



May 8, 2013

Mr. Joe Lurix, P E  
Air Program Administrator  
Department of Environmental Protection  
Southeast District Office, Air Section  
400 North Congress Ave, Suite 200  
West Palm Beach, Fl. 33416

**Re: FPL Martin Plant 4A and 4B CT**

Dear Mr. Lurix,

Martin Unit 4A is currently in it's scheduled 2013 overhaul. Unit 4B will start it's scheduled overhaul on May 27th 2013.

Upon returning from the major overhauls the combustion turbine will require DLN tuning. In addition to the routine major overhaul, software changes to improve cycling operation and emissions at lower loads will be implemented while unit efficiency and output will remain the same. Tuning of the overhauled combustors will be required to minimize combustor dynamics at various operating modes, increase the starting and low load reliability of the unit, and optimize unit emission rates. The operating modes for the test will include:

- Startup on Combined Cycle Curve including hold points in primary mode and piloted premix mode.
- Startup on Simple Cycle Curve including hold points in primary mode and piloted premix mode.
- Transfer into and out of Premix mode on both Combined and Simple Cycle Curves to tune for optimum transfer point.

The testing/tuning for each unit 4A and 4B should take approximately 12 hours to complete; therefore we are requesting a temporary permit modification to exceed the 177 pounds per hour NOx limit for the 12 hour test duration. The testing is scheduled to begin no sooner than Saturday, May 17th, 2013 for Unit 4A and June 5<sup>th</sup>, 2013 for Unit 4B. Operators will follow best operating practices and minimize emissions during the testing/tuning to the greatest extent possible.

After receipt and initial review of this letter I would appreciate your time and the opportunity to discuss this matter and answer any questions you might have. Please call John Hampp at 561-691-2894.

**RESPONSIBLE OFFICIAL CERTIFICATION**

I, the undersigned, am a responsible official (Title V air permit application or responsible official notification form on file with the Department) of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brad Williams", is written over a light blue horizontal line.

Brad Williams

Regional Plant General Manager (Responsible Official)

Florida Power & Light Company  
Martin Plant, 21900 SW Warfield Blvd, Indiantown, FL 34956  
**TUNING SCHEDULE (Attachment A)**

<b>Unit #4A &amp;4B</b>						
<u>Step</u>	<u>Activity</u>	<u>Duration</u>	<u>Load Change</u>	<u>Time</u>	<u>Load</u>	<u>Time (hrs)</u>
1	Startup to FSNL	30	0	0	0	0.50
				30	0	0.50
2	Synch & Load to 40% Load (TTRF1=2200)	60	80	30	0	1.50
				90	80	1.50
3	Check Tuning	5	0	90	80	1.58
				95	80	1.58
4	Shutdown	45	-80	95	80	2.33
				140	0	2.33
5	Startup to FSNL	30	0	140	0	2.83
				170	0	2.83
6	Synch & Load to 40% Load (TTRF1=2200)	90	80	170	0	4.33
				260	80	4.33
7	Check Tuning	5	0	260	80	4.42
				265	80	4.42
8	Increase to TTRF1=2310	5	25	265	80	4.50
				270	105	4.50
9	Tune Splits – Tune Split 2300	45	-5	270	105	5.25
				315	100	5.25
10	Increase to TTRF1=2375	5	40	315	100	5.33
				320	140	5.33
11	Tune Splits – Tune Split 2375	45	0	320	140	6.08
				365	140	6.08
12	Increase to Base	5	20	365	140	6.17
				370	160	6.17
13	Tune Base Load	120	0	370	160	8.17
				490	160	8.17
14	Record Perf, Dyno's, Emissions	30	0	490	160	8.67
				520	160	8.67
15	Record Perf, Dyno's, Emissions	30	0	520	160	9.17
				550	160	9.17
16	Decrease to TTRF1=2375	10	-20	550	160	9.33
				560	140	9.33
17	Check Tuning	5	0	560	140	9.42
				565	140	9.42
18	Decrease to TTRF1=2300	5	-40	565	140	9.50
				570	100	9.50
19	Check Tuning	5	0	570	100	9.58
				575	100	9.58
20	Decrease to TTRF1=2260	5	-20	575	100	9.67
				580	80	9.67
21	Check Tuning	5	0	580	80	9.75
				585	80	9.75
22	Transfer Out of PMSS to PPM	10	-10	585	80	9.92
				595	70	9.92
23	Shutdown	45	-70	595	70	10.67
				640	0	10.67

24	Startup to FSNL	30	0	640	0	11.17
				670	0	11.17
25	Synch & Load to 40% Load (TTRF1=2200)	60	80	670	0	12.17
				730	80	12.17
26	Check Tuning	5	0	730	80	12.25
				735	80	12.25
27	Shutdown	45	-80	735	80	13.00
				780	0	13.00
28	Startup to FSNL	30	0	780	0	13.50
				810	0	13.50
29	Synch & Load to 40% Load (TTRF1=2200)	60	80	810	0	14.50
				870	80	14.50
30	Check Tuning	5	0	870	80	14.58
				875	80	14.58
31	Return Unit to Dispatch as Needed	5	0	875	80	14.67