Florida Power & Light Company
9700 SW 344 Street, Homestead, FL 33035
Turkey Point Fossil Plant

COPY

May 2, 2007

Alvaro Linero, P.E. – Program Administrator
Permitting South Section
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone /Road
Tallahassee, Fl
32399-2400

RE: Turkey Point Fossil Power Plant Units 1 & 2; 0250003-008-AC
BART Determination Application – Response to Request for Additional Information

Dear Al,

FPL provides the following responses to the FDEP's Request for Additional Information [Feb 26, 2007] referenced above.

Question 1. On page 5-2 of the Application you state "ESPs have been added to FPL's Port Everglades Plant including the 400 MW class units that are very similar to Units 1 and 2 at PTF." Please explain why the same rationale used to implement these controls at the Port Everglades Plant cannot be economically employed at the Turkey Point Fossil Power Plant.

Response:
Units 1&2 at Turkey Point Fossil Plant are similar to the 400 MW class units (3&4) at Port Everglades. However, there are significant differences in the economic employment of ESPs at PTF versus PPE which are answered, for the most part, by the responses to Questions #2 and #9 below.

Further, other significant differences exist between the two facilities. First, the rationale to install ESPs at Port Everglades was driven by local concerns over the visible emissions in the immediate vicinity of the plant. However the Clean Air Visibility Rule is not based on that criteria. In fact, the basis is very different and the Rule's metric for improvement is distinct from the Port Everglades situation. Further, the BART Determination process requires that a control option be evaluated on 5 criteria; Cost of Compliance, Energy Impacts, Non-Air Quality Environmental Impacts, Remaining Useful Life, and Visibility Impacts. The Cost of Compliance on page 5-3 of the BART Determination indicates an annualized cost of about $13.4 million, resulting in a cost effectiveness of over $10,000 per ton removed. The change in visibility impacts as indicated on page 5-4 is 0.1 dv.

This equates to $134 million per dv. in visibility improvement. FPL believes, for Turkey Point, the Cost of Compliance to install ESPs, compared to the visibility impacts as determined by the Rule, is unreasonable.

Question 2. According to Public Service Commission (PSC) Docket Item No. 0600007-EI (August 4, 2006), the projected net investment in the Port Everglades ESPs (December 2006) is approximately $60,000,000 for the four units. Please reconcile the estimate of $94,000,000 for the two Turkey Point units with the $60,000,000 investment in the four Port Everglades units.

Response:
The Port Everglades ESP project cost from Docket Item No. 030007-EI dated September 8, 2003 is $92,100,000 for the four Port Everglades Units. FPL believes that the cost quoted in the question is actually the projected net investment through December 2006 which was approximately $60,000,000 from the July through December 2006 forecast. Further, since the initiation of the project at Port Everglades, the cost for installation at Turkey Point 1 & 2 is projected to be higher due to market conditions such as material cost escalation, labor cost escalation, and increased market competition to obtain equipment and construction services. Also, the economy of scale for the larger project is diluted by performing only two units versus four. An example would be that the cost of common facilities that can be shared by four units must now be borne by two. Finally, site differences also contribute to the increased estimated cost for installation at Turkey Point, in particular, the location of the nuclear units immediately adjacent to the fossil units.

Question 3. The Department experts have noted much improved stack opacity and general visibility in the vicinity of the Port Everglades Plant. Please explain whether such improvements could be expected by a similar effort at Turkey Point Fossil Plant.

Response:
The installation of control technology with similar design and operating characteristics as Port Everglades could be expected to yield similar improvements in stack opacity and general visibility in the local area adjacent to Turkey Point. However, the Clean Air Visibility Rule measure of visibility impairment in Class 1 Areas, the Deciview, is substantially different than the eye's perception of general visibility in a locale such as Port Everglades. Modeling consistent with the requirements of the Rule has shown that upon using a like technology installation as Port Everglades, Turkey Point's visibility impacts within the Everglades National Park Class 1 Area, some 21 kilometers distant, would result only in a 0.1 dv. improvement in visibility.

Question No. 4. According to information submitted in support of Title V fees, Turkey Point Units 1 and 2 combined used 23,600,000 and 6,500,000 MM Btu of fuel oil and natural gas respectively in 2005. Therefore the plant used natural gas for nearly 25 percent of its fuel requirement in 2005.

Please estimate the costs of using 50, 75 and 100% natural gas to reduce particulate matter (PM/PM_{10}), sulfur dioxide (SO_2) and nitrogen oxide (NO_X) emissions from the two units.

Response:
The existing natural gas infrastructure to Turkey Point, as well as FPL's contractual transportation rights on Florida Gas Transmission (FGT), would not allow FPL to routinely deliver natural gas to Turkey Point Units 1 and 2 in the quantities described in this question. This limitation applies to both pre- and post-Turkey Point Unit 5. Please see the response to Question 6 for a more detailed description.

Assuming FPL had the ability to routinely deliver natural gas to Turkey Point Units 1 and 2 in the quantities described in this question, the following estimates utilizing 2005 actual fuel volume and price data would apply:

FPL's 2005 total fuel cost for Turkey Point Units 1 and 2 was $203.3 million. This fuel cost relates to an actual MMBtu consumption that was composed of 21.7% natural gas and 78.3% fuel oil. If Turkey Point Units 1 and 2 had consumed natural gas in sufficient quantities to represent 50%, 75% and 100% of the actual total MMBtu consumption for Turkey Point Units 1 and 2, total fuel costs would have increased by approximately $25.2 million, $47.5 million and $69.7 million respectively.

Question No. 5. Provide information on the sulfur contained in the fuel oil combusted or co-fired with natural gas on Units 1 and 2. Estimate the costs for using lower sulfur fuel than presently used (e.g. 0.5% or 0.1% sulfur fuel oil).

