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January 21, 2003

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BUREAU OF AIR REGULATION

st. johns river POWER PARK

DEPARTMENT OF ENVIRONMENTAL PROTECTION

JAN 22 2003

SITING COORDINATION

Mr. Ernest Frey
Florida Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, FL 32256-7577

RE: 2002 Annual Air Emissions Performance Test
Unit #1 & 2
JEA / St. Johns River Power Park (SJRPP) / Northside Generation Station (NGS)
Facility ID No. 0310045
Title V Permit No. 0310045-002-AV
JEA/St. Johns River Power Park (SJRPP)
Conditions of Certification Permit No. PA 81-13

Dear Mr. Frey,

In accordance with JEA/SJRPP/NGS Title V Section III.D, and SJRPP Conditions of Certification Sections I.A.2.g, h, i, and I.C.5, please find enclosed two copies of the annual stationary source performance test reports for SO_2, NO_x, particulates, and visible emission observations, for the above referenced facility and units.

In addition, visible emission observations were conducted for SJRPP's limestone and flyash handling systems, limestone day silos, and flyash silos pursuant to JEA/SJRPP/NGS Title V Sections III.E and III.F, and SJRPP Conditions of Certification Section I.A.5. Testing was performed December 9-12, 2002, by Costal Air Consulting, Inc.

Please contact me at (904) 665-7886 if you have any questions regarding the annual performance test submittals.

Sincerely,

Bruce W. Kofler
Production Leader- Environmental

Enclosures:

1) Relative Accuracy Test Audit Test Report for St. Johns River Power Park, Unit #1, Stack & Inlet, December 11&12, 2002 (Part 60 & 75 SO_2, NO_x, CO_2, Flow)

2) Relative Accuracy Test Audit Test Report for St. Johns River Power Park, Unit #2, Stack & Inlet, December 9 & 10, 2002 (Part 60 & 75 SO_2, NO_x, CO_2, Flow)

3) Particulate and Visible Emissions Test Report for St. Johns River Power Park, Units #1 & 2, December 9, 10, & 12 2002.

4) Performance Test Report for St. Johns River Power Park, Units #1 & 2, December 10 & 11, 2002 (SO_2, NO_x)

xc: W. Smith, EPA
H. Oven, FDEP
S. Arif, FDEP
W. Tutt, RESD

PERFORMANCE TEST REPORT No. 130 – 004
UNITS 1 & 2 - SJRPP

Commissioned By: St. Johns River Power Park
11201 New Berlin Road
Jacksonville, FL 32226

Prepared By: Coastal Air Consulting, Inc.
January 16, 2003

COASTAL AIR CONSULTING INC.

1531 Wyngate Drive DeLand, FL 32724
Phone (386) 943 9241 / Cell (386) 451-0169 / Fax (386) 943 9212

COMPLETE EMISSIONS TESTING SERVICES • PERMITTING ASSISTANCE • CEMS CERTIFICATION • AMBIENT AIR MONITORING

STATEMENT OF VALIDITY

All testing activities and results represented herein were conducted and obtained in accordance with the approved, industry standard, EPA protocols listed in CFR 40 Parts 60 & 75. The contents have been reviewed and verified, to the extent practical, to be valid and accurate representation of the source emissions at the time of testing.

Stephen C. Webb
President

TABLE OF CONTENTS

PROJECT STATISTICS

Client:	St. Johns River Power Park
Facility:	SJRPP Units 1 & 2
Location:	11201 New Berlin Road Jacksonville, FL 32226
Type of Process Tested:	Coal Fired Utility Steam Generating Units
Test Protocols Performed:	Oxygen/Carbon Dioxide-EPA Method 3A Nitrogen Oxide-EPA Method 7E Sulfur Dioxide-EPA Method 6C
Testing Firm:	Coastal Air Consulting, Inc. 1531 Wyngate Dr. DeLand, FL 32724
Test Personnel:	Steve Webb — Site Supervisor Bob Righter — Chemist Dwaine Ritchie — Technician
Test Date:	December 10&11, 2002
Client Representative:	Bruce Kofler
Observers:	John Gay — DEP Northeast District William Coffman — City of Jacksonville

1.0 Introduction

Coastal Air Consulting, Inc. (Coastal) was contracted by SJRPP to determine the Performance emissions at the SJRPP Units 1 & 2 Stack in Jacksonville, Florida.

The sampling program was conducted on December 10 & 11, 2002. The Performance emissions test consists of the average of the RATA test runs. The testing was performed by Coastal personnel. Mr. Bruce Kofler of SJRPP coordinated plant operations during testing activities.

2.0 Test Program Summary

A summary of test results developed by this source sampling program is presented in Tables 1 & 2.

TABLE 1
Gaseous Emissions Summary **Unit 1**

Run #	Average of RATA Runs	Test Date	NOx PPM	NOx lb/mmBtu	SO2 PPM	SO2 lb/mmBtu	CO2 %
1	1 – 3	12-11-02	277.59	0.469	136.30	0.320	12.71
2	4 – 6	12-11-02	285.80	0.493	142.07	0.340	12.47
3	7 – 9	12-11-02	274.86	0.468	144.02	0.341	12.62
Avg.			**279.42**	**0.477**	**140.80**	**0.334**	**12.60**

TABLE 2
Gaseous Emissions Summary **Unit 2**

Run #	Average of RATA Runs	Test Date	NOx PPM	NOx lb/mmBtu	SO2 PPM	SO2 lb/mmBtu	CO2 %
1	1 – 3	12-10-02	285.85	0.474	172.61	0.398	12.95
2	4 – 6	12-10-02	285.70	0.475	178.38	0.412	12.94
3	7 – 9	12-10-02	275.12	0.415	179.14	0.415	12.88
Avg.			**282.22**	**0.455**	**176.71**	**0.408**	**12.92**

3.0 Results of Testing

These results indicate that Units 1 & 2 are in compliance at the time of testing under normal operating conditions. The individual test runs are tabulated in Appendix 1.

4.0 Description of Source

SJRPP Units 1 & 2 are coal fired utility steam generators. The flue gas is exhausted through the Units 1 & 2 stack. A schematic of the process and stack sampling location is included in Appendix 3 "Figures".

5.0 Sampling Procedures

EPA testing protocols utilized during this test program include the following;

EPA Method 3A	Gas Analysis for CO_2, O_2, Excess Air and Dry Molecular Weight (Instrumental Analyzer Method)
EPA Method 6C	Determination of Sulfur Dioxide Emissions From Stationary Sources (Instrumental Analyzer Method)
EPA Method 7E	Determination of Nitrogen Oxides Emissions From Stationary Sources (Instrumental Analyzer Method)

6.0 Operating Conditions

SJRPP personnel monitored operating conditions throughout the duration of the sampling program.

7.0 Quality Assurance Procedures

Quality assurance procedures followed during these testing activities were applied consistent with the requirements outlined by the EPA methods referenced in CFR 40 Part 60 & 75. Analyzer calibrations, system bias and drift checks were completed before and after each sample run utilizing EPA Protocol 1 calibration gases.

APPENDIX 1
Reference Data

Unit 1

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 1 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.10	0.6	0.1	0.9	0.1	0.0
ppm NOx	552.00	553.0	0.1	550.0	-0.2	-0.3
% O2	0.00	0.0	0.0	0.0	0.0	0.0
% O2	13.00	12.9	-0.4	13.0	0.0	0.4
% CO2	0.00	0.0	0.0	0.0	0.0	0.0
% CO2	11.10	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.00	0.2	0.1	0.3	0.1	0.0
ppm SO2	161.00	159.0	-0.7	156.0	-1.7	-1.0

RUN 1 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	11	45	271.94	6.67	12.66	137.20
2002	12	11	11	46	277.95	6.66	12.67	133.24
2002	12	11	11	47	273.94	6.68	12.63	132.87
2002	12	11	11	48	274.43	6.68	12.62	135.66
2002	12	11	11	49	274.94	6.66	12.69	133.04
2002	12	11	11	50	272.94	6.67	12.68	132.45
2002	12	11	11	51	275.62	6.67	12.66	133.19
2002	12	11	11	52	273.94	6.63	12.69	135.00
2002	12	11	11	53	274.94	6.68	12.61	133.65
2002	12	11	11	54	273.95	6.65	12.64	133.40
2002	12	11	11	55	273.45	6.64	12.65	134.01
2002	12	11	11	56	276.94	6.66	12.64	132.04
2002	12	11	11	57	275.95	6.68	12.67	129.49
2002	12	11	11	58	276.95	6.67	12.63	129.13
2002	12	11	11	59	276.95	6.62	12.71	129.79
2002	12	11	12	0	281.95	6.63	12.70	130.53
2002	12	11	12	1	280.95	6.63	12.70	130.97
2002	12	11	12	2	276.94	6.62	12.78	133.31
2002	12	11	12	3	278.94	6.69	12.61	135.17
2002	12	11	12	4	278.95	6.68	12.67	134.20
2002	12	11	12	5	276.95	6.67	12.62	133.62
2002	12	11	12	6	278.95	6.68	12.61	130.09
				AVERAGES	276.29	6.66	12.66	132.82

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	276.17
%O2	6.68
% CO2	12.66
SO2 PPM	135.73
LB/MMBTU NOx	0.469
LB/MMBTU SO2	0.320

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 2 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.10	0.9	0.1	0.8	0.1	0.0
ppm NOx	552.00	550.0	-0.2	551.0	-0.1	0.1
% O2	0.00	0.0	0.0	0.0	0.0	0.0
% O2	13.00	13.0	0.0	13.0	0.0	0.0
% CO2	0.00	0.0	0.0	0.0	0.0	0.0
% CO2	11.10	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.00	0.3	0.1	0.5	0.2	0.1
ppm SO2	161.00	156.0	-1.7	157.0	-1.3	0.3

RUN 2 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	12	31	283.78	6.55	12.95	128.08
2002	12	11	12	32	283.75	6.58	12.86	125.46
2002	12	11	12	33	283.07	6.62	12.79	124.66
2002	12	11	12	34	277.21	6.62	12.76	124.06
2002	12	11	12	35	275.28	6.60	12.89	123.38
2002	12	11	12	36	276.08	6.59	12.92	124.15
2002	12	11	12	37	272.90	6.61	12.82	126.46
2002	12	11	12	38	268.00	6.63	12.75	123.88
2002	12	11	12	39	270.81	6.65	12.69	122.66
2002	12	11	12	40	267.93	6.63	12.71	123.26
2002	12	11	12	41	268.86	6.62	12.79	124.40
2002	12	11	12	42	274.44	6.61	12.80	125.33
2002	12	11	12	43	274.64	6.60	12.86	128.55
2002	12	11	12	44	277.45	6.58	12.90	135.66
2002	12	11	12	45	278.45	6.61	12.85	134.87
2002	12	11	12	46	279.12	6.64	12.71	132.51
2002	12	11	12	47	279.81	6.66	12.67	131.51
2002	12	11	12	48	280.86	6.64	12.71	132.64
2002	12	11	12	49	279.85	6.65	12.68	132.68
2002	12	11	12	50	281.30	6.67	12.61	131.83
2002	12	11	12	51	281.47	6.66	12.69	132.77
2002	12	11	12	52	276.85	6.65	12.78	132.90
				AVERAGES	276.90	6.62	12.78	128.26

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	277.23
% O2	6.62
% CO2	12.78
SO2 PPM	131.87
LB/MMBTU NOx	0.466
LB/MMBTU SO2	0.308

