141380	Dell Optiplex 780	D1056006	12/06/10	2	$621.90	7XQ74P1		Active
141381	Dell Optiplex 780	B0030002	12/06/10	2	$621.90	1ZQ74P1		Active
141382	Dell Optiplex 780	C0830004	12/06/10	2	$621.90	GR955P1		Active
141383	Dell Optiplex 780	C0830003	12/06/10	2	$621.90	F9Y74P1		Active
141384	Dell Optiplex 780	(CMR Shop D101)	12/06/10	2	$621.90	H9Y74P1		Active
141385	Dell Optiplex 780	B0230002	12/06/10	2	$621.90	88Y74P1		Active
141386	Dell Optiplex 780	B0470015	12/06/10	2	$621.90	16X74P1		Active
142160	Teledyne API T400	(A137A)	01/21/11	2	$7,819.25	0083		In Storage

142161	Teledyne API T400	(A137A)	01/21/11	2	$7,819.25	0084		Active
142162	Teledyne API T400	(A137A)	01/21/11	2	$7,819.25	0085		In Storage
142163	Teledyne API T400	(AC-14 Shelf C)	01/21/11	2	$7,819.25	0086		Active
142164	Teledyne API T400	(CMR Shop D101A)	01/21/11	2	$7,819.25	0087		Active
142165	Teledyne API M701 Opt 86E	(A137I)	01/10/11	2	$4,057.13	3412		In Storage
142166	Teledyne API M701 Opt 86E	(Weigh Lab Room B107)	01/10/11	2	$4,057.13	3413		Active
142167	Teledyne API M701 Opt 86E	A1130015	01/10/11	2	$4,057.13	3414		Active
142168	Teledyne API M701 Opt 86E	(A137I)	01/10/11	2	$4,057.13	3415		In Storage
142169	Teledyne API M701 Opt 86E	A0330018	01/10/11	2	$4,057.13	3416		Active
142170	Teledyne API M701 Opt 86E	(A137I)	01/10/11	2	$4,057.13	3418		In Storage
142171	Teledyne API M701 Opt 86E	(A137I)	01/10/11	2	$4,057.13	3419		In Storage
142172	Teledyne API M701 Opt 86E	(A137I)	01/10/11	2	$4,057.13	3420		In Storage
142173	Teledyne API M701 Opt 86E	(A137I)	01/10/11	2	$4,057.13	3421		In Storage
142174	Teledyne API M701 Opt 86E	(CMR Shop D101D)	01/10/11	2	$4,057.13	3422		In Storage
142175	Teledyne API M701 Opt 86E	A0330004	01/10/11	2	$4,057.13	3423		Active
142176	Teledyne API M701 Opt 86E	(CMR Shop D101A)	01/11/11	2	$4,057.13	3424		In Storage
142178	Vaisala WXT520	A0330004	01/26/11	2	$2,370.00	G0350001		Active
142179	Vaisala WXT520	B0030002	01/31/11	2	$2,370.00	G0350002		Active
142180	Vaisala WXT520	(CMR Shop D101B)	01/31/11	2	$2,370.00	G0350003		Awaiting Maintenance
142181	Vaisala WXT520	C0830003	01/31/11	2	$2,370.00	G0350004		Active
142182	Vaisala WXT520	(CMR Shop D101B)	01/31/11	2	$2,370.00	G0350005		Active
142183	Vaisala WXT520	B0350004	01/31/11	2	$2,370.00	G0350006		Active
142184	Vaisala WXT520	A0330018	01/31/11	2	$2,370.00	G0350007		Active
142185	Vaisala WXT520	B0470015	01/31/11	2	$2,370.00	G0350008		Active
142186	Vaisala WXT520	(CMR Shop D101)	01/31/11	2	$2,370.00	G0350009		Active
142187	Vaisala WXT520	(Weigh Lab Room B107)	01/31/11	2	$2,370.00	G0350010		Active
142188	Vaisala WXT520	G0730013	01/31/11	2	$2,370.00	G0350011		Active
142189	Vaisala WXT520	F1110013	01/31/11	2	$2,370.00	G0350012		Active
142190	Vaisala WXT520	(CMR Shop D101B)	01/31/11	2	$2,370.00	G0350013		Active
142191	Vaisala WXT520	(CMR Shop D101)	01/31/11	2	$2,370.00	G0350014		Active
142192	Vaisala WXT520	(CMR Shop D101)	01/31/11	2	$2,370.00	G0350015		Active
142203	Teledyne API T703	(A137A)	02/04/11	2	$9,757.51	057		In Storage
142204	Teledyne API T703	A0330018	02/04/11	2	$9,757.51	058		Active
142205	Teledyne API T703	(CMR Shop D101A)	02/04/11	2	$9,757.51	059		Active

142206	Teledyne API T703	(CMR Shop D101A)	02/04/11	2	$9,757.51	060		Active
142207	Teledyne API T703	(A137A)	02/04/11	2	$9,757.51	061		Active
142256	Thermo Environmental Instruments, Inc 2025B	A0330004	03/23/11	2	$13,611.45	2025B227811103		Active
142257	Thermo Environmental Instruments, Inc 2025B	(CMR Shop D101)	03/23/11	2	$13,611.45	2025B227251012		In Maintenance
142312	Teledyne API T100	(A137A)	05/02/11	2	$10,211.35	0114		In Storage
143498	Vaisala WXT520	(AC-14 Shelf C)	09/02/11	2	$2,250.00	G3420030		Active
143499	Vaisala WXT520	G0730012	09/02/11	2	$2,250.00	G3420033		Active
143500	Vaisala WXT520	A1130015	09/02/11	2	$2,250.00	G3420031		Active
143501	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420027		Active
143502	Vaisala WXT520	A0910002	09/02/11	2	$2,250.00	G3420022		Active
143503	Vaisala WXT520	A0050006	09/02/11	2	$2,250.00	G3420021		Active
143504	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420026		Active
143505	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420029		Active
143506	Vaisala WXT520	(AC-14 Shelf C)	09/02/11	2	$2,250.00	G3420035		Active
143507	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420028		Active
143508	Vaisala WXT520	(CMR Shop D101)	09/02/11	2	$2,250.00	G3420032		Active
143509	Vaisala WXT520	(AC-14 Shelf C)	09/02/11	2	$2,250.00	G3420024		Active
143510	Vaisala WXT520	(CMR Shop D101)	09/02/11	2	$2,250.00	G3420014		Active
143511	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420015		Active
143512	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420025		Active
143513	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420034		Active
143514	Vaisala WXT520	(AC-14 Shelf C)	09/02/11	2	$2,250.00	G3420012		Active
143515	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420011		Active
143516	Vaisala WXT520	(AC-14 Shelf C)	09/02/11	2	$2,250.00	G3420013		Active
143517	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420017		Active
143518	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420016		Active
143519	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420018		Active
143520	Vaisala WXT520	(AC-14 Shelf B)	09/02/11	2	$2,250.00	G3420020		Active
143521	Vaisala WXT520	(AC-14 Shelf C)	09/02/11	2	$2,250.00	G3420019		Active
143522	Vaisala WXT520	(AC-14 Shelf C)	09/02/11	2	$2,250.00	G3420023		Active
145216	Thermo Environmental Instruments, Inc 49i	A0330004	09/05/12	1	$8,441.78	1227254949		Active
145217	Thermo	(AC-16 Shelf B)	09/05/12	1	$8,441.78	1227254943		Active

	Environmental Instruments, Inc 49i							
145218	Thermo Environmental Instruments, Inc 49i	(AC-14 Shelf B)	09/05/12	1	$8,441.78	1227254945		Active
145219	Thermo Environmental Instruments, Inc 49i	(AC-14 Shelf B)	09/05/12	1	$8,441.78	1227254948		Active
145220	Thermo Environmental Instruments, Inc 49i	(AC-18 Shelf B)	09/05/12	1	$8,441.78	1227254942		Active
145221	Thermo Environmental Instruments, Inc 49i	(CMR Shop D101A)	09/05/12	1	$8,441.78	1227254944		Active
145222	Thermo Environmental Instruments, Inc 49i	A0330018	09/05/12	1	$8,441.78	1227254950		Active
145223	Thermo Environmental Instruments, Inc 49i	(AC-14 Shelf B)	09/05/12	1	$8,441.78	1227254946		Active
145224	Thermo Environmental Instruments, Inc 49i	(AC-14 Shelf B)	09/05/12	1	$8,441.78	1227254947		Active
145225	Thermo Environmental Instruments, Inc 49iPS	A0330018	09/05/12	1	$11,487.49	1227254881		Active
145226	Thermo Environmental Instruments, Inc 49iPS	(AC-16 Shelf B)	09/05/12	1	$11,487.49	1227254880		Awaiting Maintenance
145227	Thermo Environmental Instruments, Inc 49iPS	(AC-17 Shelf A)	09/05/12	1	$11,487.49	1227254882		Active
145228	Thermo Environmental Instruments, Inc 49iPS	A0330004	09/05/12	1	$11,487.49	1227254878		Active
145229	Thermo Environmental Instruments, Inc 49iPS	A0910002	09/05/12	1	$11,487.49	1227254879		Active
145230	Thermo Environmental Instruments, Inc 43i	(AC-16 Shelf B)	09/05/12	1	$11,213.28	1227254884		Active
145231	Thermo Environmental Instruments, Inc 43i	(AC-16 Shelf B)	09/05/12	1	$11,213.28	1227254883		Active
145265	Thermo Environmental Instruments, Inc 1405	A0910002	12/13/10	2	$18,374.00	1405A212581101		Active
145266	Thermo Environmental Instruments, Inc 1405-AVF	B0890010	12/21/12	0	$17,705.77	1405A213561102		Active
145510	Thermo Fisher Scientific 43I So2 Analyzer	A0330004	02/01/13	0	$0.00	1308857348		Active
145511	Thermo Fisher Scientific 43I So2 Analyzer	(AC-16 Shelf B)	02/01/13	0	$0.00	1308857349		Active
145512	Thermo Fisher Scientific 43I So2 Analyzer	(AC-16 Shelf B)	02/01/13	0	$0.00	1308857350		Active

145513	Thermo Fisher Scientific 43I So2 Analyzer	(AC-16 Shelf B)	02/01/13	0	$0.00	1308857351		Active
14796	UltraSonic Bath 220	(CMR Shop D101)	01/01/80	33	$500.00	A1162		Active
20552	Sencore LC 53	(AC-14 Shelf A)	01/01/80	33	$350.00	3448433M		Active
21179	Dwyer Instruments Incline Manometer	A0330004	03/15/85	28	$500.00	400-10		Active
26441	Aluma Tower	C1275002	10/16/87	26	$1,100.00	n/a		Active
26880	Thermo Environmental Instruments, Inc 43A	D1052006	01/01/89	24	$8,000.00	43A-22800-207		Active
30136	Aluma Tower T-135-35	(CMR Shop D101)	11/21/91	22	$1,148.00	n/a		Marked for Surplus
30253	Anderson 1200	C1275002	08/06/91	22	$4,070.00	3834		Active
30277	Wells Cargo	C1272001	10/02/91	22	$9,020.00	1WC200J19M3022127		Active
30278	Wells Cargo	E0713002	10/02/91	22	$0.00	1WC200J10M3022128		Active
30279	Wells Cargo EW2011	E0710005	10/02/91	22	$9,020.00	1WC200J12M3022129		Active
30280	Wells Cargo EW2011	D1012001	10/02/91	22	$9,020.00	EW2011WC22129S		Active
30281	Wells Cargo	D1056006	10/02/91	22	$9,020.00	EW2011WC22131S		Active
31033	Aluma Tower	C0972002	11/21/91	22	$1,148.00	na		Active
31034	Aluma Tower	C1272001	11/21/91	22	$1,148.00	AT4794-C-11-8		Active
31036	Aluma Tower	D1056006	11/21/91	22	$1,148.00	n/a		Active
31037	Aluma Tower	D1012001	11/21/91	22	$1,148.00	n/a		Active
31096	Anderson	C0090007	11/20/91	22	$0.00	5957		Active
31305	Wells Cargo	C0830003	11/21/91	22	$9,020.00	1WC200JIXN302977		Active
34341	Wells Cargo	A0330018	06/16/93	20	$9,080.00	1WC200J11P3025611		Active
54321	Dell		09/27/12	1	$0.00			In Storage
7009	Locally Made trailer	(CMR Shop D101)	01/01/80	33	$500.00	n/a		Active
87214	Aluma Tower T-135	C1171002	10/19/93	20	$1,175.00	n/a		Active
87215	Aluma Tower T-135	(CMR Shop D101)	10/19/93	20	$1,175.00	n/a		Active
88409	Wells Cargo	B0030002	12/12/94	18	$9,074.93	1WC200J1153030266		Active
88410	Wells Cargo	D1050010	09/23/94	19	$0.00	1WC200J14R3028876		Active
89330	Wells Cargo	F1110013	09/01/94	19	$9,500.00	n/a		Active
89695	Aluma Tower	A0590004	10/20/94	19	$1,300.00	n/a		Active
89696	Aluma Tower	B0030002	10/20/94	19	$1,300.00	n/a		Active
89697	Aluma Tower T-135-35'	F1110013	10/20/94	19	$1,300.00	n/a		Active
89717	Wells Cargo EW2011	C1171002	08/15/94	19	$9,074.93	1WC200J16R3028877		Active
89802	Bios DC-2	F0850007	12/17/94	18	$3,185.73	B0255		Active
89803	Bios DC-2	(AMS QA Room B105)	12/17/94	18	$3,185.73	B0254		Active
89804	Bios DC-2	(Standards Lab Room B105)	12/17/94	18	$3,185.74	B0252		Active
90534	Dell	E0150002	02/06/95	18	$3,455.00	2Q70C		Active
90594	Wells Cargo	C1275002	01/10/95	18	$9,500.00	1WC200J10R3029641		Active
91942	Wells Cargo Gas Cylinder Rack	(CMR Shop D101A)	12/06/95	17	$1,150.00	n/a		Active
91944	Wells Cargo Gas Cylinder Rack	(Trailer Dep 3658)	12/06/95	17	$1,150.00	n/a		Active
91947	Wells Cargo Gas Cylinder Rack	(Trailer Dep 3658)	12/06/95	17	$1,450.00	n/a		Active
92301	Met One Instruments Cup n Vane	D1012001	04/30/07	6	$0.00			Active