Response:
FPL's total fuel oil consumption at Turkey Point Units 1 and 2 during 2005 was 23,649,249 MMBtu. The average sulfur content of all heavy fuel oil delivered to Turkey Point in 2005 was 0.968 wt. %. The total cost of the fuel oil consumed in Turkey Point Units 1 and 2 was $144.1 million. Applying current market conditions for 0.7%, 0.5% and 0.3% sulfur grade fuel oil to Turkey Point Units 1 and 2 2005 fuel oil consumption would yield higher total fuel costs of $21.8 million, $37.2 million and $53.1 million respectively. However, it is important to recognize that these figures only project the impact of increased commodity costs associated with lower sulfur grade fuel oil. FPL assumes there could be additional costs/issues associated with lower sulfur grade fuels relative to FPL's current 1% grade fuel oil.

In general, moving to lower sulfur grades would eliminate approximately 95% of Gulf Coast fuel oil production as blending stock for FPL. This would limit FPL to significant dependency on New York Harbor and foreign production for these sulfur grades. This reduction in the diversity of FPL's fuel oil supply could negatively impact FPL's ability to maintain adequate fuel inventory at Turkey Point, thereby reducing reliability. In particular, 0.3% sulfur grade fuel oil is generally produced in the first quarter of each year for northeast utility plants. After the first quarter, refiners change the crude slate back to heavy crude for the asphalt and bunker fuel markets. Additionally, foreign market barrels are generally consumed in the foreign marketplace. Furthermore, 0.5% sulfur grade fuel oil is typically not a refined product. This sulfur grade is usually a blend of 0.3% and 0.7% grades. Although FPL believes that the availability of 0.7% would be adequate for Turkey Point, the limiting factor would be the availability of 0.3% sulfur grade fuel oil to make the 0.5% sulfur grade blend. Lastly, specifications for these lower sulfur grades vary from FPL's current specifications for 1.0% fuel oil. Lower sulfur grade fuel oil has a higher API gravity and a reduced BTU content. A lower BTU content will result in increased costs. Specification variances may also result in compatibility issues with FPL's current plant equipment leading to additional costs for increased maintenance, modifications or even replacement to allow these lower sulfur grades to be burned.

Question No. 6. How will the new Turkey Point Combined Cycle Unit 5 affect natural gas availability for Units 1 and 2? It was understood during the permitting of Unit 5 that there would be no effect on natural gas supplies.

Response:
In order to accommodate the natural gas volume and pressure requirements of Turkey Point Combined Cycle Unit 5, FGT has added a new compressor station in Dade County. Additionally, FPL's contractual rights to deliver natural gas into Broward and Dade Counties, as well as into Turkey Point, are increasing to accommodate the incremental requirements of the new unit. The quantities of natural gas available for consumption in Turkey Point Units 1 and 2, as well as FPL's other dual-fired units, will continue to be determined by numerous factors that are taken into consideration each day during the planning process. FPL's overall natural gas requirements are driven by the relative price relationship between heavy oil and natural gas, unit efficiencies, unit availability and FPL's system load. FPL's ability to deliver natural gas to its generation fleet is a function of FPL's contractual delivery rights (at both the plant and system-wide level), natural gas pipeline conditions, overall natural gas supply availability, unit availability, alternate fuel availability and overall system conditions. After Turkey Point Unit 5 goes into commercial operation, as in the past, there will be times when FPL determines that natural gas is available to Turkey Point Units 1 and 2 and other times when FPL determines that natural gas is not available to these units after all of the above-mentioned factors have been taken into account. Post Turkey Point Unit 5, FPL will continue to allocate natural gas to its system within the framework of its contractual transportation rights in order to produce the most reliable, lowest cost electricity possible.

Question 7. Please advise the status of the projects described in Docket No. 060007-EI with respect to the Turkey Point Fossil Plant. The submittal to the PSC described Low NO_X burners for the Turkey Point Fossil Units 1 and 2.

Response:
In his August 4, 2006 and October 13, 2006 prepared testimony to the Public Service Commission, FPL witness R.R. LaBauve discusses the comprehensive evaluation that FPL undertook at the time to determine the most cost-effective strategies to comply with CAIR and CAMR. Since that time, FPL has not performed any further evaluation of comparable scope, so the discussion in Mr. LaBauve's testimony still generally applies. However, FPL is continually reviewing and updating its compliance strategies using the most current information, and that process has led to certain revisions to the strategies, as well as updated compliance cost estimates. The discussion below describes the revisions to the CAIR and CAMR compliance strategies and cost estimates that pertain to Turkey Point.

Reburn and Low NOx Burner projects at Cape Canaveral, Port Everglades, Turkey Point, and Putnam plants are on hold. The evaluation of recent projections of future FPL generating unit operations and the estimated NOx reductions from the implementation of the 800 MW unit cycling project indicate that the purchase of NOx allowances for annual and ozone season compliance may be a preferred compliance alternative, depending on allowance availability and price, as compared to the cost of the Reburn and Low NOx Burner projects. FPL will continue to monitor the relative economics of these NOx controls versus the cost of purchasing NOx allowances. Putting the Reburn and Low NOx Burner projects on hold for now will reduce FPL's 2007 CAIR compliance capital expenditures by $46 million. If FPL does not proceed with the Reburn and Low NOx Burner projects, total CAIR compliance capital costs may be reduced by $139 million.

Question 8. Provide control strategies including costs and modeling results to minimize the higher emitting modes including startups, shutdowns, soot blowing and any other such conditions during which opacity limits greater than 40% are allowed. Measures to avoid or minimize the high opacity emission modes will logically benefit visibility in the Everglades National Park Class I Area.