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 3 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.8	0.1	1.1	0.1	0.0
ppm NOx	552.0	551.0	-0.1	550.0	-0.2	-0.1
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.1	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.0	0.5	0.2	0.4	0.1	0.0
ppm SO2	161.0	157.0	-1.3	159.0	-0.7	0.7

RUN 3 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	13	3	277.97	6.72	12.69	139.22
2002	12	11	13	4	279.44	6.78	12.66	140.20
2002	12	11	13	5	278.18	6.70	12.70	141.47
2002	12	11	13	6	282.73	6.65	12.87	143.10
2002	12	11	13	7	282.83	6.65	12.85	140.74
2002	12	11	13	8	276.47	6.71	12.78	138.42
2002	12	11	13	9	275.61	6.70	12.76	137.37
2002	12	11	13	10	278.56	6.75	12.65	136.44
2002	12	11	13	11	281.17	6.78	12.58	136.59
2002	12	11	13	12	279.43	6.72	12.61	138.22
2002	12	11	13	13	276.28	6.70	12.77	139.90
2002	12	11	13	14	276.44	6.70	12.70	139.12
2002	12	11	13	15	282.36	6.70	12.70	148.29
2002	12	11	13	16	282.24	6.71	12.69	137.90
2002	12	11	13	17	280.84	6.73	12.70	136.46
2002	12	11	13	18	283.72	6.75	12.62	135.47
2002	12	11	13	19	283.41	6.74	12.60	135.34
2002	12	11	13	20	278.47	6.72	12.61	136.94
2002	12	11	13	21	276.63	6.71	12.75	137.77
2002	12	11	13	22	277.20	6.78	12.67	136.68
2002	12	11	13	23	273.95	6.76	12.65	136.91
2002	12	11	13	24	275.60	6.69	12.81	139.06
				AVERAGES	279.07	6.72	12.70	138.71

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	279.36
% O2	6.72
% CO2	12.70
SO2 PPM	141.29
LB/MMBTU NOx	0.473
LB/MMBTU SO2	0.332

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 4 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	1.1	0.1	0.8	0.1	0.0
ppm NOx	552.0	550.0	-0.2	550.0	-0.2	0.0
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	12.9	-0.4	-0.4
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.1	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.0	0.4	0.1	0.3	0.1	0.0
ppm SO2	161.0	159.0	-0.7	161.0	0.0	0.7

RUN 4 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	13	48	282.42	6.98	12.28	136.42
2002	12	11	13	49	281.96	6.88	12.51	134.15
2002	12	11	13	50	278.96	6.89	12.49	132.02
2002	12	11	13	51	281.39	6.89	12.40	130.23
2002	12	11	13	52	281.93	6.99	12.22	130.19
2002	12	11	13	53	279.96	6.89	12.41	134.10
2002	12	11	13	54	283.96	6.89	12.48	134.42
2002	12	11	13	55	282.95	6.92	12.43	134.88
2002	12	11	13	56	282.17	6.88	12.51	135.63
2002	12	11	13	57	279.31	6.87	12.56	134.67
2002	12	11	13	58	280.70	6.91	12.47	132.61
2002	12	11	13	59	283.97	6.99	12.23	133.70
2002	12	11	14	0	283.51	6.98	12.23	133.42
2002	12	11	14	1	281.95	6.94	12.31	136.26
2002	12	11	14	2	280.95	6.97	12.23	137.44
2002	12	11	14	3	281.95	6.98	12.26	139.23
2002	12	11	14	4	282.94	6.91	12.44	142.63
2002	12	11	14	5	284.97	6.90	12.46	145.56
2002	12	11	14	6	280.95	6.88	12.53	147.15
2002	12	11	14	7	279.61	6.86	12.56	148.97
2002	12	11	14	8	284.96	6.82	12.50	148.63
2002	12	11	14	9	284.95	6.85	12.51	148.24
				AVERAGES	282.11	6.91	12.41	137.75

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	282.67
% O2	6.93
% CO2	12.41
SO2 PPM	138.56
LB/MMBTU NOx	0.490
LB/MMBTU SO2	0.334

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 5 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.8	0.1	0.4	0.0	0.0
ppm NOx	552.0	550.0	-0.2	550.0	-0.2	0.0
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	12.9	-0.4	12.9	-0.4	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.1	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.0	0.3	0.1	0.3	0.1	0.0
ppm SO2	161.0	161.0	0.0	164.0	1.0	1.0

RUN 5 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	14	29	288.93	6.91	12.46	146.60
2002	12	11	14	30	289.79	6.92	12.49	145.62
2002	12	11	14	31	285.50	6.89	12.55	145.55
2002	12	11	14	32	285.04	6.88	12.54	145.59
2002	12	11	14	33	287.08	6.90	12.47	145.25
2002	12	11	14	34	288.82	6.93	12.44	145.87
2002	12	11	14	35	284.50	6.92	12.45	146.65
2002	12	11	14	36	282.08	6.93	12.42	145.60
2002	12	11	14	37	285.94	6.93	12.41	144.52
2002	12	11	14	38	286.95	6.96	12.26	143.31
2002	12	11	14	39	285.35	6.95	12.26	143.16
2002	12	11	14	40	286.91	6.96	12.27	144.93
2002	12	11	14	41	287.03	6.93	12.44	149.53
2002	12	11	14	42	287.78	6.89	12.60	152.20
2002	12	11	14	43	288.56	6.89	12.59	152.52
2002	12	11	14	44	283.96	6.91	12.46	150.40
2002	12	11	14	45	288.93	6.90	12.57	151.21
2002	12	11	14	46	287.94	6.91	12.51	150.03
2002	12	11	14	47	284.95	6.88	12.57	152.60
2002	12	11	14	48	284.94	6.89	12.57	153.76
2002	12	11	14	49	282.93	6.89	12.57	153.31
2002	12	11	14	50	288.93	6.90	12.57	151.21
				AVERAGES	286.49	6.91	12.48	148.15

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	287.24
% O2	6.96
% CO2	12.48
SO2 PPM	146.76
LB/MMBTU NOx	0.495
LB/MMBTU SO2	0.351

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 6 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.4	0.0	0.5	0.0	0.0
ppm NOx	552.0	550.0	-0.2	551.0	-0.1	0.1
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	12.9	-0.4	12.9	-0.4	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.1	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.0	0.3	0.1	0.2	0.1	0.0
ppm SO2	161.0	164.0	1.0	165.0	1.3	0.3

RUN 6 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	15	7	289.93	6.93	12.49	145.41
2002	12	11	15	8	286.95	6.90	12.56	146.34
2002	12	11	15	9	288.56	6.89	12.54	146.51
2002	12	11	15	10	286.94	6.90	12.47	144.10
2002	12	11	15	11	288.50	6.92	12.45	143.47
2002	12	11	15	12	291.94	6.90	12.51	143.37
2002	12	11	15	13	293.34	6.91	12.47	142.79
2002	12	11	15	14	293.71	6.89	12.50	143.54
2002	12	11	15	15	285.94	6.85	12.61	143.76
2002	12	11	15	16	289.93	6.82	12.68	143.97
2002	12	11	15	17	291.94	6.82	12.68	145.31
2002	12	11	15	18	287.93	6.89	12.52	142.11
2002	12	11	15	19	291.85	6.92	12.42	141.84
2002	12	11	15	20	293.94	6.93	12.41	141.97
2002	12	11	15	21	287.93	6.92	12.44	143.13
2002	12	11	15	22	289.93	6.94	12.41	144.30
2002	12	11	15	23	285.51	6.93	12.43	144.25
2002	12	11	15	24	282.93	6.94	12.45	144.00
2002	12	11	15	25	282.93	6.89	12.52	143.61
2002	12	11	15	26	274.92	6.88	12.55	143.81
2002	12	11	15	27	272.92	6.85	12.66	144.93
2002	12	11	15	28	273.96	6.82	12.73	144.87
				AVERAGES	286.93	6.89	12.52	143.97

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	287.49
% O2	6.94
% CO2	12.52
SO2 PPM	140.88
LB/MMBTU NOx	0.493
LB/MMBTU SO2	0.336

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 7 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.5	0.0	0.8	0.1	0.0
ppm NOx	552.0	551.0	-0.1	557.0	0.5	0.6
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	12.9	-0.4	13.0	0.0	0.4
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.1	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.0	0.2	0.1	0.3	0.1	0.0
ppm SO2	161.0	165.0	1.3	165.0	1.3	0.0

RUN 7 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	15	43	277.93	6.69	12.82	148.18
2002	12	11	15	44	277.49	6.70	12.78	147.47
2002	12	11	15	45	274.94	6.69	12.76	146.70
2002	12	11	15	46	272.44	6.68	12.76	145.01
2002	12	11	15	47	276.93	6.72	12.66	142.67
2002	12	11	15	48	276.27	6.79	12.63	141.88
2002	12	11	15	49	271.92	6.88	12.52	141.07
2002	12	11	15	50	273.77	6.87	12.54	141.16
2002	12	11	15	51	275.59	6.90	12.55	140.55
2002	12	11	15	52	275.07	6.90	12.54	141.74
2002	12	11	15	53	274.27	6.88	12.69	143.60
2002	12	11	15	54	277.29	6.70	12.77	145.05
2002	12	11	15	55	273.36	6.69	12.75	145.73
2002	12	11	15	56	270.63	6.70	12.77	144.04
2002	12	11	15	57	274.08	6.73	12.72	144.36
2002	12	11	15	58	274.44	6.75	12.70	142.20
2002	12	11	15	59	277.77	6.90	12.60	140.29
2002	12	11	16	0	275.54	6.92	12.58	139.98
2002	12	11	16	1	273.88	6.88	12.63	142.61
2002	12	11	16	2	272.26	6.82	12.72	145.89
2002	12	11	16	3	272.40	6.83	12.72	146.86
2002	12	11	16	4	273.79	6.87	12.69	148.65
				AVERAGES	274.64	6.80	12.68	143.89

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	273.32
% O2	6.82
% CO2	12.68
SO2 PPM	140.38
LB/MMBTU NOx	0.463
LB/MMBTU SO2	0.331

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 8 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.8	0.1	0.7	0.1	0.0
ppm NOx	552.0	557.0	0.5	556.0	0.4	-0.1
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.1	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.0	0.3	0.1	0.3	0.1	0.0
ppm SO2	161.0	165.0	1.3	164.0	1.0	-0.3

RUN 8 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	16	27	280.98	6.92	12.52	146.20
2002	12	11	16	28	276.24	6.94	12.57	145.79
2002	12	11	16	29	277.43	6.86	12.69	147.72
2002	12	11	16	30	278.10	6.88	12.69	147.04
2002	12	11	16	31	279.89	6.82	12.70	144.89
2002	12	11	16	32	281.16	6.87	12.68	144.07
2002	12	11	16	33	279.57	6.89	12.66	143.74
2002	12	11	16	34	281.00	6.91	12.63	144.06
2002	12	11	16	35	283.36	6.92	12.63	143.75
2002	12	11	16	36	282.36	6.90	12.67	146.75
2002	12	11	16	37	275.48	6.90	12.68	149.02
2002	12	11	16	38	281.86	6.92	12.64	150.10
2002	12	11	16	39	280.34	6.96	12.64	148.90
2002	12	11	16	40	277.01	6.97	12.62	148.83
2002	12	11	16	41	282.14	6.99	12.53	146.27
2002	12	11	16	42	277.13	6.99	12.54	147.29
2002	12	11	16	43	281.19	6.98	12.54	147.96
2002	12	11	16	44	283.49	6.95	12.64	147.40
2002	12	11	16	45	280.06	6.97	12.61	145.22
2002	12	11	16	46	273.05	6.95	12.69	145.92
2002	12	11	16	47	274.50	6.91	12.64	145.12
2002	12	11	16	48	279.57	6.92	12.69	145.89
				AVERAGES	279.36	6.92	12.63	146.45