92305	Met One Instruments		01/01/01	12	$0.00	n/a		In Storage
92307	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/91	22	$750.00	n/a		Active
92309	Met One Instruments Cup 'n Vane	B0890005	01/01/91	22	$750.00	NA		Active
92310	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/91	22	$750.00	n/a		Active
92312	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/91	22	$750.00	n/a		Active
92727	Wells Cargo	(CMR Shop Parking Lot)	10/02/95	18	$6,543.22	1WC200D1953033346		CMR Loan
93279	Aluma Tower	A0330004	09/01/95	18	$1,388.00	n/a		Active
93280	Aluma Tower	B0013011	09/01/95	18	$1,388.00	n/a		Active
93281	Aluma Tower T-135	E0713002	09/01/95	18	$1,388.00	n/a		Active
93289	NCI 124	A0330004	12/06/95	17	$2,983.90	CVO53828591		Active
93290	NCI 124	(AC-14 Shelf E)	12/06/95	17	$2,983.90	CVO881241300		In Storage
93291	NCI 124	(AC-14 Shelf E)	12/06/95	17	$2,983.90	CVO53828585		In Storage
93292	NCI 124	(CMR Shop D101B)	12/06/95	17	$2,983.90	CVO53828588		Active
93603	Thermo Environmental Instruments, Inc 49C	D1010005	01/24/96	17	$6,660.45	49C-53972-298		Active
93605	Thermo Environmental Instruments, Inc 49C	D1012001	01/24/96	17	$6,660.19	49C-54506-300		Active
93786	Met One Instruments Cup 'n Vane	D1056006	01/01/92	21	$750.00	n/a		Active
93787	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/92	21	$750.00	n/a		Active
93792	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/92	21	$750.00	n/a		Active
93793	Met One Instruments Cup 'n Vane	C0094001	01/01/92	21	$750.00	n/a		Active
93795	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/92	21	$750.00	NA		Active
93798	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/92	21	$750.00	n/a		Active
93799	Met One Instruments Cup 'n Vane	(CMR Shop D101)	01/01/92	21	$750.00	NA		Active
93874	Bios DC-2NSH	(Southwest District Office)	12/26/95	17	$2,470.00	B-398		Active
93875	Bios DC-2	(CMR Shop D101A)	12/26/95	17	$2,470.00	B399		Active
93876	Bios DC-2	A0330004	12/26/95	17	$2,470.00	n/a		Active
93878	Bios DC-2	(Northeast District Office)	12/26/95	17	$2,470.00	B404		Active
93883	Wells Cargo	B0013011	06/21/96	17	$9,381.00	1WC200J16T3034007		Active
93884	Wells Cargo EW2011	C0094001	06/21/96	17	$9,381.00	1WC200J18T3034008		Active
95757	Rittal	(CMR Shop D101A)	04/15/96	17	$1,114.31	4418-210-7565		Active
96282	Mettler	(Standards Lab Room B105)	04/01/97	16	$9,608.75	1115282625		Active
97023	Thermo Environmental Instruments, Inc 49CPS	C0972002	10/15/96	17	$8,039.00	49CPS-56681-309		Active
97026	Thermo Environmental Instruments, Inc 49CPS	D1056005	10/15/96	17	$8,039.85	49CPS-56679-309		Active

97027	Thermo Environmental Instruments, Inc 49CPS	D1012001	10/15/96	17	$8,039.85	49CPS-56680-309		Active
97028	Thermo Environmental Instruments, Inc 49CPS	D1012001	10/15/96	17	$8,039.85	49CPS-56682-309		Active
97029	Thermo Environmental Instruments, Inc 49CPS	C1171002	10/15/96	17	$8,039.85	49CPS-56683-309		Active
99069	Bios DC-2	E0710005	02/03/98	15	$3,638.89	B-678		Active
99070	Bios DC-2	(Orange County)	02/03/98	15	$3,638.88	B680		Active
99291	Met One Instruments Cup n Vane	C1171002	01/01/90	23	$750.00			Active
99519	Thermo Environmental Instruments, Inc 49CPS	D1010005	12/28/97	15	$7,946.00	49CPS-59718-324		Active
99520	Thermo Environmental Instruments, Inc 49CPS	B0013011	12/28/97	15	$7,946.00	49CPS-59698-324		Active
99521	Thermo Environmental Instruments, Inc 49CPS	E0210004	12/28/97	15	$7,946.00	49CPS-59675-324		Active
99721	Thermo Environmental Instruments, Inc 49C	(AC-16 Shelf A)	12/28/97	15	$7,946.00	49C-59678-324		Active
99722	Thermo Environmental Instruments, Inc 49C	B0013011	12/28/97	15	$6,500.00	49C-59677-324		Active
99723	Thermo Environmental Instruments, Inc 49C	E0713002	12/28/97	15	$7,946.00	49C-59699-324		Active
99763	Thermo Environmental Instruments, Inc 49C	C0090007	01/20/98	15	$6,500.00	49C-59515-323		Active
99765	Thermo Environmental Instruments, Inc 49C	C1275002	01/20/98	15	$6,500.00	49C-59527-323		Active
99766	Thermo Environmental Instruments, Inc 49C	C1272001	01/20/98	15	$6,500.00	49C-59528-323		Active
99767	Thermo Environmental Instruments, Inc 49C	B0030002	01/20/98	15	$6,500.00	49C-59529-323		Active
99768	Thermo Environmental Instruments, Inc 49C	C0094001	01/20/98	15	$6,500.00	49C-59530-323		Active
99769	Thermo Environmental Instruments, Inc 49C	C0830003	01/20/98	15	$6,500.00	49C-59562-323		Active
99770	Thermo Environmental Instruments, Inc 49CPS	E0713002	01/20/98	15	$7,946.00	49CPS-59750-324		Active
99772	Thermo Environmental Instruments, Inc 43C	(CMR Shop D101A)	01/20/98	15	$8,686.00	43C-59325-322		Active
99914	Wells Cargo	G0730012	03/25/98	15	$9,930.00	1WC200J11W3039118		Active
999999	Aluma Tower	(Budget Storage Warehouse)	08/27/01	12	$1,660.00	n/a		In Storage

BL605002	Wells Cargo EW2011	C0972002	07/15/93	20	$9,500.00	1WC200J3P3025612		Active
BL605005	Wells Cargo EW2011	(Douglas Building)	05/02/00	13	$10,188.00	1WC200J19Y3043548		In Storage
BL605006	Wells Cargo EW2011	(Douglas Building)	05/01/00	13	$10,188.00	1WC200J17Y3043547		In Storage
BL605007	Wells Cargo EW2011	E0210004	05/15/00	13	$10,188.00	1WC200J17Y3043550		Active
BL605008	Wells Cargo	B0230002	07/10/00	13	$10,188.00	1WC200J10Y3043552		Active
BL605009	Wells Cargo	C0690002	05/15/00	13	$10,188.00	1WC200J13Y3043445		Active
BL605010	Wells Cargo EW2011	A0910002	05/02/00	13	$10,188.00	1WC200J19Y3043551		Active
BL605011	Wells Cargo	A0050006	05/02/00	13	$10,188.00	1WC200J14Y3043554		Active
BL605012	Wells Cargo EW2011	D1010005	04/17/00	13	$10,188.00	1WC200J10Y3043549		Active
BL605013	Wells Cargo EW2011	A1130015	06/12/00	13	$10,188.00	NEED VIN #		Active
BL605014	Wells Cargo	E0550003	06/26/00	13	$10,188.00			Active
BL605015	Wells Cargo EW2011	G0730013	07/10/00	13	$10,188.00	1WC200J18Y3043556		Active
BL605016	Wells Cargo	C0830004	07/31/00	13	$10,188.00	04913		Active
BL605017	Wells Cargo EW2011	C0090011	10/02/00	13	$10,188.00	1WC200J16Y3043555		Active
BL605018	Wells Cargo	G1290001	09/20/00	13	$10,188.00	1WC200J15Y3043546		Active
BL605019	Wells Cargo	B1071008	10/04/00	13	$9,094.00	1WC200J19S3043730		Active
BL605020	Wells Cargo EW2011	(Douglas Building)	10/04/00	13	$9,094.00	1WC200E1XY3043732		In Storage
BL605022	EKTO 432SP	(CMR Shop D101)	05/25/06	7	$5,875.00	3695-7		In Storage
DEP05552	Ford Expedition	(AMS QA Room B105)	06/30/06	7	$23,303.15	1FMPU15586LA93463		Active
EP003513	Ford F150 Pickup	(CMR Shop D101)	04/09/95	18	$18,249.60	1FTEX15H8SKB42366		Active
EP003904	Ford Expedition	(CMR Shop D101)	05/28/97	16	$25,483.00	1FMEU17L2VLB74797		Active
EP004535	Ford Expedition	(AMS QA Room B105)	05/03/99	14	$24,819.00	1FMRU17L3XLB52263		Active
EP004536	Ford Expedition	(AMS QA Room B105)	05/03/99	14	$24,819.00	1FMRU17L1XLB52262		Active
EP005160	Dodge 2500	(CMR Shop D101)	04/30/01	12	$20,198.00	1B7KC23W71J589281		Active
EP005403	Ford Explorer	(AMS QA Room B105)	06/26/02	11	$22,224.15	1FMZU62K92UD22950		Active
EP6107	Ford Van	(CMR Shop D101)	05/18/05	8	$16,887.00	1FTNE24WX6HA07775		Active
EP6108	Ford Van	(CMR Shop D101)	05/18/05	8	$16,887.00	1FTNE24W16HA07776		Active
EPA Supplied	Met One Instruments SASS	G0730012	01/01/03	10	$0.00	A2593		In Storage
EPA Supplied	R&P Partisol 2025	L0952002	07/01/98	15	$0.00	2025A202709805		Active
EPA Supplied	R&P Partisol 2025	(Warehouse 5213)	08/01/98	15	$0.00	2025A205739807		In Storage
EPA Supplied	R&P Partisol 2025	(CMR Shop D101)	07/01/98	15	$0.00	2025A203949806		Awaiting Maintenance
EPA Supplied	BGI Incorporated	(CMR Shop D101)	07/29/09	4	$0.00	000620		Active
EPA Supplied	R&P Partisol 2025	G0730012	07/01/98	15	$0.00	2025A202699805		Active
EPA Supplied	Met One Instruments	G0730012	01/01/03	10	$0.00	A2592		Active
EPA Supplied	RADNET - HVP - 4004BRL - S	G0730012	07/29/09	4	$0.00	18603		Active
EPA Supplied	R&P Partisol 2025	D1056006	09/01/98	15	$0.00	2025A205639807		Active
EPA supplied	URG - 3000	G0730012	07/29/09	4	$0.00	3N-B0724		Active
EPO04165	Ford Expedition	(AMS QA Room B105)	05/10/98	15	$24,867.00	1FMRU17L4WLB64257		Active

ER015197	Locally Made	(CMR Shop D101)	06/30/80	33	$2,000.00	T# DNR-2096		Active
ER026442	Aluma Tower	(CMR Shop D101)	10/16/87	26	$1,000.25	n/a		In Storage
ER027456	Hewlett Packard 6114A	(AC-14 Shelf E)	12/05/88	24	$1,900.00	2650A05563		Active
ER031217	Wells Cargo	D1056005	01/31/92	21	$8,991.03	1WC200J12N3022729		Active
ERO17411	Hastings Mass Flow Meter	(Standards Lab Room B105)	05/31/83	30	$1,281.35	0-13344		Active
ERO20029	Dasibi 1009	(AMS QA Room B105)			$6,900.00	133		Active
ERO27859	Hewlett Packard	(AMS Offices)	03/06/89	24	$810.00	2304A47503		Lost/Missing/Stolen
ERO27867	Sencore LC-77	(AC-14 Shelf A)	12/15/88	24	$1,604.96	6037469-R15		Active
ERO28016	Dasibi 5009	(AMS QA Room B105)	05/01/89	24	$9,000.00	254		Active
ERO30020	Hewlett Packard 6114A	(AC-14 Shelf E)	05/07/91	22	$2,250.00	3104AU6244		Active
ERO30043	Dasibi 5008	(AMS QA Room B105)	06/10/91	22	$11,725.00	62		Active
ERO30204	Thermo Environmental Instruments, Inc 49	(AC-17 Shelf B)	09/03/91	22	$6,174.00	49-34655-248		Active
ERO30208	Thermo Environmental Instruments, Inc 49	D1012001	09/14/91	22	$6,174.00	49-35020-249		Active
ERO31035	Aluma Tower T-135	E0210004	11/21/91	22	$1,148.00	n/a		Active
ERO31406	AIR AIR-HB-1A	(CMR Shop D101)	01/01/92	21	$700.00	2D2049		Active
ERO31778	UNGAR	(CMR Shop D101B)	05/27/92	21	$1,161.93	n/a		Active
Forest Service	Thermo Environmental Instruments, Inc 1400ab	(AMS Offices)	02/03/09	4	$0.00	140AB273530810		In Storage
Forest Service	R&P 1400AB	(AC-17 Shelf C)	12/10/07	5	$0.00	140AB268560709		Awaiting Maintenance
Not Required	Vaisala WSP150	(Weigh Lab Room B107)	01/31/11	2	$268.00	F5030016		Active
Not Required	Vaisala WSP150	(CMR Shop D101)	01/31/11	2	$268.00	F5030017		In Maintenance
Not Required	Vaisala WSP150	C0830003	01/31/11	2	$268.00	F5030001		Active
Not Required	Vaisala WSP150	F1110013	01/31/11	2	$268.00	F5030012		Active
Not Required	Vaisala WSP150	(Weigh Lab Room B107)	01/31/11	2	$268.00	F5030022		Active
Not Required	Vaisala WSP150	B0350004	01/31/11	2	$268.00	F5030003		Active
Not Required	Vaisala WSP150	G0730012	01/31/11	2	$268.00	F5030008		Active
Not Required	Vaisala WSP150	B0030002	01/31/11	2	$268.00	F5030021		Active
Not Required	Vaisala WSP150	G0730013	01/31/11	2	$268.00	F5030011		Active
Not Required	Vaisala WSP150	(CMR Shop D101)	01/31/11	2	$268.00	F5030023		Active
Not Required	Vaisala WSP150	(Weigh Lab Room B107)	01/31/11	2	$268.00	F5030006		Active
Not Required	Locally Made DER - 150	(Standards Lab Room B105)	03/11/11	2	$0.00	INT 113 B		Active
Not Required	Vaisala WSP150	A0330004	01/31/11	2	$268.00	F5030025		Active
Not Required	Vaisala WSP150	(Weigh Lab Room B107)	01/31/11	2	$268.00	F5030019		Active
Not Required	Vaisala WSP150	A0330018	01/31/11	2	$268.00	F5030024		Active
Not Required	Vaisala WSP150	B0470015	01/31/11	2	$268.00	F5030014		Active
Not Required	Vaisala WSP150	G1290001	01/31/11	2	$268.00	F5030013		Active

