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DEC 26 2003

BUREAU OF AIR REGULATION

December 22, 2003

Mr. Wayne Martin  
Pinellas County Department of Environmental Management  
Air Quality Division  
300 S. Garden Ave.  
Clearwater, Florida 34616

Re: Visible Emissions Test Report  
Higgins Peaking Units 1, 2, 3, and 4  
Title V Air Operation Permit No. 1030012-002-AV

Dear Mr. Martin:

Please find enclosed a report of visible emissions testing performed on Progress Energy Florida's Higgins Peaking Units 1, 2, 3, and 4 while operating on fuel oil. Testing was conducted on December 2 and 17, 2003 by Ms. Debbie Telemeco-Anders and Mr. Loyde Fry of our air test team.

The enclosed test report also serves as an attachment to the facility's title v permit renewal application, submitted to the agency on July 1, 2002. The units were not able to operate on fuel oil during prior to the renewal application submittal.

Should you have any questions, please do not hesitate to call Ms. Debbie Telemeco-Anders at (727) 826-4136.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matthew Lydon', written over a horizontal line.

Matthew Lydon  
Environmental Specialist

cc: Mr. Scott Sheplak  
Mr. Joel Smolen

**Source Test Report  
for  
Visible Emissions Evaluation**

**Higgins  
Combustion Turbine  
UNITS P1 – P4**

**Title V Air Operating Permit  
No. 1030012-002-AV**

**December 18, 2003**

**Prepared by:**

Environmental Services Section  
Progress Energy Corporation  
100 Central Avenue  
MAC BB1A  
St. Petersburg, FL 33701  
(727) 826-4136

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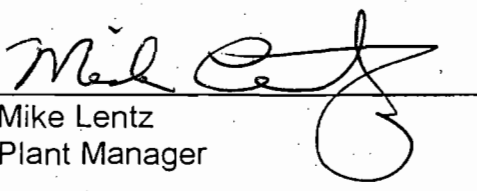
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To the best of my knowledge, all applicable field procedures and calculations comply with Florida Department of Environmental Protection requirements, and all test data and plant operating data are true and correct.

  
Mike Lentz  
Plant Manager

12/19/03  
Date

## 1.0 INTRODUCTION

## 1.0 INTRODUCTION

The Environmental Services Section, Progress Energy Corporation has performed visible emissions (VE) compliance testing on its Higgins, Combustion Turbines Units P1 – P4 in Pinellas County, Florida. The testing occurred on December 2 and December 17, 2003.

EPA Method 9 testing was performed by Ms. Debbie Telemeco-Anders, VE Certification No. 309490 (certification expiration date: February 19, 2004) and Mr. Loyde Fry, VE Certification No. 309489 (certification expiration date: February 19, 2004), to satisfy conditions of the Florida Department of Environmental Protection permit indicated below.

Title V Air Permit	Source Name	Source Numbers
No.1030012-002-AV	Higgins Combustion Turbines	P1 – E.U. -004 P2 – E.U. -005 P3 – E.U. -006 P4 – E.U. -007

## **2.0 SUMMARY AND DISCUSSION OF RESULTS**

## 2.0 SUMMARY AND DISCUSSION OF RESULTS

For the Higgins Combustion Turbine Units P1 – P4, the highest six-minute average opacities are summarized below. The VE data sheets and the observer's certifications are located in Appendix A. The graph noting the maximum heat input versus ambient temperature for the peaking units are included in Appendix B.

Source	Highest Average 6-minute Opacity	Unit Load (MW)	Average Ambient Temperature (°F)	Fuel Flow (Gal / Hr)	Btu / gal	Expected Min / Max Heat Input (MMBtu/Hr)	Unit Heat Input (MMBtu/Hr)
P1 E.U. -004	18.1	29	58	3300	137,381	482 / 535	453
P2 E.U. -005	19.8	26	75	3120	137,381	466 / 490	429
P3 E.U. -006	16.9	32	73	3420	137,381	524 / 552	470
P4 E.U. -007	16.0	33	75	3480	137,381	521 / 548	478

The sources were found to be in compliance.



### **3.0 FIELD AND ANALYTICAL PROCEDURES**

### 3.0 FIELD AND ANALYTICAL PROCEDURES

The observer, qualified in accordance with EPA Method 9, used the following procedures for visually determining the opacity of emissions.

1. The qualified observer stood at a distance sufficient to provide a clear view of the emissions, with the sun oriented in the 140-degree (°) sector to his back. Consistent with maintaining the above requirement, the observer made his observations from a position such that his line of vision was approximately perpendicular to the plume direction. The observer's line of sight did not include more than one plume at a time when multiple stacks were involved.
2. The observer recorded the name of the plant, emission location, type of facility, observer's name and affiliation, and the date on the field data sheet. The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background were recorded on a field data sheet at the time opacity readings were initiated and completed.
3. Opacity observations were made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer did not look continuously at the plume, but instead observed the plume momentarily at 15-second intervals.
4. Opacity observations were recorded to the nearest 5 percent at 15-second intervals on the Visible Emission Observation Form. A minimum of 24 observations were recorded. Each momentary observation recorded was deemed to represent the average opacity of emissions for a 15-second period.
5. Opacity is determined as an average of 24 consecutive observations recorded at 15-second intervals (i.e., highest 6-minute average). To find the average, the observations recorded on the field data sheet are divided into sets of 24 consecutive observations. A set is composed of any 24 consecutive observations. Sets need not be consecutive in time, and in no case shall two sets overlap. For each set of 24 observations, the average is calculated by summing the opacity of the 24 observations and dividing this sum by 24. If an applicable standard specifies an averaging time requiring more than 24 observations, the average is calculated for all observations made during the specified time period. The average opacity is recorded on a field data sheet.