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	276.73
% O2	6.92
% CO2	12.63
SO2 PPM	143.30
LB/MMBTU NOx	0.471
LB/MMBTU SO2	0.339

ST. JOHNS RIVER POWER PARK
UNIT NO. 1

12/11/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	552.0	0.0	0.0	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	%O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.1	0.0	0.0	01410B139
	% CO2	17.30	17.4	0.1	0.5	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	161.0	0.0	0.0	92721AT27881-1
	ppm SO2	252.00	249.0	-3.0	-1.0	

RUN 9 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.7	0.1	0.9	0.1	0.0
ppm NOx	552.0	556.0	0.4	559.0	0.7	0.3
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.1	11.1	0.0	11.1	0.0	0.0
ppm SO2	0.0	0.3	0.1	0.5	0.2	0.1
ppm SO2	161.0	164.0	1.0	163.0	0.7	-0.3

RUN 9 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	11	17	3	271.91	6.70	12.67	150.54
2002	12	11	17	4	274.05	6.72	12.64	147.91
2002	12	11	17	5	274.26	6.88	12.53	149.29
2002	12	11	17	6	277.85	6.83	12.54	146.96
2002	12	11	17	7	277.98	6.84	12.54	146.87
2002	12	11	17	8	279.05	6.87	12.52	147.25
2002	12	11	17	9	276.19	6.88	12.51	148.74
2002	12	11	17	10	271.73	6.85	12.56	152.54
2002	12	11	17	11	274.06	6.88	12.51	152.20
2002	12	11	17	12	278.59	6.85	12.57	151.31
2002	12	11	17	13	278.46	6.90	12.44	150.16
2002	12	11	17	14	275.27	6.89	12.47	151.26
2002	12	11	17	15	276.42	6.87	12.50	150.30
2002	12	11	17	16	270.65	6.81	12.64	150.83
2002	12	11	17	17	273.59	6.79	12.62	150.84
2002	12	11	17	18	277.42	6.80	12.64	151.62
2002	12	11	17	19	279.42	6.86	12.54	150.57
2002	12	11	17	20	282.79	6.85	12.56	151.69
2002	12	11	17	21	281.78	6.84	12.59	152.55
2002	12	11	17	22	283.25	6.85	12.56	152.66
2002	12	11	17	23	285.55	6.86	12.59	154.52
2002	12	11	17	24	288.12	6.85	12.59	155.30
				AVERAGES	277.65	6.84	12.56	150.72

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	274.52
% O2	6.83
% CO2	12.56
SO2 PPM	148.39
LB/MMBTU NOx	0.470
LB/MMBTU SO2	0.353

Unit 2

ST. JOHNS RIVER POWER PARK
UNIT NO. 2 STACK

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 1 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.9	0.1	0.5	0.0	0.0
ppm NOx	551.0	546.0	-0.5	538.0	-1.3	-0.8
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	12.9	-0.4	12.9	-0.4	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.0	0.0	11.0	0.0	0.0
ppm SO2	0.0	0.1	0.0	0.3	0.1	0.1
ppm SO2	160.0	159.0	-0.3	159.0	-0.3	0.0

RUN 1 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	11	45	275.95	5.95	12.91	168.73
2002	12	10	11	46	271.89	5.96	12.91	168.35
2002	12	10	11	47	269.67	5.98	12.88	167.67
2002	12	10	11	48	273.01	5.97	12.88	165.51
2002	12	10	11	49	272.02	5.96	12.90	167.73
2002	12	10	11	50	271.39	5.95	12.90	168.12
2002	12	10	11	51	272.31	5.98	12.86	169.20
2002	12	10	11	52	276.28	5.98	12.87	171.39
2002	12	10	11	53	275.56	6.01	12.81	171.49
2002	12	10	11	54	276.20	6.09	12.76	167.80
2002	12	10	11	55	279.12	6.10	12.75	169.82
2002	12	10	11	56	278.68	6.09	12.83	169.21
2002	12	10	11	57	277.23	6.10	12.79	162.76
2002	12	10	11	58	275.09	6.01	12.84	167.54
2002	12	10	11	59	277.06	5.99	12.85	170.59
2002	12	10	12	0	275.19	5.99	12.87	172.36
2002	12	10	12	1	275.30	6.03	12.80	172.66
2002	12	10	12	2	280.32	6.12	12.74	173.76
2002	12	10	12	3	283.85	6.25	12.65	172.45
2002	12	10	12	4	284.77	6.26	12.67	168.41
2002	12	10	12	5	286.25	6.14	12.70	168.43
2002	12	10	12	6	284.04	6.09	12.82	165.68
				AVERAGES	276.87	6.04	12.82	169.07

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	281.63
%O2	6.09
% CO2	12.93
SO2 PPM	171.21
LB/MMBTU NOx	0.468
LB/MMBTU SO2	0.396

ST. JOHNS RIVER POWER PARK 12/10/02
UNIT NO. 2

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 2 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.5	0.0	0.7	0.1	0.0
ppm NOx	551.0	538.0	-1.3	540.0	-1.1	0.2
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	12.9	-0.4	12.9	-0.4	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.0	0.0	11.0	0.0	0.0
ppm SO2	0.0	0.3	0.1	0.2	0.1	0.0
ppm SO2	160.0	159.0	-0.3	160.0	0.0	0.3

RUN 2 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	12	36	283.94	5.99	12.96	179.39
2002	12	10	12	37	283.42	5.98	12.93	179.77
2002	12	10	12	38	284.68	6.05	12.89	178.68
2002	12	10	12	39	285.65	6.06	12.88	178.91
2002	12	10	12	40	284.42	6.02	12.91	178.10
2002	12	10	12	41	284.09	6.06	12.89	178.84
2002	12	10	12	42	284.53	6.12	12.76	178.51
2002	12	10	12	43	284.10	6.13	12.74	178.52
2002	12	10	12	44	283.82	6.03	12.81	178.35
2002	12	10	12	45	283.44	6.05	12.82	178.29
2002	12	10	12	46	282.75	6.04	12.81	174.61
2002	12	10	12	47	283.20	6.06	12.88	172.73
2002	12	10	12	48	279.32	6.01	12.91	171.29
2002	12	10	12	49	283.02	6.09	12.81	171.26
2002	12	10	12	50	285.04	6.07	12.86	171.23
2002	12	10	12	51	280.85	6.03	12.94	171.37
2002	12	10	12	52	277.58	6.04	12.96	170.24
2002	12	10	12	53	278.87	6.06	12.82	170.03
2002	12	10	12	54	280.11	6.05	12.82	170.56
2002	12	10	12	55	280.43	6.09	12.80	170.62
2002	12	10	12	56	282.61	6.12	12.75	170.10
2002	12	10	12	57	284.37	6.15	12.78	170.30
				AVERAGES	282.74	6.06	12.85	174.62

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	289.26
%O2	6.10
% CO2	12.97
SO2 PPM	176.29
LB/MMBTU NOx	0.479
LB/MMBTU SO2	0.406

ST. JOHNS RIVER POWER PARK
UNIT NO. 2

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 3 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.7	0.1	0.9	0.1	0.0
ppm NOx	551.0	540.0	-1.1	533.0	-1.8	-0.7
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	12.9	-0.4	12.9	-0.4	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.0	0.0	11.0	0.0	0.0
ppm SO2	0.0	0.2	0.1	0.4	0.1	0.1
ppm SO2	160.0	160.0	0.0	160.0	0.0	0.0

RUN 3 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	13	15	283.95	6.07	12.81	170.83
2002	12	10	13	16	282.93	6.05	12.87	170.21
2002	12	10	13	17	281.92	6.07	12.86	170.72
2002	12	10	13	18	278.24	6.02	12.90	171.61
2002	12	10	13	19	274.93	6.03	12.91	170.49
2002	12	10	13	20	276.45	6.13	12.83	170.94
2002	12	10	13	21	277.71	6.15	12.84	170.50
2002	12	10	13	22	278.92	6.14	12.89	170.29
2002	12	10	13	23	278.43	6.02	12.90	171.44
2002	12	10	13	24	279.84	6.05	12.91	169.45
2002	12	10	13	25	277.43	6.01	12.95	168.99
2002	12	10	13	26	279.94	6.14	12.77	167.05
2002	12	10	13	27	279.49	6.16	12.79	167.70
2002	12	10	13	28	281.22	6.12	12.83	169.99
2002	12	10	13	29	281.03	6.13	12.81	168.01
2002	12	10	13	30	278.01	6.12	12.81	167.94
2002	12	10	13	31	274.80	6.12	12.87	170.90
2002	12	10	13	32	276.94	6.18	12.77	169.05
2002	12	10	13	33	279.95	6.18	12.73	170.93
2002	12	10	13	34	279.71	6.12	12.80	169.73
2002	12	10	13	35	279.95	6.13	12.82	163.04
2002	12	10	13	36	276.39	6.14	12.84	163.81
				AVERAGES	279.01	6.10	12.84	169.26

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	286.67
%O2	6.15
% CO2	12.96
SO2 PPM	170.33
LB/MMBTU NOx	0.476
LB/MMBTU SO2	0.393

ST. JOHNS RIVER POWER PARK
UNIT NO. 2

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 4 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.9	0.1	0.0	0.0	-0.1
ppm NOx	551.0	533.0	-1.8	535.0	-1.6	0.2
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	12.9	-0.4	13.0	0.0	0.4
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.0	0.0	11.0	0.0	0.0
ppm SO2	0.0	0.4	0.1	0.4	0.1	0.0
ppm SO2	160.0	160.0	0.0	160.0	0.0	0.0

RUN 4 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	13	56	286.94	5.98	12.86	163.83
2002	12	10	13	57	282.56	5.95	12.93	166.03
2002	12	10	13	58	280.92	5.95	12.97	168.08
2002	12	10	13	59	279.31	5.95	12.93	166.85
2002	12	10	14	0	280.63	6.00	12.81	165.12
2002	12	10	14	1	285.40	6.12	12.72	165.86
2002	12	10	14	2	285.53	6.13	12.72	166.44
2002	12	10	14	3	282.05	6.09	12.84	161.59
2002	12	10	14	4	280.42	6.08	12.81	162.45
2002	12	10	14	5	280.33	6.12	12.75	168.22
2002	12	10	14	6	281.30	6.11	12.79	166.14
2002	12	10	14	7	279.49	6.03	12.85	166.15
2002	12	10	14	8	275.30	6.04	12.88	169.74
2002	12	10	14	9	275.77	5.98	12.91	169.62
2002	12	10	14	10	276.75	6.09	12.86	166.91
2002	12	10	14	11	277.27	6.08	12.80	167.85
2002	12	10	14	12	279.11	6.08	12.84	169.19
2002	12	10	14	13	277.61	6.07	12.87	164.57
2002	12	10	14	14	276.46	6.08	12.85	166.40
2002	12	10	14	15	277.92	6.10	12.80	162.57
2002	12	10	14	16	278.94	6.15	12.76	169.01
2002	12	10	14	17	279.11	6.15	12.75	169.98
				AVERAGES	279.96	6.06	12.83	166.48