Minimum NO2 Monitor Requrements

Urban Area with Population over 500,000	State	Population (2008 Census)	Required Near Road Monitors	Required Community Wide Monitors	Currently Monitoring?
Birmingham-Hoover, AL	AL	1,117,608	1	1	
Little Rock-North Little Rock-Conway, AR	AR	675,069	1		Yes
Phoenix-Mesa-Scottsdale, AZ	AZ	4,281,899	2	1	Yes
Tucson, AZ	AZ	1,012,018	1	1	Yes
Bakersfield, CA	CA	800,458	1		Yes
Fresno, CA	CA	909,153	1		Yes
Los Angeles-Long Beach-Santa Ana, CA	CA	12,872,808	2	1	Yes
Modesto, CA	CA	510,694	1		Yes
Oxnard-Thousand Oaks-Ventura, CA	CA	797,740	1		Yes
Riverside-San Bernardino-Ontario, CA	CA	4,115,871	2	1	Yes
Sacramento--Arden-Arcade--Roseville, CA	CA	2,109,832	2	1	Yes
San Diego-Carlsbad-San Marcos, CA	CA	3,001,072	2	1	Yes
San Francisco-Oakland-Fremont, CA	CA	4,274,531	2	1	Yes
San Jose-Sunnyvale-Santa Clara, CA	CA	1,819,198	1	1	Yes
Stockton, CA	CA	672,388	1		Yes
Colorado Springs, CO	CO	617,714	1		
Denver-Aurora, CO	CO	2,506,626	2	1	Yes
Bridgeport-Stamford-Norwalk, CT	CT	895,030	1		Yes
Hartford-West Hartford-East Hartford, CT	CT	1,190,512	1	1	Yes
New Haven-Milford, CT	CT	846,101	1		Yes
Washington-Arlington-Alexandria, DC-VA-MD-WV	DC	5,358,130	2	1	Yes
Bradenton-Sarasota-Venice, FL	FL	687,823	1		Yes
Cape Coral-Fort Myers, FL	FL	593,136	1		
Jacksonville, FL	FL	1,313,228	1	1	Yes
Lakeland-Winter Haven, FL	FL	580,594	1		
Miami-Fort Lauderdale-Pompano Beach, FL	FL	5,414,772	2	1	Yes
Orlando-Kissimmee, FL	FL	2,054,574	1	1	Yes

Palm Bay-Melbourne-Titusville, FL	FL	536,521	1		
Tampa-St. Petersburg-Clearwater, FL	FL	2,733,761	2	1	Yes
Atlanta-Sandy Springs-Marietta, GA	GA	5,376,285	2	1	Yes
Augusta-Richmond County, GA-SC	GA	534,218	1		Yes
Honolulu, HI	HI	905,034	1		Yes
Des Moines-West Des Moines, IA	IA	556,230	1		Yes
Boise City-Nampa, ID	ID	599,753	1		
Chicago-Naperville-Joliet, IL-IN-WI	IL	9,569,624	2	1	Yes
Indianapolis-Carmel, IN	IN	1,715,459	1	1	Yes
Wichita, KS	KS	603,716	1		Yes
Louisville/Jefferson County, KY-IN	KY	1,244,696	1	1	Yes
Baton Rouge, LA	LA	774,327	1		Yes
New Orleans-Metairie-Kenner, LA	LA	1,134,029	1	1	Yes
Boston-Cambridge-Quincy, MA-NH	MA	4,522,858	2	1	Yes
Springfield, MA	MA	687,558	1		Yes
Worcester, MA	MA	783,806	1		Yes
Baltimore-Towson, MD	MD	2,667,117	2	1	Yes
Portland-South Portland-Biddeford, ME	ME	514,065	1		Yes
Detroit-Warren-Livonia, MI	MI	4,425,110	2	1	Yes
Grand Rapids-Wyoming, MI	MI	776,833	1		
Minneapolis-St. Paul-Bloomington, MN-WI	MN	3,229,878	2	1	Yes
Kansas City, MO-KS	MO	2,002,047	1	1	Yes
St. Louis, MO-IL	MO	2,816,710	2	1	Yes
Jackson, MS	MS	537,285	1		
Charlotte-Gastonia-Concord, NC-SC	NC	1,701,799	1	1	Yes
Greensboro-High Point, NC	NC	705,684	1		
Raleigh-Cary, NC	NC	1,088,765	1	1	
Omaha-Council Bluffs, NE-IA	NE	837,925	1		
Albuquerque, NM	NM	845,913	1		Yes
Las Vegas-Paradise, NV	NV	1,865,746	2	1	Yes
Albany-Schenectady-Troy, NY	NY	853,919	1		

Buffalo-Niagara Falls, NY	NY	1,124,309	1	1	Yes
New York-Northern New Jersey-Long Island, NY-NJ-PA	NY	19,006,798	2	1	Yes
Poughkeepsie-Newburgh-Middletown, NY	NY	672,525	1		
Rochester, NY	NY	1,034,090	1	1	
Syracuse, NY	NY	643,794	1		
Akron, OH	OH	698,553	1		
Cincinnati-Middletown, OH-KY-IN	OH	2,155,137	1	1	Yes
Cleveland-Elyria-Mentor, OH	OH	2,088,291	1	1	Yes
Columbus, OH	OH	1,773,120	1	1	
Dayton, OH	OH	836,544	1		
Toledo, OH	OH	649,104	1		
Youngstown-Warren-Boardman, OH-PA	OH	565,947	1		
Oklahoma City, OK	OK	1,206,142	1	1	Yes
Tulsa, OK	OK	916,079	1		Yes
Portland-Vancouver-Beaverton, OR-WA	OR	2,207,462	1	1	Yes
Allentown-Bethlehem-Easton, PA-NJ	PA	808,210	1		Yes
Harrisburg-Carlisle, PA	PA	531,108	1		Yes
Lancaster, PA	PA	502,370	1		Yes
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	PA	5,838,471	2	1	Yes
Pittsburgh, PA	PA	2,351,192	1	1	Yes
Scranton--Wilkes-Barre, PA	PA	549,150	1		Yes
San Juan-Caguas-Guaynabo, PR	PR	2,608,375	2	1	
Providence-New Bedford-Fall River, RI-MA	RI	1,596,611	1	1	Yes
Charleston-North Charleston-Summerville, SC	SC	644,506	1		Yes
Columbia, SC	SC	728,063	1		Yes
Greenville-Mauldin-Easley, SC	SC	624,715	1		Yes
Chattanooga, TN-GA	TN	518,441	1		
Knoxville, TN	TN	691,152	1		
Memphis, TN-MS-AR	TN	1,285,732	1	1	Yes
Nashville-Davidson--Murfreesboro--Franklin, TN	TN	1,550,733	1	1	Yes
Austin-Round Rock, TX	TX	1,652,602	1	1	Yes

Dallas-Fort Worth-Arlington, TX	TX	6,300,006	2	1	Yes
El Paso, TX	TX	742,062	1		Yes
Houston-Sugar Land-Baytown, TX	TX	5,728,143	2	1	Yes
McAllen-Edinburg-Mission, TX	TX	726,604	1		
San Antonio, TX	TX	2,031,445	1	1	Yes
Ogden-Clearfield, UT	UT	531,488	1		Yes
Provo-Orem, UT	UT	540,820	1		Yes
Salt Lake City, UT	UT	1,115,692	1	1	Yes
Richmond, VA	VA	1,225,626	1	1	Yes
Virginia Beach-Norfolk-Newport News, VA-NC	VA	1,658,292	1	1	Yes
Seattle-Tacoma-Bellevue, WA	WA	3,344,813	2	1	
Madison, WI	WI	561,505	1		
Milwaukee-Waukesha-West Allis, WI	WI	1,549,308	1	1	Yes
			126	53	

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 25-30, please refer to the FPL witness LaBauve's testimony.

On page 3, the witness states that, "the 1-hour NAAQS requires that DEP use monitor data to designate areas as attainment, non-attainment, or unclassifiable for those areas without sufficient monitoring."
a. Please provide a description of the areas being monitored, including a general description of the boundaries of each area.
b. What are the regulatory implications for FPL if an area is designated as non-attainment? For each regulatory implication identified, please provide a pinpoint citation to the law or regulation that is triggered by non-attainment.
c. Given that other emissions sources in an area can increase the NO_2 concentration at the time that the area is monitored, can FPL ensure that completion of its proposed NO_2 Compliance Project will result in the areas being designated as attainment?

A.

a. Provided in attachment RRL 2 is the Florida DEP 2011 Annual Monitoring Report providing the current NO_2 monitoring network. Included within the report are the descriptions of monitor locations. Please note that one of the existing Broward County monitor sites is at John U. Lloyd State Park, which is in the immediate vicinity of the Port Everglades and Lauderdale plants.

b. Under 40 CFR Part 50.11, adopted by DEP in 62-204.800(1)(b)19., Florida Administrative Code, should an area be designated non-attainment by EPA, the DEP must identify emission reduction strategies which will return the affected area into attainment of the standard within 3 years following designation. Permitting requirements for proposed sources in non-attainment areas include lower thresholds for major sources and require offset of emissions from existing sources prior to construction of new sources.

c. While FPL cannot ensure that ambient concentrations of NO_2 will not increase, DEP is required under the Prevention of Significant Deterioration (PSD) rules to ensure that new and modified major sources of pollutants do not exceed any of the NAAQS. The PSD program preserves air quality values by requiring new and modified major sources to determine whether exceedances of a NAAQS will occur through the intended operation of the facility. Air quality modeling is used to evaluate impacts to a NAAQS as part of that permitting process. Should impacts to a NAAQS be observed otherwise, modeling would be used to determine which sources were contributing to the exceedances. In FPL's evaluation of its

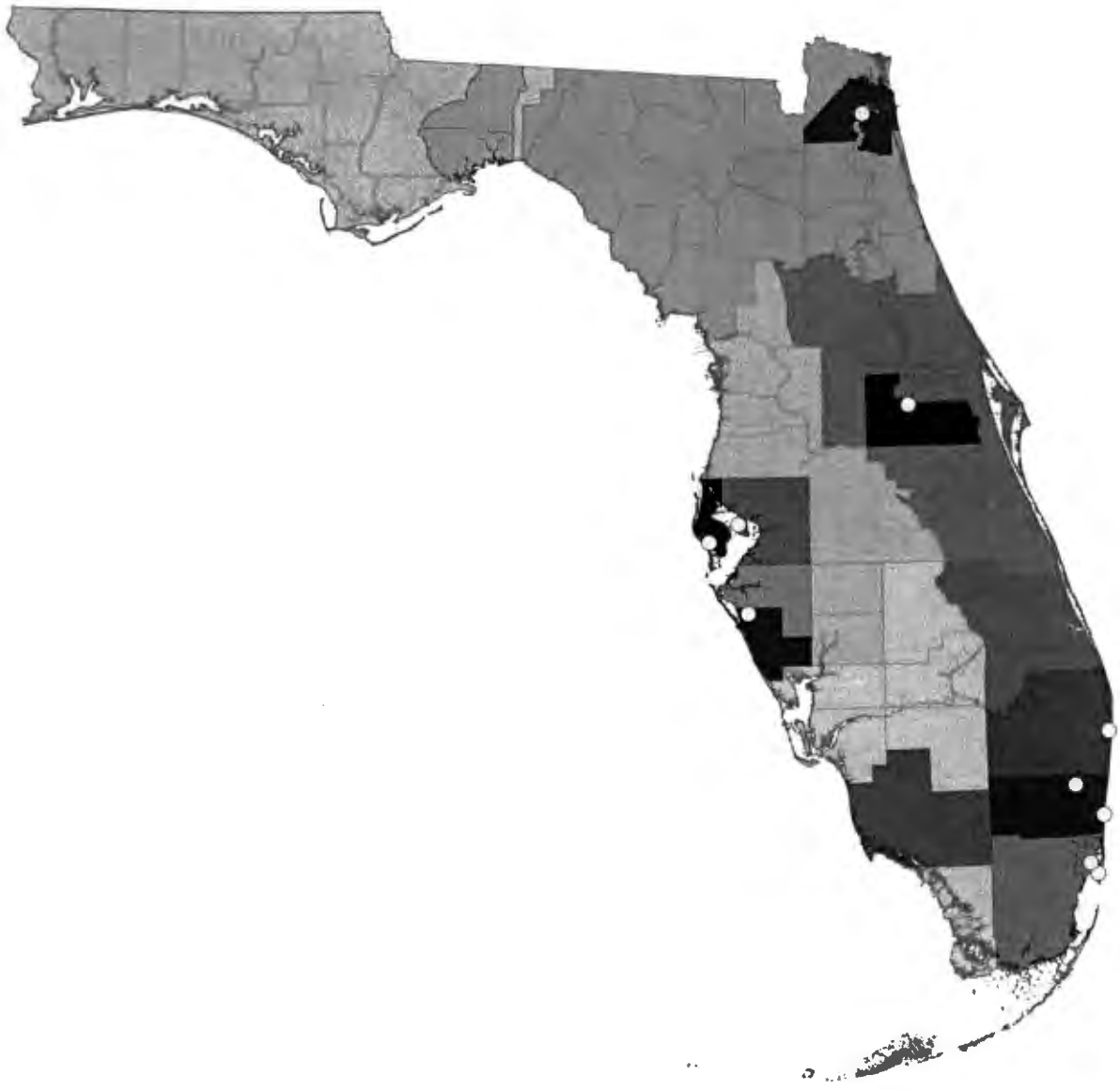
peaking GTs at Port Everglades, Lauderdale, and Fort Myers, FPL determined through modeling that these units could cause ambient concentrations to be significantly above the 1-hour NO_2 standard even if background NO_2 concentrations from all other sources were zero. FPL also modeled its proposed replacement combustion turbines, and this analysis demonstrated that ambient concentrations resulting from the replacement turbines would be well below the 1-hour NO_2 NAAQS, including existing sources and current background concentrations. In addition, FPL notes that during its evaluation of the peaking GTs at Port Everglades, Lauderdale, and Fort Myers, it was observed that modeled emissions were significantly above the 1-hour NO_2 standard even if background NO_2 concentrations from all other sources were zero. Thus, DEP would have authority to require reductions in the emissions from those units independent of the attainment status of the surrounding area.