Response:
The Turkey Point Fossil Plant uses Best Operating Practices and good combustion techniques to minimize opacity during startup, shutdown and other operating scenarios such as sootblowing and load changing. Startups and shutdowns are conducted with natural gas firing, pending its availability. The modeling, which was performed consistent with the Rule, is based on emissions generated during the highest 24 hours in a three-year period. The modeled conditions include periods of sootblowing.

Question 9. Please provide the basis for the equipment costs noted in Table 5-1 (the table) of the Application. The estimates of both Direct Capital Cost items and the Indirect Capital Cost items need justification based on contractors' bids.

Response:
The basis for the equipment costs provided is from the costs for Port Everglades 3 and 4 with application of escalation for market conditions described in the response to Question 2. The current state of the market for pollution control equipment is robust, which makes it difficult to obtain an accurate response to inquiries for potential projects. It is premature to solicit bids from contractors for work that would take place for a project that would be placed in service in 2013.

Question 10. The Direct Operating Cost part of the table includes operator labor cost information. Do the cited values include benefits and overhead? Please provide further justification for the given labor estimates, preferably from the Company's own cost factors.

Response:
The labor cost was based on raw labor costs from engineering study estimates from FPL. The benefits and overhead are included in the Overhead category under Indirect Operating Costs which are based on 60 percent of labor costs using the OAQPS Control Cost Manual (EPA 2002).

Question 11. Please provide the details (formulas, algorithms, etc.) of the energy loss estimates due to the electrostatic precipitator (ESP) operation noted in the table.

Response:
The energy loss estimates due to the ESP were based on the formula provided in the OAQPS Control Cost Manual for estimating annual electricity use for the ESP fan. The formula and assumptions used in this analysis are as follows.

Energy Requirement for ESP Fan Power (FP)

FP (kWh/yr) = 0.000181 (System flow rate, acfm)(Pressure drop, inches)(Annual operating hours, hr/yr)

0.000181=	Conversion factor based on average fan efficiency of 65 percent		
System flow rate =	1,956,026	acfm	
Pressure drop =	2	inches H_20	(lower value from range in OAQPS)
Annual operation =	4,488.5	hr/yr	
FP =	3,178,233	kWh/yr	
FP cost=	$190,694	$/yr	[$0.06/kWh (nominal cost)]

System flow rate is based on total flow rates from Units 1 and 2 with exit velocities of 63.8 and 62.7 ft/s, respectively. Each unit has a stack diameter of 18.1 ft. Annual operating hours were estimated based on the average hourly heat input rates for both units for 2001 to 2003 divided by the maximum heat input rates for the units.
Similarly the energy due to the transformer-rectifier sets and rapper systems was based on the formula presented in the OAQPS Cost Control Manual for estimating the operating power for these items. The formula and assumptions are as follows.

Operating Power (OP) for Transformer-Rectifier Sets and Rapper Systems

OP (kWh/yr) = 0.00194 (ESP plate area, m^2)(Annual operating hours, hr/yr)

0.00194 =	Conversion factor		
Plate area =	136,921.79	ft^2	Estimated based on design efficiency of 70% and particle migration velocity of 8.4 cm/sec (see Figure 3.4 of Section 6, OAQPS Cost Manual; 70 ft^2 per 1,000 ft^3/min flow rate)
Annual operation =	4488.5	hr/yr	
TR=	1,192,276.4	kWh/yr	
TR cost =	$35,768	$/yr	[$0.03/kWh (nominal cost)]

Question 12. Please provide the details of the estimates of the maintenance materials and labor costs, and ash disposal cost noted in the table.

Response:
The estimates of the maintenance materials and labor costs are based on engineering estimates. The ash disposal costs are based on Golder's estimate for development and disposal of ash in a typical Class I landfill. The costs are based on $50/ton times the PM emissions of 1,257 tons per year that would be disposed. These costs are conservatively low since transportation costs are not included

Question 13. It appears that the "Historical Maximum Emissions (TPY)" entry in the table is based on the Title V permit limit for particulate matter (PM) of 0.1 lb/MMBtu heat input. Please provide stack test data for the two units for PM emissions for the last five years. We note that Department Annual Operating Report data reveals PM emissions in the 470 – 510 tons per year range for each unit for the last two years.

Response:
The "Historical Maximum Emissions (TPY)" entry in the table is based on the Title V permit limit for particulate matter (PM) of 0.1 lb/MMBtu heat input. PM emission test data for 2001, 2002, and 2003 were provided to the Department as Appendix "B" in the *Bart Determination Analysis for Turkey Point Power Plant – UPDATE April 2007.* Included in this response as Attachment "A" is the PM test data for 2004, 2005, and 2006.

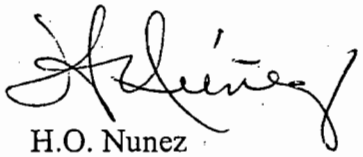
Question 14. Please consider replacement or modification of the existing multiple cyclone system to the latest high efficiency design as part of the BART determination analysis.

Response:
Turkey Point Fossil Plant's impact on visibility within the Everglades National Park Class 1 Area was modeled consistent with 40 CFR 51, Subpart P, and the BART Determination analysis was conducted consistent with Rule FAC 62-296.340, F.A.C. The requirement for analysis of BART control options' first step is to identify all available retrofit control technologies. In identifying "all" options, the most stringent option and a reasonable set of options must be identified. This was done in Section 5 - BART Analysis for PM Emissions of the Bart Determination Analysis for Turkey Point Power Plant.