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	289.17
%O2	6.08
% CO2	12.95
SO2 PPM	167.54
LB/MMBTU NOx	0.480
LB/MMBTU SO2	0.387

ST. JOHNS RIVER POWER PARK
UNIT NO. 2

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 5 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.0	0.0	0.5	0.0	0.1
ppm NOx	551.0	535.0	-1.6	540.0	-1.1	0.5
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.0	0.0	11.0	0.0	0.0
ppm SO2	0.0	0.4	0.1	0.5	0.2	0.0
ppm SO2	160.0	160.0	0.0	163.0	1.0	1.0

RUN 5 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	14	43	281.95	6.09	12.75	187.65
2002	12	10	14	44	280.17	6.10	12.72	185.10
2002	12	10	14	45	280.49	6.09	12.73	183.16
2002	12	10	14	46	278.63	6.08	12.75	178.51
2002	12	10	14	47	277.03	6.09	12.79	181.32
2002	12	10	14	48	276.20	6.03	12.86	185.52
2002	12	10	14	49	275.53	6.01	12.89	184.16
2002	12	10	14	50	275.56	5.99	12.81	180.68
2002	12	10	14	51	278.08	6.06	12.75	181.76
2002	12	10	14	52	278.77	6.07	12.73	181.68
2002	12	10	14	53	277.39	5.98	12.80	186.04
2002	12	10	14	54	277.44	6.00	12.77	187.31
2002	12	10	14	55	277.94	6.02	12.79	185.32
2002	12	10	14	56	277.83	6.01	12.80	181.42
2002	12	10	14	57	277.55	6.01	12.76	184.60
2002	12	10	14	58	276.41	6.01	12.76	186.28
2002	12	10	14	59	277.26	6.18	12.67	183.32
2002	12	10	15	0	278.79	6.02	12.74	182.34
2002	12	10	15	1	277.43	5.89	12.87	186.20
2002	12	10	15	2	278.28	6.01	12.78	187.35
2002	12	10	15	3	278.59	6.02	12.73	187.84
2002	12	10	15	4	276.60	6.02	12.79	185.52
				AVERAGES	277.91	6.04	12.78	184.23

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	285.28
%O2	6.03
% CO2	12.89
SO2 PPM	183.72
LB/MMBTU NOx	0.476
LB/MMBTU SO2	0.426

ST. JOHNS RIVER POWER PARK
UNIT NO. 2

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 6 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.5	0.0	0.4	0.0	0.0
ppm NOx	551.0	540.0	-1.1	538.0	-1.3	-0.2
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.0	0.0	11.0	0.0	0.0
ppm SO2	0.0	0.5	0.2	0.4	0.1	0.0
ppm SO2	160.0	163.0	1.0	163.0	1.0	0.0

RUN 6 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	15	20	276.94	5.98	12.88	187.40
2002	12	10	15	21	275.94	5.99	12.82	186.82
2002	12	10	15	22	276.73	5.99	12.82	187.08
2002	12	10	15	23	276.28	5.98	12.88	186.99
2002	12	10	15	24	276.20	5.89	12.85	186.11
2002	12	10	15	25	277.31	5.88	12.85	187.68
2002	12	10	15	26	282.11	6.02	12.74	186.35
2002	12	10	15	27	279.25	6.03	12.77	189.66
2002	12	10	15	28	277.04	5.99	12.83	185.31
2002	12	10	15	29	278.42	5.99	12.85	187.33
2002	12	10	15	30	275.96	6.00	12.86	186.87
2002	12	10	15	31	276.42	6.01	12.82	186.87
2002	12	10	15	32	274.76	5.82	12.96	189.90
2002	12	10	15	33	273.28	5.80	12.95	191.08
2002	12	10	15	34	278.02	6.01	12.87	184.57
2002	12	10	15	35	278.36	6.00	12.81	187.07
2002	12	10	15	36	277.37	6.12	12.76	179.51
2002	12	10	15	37	275.45	5.99	12.80	181.24
2002	12	10	15	38	274.46	5.88	12.91	185.55
2002	12	10	15	39	270.74	5.78	12.99	184.23
2002	12	10	15	40	272.35	5.80	12.96	183.68
2002	12	10	15	41	273.37	5.89	12.95	183.18
				AVERAGES	276.22	5.95	12.86	186.11

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	282.65
%O2	5.94
% CO2	12.98
SO2 PPM	183.89
LB/MMBTU NOx	0.468
LB/MMBTU SO2	0.423

ST. JOHNS RIVER POWER PARK
UNIT NO. 2

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 7 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.4	0.0	0.7	0.1	0.0
ppm NOx	551.0	538.0	-1.3	542.0	-0.9	0.4
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.0	0.0	11.1	0.5	0.5
ppm SO2	0.0	0.4	0.1	0.6	0.2	0.1
ppm SO2	160.0	163.0	1.0	163.0	1.0	0.0

RUN 7 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	16	1	274.31	6.02	12.79	176.02
2002	12	10	16	2	277.23	5.98	12.82	182.30
2002	12	10	16	3	279.56	6.11	12.71	183.06
2002	12	10	16	4	279.28	6.03	12.76	183.28
2002	12	10	16	5	277.64	5.99	12.83	178.89
2002	12	10	16	6	277.34	5.79	12.92	178.89
2002	12	10	16	7	276.52	5.82	12.90	179.67
2002	12	10	16	8	274.86	5.81	12.93	181.44
2002	12	10	16	9	273.65	5.72	13.00	177.49
2002	12	10	16	10	276.20	5.96	12.86	175.07
2002	12	10	16	11	280.07	6.10	12.73	174.68
2002	12	10	16	12	277.74	5.97	12.84	180.52
2002	12	10	16	13	274.06	5.87	12.93	184.48
2002	12	10	16	14	271.29	5.82	12.94	183.74
2002	12	10	16	15	273.81	5.96	12.83	177.21
2002	12	10	16	16	274.48	5.98	12.81	176.56
2002	12	10	16	17	277.22	6.01	12.76	179.05
2002	12	10	16	18	277.29	6.03	12.78	181.07
2002	12	10	16	19	279.28	6.04	12.79	177.97
2002	12	10	16	20	277.44	5.91	12.89	176.00
2002	12	10	16	21	278.27	5.91	12.84	175.98
2002	12	10	16	22	277.64	5.97	12.80	177.81
				AVERAGES	276.60	5.95	12.84	179.15

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	282.47
%O2	5.94
% CO2	12.90
SO2 PPM	177.00
LB/MMBTU NOx	0.471
LB/MMBTU SO2	0.410

ST. JOHNS RIVER POWER PARK
UNIT NO. 2

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 8 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	0.7	0.1	1.0	0.1	0.0
ppm NOx	551.0	542.0	-0.9	535.0	-1.6	-0.7
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.1	0.5	11.1	0.5	0.0
ppm SO2	0.0	0.6	0.2	0.5	0.2	0.0
ppm SO2	160.0	163.0	1.0	163.0	1.0	0.0

RUN 8 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	16	38	275.88	5.99	12.89	180.77
2002	12	10	16	39	275.56	6.01	12.82	177.89
2002	12	10	16	40	273.26	5.87	12.91	180.15
2002	12	10	16	41	272.90	5.98	12.87	179.96
2002	12	10	16	42	273.87	6.00	12.83	181.75
2002	12	10	16	43	272.41	5.81	12.90	185.83
2002	12	10	16	44	271.31	5.86	12.93	189.33
2002	12	10	16	45	271.02	5.87	12.97	186.81
2002	12	10	16	46	269.79	5.71	13.02	185.00
2002	12	10	16	47	271.45	5.85	12.93	183.17
2002	12	10	16	48	273.31	5.99	12.81	184.63
2002	12	10	16	49	273.44	6.01	12.79	184.93
2002	12	10	16	50	271.11	5.80	12.94	183.15
2002	12	10	16	51	271.71	5.81	12.94	183.59
2002	12	10	16	52	272.93	5.88	12.84	184.37
2002	12	10	16	53	273.27	5.85	12.89	187.36
2002	12	10	16	54	273.31	5.79	12.91	188.36
2002	12	10	16	55	272.06	5.96	12.85	183.33
2002	12	10	16	56	272.36	5.97	12.86	179.53
2002	12	10	16	57	273.65	5.98	12.85	178.38
2002	12	10	16	58	271.84	5.97	12.85	179.93
2002	12	10	16	59	270.48	5.89	12.95	186.09
				AVERAGES	272.59	5.90	12.89	183.38

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	278.99
%O2	5.90
% CO2	12.89
SO2 PPM	181.20
LB/MMBTU NOx	0.465
LB/MMBTU SO2	0.420

ST. JOHNS RIVER POWER PARK
UNIT NO. 2

12/10/02

ANALYZER RESPONSE

SPAN SETTING	GAS UNITS	TANK VALUE	ANALYZER VALUE	DIFF PPM	% SPAN	ANALYZER SERIAL #
	ppm NOx	0.00	0.1	0.1	0.0	
1000	ppm NOx	552.00	551.0	-1.0	-0.1	42CHL 72772-372
	ppm NOx	865.00	875.0	10.0	1.0	
	% O2	0.00	0.0	0.0	0.0	
25	%O2	12.99	13.0	0.0	0.0	1420/B153
	%O2	21.98	22.0	0.0	0.1	
	% CO2	0.00	0.0	0.0	0.0	
20	% CO2	11.10	11.0	-0.1	-0.5	01410B139
	% CO2	17.30	17.3	0.0	0.0	
	ppm SO2	0.00	0.0	0.0	0.0	
300	ppm SO2	161.00	160.0	-1.0	-0.3	92721AT27881-1
	ppm SO2	252.00	251.0	-1.0	-0.3	

RUN 9 — SYSTEM BIAS AND SYSTEM DRIFT DATA

GAS UNITS	ANALYZER VALUE	PRETEST CHECK	% SPAN	POSTTEST CHECK	% SPAN	% DRIFT
ppm NOx	0.1	1.0	0.1	0.9	0.1	0.0
ppm NOx	551.0	538.0	-1.3	541.0	-1.0	0.3
% O2	0.0	0.0	0.0	0.0	0.0	0.0
% O2	13.0	13.0	0.0	13.0	0.0	0.0
% CO2	0.0	0.0	0.0	0.0	0.0	0.0
% CO2	11.0	11.1	0.5	11.1	0.5	0.0
ppm SO2	0.0	0.5	0.2	0.5	0.2	0.0
ppm SO2	160.0	163.0	1.0	161.0	0.3	-0.7

RUN 9 — UNCORRECTED ANALYZER DATA

Year	Month	Day	Hour	Minute	NOx PPM	% O2	% CO2	SO2 PPM
2002	12	10	17	17	247.65	5.86	12.88	187.97
2002	12	10	17	18	244.27	5.90	12.82	186.55
2002	12	10	17	19	242.91	5.87	12.89	182.91
2002	12	10	17	20	243.11	5.80	12.92	180.28
2002	12	10	17	21	243.97	5.87	12.86	180.58
2002	12	10	17	22	245.47	5.86	12.89	182.35
2002	12	10	17	23	240.47	5.87	12.97	186.10
2002	12	10	17	24	240.72	5.87	12.94	185.97
2002	12	10	17	25	255.67	5.89	12.88	179.03
2002	12	10	17	26	267.47	5.91	12.81	175.38
2002	12	10	17	27	269.68	5.91	12.81	176.00
2002	12	10	17	28	268.35	5.90	12.83	178.99
2002	12	10	17	29	266.08	5.89	12.92	181.23
2002	12	10	17	30	267.44	5.95	12.84	175.15
2002	12	10	17	31	269.20	6.01	12.75	177.33
2002	12	10	17	32	268.69	5.96	12.85	181.35
2002	12	10	17	33	266.94	5.99	12.80	184.98
2002	12	10	17	34	267.70	5.98	12.84	185.37
2002	12	10	17	35	268.29	5.99	12.85	179.40
2002	12	10	17	36	267.25	5.89	12.90	176.35
2002	12	10	17	37	266.47	5.88	12.88	173.68
2002	12	10	17	38	267.47	5.87	12.85	169.03
				AVERAGES	258.42	5.91	12.86	180.27

FUEL FACTOR	1800

CORRECTED RESULTS	
NOx PPM	263.90
%O2	5.90
% CO2	12.86
SO2 PPM	179.21
LB/MMBTU NOx	0.441
LB/MMBTU SO2	0.416

APPENDIX 2
Reference Method Quality Assurance

AGA

AGA Gas, Inc.