Chapter 4 Nitrogen Dioxide (NO2)

Nitrogen Dioxide Monitoring Results

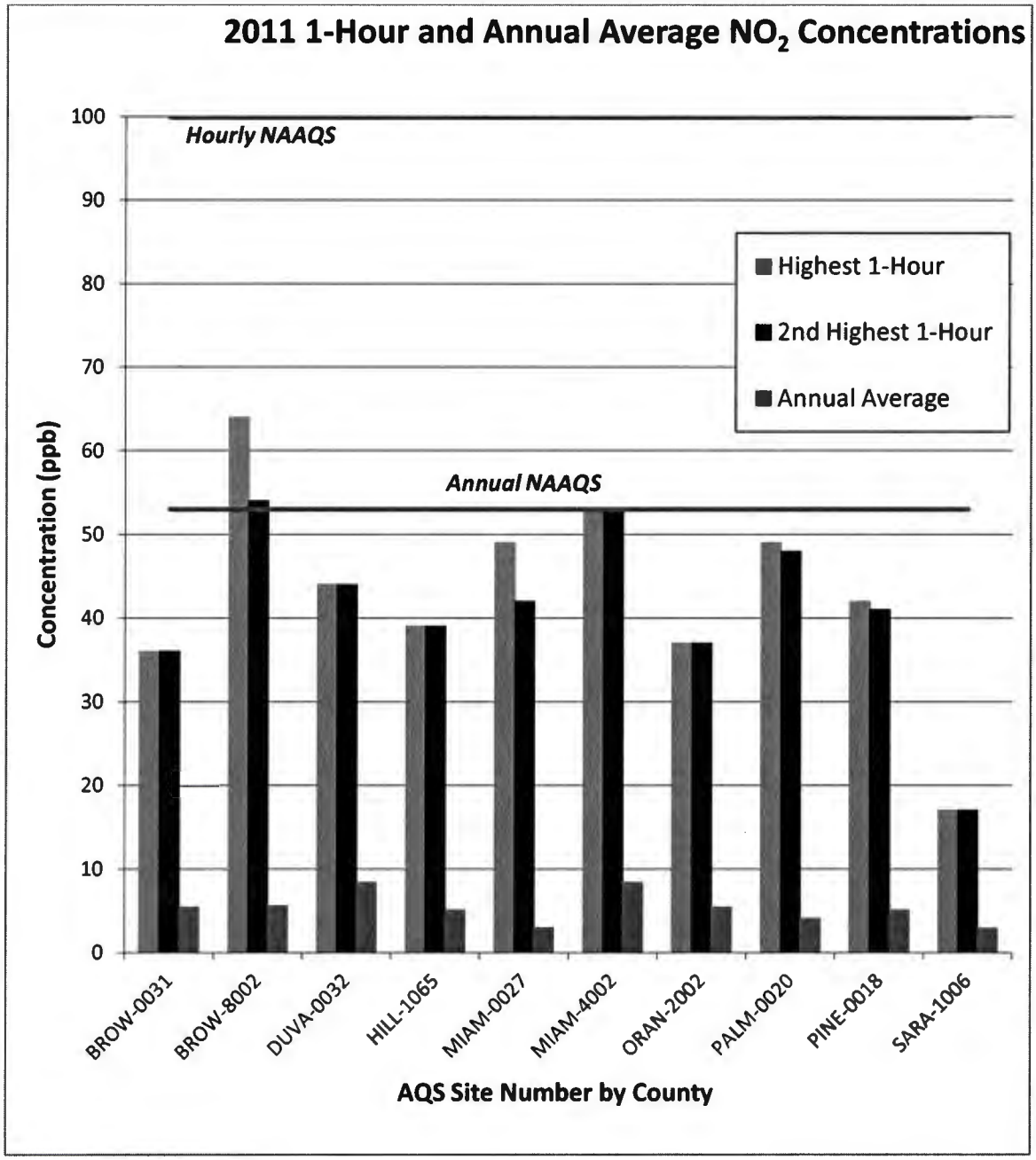
The NO_2 monitoring network in Florida consists of ten monitoring stations in eight counties. NO_2 annual average concentrations in Florida during 2011 were below 20 percent of the 0.053 ppm (100 $\mu g/m^3$) annual average ambient standard. All hourly concentrations recorded by the ten monitors were below 70 percent of the 100 ppb 1-hour standard.

Figure 4-1 2011 Florida Nitrogen Dioxide Monitoring Network



The following chart depicts highest 1-hour, second highest 1-hour, and annual average NO_2 concentrations record at the ten monitoring sites located throughout the state of Florida during the 2011 calendar year.

Figure 4-2 2011 Nitrogen Dioxide Concentrations



The following table is a summary of the 2002 through 2011 highest 1-hour, second highest 1-hour, and annual average concentrations collected from the ten monitoring sites operating in Florida during 2011.

Table 4-1 **Summary of Nitrogen Dioxide Data**

County / City / Site Address	AQS # / UTM	Network / Scale	Year	Nitrogen Dioxide Concentrations (ppb)		
				Highest 1-Hr	2nd Highest 1-Hr	Annual Average
Broward						
Coral Springs	011-0031	SLAMS	11	36	36	5
12600 W Sample Rd Sawgrass Springs Middle School		Urban	10	42	41	6
	17-2905.871N-570.365E		09	37	35	6
			08	40	39	5
			07	74	61	6
			06	113	103	8
			05	46	45	7
			04	55	45	8
			03	47	44	9
			02	53	50	9
Dania Beach	011-8002	SLAMS	11	64	54	6
7000 N Ocean Dr John U. Lloyd State Park		Urban	10	65	54	7
	17-2885.443N-588.843E		09	66	50	6
			08	58	55	5
			07	155	81	6
			06	76	61	8
			05	94	78	8
			04	70	69	8
			03	68	68	9
			02	80	74	7

County / City	AQS #	Network	Year	Nitrogen Dioxide Concentrations (ppb)		
Site Address		Scale		Highest 1-Hr	2nd Highest 1-Hr	Annual Average
	UTM					
Duval						
Jacksonville	031-0032	SLAMS	11	44	44	8
2900 Bennett St Kooker Park		Neighborhood	10	59	58	9
	17-3358.243N-438.923E		09	54	46	8
			08	102	52	9
			07	50	50	10
			06	61	60	12
			05	64	62	13
			04	201	196	14
			03	76	74	14
			02	69	65	15
Hillsborough						
Tampa	057-1065	SLAMS	11	39	39	5
5121 Gandy Blvd USMC Reserve Center		Neighborhood	10	44	43	6
	17-3086.215N-348.559E		09	49	49	6
			08	46	42	6
			07	46	45	7
			06	89	82	8
While the 2011 values represent a full year of data (greater than 75% data capture for the year), the fourth quarter had less than 75% data capture.			05	48	45	8
			04	49	48	9
			03	58	57	10
			02	60	59	11
Miami-Dade						
Miami	086-0027	SLAMS	11	49	42	3
4600 Rickenbacker Causeway Rosenstiel		Neighborhood	10	48	47	4
	17-2846.153N-584.031E		09	49	49	3
			08	50	49	4
			07	50	48	5
			06	58	56	6
			05	58	58	6
			04	66	61	6
			03	58	55	7
			02	50	49	6

County / City	AQS #	Network	Year	Nitrogen Dioxide Concentrations (ppb)		
Site Address		Scale		Highest 1-Hr	2nd Highest 1-Hr	Annual Average
	UTM					
Miami-Dade (continued)						
Miami	086-4002	SLAMS	11	53	53	8
864 NW 23rd St		Neighborhood	10	58	54	10
	17-2853.408N-579.163E		09	43	43	9
			08	58	56	9
			07	90	60	11
			06	67	54	13
			05	63	62	14
			04	417	316	13
			03	85	79	13
			02	59	59	14
Orange						
Winter Park	095-2002	SLAMS	11	37	37	5
213 S Denning Ave		Urban	10	51	49	6
	17-3163.490N-464.515E		09	48	46	6
			08	44	43	6
			07	58	54	7
			06	53	53	9
			05	56	54	9
			04	56	53	10
			03	65	65	11
			02	62	60	11
Palm Beach						
Lantana	099-0020	SLAMS	11	49	48	4
1199 Lantana Rd A.G. Holley State Hospital		Neighborhood	10	59	52	5
	17-2941.340N-593.520E		09	45	44	5
			08			
			07			
			06			
			05			
			04			
			03			
			02			

County / City	AQS #	Network	Year	Nitrogen Dioxide Concentrations (ppb)		
Site Address		Scale		Highest 1-Hr	2nd Highest 1-Hr	Annual Average
	UTM					
Pinellas						
St. Petersburg	103-0018	SLAMS	11	42	41	5
7200 22nd Ave N Azalea Park		Neighborhood	10	49	43	6
	17-3074.500N-328.560E		09	72	64	7
			08	50	49	7
			07	48	46	9
			06	57	49	8
			05	40	40	8
			04	47	47	9
			03	51	49	10
			02	52	51	11
Sarasota						
Sarasota	115-1006	SLAMS	11	17	17	3
4570 17th St Paw Park		Neighborhood	10	30	26	4
	17-3025.910N-353.620E		09	28	27	4
			08	31	30	3
While the 2011 values represent a full year of data (greater than 75% data capture for the year), the first and second quarters had less than 75% data capture.			07	38	38	4
			06	44	43	5
			05	35	34	5
			04	34	34	5
			03	35	35	6
			02	37	37	6

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 25-30, please refer to the FPL witness LaBauve's testimony.

On page 6, the witness states that "FPL met with DEP to discuss FPL's concerns about the potential loss of quick-start capability."
a. Please describe how the 1 hour NO_2 standard might cause FPL to lose quick-start capability.
b. Please provide a summary of the meeting described by the witness.
c. Please identify who participated in the meeting and when the meeting occurred.

A.

a. Presently, FPL relies on the peaking Gas Turbines (GTs) at the Port Everglades, Ft. Lauderdale, and Fort Myers plants as its only available resources to provide quick start capability to meet system requirements. Once it was determined that emissions from the peaking GTs were causing exceedances of the one-hour NO_2 standard, FPL needed to address those emissions. Specifically, FPL would be required to either install controls to reduce emissions from the GTs to levels that would not exceed the standard or cease operation of the GTs. FPL conducted analyses to review available options to reduce the off-site emissions to below the standard. As discussed in the testimony of FPL witnesses DeBock, Domenech and Enjamio, FPL evaluated the installation of emission controls on the GTs but concluded that this was not technically feasible at the Lauderdale and Port Everglades sites and would be more expensive than replacing the GTs with new, high efficiency and low emission CTs at the Fort Myers site. Absent an agreement with the agency for time to undertake the permitting and construction of such options, FPL could lose the authority to operate these units.

b. FPL met with DEP to discuss the results of its evaluation of the impacts of the new 1-hour NO_2 standard on the operations of its GTs. FPL told DEP that it had become aware that emissions from units operated by a subsidiary were determined to cause exceedances of that standard, and that these exceedances were primarily a result of the proximity of the emission stacks to property boundaries and high NO_2 emission rates. FPL explained that, because the emission stacks for the GTs at the Lauderdale, Port Everglades and Fort Myers sites were shorter, similarly close to the property boundary, and high emission older-generation combustion technology, FPL became concerned that emissions from the GTs might also exceed the standard. FPL said that it had conducted stack testing, dispersion modeling and other data analysis, which confirmed that emissions from the FPL GTs would not disperse sufficiently to bring off-site concentrations below the standard. FPL discussed the studies it had conducted to determine the most cost effective option for its peaking GTs to reduce off-

site impacts below the standard and had determined that replacement with new Combustion Turbines (CTs) at Lauderdale and Fort Myers was the lowest cost option. FPL also explained that, because of vital importance of the GTs as a quick start resource for system reliablility support, it could not shut the GTs down until construction of the replacement CTs is complete and they are ready to go into service. Due to the lengthy permitting process (including federal greenhouse gas permitting), FPL told DEP that it could not commit to retire the GTs until December 2016. DEP concurred with this timetable and agreed to review air construction permits submitted by FPL for the replacement CTs as expeditiously as possible.

c. FPL met with DEP Bureau of Air Resources Management on May 20, 2013. FPL representatives included Randall R. LaBauve, John Hampp, and Peter Cocotos. DEP was represented by Brian Accardo, Paula Cobb, Katy Fenton, and Chad Stevenson.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 25-30, please refer to the FPL witness LaBauve's testimony.