**APPENDIX A**

**VISIBLE EMISSION TEST DATA**



# RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE/PROCESS INFORMATION					OBSERVATION RECORD											
FACILITY NAME <b>Higgins Power Plant</b>					DATE <b>12/17</b>		STACK A					STACK B				
SOURCE NAME <b>E.L. I.D. - 004 PI</b>			PERMIT NUMBER <b>1030012-002-AV</b>		HOUR	MINUTE	0	15	30	45	0	15	30	45		
LOCATION ADDRESS <b>998 East Shore Drive</b>					1025	0	15	15	20	15						
CITY <b>Oldsmar</b>		STATE <b>FL</b>	ZIP			1	20	20	25	20						
UNIT LOAD <b>29 MW</b>		HEAT INPUT <b>453 MMBtu/hr</b>				2	15	15	20	20						
CONTROL EQUIPMENT <b>NA</b>		OPERATING MODE <b>AUTO</b>				3	20	15	15	20						
FUEL TYPE/RATE <b>#2 Fuel oil</b>		PERMITTED RATE <b>4032 gal/hr</b>				4	15	25	20	15						
DESCRIBE EMISSION POINT <b>Top of stack</b>						5	15	15	20	15						
HEIGHT ABOVE GROUND LEVEL <b>50 FT</b>		HEIGHT OF OBSERVATION POINT <b>6 FT</b>				6	20	15	15	20						
EMISSIONS DESCRIPTION																
DESCRIBE EMISSIONS						7	15	15	20	15						
START <b>Continuous</b>		END <b>Continuous</b>				8	20	15	15	15						
PLUME COLOR <b>black</b>		PLUME TYPE <b>CONING</b>				9	15	20	20	15						
WATER DROPLETS PRESENT <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		IF YES, IS PLUME <input type="checkbox"/> Attached <input type="checkbox"/> Detached				10	15	20	15	20						
METEOROLOGICAL INFORMATION																
BACKGROUND						11	20	20	15	15						
START <b>clouds</b>		END <b>sky/clouds</b>				12	15	15	15	20						
SKY CONDITIONS - CLOUD COVER <b>overcast</b>		AMBIENT TEMPERATURE <b>58°</b>				13	20	15	15	15						
WIND SPEED <b>20-30 mph</b>		WIND DIRECTION <b>WNW</b>				14	15	15	15	15						
OBSERVATION DATA, SITE DIAGRAM						15	20	20	15	15						
						16	15	20	15	15						
SUMMARY OF AVERAGE OPACITY																
SET NUMBER	TIME		OPACITY			17	15	15	15	15						
	START	END	SUM	AVERAGE		18	20	15	20	20						
<b>24</b>	<b>1101</b>	<b>1107</b>	<b>435</b>	<b>18.1</b>		19	15	15	20	15						
COMPLIANCE INFORMATION																
RANGE OF OPACITY READINGS						20	15	15	20	15						
MAXIMUM <b>20</b>		MINIMUM <b>15</b>				21	15	20	15	15						
HIGHEST 6 MINUTE AVERAGE <b>18.1</b>						22	20	20	20	20						
COMMENTS <b>55/58 - 1020 55/58 - 1115 L 8°</b>						23	20	15	15	15						
<b>54/58 - 1045</b>						24	15	20	20	20						
<b>54/58 - 1100</b>						25	15	20	20	15						
OBSERVER <b>Loude Fry</b>						26	20	15	15	15						
OBSERVER'S SIGNATURE <b>Loude Fry</b>						27	15	15	15	15						
OBSERVER CERTIFICATION NUMBER <b>309489</b>						28	20	15	15	15						
EXPIRATION DATE <b>2/19/04</b>						29	15	15	15	15						



# RECORD OF VISUAL DETERMINATION OF OPACITY

## SOURCE/PROCESS INFORMATION

## OBSERVATION RECORD

FACILITY NAME: **Higgins Power Plant**

SOURCE NAME: **F.U.ID-005 P2** PERMIT NUMBER: **1030012-002-AU**

LOCATION ADDRESS: **998 East Shore Drive**

CITY: **Oldsmar** STATE: **FL** ZIP:

UNIT LOAD: **26 MW** HEAT INPUT: **429 MMBtu/hr.**

CONTROL EQUIPMENT: **NONE** OPERATING MODE: **Auto**

FUEL TYPE/RATE: **#2 Fuel oil** PERMITTED RATE: **4032 gal/hr.**

DESCRIBE EMISSION POINT: **Top of stack**

HEIGHT ABOVE GROUND LEVEL: **50 FT** HEIGHT OF OBSERVATION POINT: **6 FT**

DATE: 12-2-03		STACK A 2				STACK B			
HR	MIN	0	15	30	45	0	15	30	45
1326	0	10	15	15	15				
7	1	15	15	15	15				
8	2	20	15	15	20				
9	3	15	15	20	20				
1330	4	20	20	20	20				
1	5	15	20	15	15				
2	6	15	15	20	20				
3	7	20	15	15	15				
4	8	20	20	20	15				
5	9	20	15	15	20				
6	10	20	20	20	15				
7	11	20	20	20	20				
8	12	20	20	20	20				
9	13	20	20	20	20				
1340	14	20	20	20	20				
1	15	20	20	20	20				
2	16	20	20	20	15				
3	17	20	15	20	20				
4	18	20	15	20	20				
5	19	20	20	20	20				
6	20	20	20	20	15				
7	21	20	15	20	20				
8	22	20	20	15	20				
9	23	20	20	15	20				
1350	24	20	20	20	20				
1	25	20	20	20	20				
2	26	15	20	20	20				
3	27	20	15	20	20				
4	28	20	20	20	15				
5	29	20	20	20	15				
6	30	15	20	20	20				
7	31	20	20	20	15				
8	32	20	20	15	20				
9	33	20	20	20	15				
1400	34	20	20	20	20				
1	35	20	20	20	20				
2	36	20	20	20	20				
3	37	20	20	15	20				
4	38	20	20	20	20				
5	39	20	20	20	20				
6	40	20	20	20	20				
7	41	20	20	20	20				
8	42	15	15	15	20				
9	43	15	15	10	15				
1410	44	15	15	20	15				
1	45	20	15	20	15				
2	46	20	20	15	15				
3	47	20	20	20	20				
4	48	20	20	15	15				
5	49	15	15	15	15				
6	50	15	15	20	15				
7	51	15	15	20	20				
8	52	20	20	20	20				
9	53	15	20	15	20				
1420	54	20	20	20	20				
1	55	20	20	15	15				
2	56	15	20	20	15				
3	57	20	20	20	20				
4	58	20	20	20	20				
5	59	20	20	20	20				

## EMISSIONS DESCRIPTION

DESCRIBE EMISSIONS: START **CONTINUOUS** END **CONTINUOUS**

PLUME COLOR: **black** PLUME TYPE: **lofting**

WATER DROPLETS PRESENT:  Yes  No  Attached  Detached

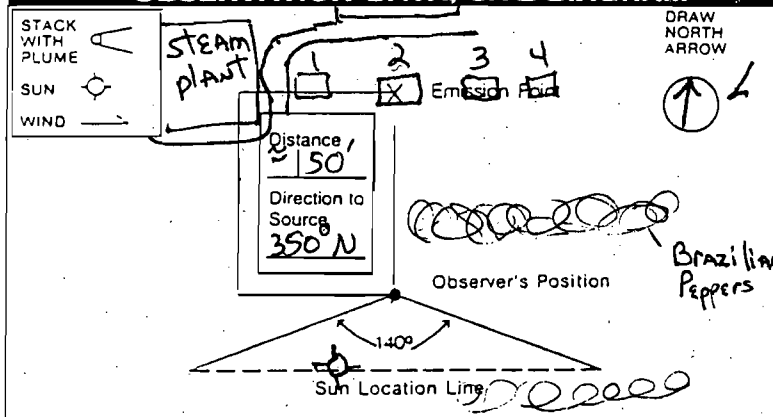
## METEOROLOGICAL INFORMATION

BACKGROUND: START **sky** END **sky** BACKGROUND COLOR: START **blue** END **blue**