CERTIFICATE OF ANALYSIS
EPA PROTOCOL
PERFORMED ACCORDING TO EPA-600/R-97/121, PROCEDURE G1

NOTICE: THIS CYLINDER IS NOT TO BE USED WHEN PRESSURE IS UNDER 150 psig

MANUFACTURED AND CERTIFIED AT:

AGA Gas inc.
Specialty & Medical Gas Division
6421 Monclova Road
Maumee, Ohio 43537
419-893-7226

ANALYTICAL AND CYLINDER DATA:

Certified Component	Concentration and Uncertainty	Date of Certification
Nitric Oxide	552 ± 6 ppm	3/13/2001
Sulfur Dioxide	161 ± 2 ppm	3/13/2001
Carbon Monoxide	1090 ± 10 ppm	3/13/2001
Carbon Dioxide	11.1 ± 0.1%	3/13/2001

Analyzed for Reference Use Only	Concentration	Date of Analysis
NOX	552 ppm	3/13/2001

Production Number: 100032368
Cylinder Number: CC98508
Expiration Date: 3/13/2003

Cylinder Pressure (psi): 2000
Balance Gas: Nitrogen
CGA: 660

REFERENCE STANDARDS DATA (TRACEABLE TO NIST AND NMI STANDARDS):

Reference Standard Number	Cylinder Number	Concentration and Component	Expiration Date
GMIS	CC84214	2522 ppm Carbon Monoxide	3/21/2002
GMIS	DP009338	490.5 ppm Carbon Monoxide	3/21/2002
GMIS	CC59278	2075 ppm Nitric Oxide	3/21/2002
GMIS	CC13748	496.1 ppm Nitric Oxide	3/21/2002
GMIS	CC314	494.0 ppm Sulfur Dioxide	3/21/2002
GMIS	CC59244	100.7 ppm Sulfur Dioxide	3/21/2002
NTRM	CC59213	19.91% Carbon Dioxide	8/1/2005
NTRM	CC59178	6.90% Carbon Dioxide	10/2002

INSTRUMENTATION DATA:

Instrument Model	Serial Number	Date of Last Calibration	Analytical Principle
Horiba CLA-510SS	569466055	3/13/2001	Chemiluminescence
Horiba VIA-510	568279012	3/13/2001	Non-Dispersive Infared
Horiba VIA-510	568849043	3/13/2001	Non-Dispersive Infared

Analytical Report Approved By: Kathy Sondergaard

AGA

AGA Gas, Inc.

CERTIFICATE OF ANALYSIS
EPA PROTOCOL
PERFORMED ACCORDING TO EPA-600/R-97/121, PROCEDURE G1

NOTICE: THIS CYLINDER IS NOT TO BE USED WHEN PRESSURE IS UNDER 150 psig

MANUFACTURED AND CERTIFIED AT:

AGA Gas inc.
Specialty & Medical Gas Division
6421 Monclova Road
Maumee, Ohio 43537
419-893-7226

ANALYTICAL AND CYLINDER DATA:

Certified Component	Concentration and Uncertainty	Date of Certification
Nitric Oxide	865 ± 8 ppm	3/13/2001
Sulfur Dioxide	252 ± 3 ppm	3/13/2001
Carbon Monoxide	1620 ± 16 ppm	3/13/2001
Carbon Dioxide	17.3 ± 0.2%	3/13/2001

Analyzed for Reference Use Only	Concentration	Date of Analysis
NOX	867 ppm	3/13/2001

Production Number: 100032367
Cylinder Number: CC41849
Expiration Date: 3/13/2003

Cylinder Pressure (psi): 2000
Balance Gas: Nitrogen
CGA: 660

REFERENCE STANDARDS DATA (TRACEABLE TO NIST AND NMI STANDARDS):

Reference Standard Number	Cylinder Number	Concentration and Component	Expiration Date
GMIS	CC84214	2522 ppm Carbon Monoxide	3/21/2002
GMIS	DP009338	490.5 ppm Carbon Monoxide	3/21/2002
GMIS	CC59278	2075 ppm Nitric Oxide	3/21/2002
GMIS	CC13748	496.1 ppm Nitric Oxide	3/21/2002
GMIS	CC314	494.0 ppm Sulfur Dioxide	3/21/2002
GMIS	CC59244	100.7 ppm Sulfur Dioxide	3/21/2002
NTRM	CC59213	19.91% Carbon Dioxide	8/1/2005
NTRM	CC59178	6.90% Carbon Dioxide	10/2002

INSTRUMENTATION DATA:

Instrument Model	Serial Number	Date of Last Calibration	Analytical Principle
Horiba CLA-510SS	569466055	3/13/2001	Chemiluminescence
Horiba VIA-510	568279012	3/13/2001	Non-Dispersive Infared
Horiba VIA-510	568849043	3/13/2001	Non-Dispersive Infared

Analytical Report Approved By: Kelly Sandoval

AGA Gas, Inc.
6421 Monclova Road
Maumee, Ohio 43537

Telephone:
(419) 893-7226

Fax:
(419) 893-6411

AGA

AGA Gas, Inc.

CERTIFICATE OF ANALYSIS
EPA PROTOCOL
PERFORMED ACCORDING TO EPA-600/R-97/121, PROCEDURE G1

NOTICE: THIS CYLINDER IS NOT TO BE USED WHEN PRESSURE IS UNDER 150 psig

MANUFACTURED AND CERTIFIED AT:

AGA Gas inc.
Specialty & Medical Gas Division
6421 Monclova Road
Maumee, Ohio 43537
419-893-7226

ANALYTICAL AND CYLINDER DATA:

Certified Component	Concentration and Uncertainty	Date of Certification
Nitric Oxide	537 ± 5 ppm	3/15/2001
Sulfur Dioxide	1870 ± 19 ppm	3/15/2001
Carbon Monoxide	1090 ± 11 ppm	3/15/2001
Carbon Dioxide	11.3 ± 0.1%	3/15/2001

Analyzed for Reference Use Only	Concentration	Date of Analysis
NOX	537 ppm	3/15/2001

Production Number: 100032364
Cylinder Number: CC20075
Expiration Date: 3/15/2003

Cylinder Pressure (psi): 2000
Balance Gas: Nitrogen
CGA: 660

REFERENCE STANDARDS DATA (TRACEABLE TO NIST AND NMI STANDARDS):

Reference Standard Number	Cylinder Number	Concentration and Component	Expiration Date
GMIS	CC84214	2522 ppm Carbon Monoxide	3/21/2002
GMIS	DP009338	490.5 ppm Carbon Monoxide	3/21/2002
GMIS	CC13748	496.1 ppm Nitric Oxide	3/21/2002
NTRM	CC59166	13.78% Carbon Dioxide	10/2002
NTRM	CC59178	6.90% Carbon Dioxide	10/2002
GMIS	CC22753	5140 ppm Sulfur Dioxide	3/21/2002
GMIS	CC59241	1494 ppm Sulfur Dioxide	3/21/2002

INSTRUMENTATION DATA:

Instrument Model	Serial Number	Date of Last Calibration	Analytical Principle
Horiba CLA-510SS	569466055	3/15/2001	Chemiluminescence
Horiba VIA-510	568384012	3/15/2001	Non-Dispersive Infared (NDIR)
Horiba VIA-510	569905062	3/15/2001	Non-Dispersive Infared (NDIR)
Horiba VIA-510	568849043	3/15/2001	Non-Dispersive Infared (NDIR)

Analytical Report Approved By: Kathy Sandusky

AGA
Member of the Linde Gas Group

Linde

Certificate of Analysis

EPA Protocol

Performed according to EPA-600/R-97/121, Procedure G1

Notice: This Cylinder is not to be used when pressure is under 150 psig.

Manufactured and certified at:

AGA Gas, Inc.
Maumee Specialty Gas Plant
6421 Monclova Road
MAUMEE OH 43537
419-893-7226

Produced for customer:

CYLINDER/HARDWARE ACCT
HOLOX LTD
1500 INDIAN TR RD #C
NORCROSS GA 30091
770-925-4640

Material:	2205 EPA MISC 5 COMPONENT	**Blend Tolerance:**	5 % Relative
Production #:	100053309	**Store/Use Temp:**	35 to 90 F
Batch #:	02499F2250JC	**Blend Type:**	EPA Protocol
Cylinder #:	CC59014	**Cyl. Pressure:**	2000 psig
Expiration Date:	7/11/2004	**Balance Gas:**	Nitrogen
Shelf Life:	24 months	**CGA:**	660
		Analytical Accuracy:	1.00 % Relative

CAS #	Certified Component	Requested Concentration	Concentration and Uncertainty	Date of Certification
7446-09-5	Sulfur Dioxide	1925	1870 +/- 19 ppm ✓	07/11/2002
10102-43-9	Nitric Oxide	550	530 +/- 5 ppm	07/11/2002
124-38-9	Carbon Dioxide	11	11.4 +/- 0.1 % ✓	07/11/2002
630-08-0	Carbon Monoxide	1100	1046 +/- 10 ppm	07/11/2002
7727-37-9	Nitrogen		Balance	07/11/2002

CAS #	Analyzed (For Ref Use Only)	Concentration	Analysis Date
N/A 2	NOx	530 ppm	07/11/2002

CAS #	Reference Standard	Cylinder/Standard #	Concentration	Expire Date
10102-43-9	Nitric Oxide	CC73446 , GMIS	1013.6 ppm	07/01/2002
124-38-9	Carbon Dioxide	CC59230 , NTRM	19.91 %	08/01/2005
10102-43-9	Nitric Oxide	CC13773 , GMIS	505.7 ppm	04/19/2004
630-08-0	Carbon Monoxide	CC27004 , GMIS	506.8 ppm	05/15/2004
124-38-9	Carbon Dioxide	CC73492 , NTRM	3.912 %	10/01/2002
630-08-0	Carbon Monoxide	CC55144 , GMIS	2502 ppm	

Instrument	Serial #	Analytical Principle	Calibration Date
Horiba VIA-510	569466011	Non-Dispersive Infrared	06/28/2002
Horiba VIA-510	568849043	Non-Dispersive Infrared	06/27/2002
Horiba CLA-510SS	569466055	Chemiluminescence	06/24/2002
Horiba VIA-510	569905062	Non-Dispersive Infrared	07/01/2002

This product is manufactured using equipment which has been calibrated with NIST traceable, or equivalent, standards, weights, or equipment.