On pages 3 and 4, the witness states that "areas which are designated non-attainment must reduce emissions from sources with significant contributions through implementation of control measures." Please provide pinpoint citation(s) to each rule, statute, or order upon which this statement is based.

A.

To comply with Clean Air Act Sections 110, DEP is required under 40 CFR 51.110 to submit a State Implementation Plan (SIP) that demonstrates attainment with the NAAQS primary and secondary standards. See Clean Air Act Sections 110(a)(2)(A)), 113, and 172(c). Under 40 CFR 51.111, the SIP is required to specify control measures which ensure compliance with the NAAQS, including methods for enforcement. Furthermore, 40 CFR 51.112 requires states to demonstrate that non-attainment areas will be returned to attainment within required timelines. DEP must demonstrate that proposed control strategies will provide adequate reductions in emissions to attain the NAAQS. DEP has adopted these EPA regulations at Rule 62-204.800(2), Florida Administrative Code. Thus, if an area within Florida were designated as non-attainment, DEP would have to take steps to reduce emissions from enough sources to bring air quality back within the NAAQS standards.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 25-30, please refer to the FPL witness LaBauve's testimony.

On page 5, the witness states that "emissions from the GTs, which are allowed under applicable permits, nonetheless can cause, or contribute to, ambient concentrations in excess of the new 1-hour NO_2 standard." What other sources of NO_2 might cause, or contribute to, ambient concentrations in excess of the new 1-hour NO_2 standard in an area where a monitor is located?

A.

Ambient NO_2 concentrations are primarily the result of emissions from combustion of fossil fuels from stationary sources (including power plants, municipal waste combustors, and factories), on-road mobile sources (including cars, trucks & busses), non-road mobile sources (vessels, aircraft & construction equipment), industrial processes, solvents and miscellaneous sources. One of EPA's stated goals for the revised standard was to limit short-term exposures to peak NO_2 concentrations, which often occur near major roads and could worsen asthma symptoms. EPA noted that NO_2 concentrations near roadways were measured to be 30 to 100% higher than those measured away from roads. EPA is requiring changes to the monitoring network to capture short-term NO_2 concentrations such as those that occur near roads, community-wide NO_2 concentrations, and low income or minority at-risk communities. Mobile sources account for approximately 70% of the NO_2 in Florida. Please note that FPL's evaluation of the peaking GTs at Port Everglades, Lauderdale, and Fort Myers showed that modeled emissions were significantly above the 1-hour NO_2 standard even if background NO_2 concentrations from all other sources were zero. Thus, DEP would have authority to require reductions in the emissions from those units independent of the attainment status of the surrounding area.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

For questions 25-30, please refer to the FPL witness LaBauve's testimony.

Is FPL aware of any other entities that have approached DEP about reducing NO_2 emissions as a result of the new 1-hour NO_2 standard? If yes, please identify each such entity.

A.

FPL is not currently aware of any other entity approaching the DEP regarding emissions of NO_2 at existing facilities as a result of the new 1-hour standard. However, all proposed new and modified major sources are required to provide modeled NO_2 emissions to evaluate potential impacts to the annual and 1-hour NO_2 NAAQS.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

What was the in-service date for each GT that FPL is proposing to retire?

A.

The GTs at Fort Lauderdale were placed into service in August 1970, followed by the GTs at Port Everglades one year later in August 1971. The in-service date for the Ft. Myers GTs is May 1974.

Q.

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

Please identify, with pinpoint citation, each environmental law or regulation that will be violated if the proposed NO_2 compliance program is not implemented.

A.

Pursuant to Section 403.061(35), Florida Statutes, and rule 62-204.800 (1)(B)19, Florida Administrative Code, DEP has the statutory duty and authority to ensure compliance with the 1-hour NO_2 NAAQS, including implementing reductions necessary to bring ambient concentrations to below the standard. If FPL does not reduce NO_2 emissions from its peaking Gas Turbines at the Lauderdale, Port Everglades and Fort Myers facilities, it will be contributing to an exceedance of a NAAQS, which DEP is obligated to take steps to remedy.

Q.

Please provide the analysis discussed on page 5 of Witness LaBauve's Testimony.

A.

Documents responsive to this requested are provided as Bates Nos. ECRC-001 through ECRC-009.

Table PFL. Predicted Maximum Daily 1-Hour NO2 Concentrations Compared to the NAAQS
GTs at the Lauderdale Plant

Modeling Scenario	Existing Stack Height (45 ft) NOx Emission Rate lb/hr	ppm	NO2 1-hr Impacts Daily maximum 8th Highest ug/m3	NOx reduction to comply with NAAQS %	Proposed Stack Height (95 ft) NOx Emission Rate lb/hr	ppm	NO2 1-hr Impacts Daily maximum 8th Highest ug/m3	NOx reduction to comply with NAAQS %
80% Conversion NOx to NO2								
GTs only	632	207	514	–	632	207	480	–
GTs only- comply with NAAQS	231	76	188	63%	247	81	188	61%
GTs with background- comply with NAAQS	112	37	91	82%	120	39	91	81%
Ozone Limiting Method								
GTs only	632	207	453	–	632	207	431	–
GTs only- comply with NAAQS	262	86	188	58%	276	90	188	56%
GTs with background-	127	41	91	80%	133	44	91	79%

NAAQS = 188 ug/m3

1-hour background (ppb) =	97 ug/m3	
(based on monitoring)	52 ppb	(10 percent increase)
	47 ppb	measured at FDEP Broward County monitor (2012 98th percentile)

ECRC-001

Florida Power & Light Company
Docket No. 130007-EI
Staff's 1st Request for POD's
Request No. 1

Table PPE. Predicted Maximum Daily 1-Hour NO2 Concentrations Compared to the NAAQS
GTs at the Port Everglades Plant

Modeling Scenario	Existing Stack Height (45 ft) NOx Emission Rate lb/hr	ppm	NO2 1-hr Impacts Daily maximum 8th Highest ug/m3	NOx reduction to comply with NAAQS %	Proposed Stack Height (95 ft) NOx Emission Rate lb/hr	ppm	NO2 1-hr Impacts Daily maximum 8th Highest ug/m3	NOx reduction to comply with NAAQS %
80% Conversion NOx to NO2								
GTs only	632	207	406	–	632	207	364	–
GTs only- comply with NAAQS	293	96	188	54%	326	107	188	48%
GTs with background- comply with NAAQS	141	46	91	78%	158	52	91	75%
Ozone Limiting Method								
GTs only	632	207	385	–	632	207	358	–
GTs only- comply with NAAQS	309	101	188	51%	332	109	188	47%
GTs with background- comply with NAAQS	149	49	91	76%	160	52	91	75%

NAAQS = 188 ug/m3

1-hour background =	97 ug/m3	
(based on monitoring)	52 ppb	(10 percent increase)
	47 ppb	measured at FDEP Broward County monitor (2012 98th percentile)

Table PFM. Predicted Maximum Daily 1-Hour NO2 Concentrations Compared to the NAAQS
GTs at the Fort Myers Plant

Modeling Scenario	Existing Stack Height (45 ft) NOx Emission Rate lb/hr	ppm	NO2 1-hr Impacts Daily maximum 8th Highest ug/m3	NOx reduction to comply with NAAQS %	Proposed Stack Height (95 ft) NOx Emission Rate lb/hr	ppm	NO2 1-hr Impacts Daily maximum 8th Highest ug/m3	NOx reduction to comply with NAAQS %
80% Conversion NOx to NO2								
GTs only	530	174	223	--	530	174	243	--
GTs only- comply with NAAQS	447	147	188	16%	410	134	188	23%
GTs with background- comply with NAAQS	333	109	140	37%	305	100	140	42%
Ozone Limiting Method								
GTs only	530	174	250	--	530	174	271	--
GTs only- comply with NAAQS	399	131	188	25%	368	121	188	31%
GTs with background- comply with NAAQS	297	97	140	44%	274	90	140	48%

NAAQS = 188 ug/m3

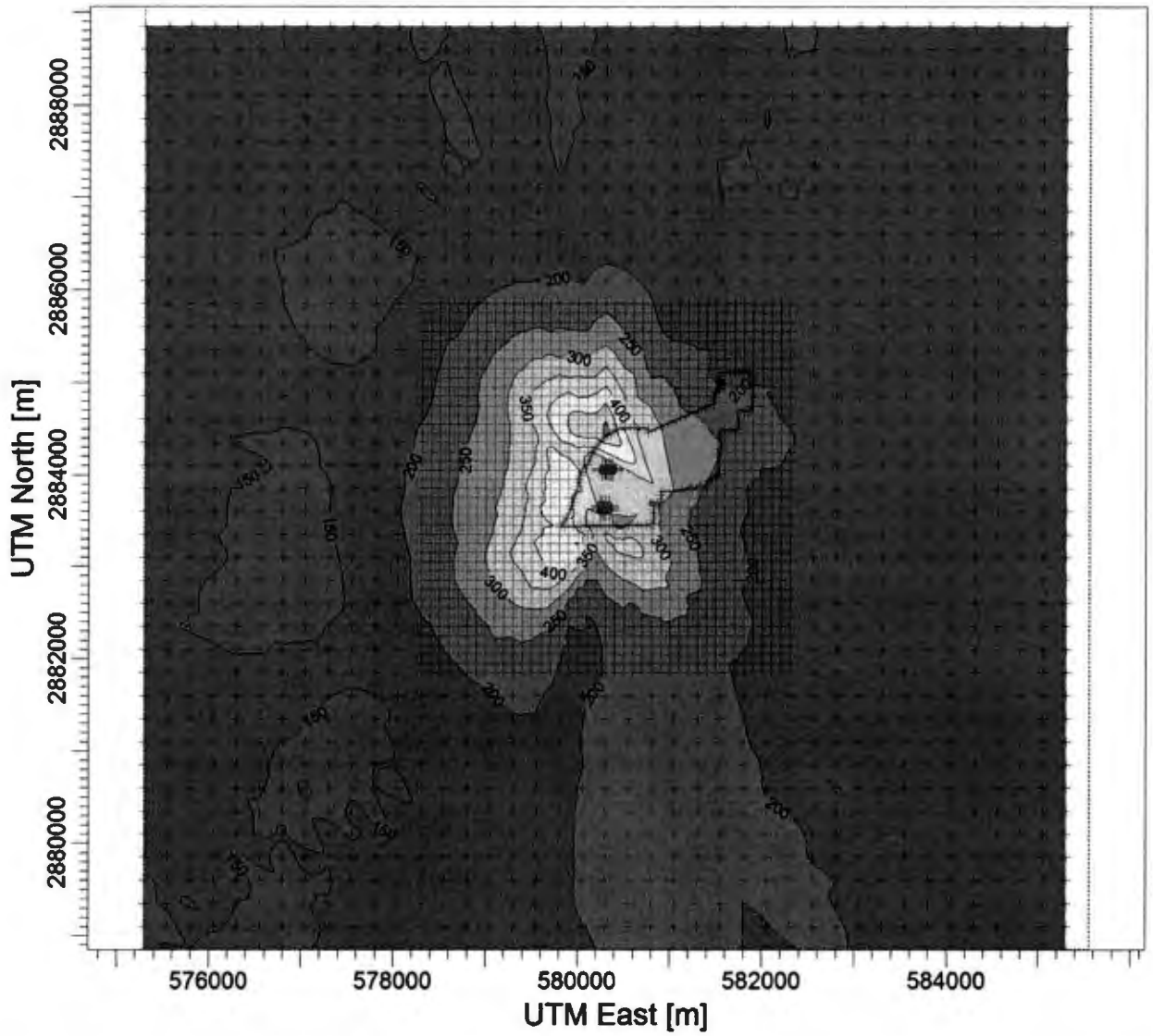
1-hour background =	48	ug/m3	
(based on monitoring)	26	ppb	(50 percent increase)
	17	ppb	measured at FDEP Sarasota monitor (2012 98th percentile)

ECRC-003

Florida Power & Light Company
Docket No. 130007-EI
Staff's 1st Request for POD's
Request No. 1

PROJECT TITLE:

FPL PFL- 8th Highest Daily Maximum 1-Hour NO2 Concentrations (µg/m3) [NAAQS=188 µg/m3)
Existing GT Operations (80% Conversion of NOx to NO2)



PLOT FILE OF 8TH-HIGHEST MAX DAILY 1-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