SKY CONDITIONS - CLOUD COVER: START **clear** END **clear** AMBIENT TEMPERATURE: START **75°F** END **75°F**

WIND SPEED: START **5-10** END **5-10** WIND DIRECTION: START **NE** END **NE**

## OBSERVATION DATA, SITE DIAGRAM



## SUMMARY OF AVERAGE OPACITY

SET NUMBER	TIME		OPACITY	
	START	END	SUM	AVERAGE
	1337	1343	475	19.79

## COMPLIANCE INFORMATION

RANGE OF OPACITY READINGS: MAXIMUM **20** MINIMUM **10**

HIGHEST 5 MINUTE AVERAGE: **20**

COMMENTS: **7°L**

Time	Wet	Dry
1325	65	75
1343	64	74
1358	65	75
1413	65	74
1425	65	75

OBSERVER: **Debbie Telemeco-Anders** DATE: **12-2-03**

OBSERVER'S SIGNATURE: *Debbie Telemeco-Anders*

OBSERVER CERTIFICATION NUMBER: **309490** EXPIRATION DATE: **2/19/04**



# RECORD OF VISUAL DETERMINATION OF OPACITY

## SOURCE/PROCESS INFORMATION

## OBSERVATION RECORD

FACILITY NAME: *Higgins Power Plant*

SOURCE NAME: *E.U. ID No. -006* PERMIT NUMBER: *1030012-002-AV*

LOCATION ADDRESS: *998 East Shore Drive*

CITY: *Oldsmar* STATE: *FLA* ZIP: \_\_\_\_\_

UNIT LOAD: *32 MW* HEAT INPUT: *470 MM Btu/hr.*

CONTROL EQUIPMENT: *NONE* OPERATING MODE: *AUTO*

FUEL TYPE/RATE: *No. 2 fuel oil* PERMITTED RATE: *4494 gal/hr*

DESCRIBE EMISSION POINT: *TOP OF STACK*

HEIGHT ABOVE GROUND LEVEL: *50 FT* HEIGHT OF OBSERVATION POINT: *6 FT*

DATE	HOUR	MINUTE	STACK A 3				STACK B			
			0	15	30	45	0	15	30	45
12/02	15	20	15	15	15	15				
		1	15	15	20	20				
		2	15	15	15	15				
		3	20	20	20	15				
		4	15	15	15	15				
		5	15	20	20	20				
		6	20	15	15	15				
		7	15	15	15	15				
		8	15	15	15	15				
		9	15	15	20	15				
	15	30	15	15	15	15				
		11	15	15	15	15				
		12	15	15	15	15				
		13	15	15	15	15				
		14	15	15	15	15				
		15	15	15	15	15				
		16	20	20	15	15				
		17	15	15	15	15				
		18	15	15	15	15				
		19	15	15	15	15				
	15	40	15	15	15	15				
		21	15	20	15	15				
		22	15	15	15	15				
		23	15	15	15	15				
		24	15	20	15	15				
		25	15	15	15	15				
		26	15	15	15	15				
		27	15	15	15	15				
		28	20	15	15	15				
		29	15	15	15	15				
	15	50	15	15	15	15				
		31	15	15	15	15				
		32	15	15	15	15				
		33	10	15	15	15				
		34	10	15	15	10				
		35	15	15	15	20				
		36	15	15	15	15				
		37	15	10	10	15				
		38	10	15	15	15				
		39	10	15	10	10				
	16	00	15	15	10	15				
		41	10	15	10	15				
		42	15	15	15	15				
		43	15	15	15	15				
		44	15	15	15	15				
		45	15	15	15	15				
		46	10	10	10	15				
		47	15	15	15	15				
		48	15	15	15	15				
		49	15	15	15	15				
	16	10	15	15	15	15				
		51	15	15	15	15				
		52	15	15	15	15				
		53	15	15	15	15				
		54	15	15	15	15				
		55	15	15	15	15				
		56	15	15	15	15				
		57	15	15	15	15				
		58	15	15	15	15				
	16	19	15	15	15	15				