Analytical report approved by Roy Yoder

Roy Yoder

HiQ Analysis Certificate

AGA Gas, Inc.

Linde

CERTIFICATE OF ANALYSIS

EPA PROTOCOL

PERFORMED ACCORDING TO EPA-600/R-97/121, PROCEDURE G1

NOTICE: THIS CYLINDER IS NOT TO BE USED WHEN PRESSURE IS UNDER 150 psig

MANUFACTURED AND CERTIFIED AT:

AGA Gas Inc.
Specialty & Medical Gas Division
6421 Monclova Road
Maumee, Ohio 43537
419-893-7226

ANALYTICAL AND CYLINDER DATA:

Certified Components	Concentration and Uncertainty	Date of Certification
Nitric Oxide	844 ± 8 ppm	5/31/2001
Sulfur Dioxide	2860 ± 29 ppm ✓	5/31/2001
Carbon Monoxide	1680 ± 17 ppm	5/31/2001
Carbon Dioxide	17.2 ± 0.2% ✓	5/31/2001

Analyzed for Reference Use Only	Concentration	Date of Analysis
NOX	845 ppm	5/31/2001

Production Number: 100036016
Cylinder Number: CC97446
Expiration Date: 5/31/2003

Cylinder Pressure (psi): 2000
Balance Gas: Nitrogen
CGA: 660

REFERENCE STANDARDS DATA (TRACEABLE TO NIST AND NMI STANDARDS):

Reference Standard Number	Cylinder Number	Concentration and Component	Expiration Date
GMIS	CC13934	993.8 ppm Nitric Oxide	3/21/2002
GMIS	CC30193	2998 ppm Sulfur Dioxide	3/21/2002
GMIS	DP009338	490.5 ppm Carbon Monoxide	3/21/2002
GMIS	CC84214	2522.2 ppm Carbon Monoxide	3/21/2002
NTRM	CC59225	19.91% Carbon Dioxide	8/1/2005

INSTRUMENTATION DATA:

Instrument Model	Serial Number	Date of Last Calibration	Analytical Principle
Horiba CLA-510SS	569466055	5/31/2001	Chemiluminescence
Horiba VIA-510	569905062	5/31/2001	Non-Dispersive Infared
Horiba VIA-510	568384012	5/31/2001	Non-Dispersive Infared
Horiba VIA-510	568849043	5/31/2001	Non-Dispersive Infared

Analytical Report Approved By: Kelly Arnauld

BOC GASES

Assay Laboratory
BOC GASES
1075 Cinclare Drive
Port Allen,LA 70767
(225) 388 0900

CERTIFICATE OF ANALYSIS
EPA Protocol Gas

CUSTOMER
COSTAL AIR CONSULTING
C/O BOC GASES
1329 CENTRAL FLORIDA PARKWAY
ORLANDO, FL 328379262

CUSTOMER PO NO: VERBAL

Previous Certification Date(s):

CYLINDER NO	:	CC42077
EXPIRATION DATE	:	04/16/04
CERTIFICATION DATE	:	04/17/01
CYLINDER PRESSURE	:	1800 psig
PRODUCT ID NO	:	03000765
LOT NUMBER	:	437958

ANALYTICAL INFORMATION

his calibration standard has been certified per the 1997 EPA Traceability Protocol, Document EPA-600/97/121, Using Procedure G1. All Values certified be +/-1% NIST Traceable.

Do Not Use This Cylinder below 150 psig. i.e. 1.0 Megapascal

Analytical Results

Components	Requested Mixture	Certified Concentration	Analytical Uncertainty	Assay Dates
CARBON DIOXIDE	17.00 %	16.77 %	+/-1.00% NIST Traceable	04/16/01
OXYGEN	22.00 %	21.98 %	+/-2.00% NIST Traceable	04/17/01
NITROGEN	BALANCE GAS			

CALIBRATION STANDARDS USED IN ASSAY

Type	LOT ID	Cylinder No	Concentration	Expiration
NTRM 82745X	00060516	XC018960B	19.69 +/- 0.16 % CO2/N2	02/01/04
SRM 2659A	71-C-12	CAL014480	20.92 +/- 0.11 % O2/N2	07/14/04

ANALYTICAL INSTRUMENTS USED IN ASSAY

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Rosemount/880A	NonDispersive Infrared	03/30/01
Siemens\Oxymat 5E	Paramagnetic	04/11/01

The oxygen concentration was certified using Procedure G2. The oxygen value is certified to be +/- 2% NIST Traceable.

COASTAL AIR CONSULTING, INC.
EPA Method 5
Meter Box Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Date:	8/16/2002
Box:	CAC 2
Serial:	70

Barometric Pressure:	30.12	(in Hg)
Theoretical Critical Vacuum:	14.21	(in Hg)

IMPORTANT For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

DRY GAS METER READINGS							Critical Orifice Readings			AMBIENT TEMPERATURE		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Temp Initial (deg F)	Temp Final (deg F)	Orifice Serial #	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
0.29	16	949.737	954.765	5.028	88	90	40	0.243	24.5	83	83	83
0.64	11	955.153	960.261	5.108	90	91	48	0.357	23.5	83	83	83
1.1	9	961.501	966.994	5.493	92	93	55	0.471	22	84	84	84
1.9	7	967.701	973.162	5.461	93	94	63	0.600	20.5	84	84	84
3.7	6	974.202	980.78	6.578	94	95	73	0.841	18	84	84	84

CORRECTED VOLUME	
DRY GAS METER Vm(std) (cu ft)	ORIFICE Vcr(std) (cu ft)
4.869	5.026
4.938	5.076
5.297	5.474
5.266	5.424
6.360	6.516

DRY GAS METER CALIBRATION FACTOR Y	
Value	Variation
1.032	0.002
1.028	-0.0016
1.034	0.00392
1.030	0.00027
1.025	-0.005
Average 1.030	

ORIFICE CALIBRATION FACTOR dH@	
Value (in H20)	Variation (in H20)
1.653	-0.059
1.691	-0.022
1.672	-0.040
1.780	0.06792
1.764	0.05224
Average 1.712	

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: Stephen C. Webb Date: 8/16/02

$$V_{m(std)} = 17.64\,(V_m)\frac{P_b + \frac{\Delta H}{13.6}}{t_m + 460}$$

$$V_{cr(std)} = K'\frac{P_b\theta}{\sqrt{t_{amb} + 460}}$$

$$Y = \frac{V_{cr(std)}}{V_{m(std)}}$$

$$\Delta H_@ = \Delta H\left(\frac{.75\theta}{V_{cr(std)}}\right)^2$$

Coastal Air Consulting, Inc.
EPA Method 5
Meter Box Calibration
Post-Test Orifice Method

Date:	12/18/2002
Box:	CAC 2
Serial:	70

Barometric Pressure:	30.08	(in Hg)
Theoretical Critical Vacuum:	14.19	(in Hg)

IMPORTAI For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTAI The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

DRY GAS METER READINGS							Critical Orifice Readings			AMBIENT TEMPERATURE		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Temp Initial (deg F)	Temp Final (deg F)	Orifice Serial #	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
3.7	10	4.992	16.174	11.182	79	79	63	0.841	18.5	74	74	74
3.7	10	16.174	27.180	11.006	79	79	63	0.841	18.5	74	73	73.5
3.7	10	27.180	38.002	10.822	78	77	63	0.841	18.5	72	72	72

CORRECTED VOLUME	
DRY GAS METER Vm(std) (cu ft)	ORIFICE Vcr(std) (cu ft)
11.108	10.946
10.933	10.951
10.780	10.966

DRY GAS METER CALIBRATION FACTOR Y	
Value	Variation
0.985	-0.016
1.002	0.0002
1.017	0.0158

ORIFICE CALIBRATION FACTOR dH@	
Value (in H20)	Variation (in H20)
1.737	0.003
1.735	0.001
1.731	-0.004

Average	1.001

Average	1.734

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: Stephen C. Webb Date: 12-18-02

$$V_{m(std)} = 17.64 (V_m) \frac{P_b + \frac{\Delta H}{13.6}}{t_m + 460}$$

$$V_{cr(std)} = K' \frac{P_b \theta}{\sqrt{t_{amb} + 460}}$$

$$Y = \frac{V_{cr(std)}}{V_{m(std)}}$$

$$\Delta H_@ = \Delta H \left(\frac{.75\theta}{V_{cr(std)}} \right)^2$$

Coastal Air Consulting, Inc.
EPA Method 5
Meter Box Calibration
Post-Test Orifice Method

Date:	12/18/2002
Box:	CAC 2
Serial:	70

Barometric Pressure:	30.08	(in Hg)
Theoretical Critical Vacuum:	14.19	(in Hg)

IMPORTA! For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTA! The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

DRY GAS METER READINGS							Critical Orifice Readings					
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Temp Initial (deg F)	Temp Final (deg F)	Orifice Serial #	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	AMBIENT TEMPERATURE Initial (deg F)	Final (deg F)	Average (deg F)
1.8	10	966.018	973.781	7.763	80	80	63	0.600	21	76	75	75.5
1.8	10	973.781	981.564	7.783	80	79	63	0.600	21	75	74	74.5
1.8	10	981.564	989.336	7.772	79	79	63	0.600	21	74	74	74

CORRECTED VOLUME	
DRY GAS METER Vm(std) (cu ft)	ORIFICE Vcr(std) (cu ft)
7.662	7.799
7.688	7.806
7.685	7.810

DRY GAS METER CALIBRATION FACTOR Y	
Value	Variation
1.018	0.001
1.015	-0.0012
1.016	-0.0002

ORIFICE CALIBRATION FACTOR dH@	
Value (in H20)	Variation (in H20)
1.665	0.003
1.661	-0.001
1.660	-0.002

Average	1.017

Average	1.662

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: Stephen C. Welch Date: 12-18-02

$$V_{m(std)} = 17.64 (V_m) \frac{P_b + \frac{\Delta H}{13.6}}{t_m + 460}$$

$$V_{cr(std)} = K' \frac{P_b \theta}{\sqrt{t_{amb} + 460}}$$

$$Y = \frac{V_{cr(std)}}{V_{m(std)}}$$

$$\Delta H_@ = \Delta H \left(\frac{.75\theta}{V_{cr(std)}} \right)^2$$

DRY GAS METER
THERMOCOUPLE CALIBRATION DATA

Frequency: Annual (two point) calibration.

Standard: ASTM Hg in glass thermometer, NBS ice point reference chamber, and potentiometer.

Reference: EPA Method 5, Section 2.1.8

Procedure: 1. Place ASTM thermometer and dry gas meter thermocouples (inlet and outlet) in hot water bath where the temperature is maintained between 100 F and 125 F. When the temperature has stabilized the thermocouple and ASTM thermometer are compared.

2. Remove ASTM thermometer and thermocouples from the warm bath, dry thoroughly, and place in a room with constant temperature and humidity. Allow a period of stabilization and record the readings.