100 150 200 250 300 350 400 450 500 550

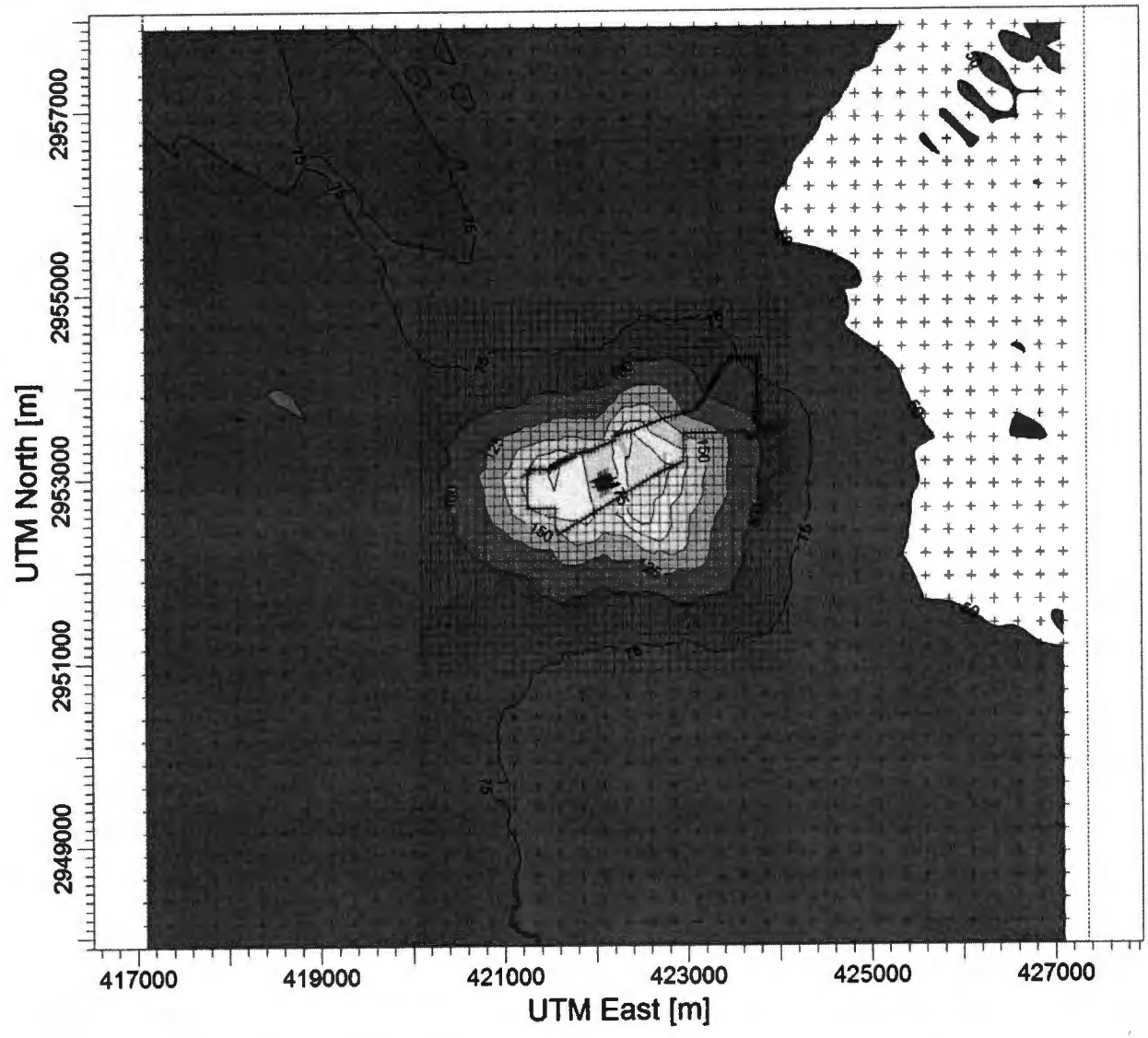
COMMENTS:	SOURCES: **24**	COMPANY NAME:	
	RECEPTORS: **3093**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:73,021 (0 — 3 km)	
	MAX: **514.28092 ug/m^3**	DATE: **3/19/2013**	PROJECT NO.:

AERMOD View - Lakes Environmental Software

S:\Projects\FPL\PPE PFL PFM 1-HR SO2_NO2 MODELING\2012 Prelim\LAUDERDALE\LAKES\FL1.isc

PROJECT TITLE:

FPL PFM- 8th Highest Daily Maximum 1-Hour NO2 Concentrations (µg/m3) [NAAQS=188 µg/m3)
Existing GT Operations (80% Conversion of NOx to NO2)



PLOT FILE OF 8TH-HIGHEST MAX DAILY 1-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

50 75 100 125 150 175 200 225 250

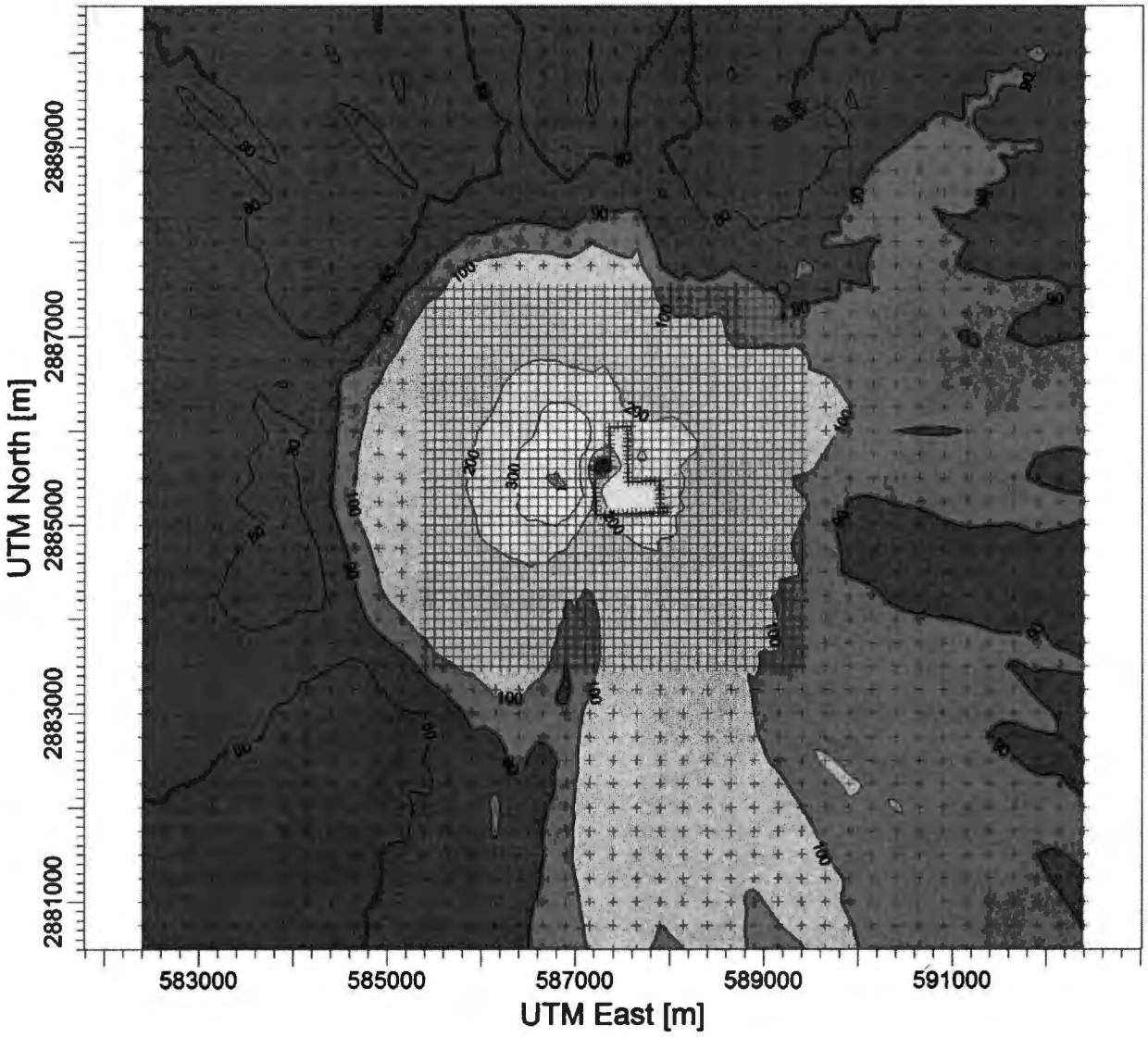
COMMENTS:	SOURCES: **12**	COMPANY NAME:	
	RECEPTORS: **3134**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:72,781 (0 — 3 km)	
	MAX: **222.59857 ug/m^3**	DATE: **3/19/2013**	PROJECT NO.:

AERMOD View - Lakes Environmental Software

S:\Projects\FPL\PPE PFL PFM 1-HR SO2_NO2 MODELING\2012 Prelim\FORT MYERS\LAKES\FM1.isc

PROJECT TITLE:

FPL PPE- 8th Highest Daily Maximum 1-Hour NO2 Concentrations (µg/m3) [NAAQS=188 µg/m3)
Existing GT Operations (80% Conversion of NOx to NO2)



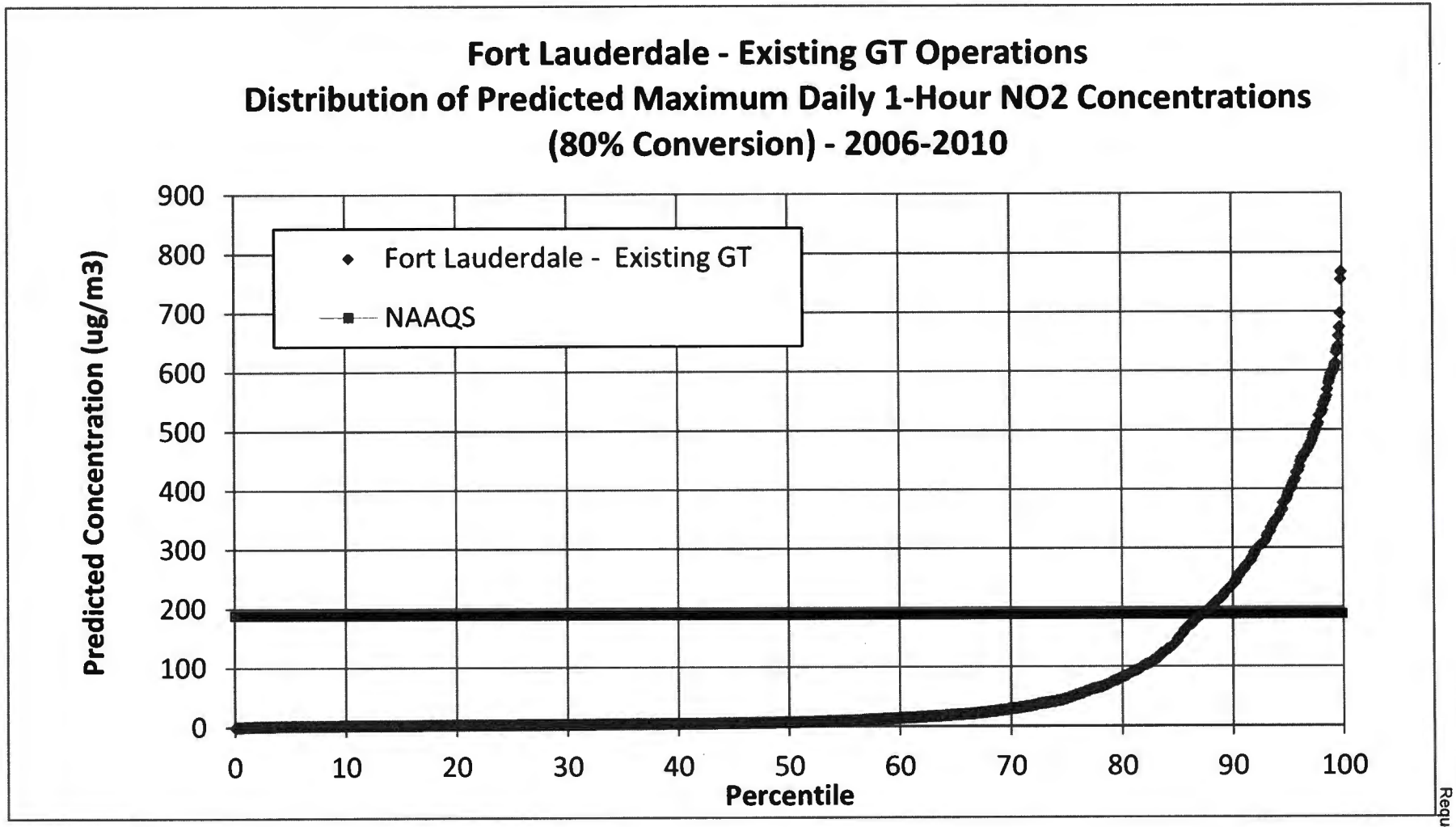
PLOT FILE OF 8TH-HIGHEST MAX DAILY 1-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

70 80 90 100 200 300 400 500

COMMENTS:	SOURCES: 12	COMPANY NAME:	
	RECEPTORS: 3116	MODELER:	
	OUTPUT TYPE: Concentration	SCALE: 1:71,495 (0 — 2 km)	
	MAX: 405.82429 ug/m^3	DATE: 3/19/2013	PROJECT NO.:

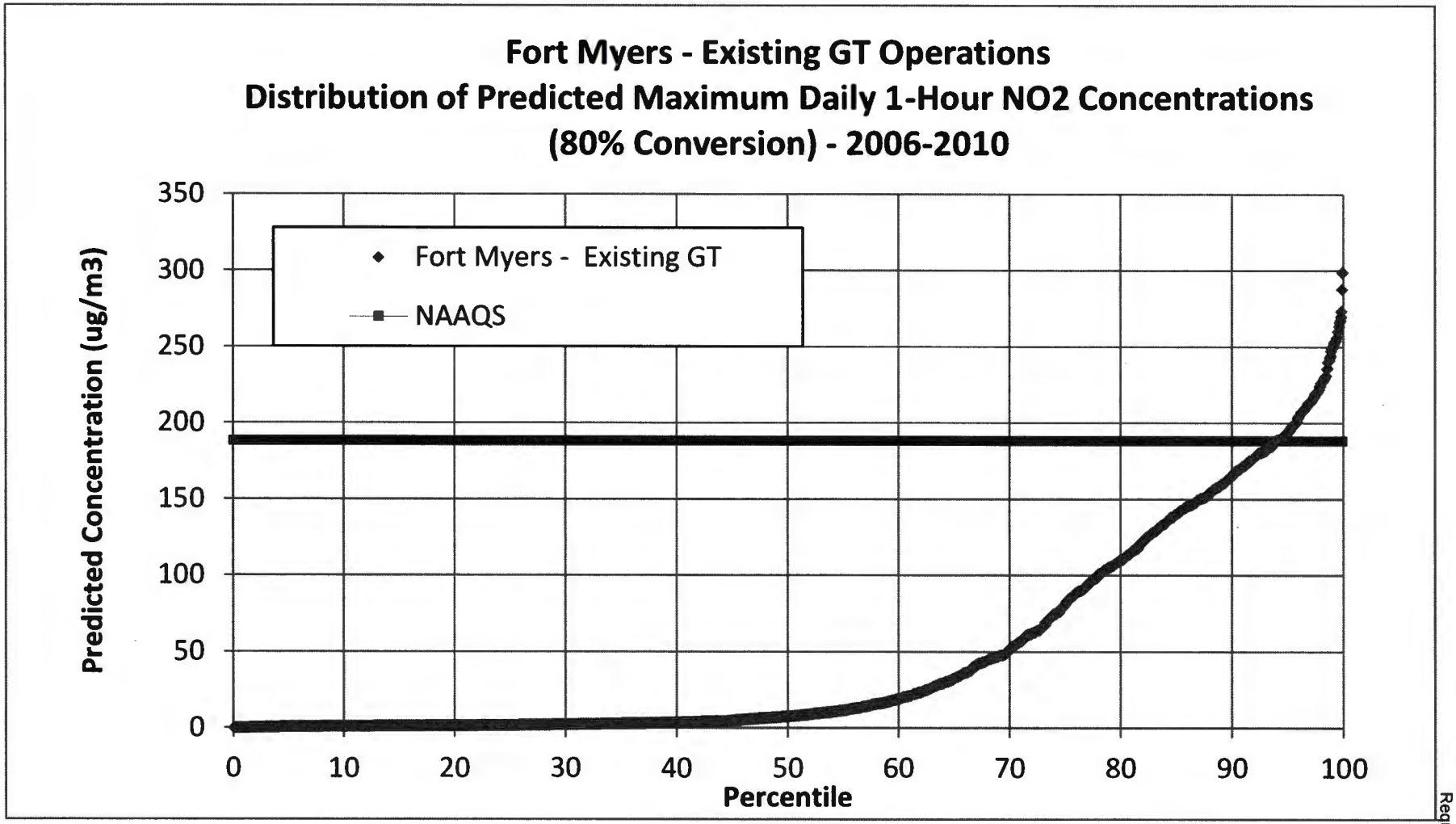
AERMOD View - Lakes Environmental Software