The units are currently equipped with multi-cyclones which were included as part of the technology evaluation. This control technology consists of two banks of 695 tubes with a range of efficiency from 99% for particles with an aerodynamic diameter of 20 microns and greater to 30% for particles with an aerodynamic diameter of 5 microns and less. Replacement or modification of these units as cyclone systems would not provide substantial greater removal efficiencies for the small particle sizes. In contrast, Electrostatic Precipitators (ESPs) and fabric filters were evaluated and have higher removal efficiencies, especially for the smaller particle sizes. Consequently, the visibility impacts using the most stringent control option, ESPs, were modeled. The reduction in visibility impairment within the Everglades National Park Class 1 Area with ESPs installed on the Turkey Point units was 0.1dv. Although high efficiency design multiple cyclones may provide a slight improvement over the currently installed multi cyclones at PTF, they are unable to achieve the collection efficiency of ESPs and are, therefore, not considered a viable control option in the BART Determination analysis.

Thank you for your consideration in this matter, and if you should have any questions, please feel free to contact me at (305) 242-3822, or Kevin Washington at (561) 691-2877.

Sincerely yours,



H.O. Nunez
Turkey Point Plant General Manager/Responsible Official

Attachments: 2

Cc: Tom Cascio
Ken Kosky – Golder Assoc.

FLORIDA POWER AND LIGHT COMPANY

ATTACHMENT "A"

PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 1
TEST: STEADY STATE
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	1/14/04	1/14/04	1/14/04
GROSS LOAD (AVG MMBTU/HR)	3632	3632	3632
START TIME (24-HR CLOCK)	1032	1152	1312
END TIME (24-HR CLOCK)	1141	1306	1421
VOL DRY GAS SAMPLED METER COND (DCF)	49.009	52.631	52.082
BAROMETRIC PRESSURE (IN. HG)	30.18	30.18	30.18
AVG ORIFICE PRESSURE DROP (IN. H20)	2.201	2.550	2.490
AVG GAS METER TEMP (F)	93.5	93.3	91.6
GAS METER CALIBRATION FACTOR	0.9399	0.9399	0.9399
VOL GAS SAMPLED STD COND (DSCF)	44.541	47.895	47.528
TOTAL WATER COLLECTED (G)	111.6	100.8	111.3
VOL WATER COLLECTED STD COND (SCF)	5.26	4.75	5.25
MOISTURE IN STACK GAS (% VOL)	10.57	9.03	9.94
MOLE FRACTION DRY GAS	0.894	0.910	0.901
CO2 VOL PERCENT DRY	14.1	14.1	14.1
O2 VOL PERCENT DRY	3.3	3.3	3.3
N2 VOL PERCENT DRY	82.56	82.54	82.55
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.39	30.39	30.40
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.08	29.28	29.16
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.70	-1.70	-1.70
STACK GAS STATIC PRESSURE (IN. HG ABS.)	30.06	30.06	30.06
AVERAGE SQUARE ROOT VELOCITY HEAD	0.875	0.939	0.932
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	297.6	299.8	301.9
STACK GAS VELOCITY STACK COND (FT/SEC)	58.48	62.65	62.38
CROSS SECTION STACK AREA (SQ FT)	320.1	320.1	320.1
STACK GAS FLOW RATE STD COND (DSCFM)	703297.9	764146.0	751121.5
STACK GAS FLOW RATE STACK COND (ACFM)	1123312.9	1203296.4	1198161.1
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	99.17	98.15	99.09
PARTICULATE COLLECTED (MG)	53.6	53.2	54.4
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.019	0.017	0.018
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.029	0.027	0.028

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.03

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 1
TEST: SOOT BLOW
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	1/14/04	1/14/04	1/14/04
GROSS LOAD (AVG MMBTU/HR)	3632	3632	3632
START TIME (24-HR CLOCK)	909	1430	1544
END TIME (24-HR CLOCK)	1018	1539	1650
VOL DRY GAS SAMPLED METER COND (DCF)	47.083	47.509	45.901
BAROMETRIC PRESSURE (IN. HG)	30.18	30.18	30.18
AVG ORIFICE PRESSURE DROP (IN. H20)	2.051	2.019	1.950
AVG GAS METER TEMP (F)	80.6	89.9	88.9
GAS METER CALIBRATION FACTOR	0.9399	0.9399	0.9399
VOL GAS SAMPLED STD COND (DSCF)	43.796	43.445	42.044
TOTAL WATER COLLECTED (G)	102.2	96.0	91.9
VOL WATER COLLECTED STD COND (SCF)	4.82	4.53	4.33
MOISTURE IN STACK GAS (% VOL)	9.91	9.44	9.34
MOLE FRACTION DRY GAS	0.901	0.906	0.907
CO2 VOL PERCENT DRY	14.1	14.4	14.3
O2 VOL PERCENT DRY	3.2	3.0	3.3
N2 VOL PERCENT DRY	82.62	82.63	82.44
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.39	30.42	30.41
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.16	29.25	29.25
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.70	-1.70	-1.70
STACK GAS STATIC PRESSURE (IN. HG ABS.)	30.06	30.06	30.06
AVERAGE SQUARE ROOT VELOCITY HEAD	0.850	0.844	0.828
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	293.9	303.2	303.7
STACK GAS VELOCITY STACK COND (FT/SEC)	56.62	56.44	55.41
CROSS SECTION STACK AREA (SQ FT)	320.1	320.1	320.1
STACK GAS FLOW RATE STD COND (DSCFM)	689245.7	682316.2	670100.7
STACK GAS FLOW RATE STACK COND (ACFM)	1087535.8	1084136.3	1064338.1
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	99.50	99.71	98.25
PARTICULATE COLLECTED (MG)	69.3	60.7	65.9
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.024	0.022	0.024
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.038	0.033	0.038