Tolerance: +/- 5.4 F

Therm ID No.	Location	Reference Temp. (F) 1	Reference Temp. (F) 2	Observed Temp. (F) 1	Observed Temp. (F) 2	Difference (F) 1	Difference (F) 2
1 MB	Meter Box No. CAC1	120.0	70.0	120.0	70.0	0.0	0.0
2 MB	Meter Box No. CAC1	120.0	70.0	120.0	70.0	0.0	0.0
1 MB	Meter Box No. CAC2	120.0	70.0	120.0	70.0	0.0	0.0
2 MB	Meter Box No. CAC2	120.0	70.0	120.0	70.0	0.0	0.0

CALIBRATED BY: S. Webb
DATE: 01/02/02
DUE: 01/02/03

FILE:MBTCCAL.XLS

SAMPLE HEAD HOOK-UP THERMOCOUPLE CALIBRATION PROCEDURES

FREQUENCY: Quarterly (two point calibration)

1. Place ASTM thermometer and sample head hook-up thermocouple in ice bath, allow time for both to equilibrate. Compare and record readings after they have stabilized.

2. Remove both the ASTM thermometer and sample head hook-up thermocouple. Dry off thoroughly and place in a room with constant temperature and humidity. Allow a period of stabilization and record readings.

Acceptance Standard: The test thermocouple (sample head hook up) shall be acceptable if both temperatures are within + / - 2 F of the ASTM standard thermometer.

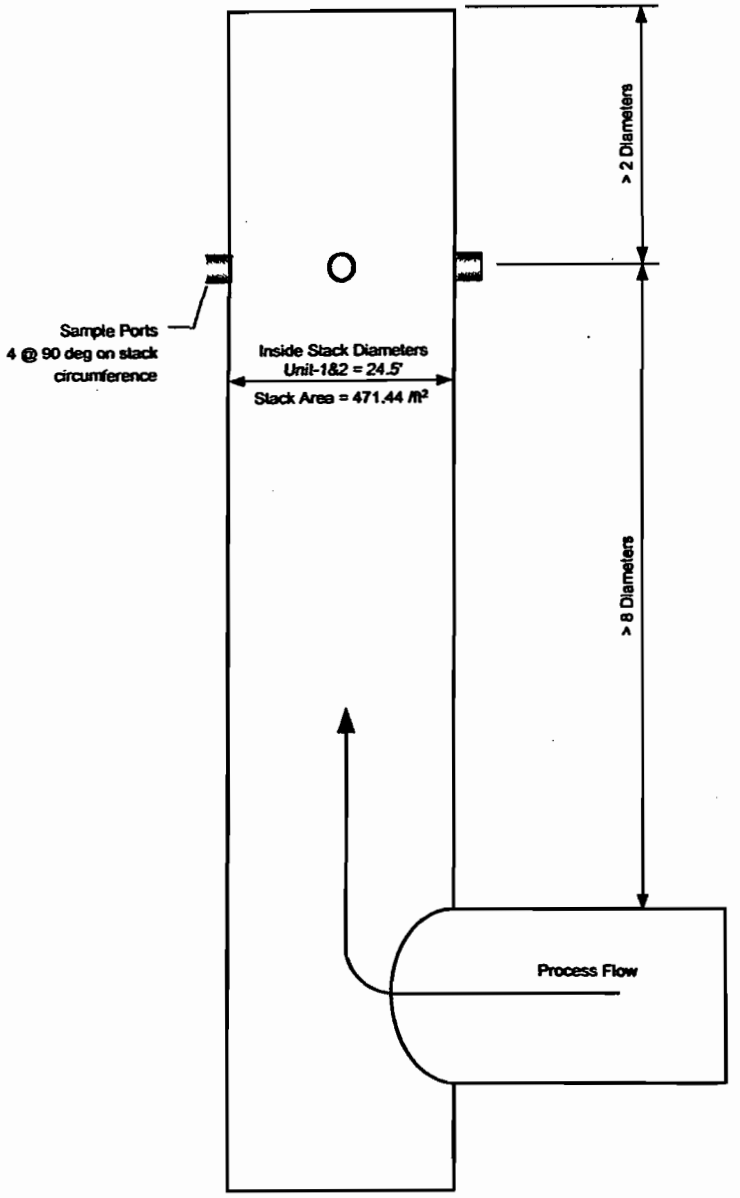
Note: If the thermocouple is not within the tolerances, discard and calibrate one which will be satisfactory.

Thermo. I.D. No.		Location	Reference Temp. (F) 1	2	Observed Temp. (F) 1	2	Difference Temp. (F) 1	2
A		SHH-A	32.0	65.0	32.0	65.0	0.0	0.0
B		SHH-B	32.0	65.0	32.0	65.0	0.0	0.0
							0.0	0.0
							0.0	0.0
							0.0	0.0
							0.0	0.0

Calibrated by: S. C. Webb
Date: 1/2/02
Due: 1/2/03

FILE:SHHTHCAL.XLS

APPENDIX 3
Figures



SAMPLE POINT PROFILE
Particulate, CEMS & FLOW

UNIT 1 Particulate

1. 84.0"
2. 42.9"
3. 12.9"

UNIT 1 CEMS

1. 1.3'
2. 4.0'
3. 6.5'

UNIT 1 Flow

1. 95.0"
2. 57.0"
3. 30.9"
4. 9.4"

UNIT 2 Particulate

1. 84.0"
2. 42.9"
3. 12.9"

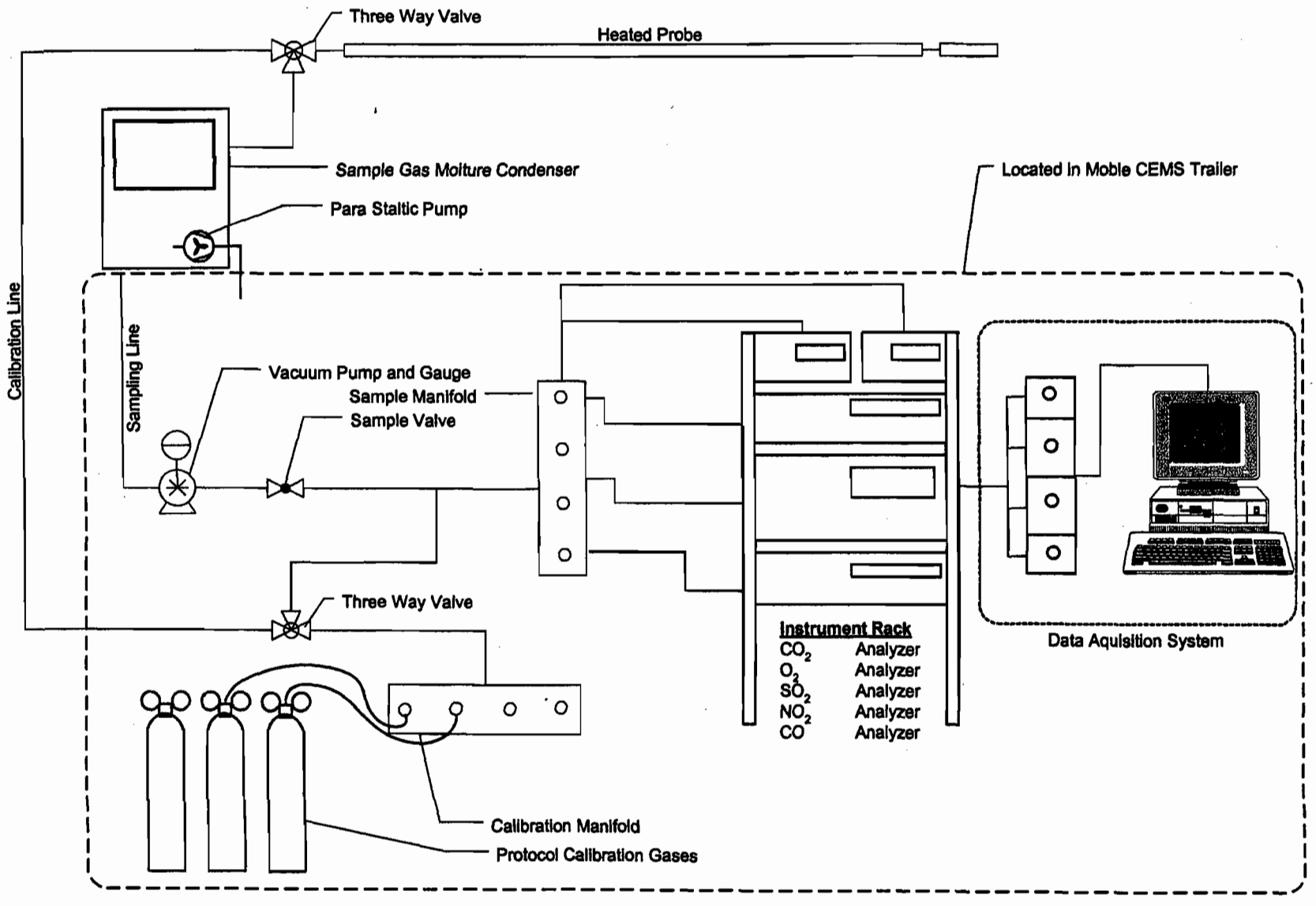
UNIT 2 CEMS

1. 1.3'
2. 4.0'
3. 6.5'

UNIT 2 Flow

1. 95.0"
2. 57.0"
3. 30.9"
4. 9.4"

DRAWN BY R F Cobb		**TITLE** St Johns River Power Park - SJRPP	**Coastal Air Consulting, Inc.** 1531 Wyngate Drive, Deland FL (386) 943-8241 Fax (386) 943 9212
DATE 12-06-02	**SCALE** NONE	**DESCRIPTION** Unit I & II Stack and Sample Port Configuration	



Coastal Air Consulting, Inc
1531 Wyngate Drive, Deland FL
(386) 943-9241 Fax (386) 943 9212

DRAWN BY R F Cobb	**TITLE** EPA Instrumental Sample Train	**DESCRIPTION** Sample Train Schematic
DATE 4/15/02	**SCALE** NONE	

APPENDIX 4
Sample Calculations

SAMPLE EQUATIONS
FOR CEMS RELATIVE ACCURACY TEST AUDITS

CALCULATIONS FOR FLUE GAS VOLUME AND MOISTURE

Time	Dry Gas Meter Ft^3	Pitot ΔP In. H_2O	Orifice ΔH In. H_2O	Dry Gas Temp.°F In	Out	Flue Gas Static Pressure In. H_2O	Stack Temp.°F
T	V_m	Δp	ΔH	TMI	TMO	P_g	t_s

1. P_{bar} = Barometric Pressure (in. Hg)

2. TT = Net Sampling Time (minutes)

3. V_m = V_m Final - V_m Initial = Sample Gas Volume (Ft^3)

4. T_m = Average Dry Gas Temperature at Meter (°F)

$$T_m = \frac{Avg.TMI + Avg.TMO}{2}$$

5. Δp = Velocity head of stack gas (in. H_2O)

6. ΔH = Average Orifice Pressure Drop (in.H_2O)

7. Volume of dry gas sampled at standard conditions[a] (DSCF)

$$V_{m(std)} = \frac{(17.64)(V_m)(Y)\left(P_{bar} + \frac{\Delta H}{13.6}\right)}{(T_m + 460)}$$