S:\Projects\FPL\PPE PFL PFM 1-HR SO2_NO2 MODELING\2012 Prelim\PT EVERGLADES\LAKES\PE1.isc



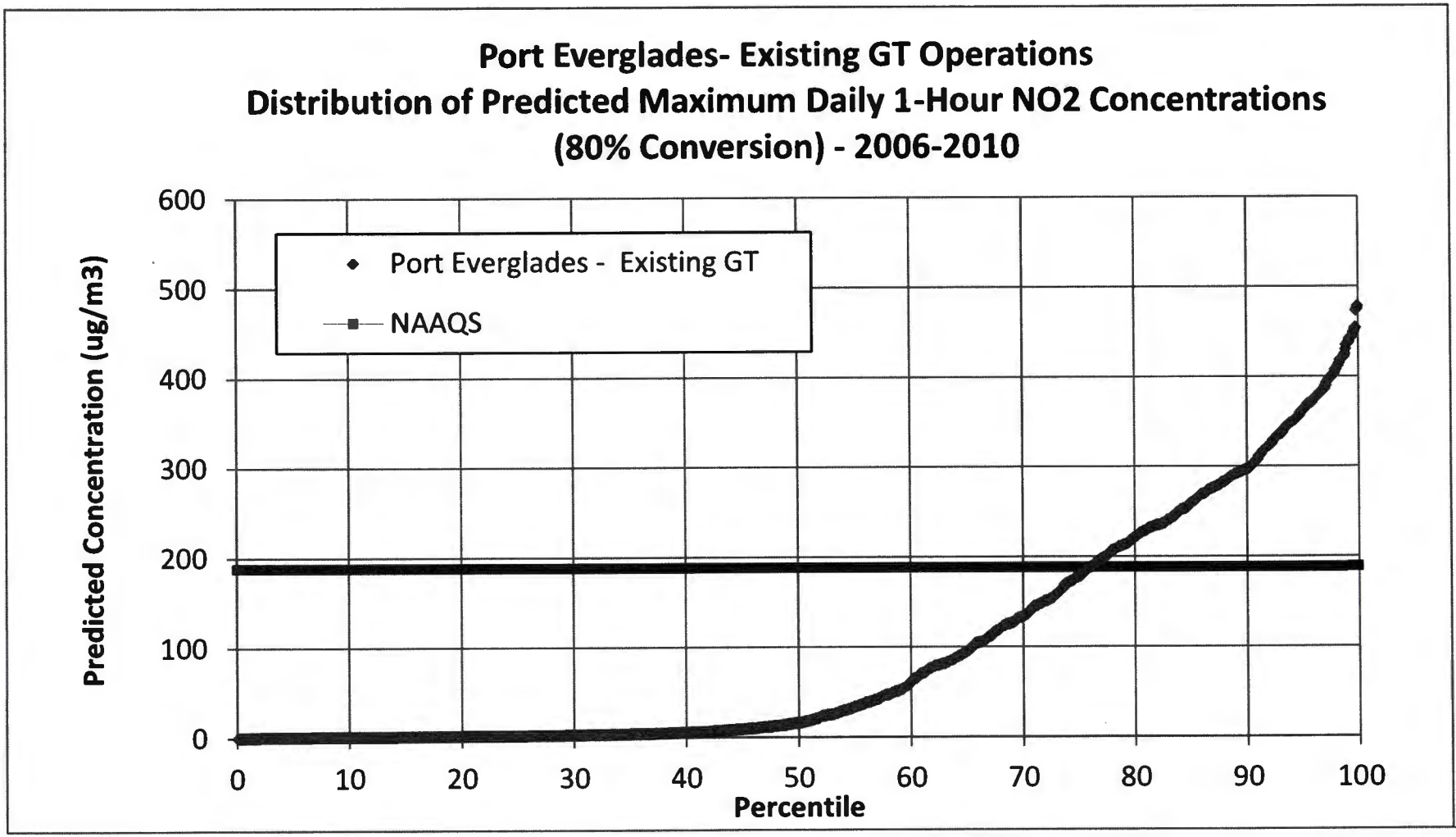
ECRC-007

Florida Power & Light Company
Docket No. 130007-EI
Staff's 1st Request for POD's
Request No. 1



ECRC-008

Florida Power & Light Company
Docket No. 130007-EI
Staff's 1st Request for POD's
Request No. 1



Florida Power & Light Company
Docket No. 130007-EI
Staff's 1st Request for POD's
Request No. 1

ECRC-009

Q.

Please provide the following documents related to the meeting between FPL and DEP referenced by Witness LaBauve at page 6 of his testimony:

a. All notes taken by FPL at the meeting.

b. All documents used at the meeting.

A.

a. FPL representatives present at the meeting did not take notes during the meeting with DEP.

b. Neither FPL nor DEP presented or shared any documents during the meeting referenced by Witness LaBauve. During the meeting, FPL referenced the analytical results shown in the documents that are being produced in response to Request No. 1 of Staff's First Request for Production of Documents.

Q.

Please provide all correspondence between FPL and DEP related to the 1 hour NO_2 standard.

A.

All FPL and DEP correspondence has been provided as attachments, Bates Nos. ECRC-010 through ECRC-026.

LaBauve, Randall R

From: Accardo, Brian <Brian.Accardo@dep.state.fl.us>
Sent: Thursday, June 06, 2013 4:00 PM
To: LaBauve, Randall R
Subject: RE: NO2 Standard

Mr. LaBauve, thank you for the letter and for the work FPL has undertaken to address air quality impacts associated with older-generation peaking gas turbines at the Broward and Lee County facilities. The Department appreciates FPL's willingness to discuss an appropriate path forward, and looks forward to maintaining a constructive dialogue during the permitting phase of this important project.

Best regards,

Brian J. Accardo
Director, Division of Air Resource Management
Florida Department of Environmental Protection
Administrative Assistant: Vickie Gibson, (850) 717-9091

Please take a few minutes to share your comments on the service you received from the department by clicking on this link DEP Customer Survey.
From: Sivia, Lois [mailto:Lois.Sivia@fpl.com] **On Behalf Of** LaBauve, Randall R
Sent: Monday, June 03, 2013 12:02 PM
To: Accardo, Brian
Subject: NO2 Standard

Brian,

Attached is a letter summarizing our recent discussions. Don't hesitate to contact me if you have any questions.

Regards,

Randall R. LaBauve
Vice President
Florida Power & Light
Office: 561-691-7001
Mobile: 561-310-4897

June 3, 2013

Mr. Brian Accardo
Director
Division of Air Resource Management
Florida Dept. of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

Re: Analysis and Plan regarding the new 1-hour NO_2 National Ambient Air Quality Standard

Dear Mr. Accardo:

I am writing to you on behalf of Florida Power & Light Company ("FPL") in regards to our recent discussions related to the impact of the new 1-hour NO_2 standard on FPL facilities.

As you are aware, on January 22, 2010, the U.S. Environmental Protection Agency ("EPA") strengthened the National Ambient Air Quality Standard ("NAAQS") for NO_2. Specifically, EPA created an entirely new 1-hour human health-based standard for NO_2. This new 1-hour standard marks a significant change in the form of the NO_2 standard by focusing on short term exposures rather than long term exposures. EPA set the new 1-hour standard at 100 parts per billion.

Earlier this year, the Florida Department of Environmental Protection ("DEP") submitted a revision to its State Implementation Plan ("SIP") to implement the new 1-hour NO_2 standard pursuant to its statutory duty and authority under Chapter 403, Florida Statutes, and rules adopted under Chapter 62, Florida Administrative Code, to protect and maintain Florida's air quality, including ensuring NAAQS attainment. Based on DEP's recommendation, EPA has already designated all of Florida as attainment/unclassifiable for the new NO_2 standard. In reviewing the potential impacts of this new NO_2 standard, FPL became aware that emission units with higher NOx emissions and shorter stacks, and which are located closer to property boundaries, may not adequately facilitate off-site dispersion of stack emissions to concentrations below the new 1-hour standard.

FPL conducted an analysis of three of its electrical generating facilities with older-generation peaking gas turbines ("GTs") that have these characteristics. Specifically, FPL analyzed the GTs at the following facilities: Lauderdale Plant, located in the City of Dania, Broward County; Port Everglades Plant, located in the City of Hollywood, Broward County; and Fort Myers Plant, located in the City of Tice, Lee County. FPL has 48 peaking GTs at these three facilities, which were installed in the 1960s and entered into commercial operation in the early 1970s. The GTs do not operate on a continuous basis during the entire year, but rather are used occasionally in order to serve peak demands. Thus, while their less frequent operation did not pose concerns relative to the prior annual NO_2 standard, even occasional operation is relevant to the new 1-hour NO_2 standard. Regardless, due to their quick-start capability, the GTs constitute extremely important reliability resources for FPL for serving load in the South Florida area.

FPL's analysis of these GTs, as presented to DEP, included stack testing, dispersion modeling and other data analysis. This analysis showed that emissions from the GTs, which are allowed under applicable permits, nonetheless would not disperse sufficiently to bring off-site concentrations below the new 1-hour standard. If left unresolved, such emissions could thus lead to EPA designating the area as nonattainment. FPL's evaluation concluded that the most cost-effective solution is to remove 48 of the existing GTs at the three facilities and replace them with new, highly efficient combustion turbines (CTs) with low NO_2 emissions. This solution, as FPL's analysis demonstrated to DEP, resolves the offsite impacts at these three facilities.

As a result of its analysis, FPL discussed with DEP its need for certainty regarding a timely resolution of this issue, while ensuring its ability to reliably meet demand. FPL understands that completing this project as expeditiously as practicable is necessary to DEP's implementation of the NAAQS program and Section 172 of the Clean Air Act. As FPL explained in our meetings, a substantial lead time is needed to complete this project. Specifically, FPL must apply for and receive the necessary permits and approvals for the project. Part of the approval process is to receive a federal greenhouse gas air permit from EPA, which can easily stretch out to two years. Further, FPL must have time, after licensing and permitting, to order the equipment and to construct the project. Therefore, DEP has agreed that, in order to resolve the offsite impact issues related to the new NO_2 standard, FPL will bring the new CTs into service by December 31, 2016. DEP has acknowledged that FPL may operate the existing GTs, as permitted, to serve load until the new CTs are in service.

In order to meet this in-service deadline, licensing of the project must begin immediately. In that regard, FPL will file the necessary air construction permit applications by this summer for construction of the new CTs. This should allow adequate time for DEP and EPA to issue the permits and for FPL to implement and construct the project by December 31, 2016. FPL understands that this response plan and timing is acceptable to DEP.

Thank you for the opportunity to meet with you and your staff to find a mutually agreeable path forward to reduce those off-site impacts to a level below this new regulatory air standard, on a timetable that meets FPL's operational needs.

Sincerely,

Randall R. LaBauve
Vice-President
Environmental Services

Hampp, John

Subject:	FPL Peaking Gas Turbine Impacts
Location:	Tallahassee - Twin Towers ; Room TBD
Start:	Thu 3/21/2013 10:00 AM
End:	Thu 3/21/2013 11:30 AM
Recurrence:	(none)
Meeting Status:	Meeting organizer
Organizer:	Hampp, John
Required Attendees:	Brian Accardo (Brian.Accardo@dep.state.fl.us); Raffenberg, Matthew; Bob_McCann@golder.com

FPL has conducted air modeling for our gas turbine peaking units at Port Everglades, Lauderdale and Fort Myers. FPL was concerned with off-site impacts to the 1-hour NO2 standard for these higher emitting units based on our recent experience in Texas. For FPL I expect that Matt Raffenberg and myself will be attending along with Bob McCann of Golder & Associates.

John....

Hampp, John

From: Hampp, John
Sent: Wednesday, April 24, 2013 2:06 PM
To: 'Accardo, Brian'
Subject: FPL GT Peaking Unit AO
Attachments: DEP_FPL Administrative Order_NO2 Standard.docx

Brian,

Attached you will find a draft AO that FPL has put together for your and the Department's consideration.

Best Regards,

John....