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.04

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
TECHNICAL SERVICES EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 2
TEST: STEADY STATE
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	06/02/04	06/02/04	06/02/04
GROSS LOAD (AVG MMBTU/HR)	3579	3579	3579
START TIME (24-HR CLOCK)	1001	1115	1227
END TIME (24-HR CLOCK)	1108	1221	1333
VOL DRY GAS SAMPLED METER COND (DCF)	58.184	57.647	56.417
BAROMETRIC PRESSURE (IN. HG)	30.04	30.04	30.04
AVG ORIFICE PRESSURE DROP (IN. H20)	2.743	2.658	2.593
AVG GAS METER TEMP (F)	98.0	99.7	99.3
GAS METER CALIBRATION FACTOR	0.9279	0.9279	0.9279
VOL GAS SAMPLED STD COND (DSCF)	51.615	50.976	49.910
TOTAL WATER COLLECTED (G)	118.1	130.0	140.6
VOL WATER COLLECTED STD COND (SCF)	5.57	6.13	6.63
MOISTURE IN STACK GAS (% VOL)	9.74	10.73	11.73
MOLE FRACTION DRY GAS	0.903	0.893	0.883
CO2 VOL PERCENT DRY	14.4	14.5	14.4
O2 VOL PERCENT DRY	3.3	3.2	3.1
N2 VOL PERCENT DRY	82.35	82.33	82.48
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.43	30.45	30.43
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.22	29.11	28.97
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-0.80	-0.80	-0.80
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.98	29.98	29.98
AVERAGE SQUARE ROOT VELOCITY HEAD	0.975	0.959	0.948
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	295.5	296.5	297.6
STACK GAS VELOCITY STACK COND (FT/SEC)	65.02	64.13	63.59
CROSS SECTION STACK AREA (SQ FT)	305.1	305.1	305.1
STACK GAS FLOW RATE STD COND (DSCFM)	752328.9	732908.6	717572.8
STACK GAS FLOW RATE STACK COND (ACFM)	1190323.3	1173955.9	1164093.1
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	102.40	103.81	103.81
PARTICULATE COLLECTED (MG)	100.6	64.1	70.3
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.030	0.019	0.022
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.047	0.030	0.034

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.04

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

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700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 2
TEST: SOOT BLOW
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	6/2/2004	6/2/2004	6/2/2004
GROSS LOAD (AVG MMBTU/HR)	3579	3579	3579
START TIME (24-HR CLOCK)	844	1445	1500
END TIME (24-HR CLOCK)	952	1552	1607
VOL DRY GAS SAMPLED METER COND (DCF)	54.501	56.441	56.119
BAROMETRIC PRESSURE (IN. HG)	30.04	30.04	30.04
AVG ORIFICE PRESSURE DROP (IN. H20)	2.536	2.608	2.583
AVG GAS METER TEMP (F)	87.3	98.0	99.7
GAS METER CALIBRATION FACTOR	0.9279	0.9279	0.9279
VOL GAS SAMPLED STD COND (DSCF)	49.269	50.054	49.615
TOTAL WATER COLLECTED (G)	118.6	120.8	141.9
VOL WATER COLLECTED STD COND (SCF)	5.59	5.70	6.69
MOISTURE IN STACK GAS (% VOL)	10.19	10.22	11.88
MOLE FRACTION DRY GAS	0.898	0.898	0.881
CO2 VOL PERCENT DRY	14.2	14.6	14.7
O2 VOL PERCENT DRY	3.1	3.0	2.9
N2 VOL PERCENT DRY	82.71	82.41	82.41
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.39	30.45	30.46
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.13	29.18	28.98
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-0.80	-0.80	-0.80
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.98	29.98	29.98
AVERAGE SQUARE ROOT VELOCITY HEAD	0.946	0.954	0.947
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	294.0	299.6	298.8
STACK GAS VELOCITY STACK COND (FT/SEC)	63.10	63.85	63.56
CROSS SECTION STACK AREA (SQ FT)	305.1	305.1	305.1
STACK GAS FLOW RATE STD COND (DSCFM)	727819.8	730912.2	714885.4
STACK GAS FLOW RATE STACK COND (ACFM)	1155084.4	1168887.6	1163594.2
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	101.04	102.21	103.59
PARTICULATE COLLECTED (MG)	109.2	90.8	132.1
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.034	0.028	0.041
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.053	0.043	0.063

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.05

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 1
TEST: STEADY STATE
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	2/01/05	2/01/05	2/01/05
GROSS LOAD (AVG MMBTU/HR)	3587	3587	3587
START TIME (24-HR CLOCK)	1215	1350	1512
END TIME (24-HR CLOCK)	1342	1456	1618
VOL DRY GAS SAMPLED METER COND (DCF)	60.455	61.384	57.985
BAROMETRIC PRESSURE (IN. HG)	30.08	30.08	30.08
AVG ORIFICE PRESSURE DROP (IN. H20)	2.658	2.711	2.429
AVG GAS METER TEMP (F)	89.2	92.3	90.6
GAS METER CALIBRATION FACTOR	0.9046	0.9046	0.9046
VOL GAS SAMPLED STD COND (DSCF)	53.183	53.702	50.853
TOTAL WATER COLLECTED (G)	114.4	123.1	119
VOL WATER COLLECTED STD COND (SCF)	5.39	5.80	5.61
MOISTURE IN STACK GAS (% VOL)	9.21	9.75	9.94
MOLE FRACTION DRY GAS	0.908	0.902	0.901
CO2 VOL PERCENT DRY	13.7	13.7	13.8
O2 VOL PERCENT DRY	3.9	3.9	3.8
N2 VOL PERCENT DRY	82.37	82.41	82.43
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.35	30.35	30.35
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.21	29.15	29.13
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.60	-1.60	-1.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.96	29.96	29.96
AVERAGE SQUARE ROOT VELOCITY HEAD	1.026	1.035	0.978
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	304.9	305.3	306.9
STACK GAS VELOCITY STACK COND (FT/SEC)	68.84	69.60	65.82
CROSS SECTION STACK AREA (SQ FT)	320.1	320.1	320.1
STACK GAS FLOW RATE STD COND (DSCFM)	829808.5	833378.7	784952.3
STACK GAS FLOW RATE STACK COND (ACFM)	1322207.4	1336725.1	1264221.0
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	100.36	100.91	101.45
PARTICULATE COLLECTED (MG)	89.0	115.2	78.5
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.026	0.033	0.024
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.042	0.053	0.038