## EMISSIONS DESCRIPTION

DESCRIBE EMISSIONS: START *continuous* END *continuous*

PLUME COLOR: *black* PLUME TYPE: *lofting*

WATER DROPLETS PRESENT:  Yes  No IF YES, IS PLUME:  Attached  Detached

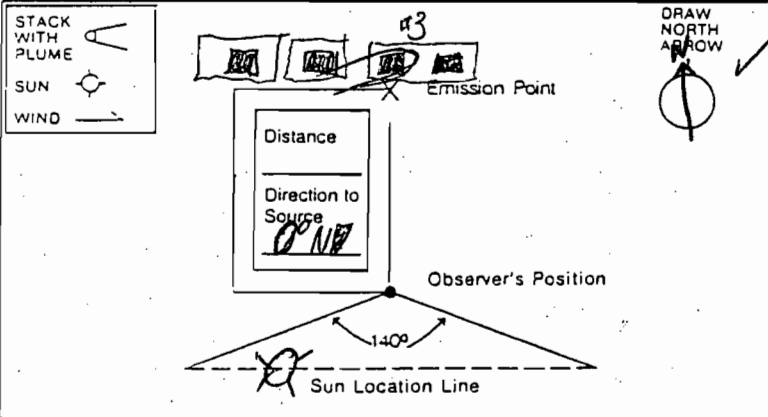
## METEOROLOGICAL INFORMATION

BACKGROUND: START *sky* END *sky* START *blue* END *blue*

SKY CONDITIONS - CLOUD COVER: START *clear* END *clear* AMBIENT TEMPERATURE: START *74°* END *72°*

WIND SPEED: START *5-10 mph* END *10-15 mph* WIND DIRECTION: START *NE* END *NE*

## OBSERVATION DATA, SITE DIAGRAM



## SUMMARY OF AVERAGE OPACITY

SET NUMBER	TIME		OPACITY	
	START	END	SUM	AVERAGE
	1521	1527	405	16.88

## COMPLIANCE INFORMATION

RANGE OF OPACITY READINGS: MAXIMUM *20* MINIMUM *10*

HIGHEST 6 MINUTE AVERAGE: *16.88*

COMMENTS: *6/7/04 1518 6/7/02 1600 7° L*  
*6/7/04 1530 6/7/02 1615*  
*6/7/04 1545*

OBSERVER: *Loude Fnp* DATE: *12/02/03*

OBSERVER'S SIGNATURE: *Loude Fnp*

OBSERVER CERTIFICATION NUMBER: *307489* EXPIRATION DATE: *2/19/04*



# RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE/PROCESS INFORMATION					OBSERVATION RECORD											
FACILITY NAME <i>Higgins Power Plant</i>					DATE <i>12/02</i>		STACK A <i>4</i>				STACK B					
SOURCE NAME <i>EUID No - 007</i>		PERMIT NUMBER <i>1030012-002-AV</i>			1328	0	15	15	10	15						
LOCATION ADDRESS <i>998 East Shore Drive</i>						1	15	15	15	15						
CITY <i>Oidsmar</i>		STATE <i>FLA</i>	ZIP			2	10	15	20	15						
UNIT LOAD <i>33MW</i>		HEAT INPUT <i>478 MMBtu/hr.</i>				3	15	15	15	15						
CONTROL EQUIPMENT <i>NONE</i>		OPERATING MODE <i>AUTO</i>				4	10	15	15	20						
FUEL TYPE/RATE <i>No 2 fuel oil</i>		PERMITTED RATE <i>4494 gal/hr</i>				5	15	15	15	15						
DESCRIBE EMISSION POINT <i>top of stack</i>						6	15	15	15	15						
HEIGHT ABOVE GROUND LEVEL <i>50 FT</i>		HEIGHT OF OBSERVATION POINT <i>6 FT</i>			1338	10	20	15	15	15						
EMISSIONS DESCRIPTION						11	10	15	15	15						
DESCRIBE EMISSIONS						12	15	15	15	15						
START <i>continuous</i>		END <i>continuous</i>				13	15	15	15	15						
PLUME COLOR <i>black</i>		PLUME TYPE <i>lofting</i>				14	15	15	20	20						
WATER DROPLETS PRESENT <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						15	15	15	15	15						
IF YES, IS PLUME <input type="checkbox"/> Attached <input type="checkbox"/> Detached						16	15	15	15	15						
METEOROLOGICAL INFORMATION						17	15	15	15	15						
BACKGROUND START <i>blue (sky)</i> END <i>blue (sky)</i>		BACKGROUND COLOR START <i>blue</i> END <i>blue</i>				18	15	15	15	20						
SKY CONDITIONS - CLOUD COVER START <i>clear</i> END <i>pt cloudy</i>		AMBIENT TEMPERATURE START <i>75</i> END <i>75</i>			1348	20	20	15	20	15						
WIND SPEED START <i>5-10 mph</i> END <i>5-10 mph</i>		WIND DIRECTION START <i>NE</i> END <i>NE</i>				21	15	15	15	15						
OBSERVATION DATA, SITE DIAGRAM						22	15	15	15	15						
						23	15	15	15	15						
DRAW NORTH ARROW <input checked="" type="checkbox"/>						24	15	15	15	15						
SUMMARY OF AVERAGE OPACITY						25	15	15	15	15						
SET NUMBER	TIME		OPACITY			26	15	15	15	15						
	START	END	SUM	AVERAGE		27	15	15	15	15						
	1342	1348	385	16.04	1408	28	15	15	15	15						
					1408	29	15	15	15	15						
						30	15	15	15	15						
						31	15	20	20	15						
						32	15	15	15	15						
						33	15	15	15	15						
						34	15	15	15	15						
						35	15	15	15	15						
						36	15	10	10	10						
						37	10	10	15	15						
						38	15	15	15	15						
						39	10	15	15	15						
						40	15	15	15	15						
						41	15	15	15	15						
						42	15	15	15	15						
						43	15	15	15	10						
						44	10	10	15	10						
						45	10	10	10	15						
						46	15	15	15	15						
						47	10	10	10	15						
						48	15	15	15	15						
						49	15	15	15	15						
						1418	50	15	15	15						
						51	15	15	15	15						
						52	15	15	15	10						
						53	10	15	15	10						
						54	10	15	15	15						
						55	15	15	15	15						
						56	10	10	15	15						
						57	15	15	15	15						
						58	15	15	15	15						
						1427	59	15	15	15						
OBSERVER <i>Loude Fry</i> DATE <i>12/02/03</i>																
OBSERVER'S SIGNATURE <i>Loude Fry</i>																
OBSERVER CERTIFICATION NUMBER <i>309489</i>			EXPIRATION DATE <i>2/19/04</i>													

**APPENDIX B**

**Fuel Oil Analysis and Graph of Heat Input vs.  
Temperature**



FLORIDA POWER CORPORATION  
CENTRAL CHEMICAL LABORATORY  
15780 WEST POWERLINE STREET  
CRYSTAL RIVER, FL 34428  
TEL: 352-583-4463; EXT: 5239  
MICROWAVE: 240-5239 MAC CN77

Higgins Unit (s):  
Sample Date: 5/23/2003 Sample Number: FO-9220  
Type of Fuel: No. 2 oil  
Enter the type of Sample: Gas Turbine

**RESULTS\***

API Gravity @ 60°F:	35.1	% ASH:	
%S:	0.38	% Carbon:	87.4
Density (@ 60° F):	0.8489	% Hydrogen:	12.9
Density (lb/gal):	7.0722	% Nitrogen:	0.1
HHV, BTU/lb:	19,426	% Water:	
HHV, BTU/gal:	137,381		
HHV, BTU/bbl:	5,770,002		
LHV, BTU/lb:	18,331		
LHV, BTU/gal:	129,637		
LHV, BTU/bbl:	5,444,754		