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental cost recovery clause.	DOCKET NO. 130007-EI
	DATED: JULY 25, 2013

STAFF'S THIRD SET OF INTERROGATORIES TO
FLORIDA POWER & LIGHT COMPANY (NOS. 19-32)

The Staff of the Florida Public Service Commission, by and through its undersigned attorney, propounds the following interrogatories, pursuant to Rule 1.340, Florida Rules of Civil Procedure, to FLORIDA POWER & LIGHT COMPANY (FPL). These interrogatories shall be answered under oath by you or your agent, who is qualified and who will be identified, with the answers being served as provided by the Rules of Civil Procedure, **and within the time period set out in Order No. PSC-13-0070-PCO-EI, issued on February 4, 2013**. As provided by Rule 1.340(a), Florida Rules of Civil Procedure, each interrogatory shall be answered separately and fully in writing under oath unless it is objected to. Each answer shall be signed by the person making it.

Give the name, address, and relationship to FPL of those persons providing the answers to each of the following interrogatories.

If an interrogatory contained herein asks for information that has already been provided or is in the process of being provided to the Commission through a Commission audit, please so state, indicating the date provided and the audit document/record request number.

DEFINITIONS

"You", "your", "Company" or "FPL" refers to FLORIDA POWER & LIGHT COMPANY, its employees and authorized agents.

"Document" refers to written matter of any kind, regardless of its form, and to information recorded on any storage medium, whether in electrical, optical or electromagnetic form, and capable of reduction to writing by the use of computer hardware and software.

"Identify" means:

(a) With respect to a person, to state the person's name, address and business relationship (e.g., "employee") to the Company;

(b) With respect to a document, to state the nature of the document in sufficient detail for identification in a request for production, its date, its author, and to identify its custodian. If the information or document identified is recorded in electrical, optical or electromagnetic form, identification includes a description of the computer hardware or software required to reduce it to readable form.

INTERROGATORIES

Questions 19 through 32 relate to FPL's June 28, 2013 Petition for Environmental Cost Recovery and related testimony filed in this Docket.

19. In a format similar to Exhibit MD-2, please provide the operational characteristics of the combustion turbine units that FPL is proposing to retire.

20. In a format similar to Exhibit JEE-5 (column 1), please provide the fixed and variable annual total revenue requirements in 2013 dollars for each plan identified by witness Enjamio.

21. In a format similar to Exhibit JEE-5 (column 1), please provide the fixed and variable annual total revenue requirements (in nominal dollars) assuming a plan in which FPL takes no action with respect to the new 1-hour NO2 standard.

22. In a format similar to Exhibit JEE-5 (column 1), please provide the fixed and variable annual total revenue requirements (in 2013 dollars) assuming a plan in which FPL takes no action with respect to the new 1-hour NO2 standard.

For questions 23 and 24, please refer to the FPL witness Domenech's testimony

23. On page 3, the witness discusses "Target NOx" and "Baseline NOx" at three FPL sites. Please complete the table below summarizing the "Target NOx" and "Baseline NOx" at the three FPL sites.

Site	Target Nox	Baseline NOx
PFL		
PFM		
PPE		

ADMINISTRATIVE ORDER REGARDING COMPLIANCE WITH THE ONE HOUR AMBIENT AIR QUALITY STANDARD FOR NO_2

This Order is entered into between the Florida Department of Environmental Protection ("DEP") and Florida Power & Light Company ("FPL") to reduce emissions of Nitrogen Dioxide ("NO_2") for the exclusive purpose of addressing compliance with the one-hour National Ambient Air Quality Standard ("NAAQS") for NO_2 at FPL's Fort Myers, Lauderdale and Port Everglades plant sites.

WHEREAS:

I. In 2010, the U.S. Environmental Protection Agency ("EPA") finalized its revision of the NO_2 NAAQS by creating a new 1-hour NO_2 standard. Until 2010, the NO_2 standard was measured only by an annual average. This new 1-hour standard marks a significant change in the form of the NO_2 standard focusing on short term exposure rather than the long-term exposures, which were monitored under the existing annual standard. EPA set the new 1-hour standard at 100 parts per billion ("ppb"). EPA also retained the current NO_2 standard of an annual average of 53 ppb.

II. DEP has the statutory duty and authority, pursuant to Chapter 403, Florida Statutes, and rules adopted under Chapter 62, Florida Administrative Code, to protect and maintain Florida's air quality, including ensuring compliance with NO_2 NAAQS. In 2013, the Florida DEP revised their State Implementation Plan to implement the new 1-hour NO_2 standard.

III. Under Sections 110 and 113 of the Clean Air Act, the DEP must require any source found to be causing, or significantly contributing to, a violation of the NO_2 NAAQS to come into compliance with the standard. Additionally, under Section

VIII. The new one-hour NO_2 standard is a significant change from the prior annual average standard. The GTs do not operate on a continuous basis during the entire year but rather are used less frequently in order to serve peak demands. These types of emission sources may contribute to elevated concentrations close to the source as measured over a single hour.

IX. To understand whether FPL's GTs complied with the new one-hour NO_2 standard, FPL performed air modeling that indicates that FPL would not meet the NO_2 standard beyond its property line. This exceedence was confirmed by DEP when the model data was submitted to DEP that identified exceedences of the NO_2 standard beyond the plant property boundaries.

NOW THEREFORE, in consideration of the premises and mutual agreements contained herein, and intending to be legally bound, DEP and FPL agree as follows:

1. This Order is entered into by DEP and FPL for the exclusive purpose of ensuring compliance with NO_2 ambient air quality standards.
2. This Order shall be in full force and effect upon the signature of both parties.
3. FPL has 48 1970's vintage GTs located at Lauderdale, Fort Myers and Port Everglades. Specifically, Lauderdale has 24 GTs, Fort Myers has 12 GTs and Port Everglades has 12 GTs.
4. FPL shall implement a plan in order to achieve compliance with the new 1-hour NO_2 standard for operation of its peaking GTs. Specifically, FPL may retrofit the Lauderdale, Fort Myers and Port Everglades facilities by replacing some, or all, of the existing GTs with Combustion Turbines ("CTs") that have lower emissions and higher operating efficiency or by installing pollution control technology on

existing GTs. As part of the retrofit, FPL may retire those GTs no longer needed for system support.

5. FPL shall inform DEP of its selection of a compliance plan to abate its impacts to the 1-hour NO_2 standard for each of the three facilities. FPL shall submit its plan prior to the submittal of the required permit applications. FPL shall achieve compliance with the standard by December 31, 2016 at each of these locations.
6. DEP shall process in a timely manner any permit applications or requests for approvals necessary to implement this Order.
7. This Order is not, and shall not be construed to be, a permit required pursuant to any state, federal, or local law, rule or regulation, including those of DEP.
8. FPL shall be entitled to relief from the time requirements in this Order in the event of force majeure, which includes, but is not limited to, delays in regulatory approvals, construction, labor, material, or equipment delays; acts of God or other similar events that are beyond the control of FPL and do not result from its own actions, for the length of time necessarily imposed by any such delay.
9. There shall be no modification or amendments of this Order without the written agreement of all parties to this Order.
10. This Order shall apply and be binding upon DEP and FPL and their successors and assigns. Each person signing this Order certifies that he or she is authorized to execute this Order and to legally bind the party on whose behalf he or she signs this Order.

11. DEP has full authority to enforce the terms of this Order to ensure FPL's compliance with the new 1-hour NO_2 standard by no later than the deadline prescribed by this Order.
12. This Order shall be the sole remedy in regards to FPL's obligations to maintain compliance with the new 1-hour NO_2 standard for its existing GTs at Lauderdale, Ft. Myers and Port Everglades.

By their signature affixed below, the parties agree to be bound by the terms and conditions of this Order.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: _____

Name: _____

Title: _____

Date: _____

FLORIDA POWER & LIGHT COMPANY

By: _____

Name: _____

Title: _____

Date: _____

Hampp, John

From: Hampp, John
Sent: Friday, April 19, 2013 2:54 PM
To: 'Cobb, Paula'
Subject: RE: GT Follow-Up Meeting

We can work with that date. Many thanks... Getting our folks scheduled is like herding cats.

John....

From: Cobb, Paula [mailto:Paula.Cobb@dep.state.fl.us]
Sent: Friday, April 19, 2013 2:52 PM
To: Hampp, John
Subject: Re: GT Follow-Up Meeting

How about 1:30-3:30 May 1?

On Apr 19, 2013, at 12:50 PM, "Hampp, John" <John.Hampp@fpl.com> wrote:

> Paula,
>
> I sent an email to Brian thanking you all for your time on Tuesday and also was looking for a day when we could get together again to review the plan that we have developed for the 1-hour NO2 NAAQS for the peaking GT's. I have not yet heard back from Brian but I'm trying to put a date on the calendar when folks will be available from FPL for the meeting. At this point the afternoon of April 30th looks good to most folks here that we'd like to have in attendance. As an alternative the afternoon of May 1 also is good for us. My thoughts are to bring my VP Randy LaBauve , Peter Cocotos, someone from our Engineering & Construction group and perhaps a representative from our Power Generation group where we would be able to talk about the analyses we have done and our proposed plan to remedy off-site impacts. If there are other dates that work better for the Department please pass those along and I'll check our availability. I would sincerely appreciate your help in getting a meeting setup so that we can work on resolving this issue.
>
> Best Regards,
>
> John....

Hampp, John

From: Cobb, Paula <Paula.Cobb@dep.state.fl.us>
Sent: Friday, April 19, 2013 1:08 PM
To: Hampp, John
Subject: Re: GT Follow-Up Meeting

John- I'll try to get a date for you today.

On Apr 19, 2013, at 12:50 PM, "Hampp, John" <John.Hampp@fpl.com> wrote:

> Paula,
>
> I sent an email to Brian thanking you all for your time on Tuesday and also was looking for a day when we could get together again to review the plan that we have developed for the 1-hour NO2 NAAQS for the peaking GT's. I have not yet heard back from Brian but I'm trying to put a date on the calendar when folks will be available from FPL for the meeting. At this point the afternoon of April 30th looks good to most folks here that we'd like to have in attendance. As an alternative the afternoon of May 1 also is good for us. My thoughts are to bring my VP Randy LaBauve , Peter Cocotos, someone from our Engineering & Construction group and perhaps a representative from our Power Generation group where we would be able to talk about the analyses we have done and our proposed plan to remedy off-site impacts. If there are other dates that work better for the Department please pass those along and I'll check our availability. I would sincerely appreciate your help in getting a meeting setup so that we can work on resolving this issue.
>
> Best Regards,
>
> John....

Please take a few minutes to share your comments on the service you received from the department by clicking on this link. DEP Customer Survey.

Hampp, John

From: Hampp, John
Sent: Wednesday, March 13, 2013 12:13 PM
To: Accardo, Brian
Subject: RE: FPL Peaking Gas Turbine Impacts

Sorry about that. Clicked on the wrong date...

-----Original Appointment-----
From: Accardo, Brian [mailto:Brian.Accardo@dep.state.fl.us]
Sent: Wednesday, March 13, 2013 12:12 PM
To: Hampp, John
Subject: New Time Proposed: FPL Peaking Gas Turbine Impacts
When: Thursday, March 14, 2013 10:00 AM-11:30 AM (GMT-05:00) Eastern Time (US & Canada).
Where: Tallahassee - Twin Towers ; Room TBD

Did you mean next week?

New Meeting Time Proposed:
Thursday, March 21, 2013 10:00 AM-11:30 AM (GMT-05:00) Eastern Time (US & Canada).

STATE OF FLORIDA)

COUNTY OF MIAMI DADE)

I hereby certify that on this 22 day of AUGUST, 2013, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Juan Enjamio, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory numbers 20-22 from Staff's Third Set of Interrogatories to Florida Power & Light Company (Nos. 19-32) in Docket No. 130007-EI, and that the responses are true and correct based on his personal knowledge.

Juan Enjamio

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 22nd day of August, 2013.

Notary Public
State of Florida, at Large

My Commission Expires:

Notary Public State of Florida
Lily A Rodriguez
My Commission EE 875512
Expires 02/17/2017

STATE OF FLORIDA)

COUNTY OF [redacted] PALM BEACH)

I hereby certify that on this 22 day of August, 2013, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Justin Sobol, who is personally known to me, and he acknowledged before me that he provided the answer to interrogatory number 19 from Staff's Third Set of Interrogatories to Florida Power & Light Company (Nos. 19-32) in Docket No. 130007-EI, and that the response is true and correct based on his personal knowledge.

Justin Sobol

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 22nd day of August, 2013.

Notary Public
State of Florida, at Large

My Commission Expires:

Pamela L. Springer
COMMISSION # EE085473
EXPIRES: APR. 18, 2015
www.AaronNotary.com

Pamela L. Springer
COMMISSION # EE085473
EXPIRES: APR. 18, 2015
www.AaronNotary.com

STATE OF FLORIDA)

COUNTY OF ~~WEST~~ PALM BEACH)

I hereby certify that on this 21 day of August, 2013, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Martin Domenech, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory numbers 23-24 and 31 from Staff's Third Set of Interrogatories to Florida Power & Light Company (Nos. 19-32) in Docket No. 130007-EI, and that the responses are true and correct based on his personal knowledge.

Martin Domenech

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 21st day of August, 2013.

JAYNE LORING DAVIS
MY COMMISSION # DD908031
EXPIRES September 14, 2013
(407) 398-0153 FloridaNotaryService.com

Notary Public
State of Florida, at Large

My Commission Expires:
9-14-13

STATE OF FLORIDA)

COUNTY OF WEST PALM BEACH)

I hereby certify that on this 20th day of AUGUST, 2013, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared John Hampp, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory numbers 25-30 and 32 from Staff's Third Set of Interrogatories to Florida Power & Light Company (Nos. 19-32) in Docket No. 130007-EI, and that the responses are true and correct based on his personal knowledge.

John Hampp

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 20th day of August, 2013.

Notary Public State of Florida
Lois M Silvia
My Commission EE130697
Expires 11/05/2015

Notary Public
State of Florida, at Large

My Commission Expires:
11/5/15