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.04

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 1
TEST: SOOT BLOW
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	2/01/05	2/01/05	2/01/05
GROSS LOAD (AVG MMBTU/HR)	3587	3587	3587
START TIME (24-HR CLOCK)	1046	1623	1733
END TIME (24-HR CLOCK)	1155	1729	1840
VOL DRY GAS SAMPLED METER COND (DCF)	61.312	59.08	60.654
BAROMETRIC PRESSURE (IN. HG)	30.08	30.08	30.08
AVG ORIFICE PRESSURE DROP (IN. H20)	2.843	2.498	2.708
AVG GAS METER TEMP (F)	83.4	92.6	91.6
GAS METER CALIBRATION FACTOR	0.9046	0.9046	0.9046
VOL GAS SAMPLED STD COND (DSCF)	54.530	51.628	53.131
TOTAL WATER COLLECTED (G)	115.5	113.9	121.4
VOL WATER COLLECTED STD COND (SCF)	5.45	5.37	5.72
MOISTURE IN STACK GAS (% VOL)	9.08	9.42	9.73
MOLE FRACTION DRY GAS	0.909	0.906	0.903
CO2 VOL PERCENT DRY	13.8	13.8	13.7
O2 VOL PERCENT DRY	3.8	3.8	3.8
N2 VOL PERCENT DRY	82.38	82.43	82.53
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.36	30.36	30.34
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.24	29.20	29.14
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.60	-1.60	-1.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.96	29.96	29.96
AVERAGE SQUARE ROOT VELOCITY HEAD	1.065	0.991	1.030
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	303.8	309.0	306.7
STACK GAS VELOCITY STACK COND (FT/SEC)	71.38	66.75	69.34
CROSS SECTION STACK AREA (SQ FT)	320.1	320.1	320.1
STACK GAS FLOW RATE STD COND (DSCFM)	862864.5	798438.5	829031.3
STACK GAS FLOW RATE STACK COND (ACFM)	1371068.6	1282100.9	1331723.2
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	98.96	101.26	100.36
PARTICULATE COLLECTED (MG)	178.9	109.2	116.8
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.051	0.033	0.034
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.081	0.052	0.054

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.06

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 2
TEST: STEADY STATE
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	04/19/05	04/19/05	04/19/05
GROSS LOAD (AVG MMBTU/HR)	3629	3629	3629
START TIME (24-HR CLOCK)	1039	1151	1304
END TIME (24-HR CLOCK)	1145	1257	1410
VOL DRY GAS SAMPLED METER COND (DCF)	54.833	54.855	54.661
BAROMETRIC PRESSURE (IN. HG)	30.1	30.1	30.1
AVG ORIFICE PRESSURE DROP (IN. H20)	2.173	2.226	2.220
AVG GAS METER TEMP (F)	92.4	94.5	93.3
GAS METER CALIBRATION FACTOR	0.9046	0.9046	0.9046
VOL GAS SAMPLED STD COND (DSCF)	47.927	47.774	47.710
TOTAL WATER COLLECTED (G)	110.9	106.0	109.1
VOL WATER COLLECTED STD COND (SCF)	5.23	5.00	5.14
MOISTURE IN STACK GAS (% VOL)	9.84	9.47	9.73
MOLE FRACTION DRY GAS	0.902	0.905	0.903
CO2 VOL PERCENT DRY	14.6	14.6	14.6
O2 VOL PERCENT DRY	2.9	2.8	2.8
N2 VOL PERCENT DRY	82.51	82.58	82.60
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.45	30.45	30.45
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.23	29.27	29.24
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-0.60	-0.60	-0.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	30.06	30.06	30.06
AVERAGE SQUARE ROOT VELOCITY HEAD	0.923	0.935	0.936
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	279.7	282.7	284.4
STACK GAS VELOCITY STACK COND (FT/SEC)	60.83	61.70	61.87
CROSS SECTION STACK AREA (SQ FT)	305.1	305.1	305.1
STACK GAS FLOW RATE STD COND (DSCFM)	719983.4	730249.6	728415.6
STACK GAS FLOW RATE STACK COND (ACFM)	1113663.2	1129599.3	1132566.5
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	99.35	97.65	97.76
PARTICULATE COLLECTED (MG)	51.9	52.5	49
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.017	0.017	0.016
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.025	0.026	0.024