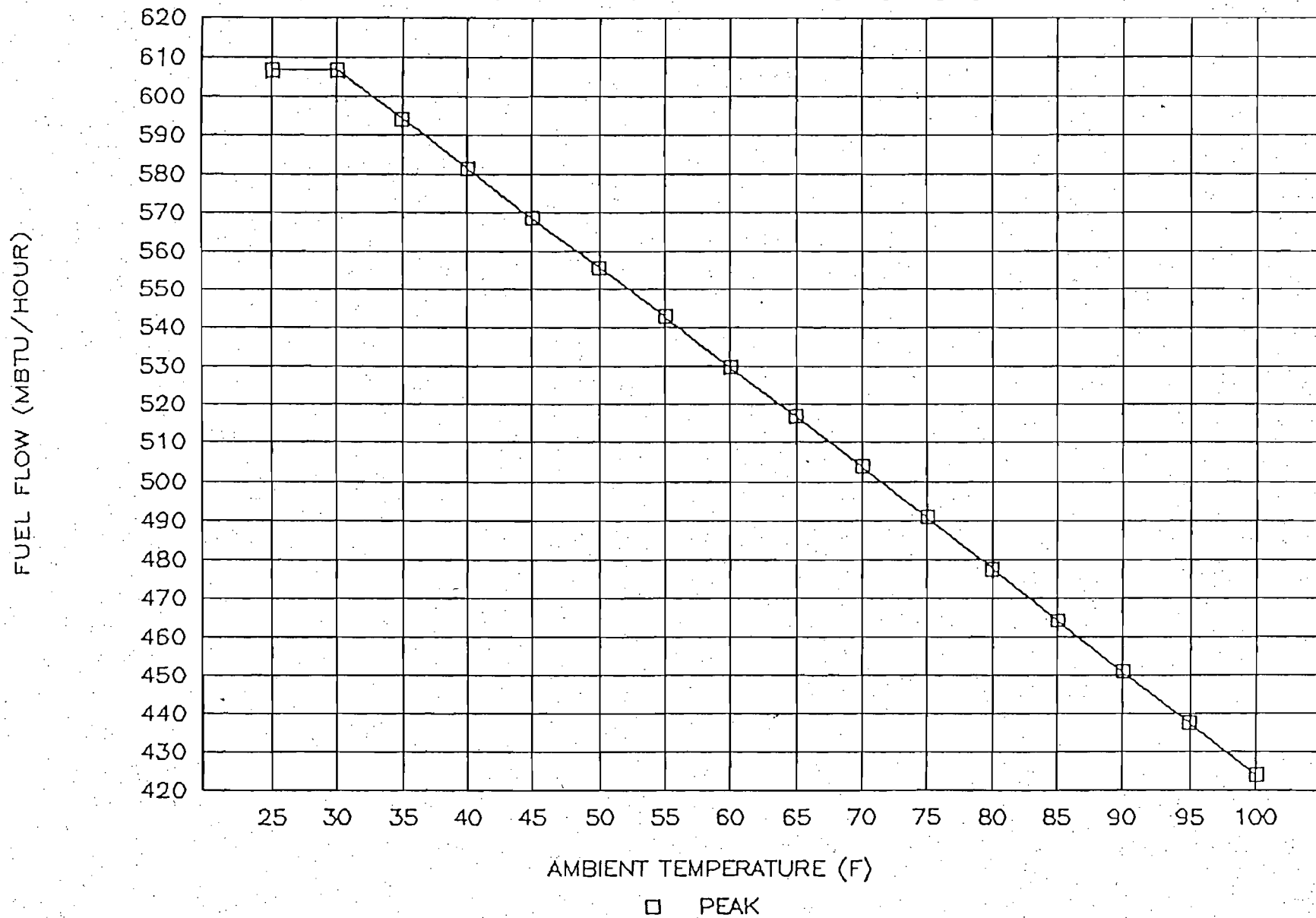
Sample Comment:

\* Analysis performed by: TECO Labs

Jeff Smith  
Chemist, Central Chem Lab

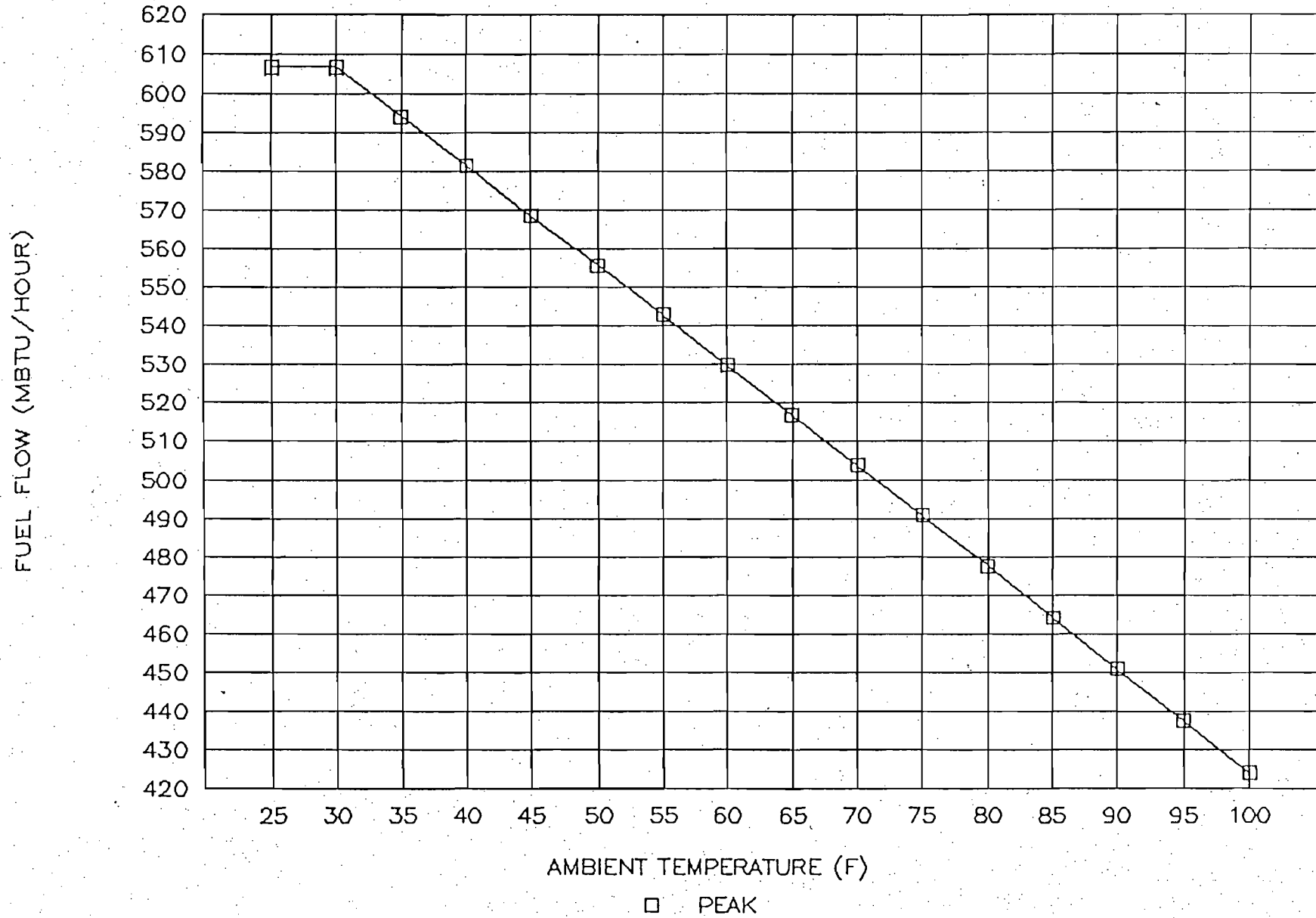
# HIGGINS P1 COMBUSTION TURBINE

FUEL HEAT INPUT vs AMBIENT TEMPERATURE



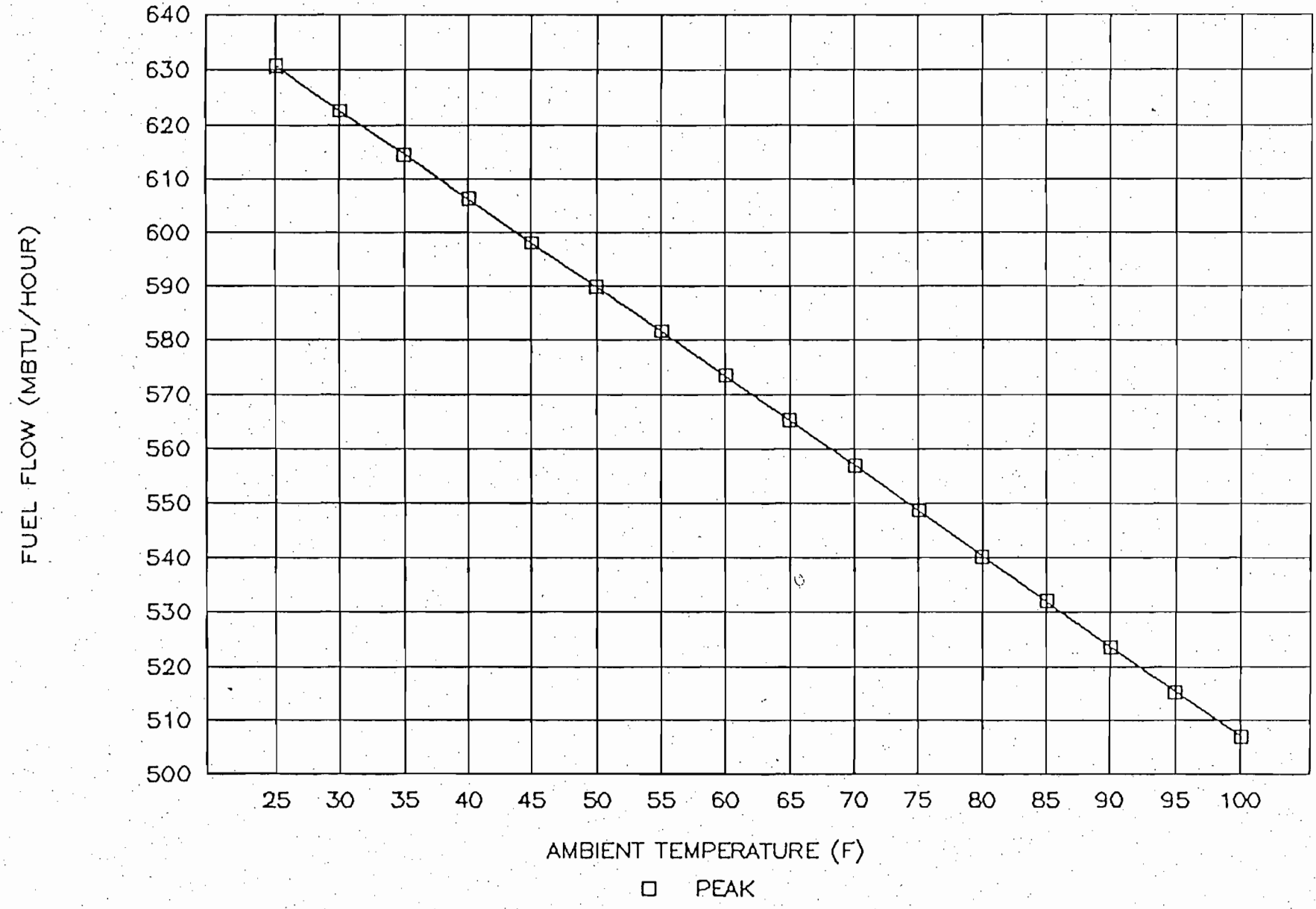
# HIGGINS P2 COMBUSTION TURBINE

## FUEL HEAT INPUT vs AMBIENT TEMPERATURE



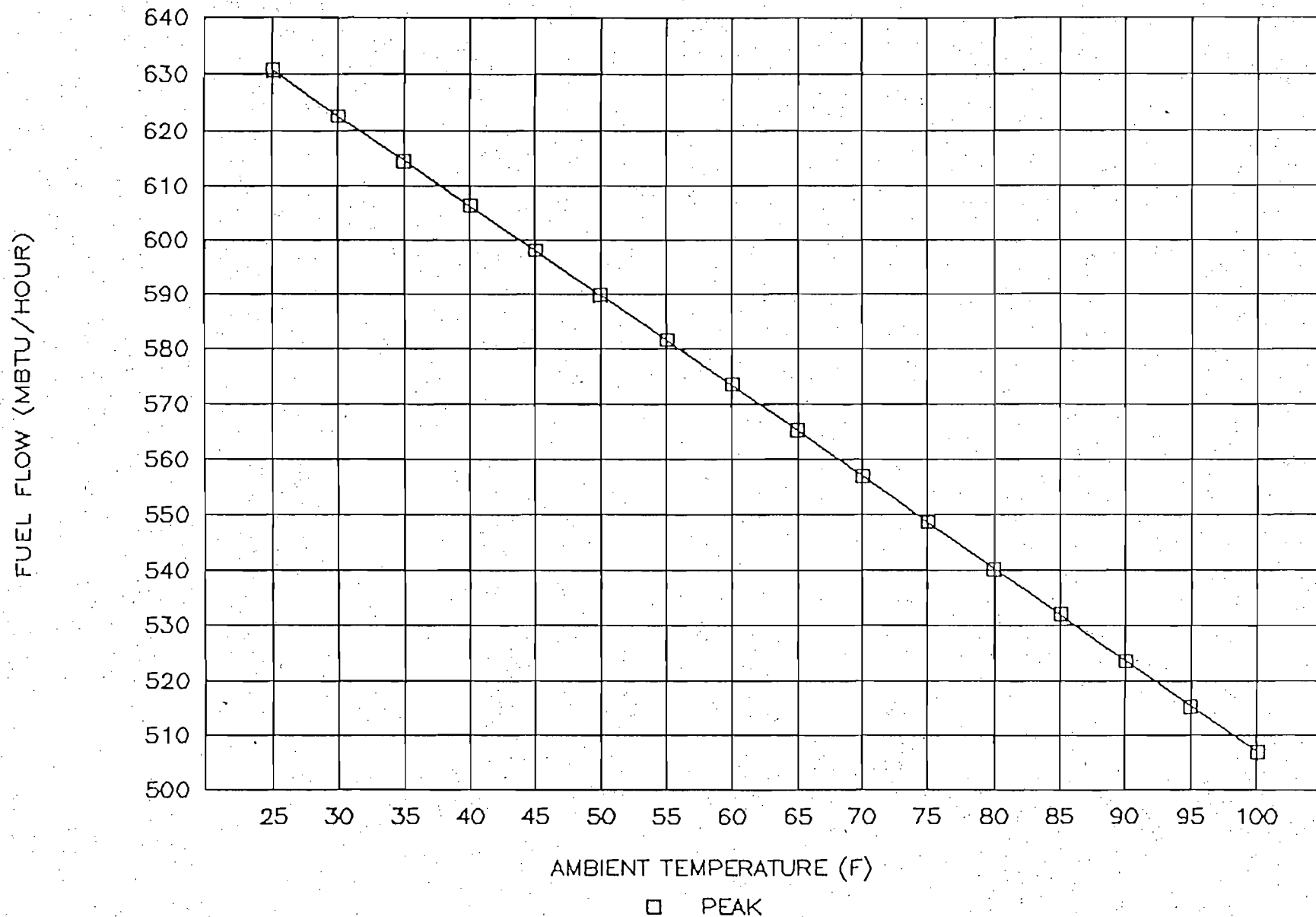
# HIGGINS P3 COMBUSTION TURBINE

FUEL HEAT INPUT vs AMBIENT TEMPERATURE



# HIGGINS P4 COMBUSTION TURBINE

FUEL HEAT INPUT vs AMBIENT TEMPERATURE



**APPENDIX C**

**PROJECT PARTICIPANTS**

## Project Participants

Ms. Debbie Telemeco-Anders

VE Observer,  
Environmental Technician  
Progress Energy Corporation  
Technical Services

Mr. Loyde Fry

VE Observer,  
Environmental Technician  
Progress Energy Corporation  
Technical Services

# VISIBLE EMISSIONS EVALUATOR

This is to certify that

*Debbie Telemeco Anders*

met the specifications of Federal Reference Method 9 and qualified as a visible emissions evaluator. Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, North Carolina. This certificate is valid for six months from date of issue.

*309490*

Certificate Number

*Tampa, Florida*

Location

*August 19, 2003*

Date of Issue

*Thomas Hore*

President

*Michael W. Junosford*

Director of Training



# VISIBLE EMISSIONS EVALUATOR

This is to certify that

*Loyde Fry*

met the specifications of Federal Reference Method 9 and qualified as a visible emissions evaluator.

Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, North Carolina. This certificate is valid for six months from date of issue.

*309489*

Certificate Number

*Tampa, Florida*

Location

*August 20, 2003*

Date of Issue

*Thomas Koe*

President

*Michael W. Jansford*

Director of Training