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.03

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 2
TEST: SOOT BLOW
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	4/19/2005	4/19/2005	4/19/2005
GROSS LOAD (AVG MMBTU/HR)	3629	3629	3629
START TIME (24-HR CLOCK)	916	1429	1547
END TIME (24-HR CLOCK)	1022	1537	1658
VOL DRY GAS SAMPLED METER COND (DCF)	56.152	54.901	53.844
BAROMETRIC PRESSURE (IN. HG)	30.10	30.10	30.10
AVG ORIFICE PRESSURE DROP (IN. H20)	2.335	2.180	2.079
AVG GAS METER TEMP (F)	84.3	90.5	90.0
GAS METER CALIBRATION FACTOR	0.9046	0.9046	0.9046
VOL GAS SAMPLED STD COND (DSCF)	49.836	48.160	47.262
TOTAL WATER COLLECTED (G)	111.0	100.2	115.3
VOL WATER COLLECTED STD COND (SCF)	5.23	4.72	5.44
MOISTURE IN STACK GAS (% VOL)	9.50	8.93	10.32
MOLE FRACTION DRY GAS	0.905	0.911	0.897
CO2 VOL PERCENT DRY	14.6	14.7	14.7
O2 VOL PERCENT DRY	2.7	2.5	2.6
N2 VOL PERCENT DRY	82.73	82.78	82.76
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.44	30.46	30.45
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.26	29.34	29.17
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-0.60	-0.60	-0.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	30.06	30.06	30.06
AVERAGE SQUARE ROOT VELOCITY HEAD	0.960	0.926	0.904
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	280.1	285.2	284.6
STACK GAS VELOCITY STACK COND (FT/SEC)	63.23	61.11	59.82
CROSS SECTION STACK AREA (SQ FT)	305.1	305.1	305.1
STACK GAS FLOW RATE STD COND (DSCFM)	750645.7	725106.7	699580.6
STACK GAS FLOW RATE STACK COND (ACFM)	1157467.0	1118780.6	1095115.8
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	99.09	99.13	100.83
PARTICULATE COLLECTED (MG)	146.2	69.5	56.4
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.045	0.022	0.018
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.068	0.033	0.028

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.04

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 1
TEST: STEADY STATE
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	1/10/06	1/10/06	1/10/06
GROSS LOAD (AVG MMBTU/HR)	3528	3528	3528
START TIME (24-HR CLOCK)	1157	1313	1429
END TIME (24-HR CLOCK)	1306	1421	1535
VOL DRY GAS SAMPLED METER COND (DCF)	53.987	56.521	57.114
BAROMETRIC PRESSURE (IN. HG)	30.16	30.16	30.16
AVG ORIFICE PRESSURE DROP (IN. H20)	2.721	2.924	3.016
AVG GAS METER TEMP (F)	87.8	92.0	93.5
GAS METER CALIBRATION FACTOR	0.9807	0.9807	0.9807
VOL GAS SAMPLED STD COND (DSCF)	51.758	53.801	54.230
TOTAL WATER COLLECTED (G)	114.6	136.6	123.9
VOL WATER COLLECTED STD COND (SCF)	5.40	6.44	5.84
MOISTURE IN STACK GAS (% VOL)	9.45	10.69	9.72
MOLE FRACTION DRY GAS	0.905	0.893	0.903
CO2 VOL PERCENT DRY	13.0	13.1	13.2
O2 VOL PERCENT DRY	4.5	4.5	4.4
N2 VOL PERCENT DRY	82.49	82.46	82.47
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.27	30.27	30.28
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.11	28.96	29.09
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.60	-1.60	-1.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	30.04	30.04	30.04
AVERAGE SQUARE ROOT VELOCITY HEAD	1.032	1.065	1.080
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	288.0	289.5	290.0
STACK GAS VELOCITY STACK COND (FT/SEC)	68.53	71.00	71.88
CROSS SECTION STACK AREA (SQ FT)	320.1	320.1	320.1
STACK GAS FLOW RATE STD COND (DSCFM)	844707.5	861398.8	880935.4
STACK GAS FLOW RATE STACK COND (ACFM)	1316219.4	1363723.3	1380563.0
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	95.95	97.80	96.40
PARTICULATE COLLECTED (MG)	65.2	66.5	65.9
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.019	0.019	0.019
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.032	0.032	0.031

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.03

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 1
TEST: SOOT BLOW
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	1/10/06	1/10/06	1/10/06
GROSS LOAD (AVG MMBTU/HR)	3528	3528	3528
START TIME (24-HR CLOCK)	1033	1541	1653
END TIME (24-HR CLOCK)	1142	1648	1759
VOL DRY GAS SAMPLED METER COND (DCF)	53.665	55.416	57.115
BAROMETRIC PRESSURE (IN. HG)	30.16	30.16	30.16
AVG ORIFICE PRESSURE DROP (IN. H20)	2.701	2.813	2.946
AVG GAS METER TEMP (F)	84.4	92.7	93.7
GAS METER CALIBRATION FACTOR	0.9807	0.9807	0.9807
VOL GAS SAMPLED STD COND (DSCF)	51.776	52.669	54.208
TOTAL WATER COLLECTED (G)	158.4	134.8	140.6
VOL WATER COLLECTED STD COND (SCF)	7.47	6.36	6.63
MOISTURE IN STACK GAS (% VOL)	12.61	10.77	10.90
MOLE FRACTION DRY GAS	0.874	0.892	0.891
CO2 VOL PERCENT DRY	13.1	13.1	13.1
O2 VOL PERCENT DRY	4.4	4.4	4.5
N2 VOL PERCENT DRY	82.49	82.44	82.39
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.27	30.28	30.27
MOL. WT. WET STACK GAS (LB/LB-MOLE)	28.73	28.96	28.93
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.60	-1.60	-1.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	30.04	30.04	30.04
AVERAGE SQUARE ROOT VELOCITY HEAD	1.026	1.040	1.064
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	287.9	290.9	291.1
STACK GAS VELOCITY STACK COND (FT/SEC)	68.56	69.42	71.04
CROSS SECTION STACK AREA (SQ FT)	320.1	320.1	320.1
STACK GAS FLOW RATE STD COND (DSCFM)	815753.3	839977.9	858039.9
STACK GAS FLOW RATE STACK COND (ACFM)	1316823.2	1333319.1	1364413.0
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	99.39	98.19	98.93
PARTICULATE COLLECTED (MG)	96.3	73.7	81.8
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.029	0.022	0.023
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.048	0.036	0.039

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.04

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 2
TEST: STEADY STATE
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	1/17/06	1/17/06	1/17/06
GROSS LOAD (AVG MMBTU/HR)	3625	3625	3625
START TIME (24-HR CLOCK)	1215	1329	1443
END TIME (24-HR CLOCK)	1321	1436	1549
VOL DRY GAS SAMPLED METER COND (DCF)	48.122	48.431	47.719
BAROMETRIC PRESSURE (IN. HG)	29.98	29.98	29.98
AVG ORIFICE PRESSURE DROP (IN. H20)	2.096	2.096	2.069
AVG GAS METER TEMP (F)	90.3	90.9	90.9
GAS METER CALIBRATION FACTOR	0.9807	0.9807	0.9807
VOL GAS SAMPLED STD COND (DSCF)	45.587	45.833	45.151
TOTAL WATER COLLECTED (G)	113.8	117.1	117.7
VOL WATER COLLECTED STD COND (SCF)	5.37	5.52	5.55
MOISTURE IN STACK GAS (% VOL)	10.53	10.75	10.95
MOLE FRACTION DRY GAS	0.895	0.892	0.891
CO2 VOL PERCENT DRY	14.4	14.3	14.3
O2 VOL PERCENT DRY	2.8	2.8	2.7
N2 VOL PERCENT DRY	82.79	82.96	82.97
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.41	30.40	30.40
MOL. WT. WET STACK GAS (LB/LB-MOLE)	29.10	29.06	29.04
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.60	-1.60	-1.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.86	29.86	29.86
AVERAGE SQUARE ROOT VELOCITY HEAD	0.904	0.904	0.898
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	289.5	290.0	290.8
STACK GAS VELOCITY STACK COND (FT/SEC)	60.25	60.33	59.98
CROSS SECTION STACK AREA (SQ FT)	305.1	305.1	305.1
STACK GAS FLOW RATE STD COND (DSCFM)	693825.8	692492.9	686392.6
STACK GAS FLOW RATE STACK COND (ACFM)	1103064.8	1104403.8	1098100.6
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	98.07	98.79	98.18
PARTICULATE COLLECTED (MG)	45.0	49.5	50.7
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.015	0.017	0.017
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.023	0.025	0.026

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.02

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

FLORIDA POWER AND LIGHT COMPANY
PRODUCTION ASSURANCE EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: TURKEY POINT
UNIT: 2
TEST: SOOT BLOW
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	1/17/06	1/17/06	1/17/06
GROSS LOAD (AVG MMBTU/HR)	3625	3625	3625
START TIME (24-HR CLOCK)	830	946	1100
END TIME (24-HR CLOCK)	939	1054	1207
VOL DRY GAS SAMPLED METER COND (DCF)	48.291	47.904	47.317
BAROMETRIC PRESSURE (IN. HG)	29.98	29.98	29.98
AVG ORIFICE PRESSURE DROP (IN. H20)	2.156	2.069	2.076
AVG GAS METER TEMP (F)	79.7	88.2	89.2
GAS METER CALIBRATION FACTOR	0.9807	0.9807	0.9807
VOL GAS SAMPLED STD COND (DSCF)	46.651	45.549	44.911
TOTAL WATER COLLECTED (G)	138.8	120.2	125.6
VOL WATER COLLECTED STD COND (SCF)	6.54	5.67	5.92
MOISTURE IN STACK GAS (% VOL)	12.30	11.07	11.65
MOLE FRACTION DRY GAS	0.877	0.889	0.883
CO2 VOL PERCENT DRY	14.7	14.3	14.5
O2 VOL PERCENT DRY	2.6	2.8	2.8
N2 VOL PERCENT DRY	82.75	82.84	82.77
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.45	30.41	30.43
MOL. WT. WET STACK GAS (LB/LB-MOLE)	28.92	29.03	28.98
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.60	-1.60	-1.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.86	29.86	29.86
AVERAGE SQUARE ROOT VELOCITY HEAD	0.921	0.898	0.899
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	285.1	289.3	290.9
STACK GAS VELOCITY STACK COND (FT/SEC)	61.41	59.93	60.13
CROSS SECTION STACK AREA (SQ FT)	305.1	305.1	305.1
STACK GAS FLOW RATE STD COND (DSCFM)	697244.7	686164.4	682486.7
STACK GAS FLOW RATE STACK COND (ACFM)	1124233.4	1097082.3	1100800.5
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.250	0.250	0.250
PERCENT ISOKINETIC	99.86	99.08	98.22
PARTICULATE COLLECTED (MG)	61.3	59.0	51.8
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.020	0.020	0.018
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.030	0.030	0.027

AVERAGE PARTICULATE EMISSIONS (LB/MMBTU) 0.03

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg

Professional Engineer Certification

1. Professional Engineer Name: Edward Preast
   Registration Number: 33225
2. Professional Engineer Mailing Address...
   Organization/Firm: Florida Power & Light Company
   Street Address: 700 Universe Blvd.
   City: Juno Beach State: Fl Zip Code: 33408
3. Professional Engineer Telephone Numbers...
   Telephone: (561) 691- 2679 ext. Fax: (561) 691 -7049
4. Professional Engineer Email Address: ed_preast@fpl.com
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit. **This Certification is in reply to a Request for Additional Information regarding FPL's BART Determination for Turkey Point Units 1&2**

Edward Preast 4/30/07

Signature Date

(seal)