8. V_{lc} = *Total Water Collected = gm H_2O Silica gel + ml Imp. H_2O = ml*

9. Volume of water vapor at standard conditions[b] (SCF)

$$V_{w(std)} = 0.0471(V_{lc}) = SCF$$

10. Percent moisture in flue gas

$$\%M = \frac{100(V_{w(std)})}{V_{m(std)} + V_{w(std)}}$$

11. Mole fraction of water vapor in flue gas

$$B_{ws} = \frac{\%M}{100}$$

12. Molecular Weight of dry flue gas

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$$

13. Molecular weight of wet flue gas

$$M_s = M_d(1 - B_{ws}) + 18(B_{ws})$$

14. A = Cross-sectional area of stack (Ft^2)

$$\frac{\pi r^2}{144}$$

15. P_s = Flue gas pressure (in, Hg)

$$P_s = P_{bar} + P_g$$

NOTE: $$P_g(Hg) = \frac{P_g(in.H_2O)}{13.6}$$

16. T_s = Absolute stack temperature (°R)

$$T_s = 460 + t_s$$

17. Flue velocity at stack conditions (FT/SEC)

$$V_s = (K_p)(C_p)\left[\left(\sqrt{\Delta p}\right)avg\right]\sqrt{\frac{T_s(avg)}{P_s * M_s}}$$

C_p = pitot tube coefficient
K_p = pitot tube constant = 85.49ft/sec

18. Flue gas volumetric flow rate at standard conditions[b] (SCFM)

$$Q_s = (V_s)(A)\left(\frac{528}{T_s(avg.)}\right)\left(\frac{P_s}{29.92}\right)(60)$$

19. Flue gas volumetric flow rate at standard conditions[c] (DSCFM)

$$Q_{sd} = (1 - B_{ws})(V_s)(A)\left(\frac{528}{T_s(avg.)}\right)\left(\frac{P_s}{29.92}\right)(60)$$

20. Flue gas volumetric flow rate at stack conditions (ACFM)

$$Q_a = (V_s)(A)(60)$$

NOTES:
[a]Dry standard cubic feet at 68°F, 29.92 in. Hg
[b]Standard conditions at 68°F, 29.92 in. Hg
[c]Dry standard cubic feet per minute at 68°F, 29.92 in. Hg

F-FACTOR DETERMINATION

THE WET F-FACTOR (F_w):

Includes all components of combustion

$$F_w = \frac{10^6\ Btu/mmBtu\left[5.57(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O_2) + 0.21(\%H_2O)\right]}{GCV_{wet}}$$

THE DRY F-FACTOR (F_d):

Includes all components of combustion less water

$$F_d = \frac{10^6\ Btu/mmBtu\left[3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O_2)\right]}{GCV_{dry}}$$

THE CARBON F-FACTOR (F_c):

Includes only Carbon Dioxide

$$F_c = \frac{10^6\ Btu/mmBtu\left[0.321(\%C)\right]}{GCV_{dry}}$$

References for the above equations (i.e. %H, %C, %N, %S, $\%O_2$) can be found in 40 CFR Part 60, Appendix A, Method 19.

LBS/MMBTU CALCULATIONS USING THE F-FACTOR

1. EMISSION RATE *E(lb/mmbtu)*, O_2 based

$$E(lb/mmbtu) = C \times F_d \left(\frac{20.9}{20.9 - \%O_2} \right)$$

Where:

C(lb/dscf) = Pollutant concentration (ppm) x conversion factor.

Conversion Factors:

NOx = 1.194×10^{-7}

SO_2 = 1.660×10^{-7}

CO = 7.274×10^{-8}

C_3H_8 = 1.145×10^{-7}

F_d*(dscf/mmbtu)* = "F" Factor for fuel type, (Ref. EPA Method 19)

F_d (Coal) = 9780

F_d (Gas) = 8710

F_d (Oil) = 9190

2. EMISSION RATE *E(lb/mmbtu)*, CO_2 based

$$E(lb/mmbtu) = C \times F_c \left(\frac{100}{\%CO_2} \right)$$

Where:

C(lb/dscf) = Pollutant concentration (ppm) x conversion factor.

Conversion Factors:

NOx = 1.194×10^{-7}

SO2 = 1.660×10^{-7}

CO = 7.274×10^{-8}

C_3H_8 = 1.145×10^{-7}

F_c*(dscf/mmbtu)* = "F" Factor for fuel type, (Ref. EPA Method 19)

F_d (Coal) = 1800

F_d (Gas) = 1040

F_d (Oil) = 1420

CALCULATION FOR GAS CONCENTRATION

GAS CONCENTRATION (C_{gas})

$$C_{gas} = \left(\overline{C} - C_0\right)\left(\frac{C_{ma}}{C_m - C_o}\right)$$

C_{gas} = Effluent gas concentration, ppm

$\overline{C}$ = Average gas concentration indicated by gas analyzer, dry basis, ppm

C_0 = Average of initial and final system calibration bias check responses for the zero gas, ppm

C_m = Average of initial and final system calibration bias check responses for the upscale calibration gas, ppm

C_{ma} = Actual concentration of the upscale calibration gas, ppm

GAS CONCENTRATION @ 15% O_2 (C_{gas} @ 15% O_2)

$$C_{gas} @ 15\% O_2 = C_{gas} * ((20.9-15)/(20.9-\%O_2))$$

GAS CONCENTRATION @ 7% O_2 (C_{gas} @ 7% O_2)

$$C_{gas} @ 7\% O_2 = C_{gas} * ((20.9-7)/(20.9-\%O_2))$$

CALCULATION OF RELATIVE ACCURACY

ARITHMETIC MEAN (OF THE DIFFERENCE , {d}, OF A DATA SET)

$$\bar{d} = \frac{1}{n}\sum_{i=1}^{n} d_i$$

Where n = Number of data points.

ALGEBRAIC SUM (OF THE INDIVIDUAL DIFFERENCES, $\{d_i\}$)

$$\sum_{i=1}^{n} d_i$$

STANDARD DEVIATION, S_d

$$S_d = \sqrt{\frac{\sum_{i=1}^{n} d_i^2 - \left(\frac{\left(\sum_{i=1}^{n} d_i\right)^2}{n}\right)}{n-1}}$$

CONFIDENCE COEFFICIENT, CC

$$CC = t_{0.975}\frac{S_d}{\sqrt{n}}$$

For 9 tests $t_{0.975} = 2.306$

For 10 tests $t_{0.975} = 2.262$

For 11 tests $t_{0.975} = 2.228$

For 12 tests $t_{0.975} = 2.201$

RELATIVE ACCURACY, RA

$$RA = \frac{|\bar{d}| + |CC|}{\overline{RM}} x100$$

APPENDIX 5
Lab Analysis

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1010 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-0300 FAX: 630-953-6306

SINCE 1908

SGS Member of the SGS Group (Société Générale de Surveillance)

Committed To Excellence

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 732
HENDERSON, KY 42419
TEL: (270) 827-1187
FAX: (270) 826-0719

December 23, 2002

ST. JOHNS RIVER POWER PARK
11201 NEW BERLIN RD
JACKSONVILLE FL 32226

Sample identification by
SJRPP

Stack Test
Collection Date: 12-11-02
Collection Time: 09:00 am
SJRPP Lab ID#: SJ-121102-0900
SampleL: Domestic Blend
P.O. #34531

Kind of sample reported to us: Coal

Sample taken at: -----

Sample taken by: -----

Date sampled: December 11, 2002

Date received: December 17, 2002

Analysis Report No. 63-77712

SHORT PROXIMATE ANALYSIS

	As Received	Dry Basis		
% Moisture	6.82	xxxxx		
% Ash	7.77	8.34		
Btu/lb	12939	13886	MAF	15149
% Sulfur	1.51	1.62		

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Henderson Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-9305
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Committed To Excellence
ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 752
HENDERSON, KY 42419
TEL: (270) 827-1187
FAX: (270) 826-0719

December 23, 2002

ST. JOHNS RIVER POWER PARK
11201 NEW BERLIN RD
JACKSONVILLE FL 32226

Sample identification by
SJRPP

Stack Test
Collection Date: 12-11-02
Collection Time: 2030 pm
SJRPP Lab ID#: SJ-121102-2030
SampleL: Exxon Blend
P.O. #34531

Kind of sample reported to us: Coal

Sample taken at: -----

Sample taken by: -----

Date sampled: December 11, 2002

Date received: December 17, 2002

Analysis Report No. 63-77713

SHORT PROXIMATE ANALYSIS

	As Received	Dry Basis		
% Moisture	12.21	xxxxx		
% Ash	4.95	5.64		
Btu/lb	12222	13922	MAF	14754
% Sulfur	1.39	1.58		

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Henderson Laboratory

MEMBER ACIL

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HENDERSON, KY 42419
TEL: (270) 827-1187
FAX: (270) 826-0719

December 23, 2002

ST. JOHNS RIVER POWER PARK
11201 NEW BERLIN RD
JACKSONVILLE FL 32226

Sample identification by
SJRPP

Stack Test
Collection Date: 12-10-02
Collection Time: 10:00 am
SJRPP Lab ID#: SJ-121002-1000
SampleL: Domestic Blend
P.O. #34531

Kind of sample reported to us: Coal

Sample taken at: -----

Sample taken by: -----

Date sampled: December 10, 2002

Date received: December 17, 2002

Analysis Report No. 63-77711

SHORT PROXIMATE ANALYSIS

	As Received	Dry Basis		
% Moisture	7.77	xxxxx		
% Ash	4.90	5.31		
Btu/lb	12628	13692	MAF	14460
% Sulfur	2.78	3.01		

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Henderson Laboratory

MEMBER ACIL

APPENDIX 6
Plant Data

UNIT 1

Unit 1 Outlet Gas
Run #1

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 12:20

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 11:45
Period End: 12/11/02 12:06
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/11/02 11:45	-3.3	-0.002	11.20	0.485	125.0	0.334	105408.0	649.0
12/11/02 11:46	-5.0	-0.004	11.13	0.484	124.5	0.335	105000.0	653.3
12/11/02 11:47	-5.0	-0.004	11.11	0.488	122.9	0.331	104880.0	651.2
12/11/02 11:48	-4.0	-0.003	11.12	0.488	122.0	0.328	104880.0	648.6
12/11/02 11:49	-4.0	-0.003	11.21	0.483	121.3	0.324	104592.0	645.9
12/11/02 11:50	-2.3	-0.001	11.18	0.487	118.3	0.317	104286.0	648.4
12/11/02 11:51	-5.0	-0.004	11.23	0.483	118.8	0.316	104298.0	649.5
12/11/02 11:52	-1.8	-0.001	11.28	0.479	120.3	0.319	104298.0	649.3
12/11/02 11:53	-3.1	-0.002	11.18	0.481	118.2	0.316	104322.0	653.7
12/11/02 11:54	-4.6	-0.004	11.17	0.481	117.8	0.315	104352.0	656.7
12/11/02 11:55	-3.3	-0.002	11.16	0.483	118.6	0.318	104322.0	655.7
12/11/02 11:56	-3.1	-0.002	11.23	0.479	120.0	0.319	104310.0	654.0
12/11/02 11:57	-4.6	-0.003	11.22	0.481	119.8	0.319	104250.0	653.0
12/11/02 11:58	-6.1	-0.005	11.24	0.478	119.9	0.319	104262.0	651.3
12/11/02 11:59	-2.5	-0.002	11.36	0.474	119.9	0.316	104382.0	654.3
12/11/02 12:00	-1.3	-0.001	11.33	0.478	118.0	0.311	104748.0	657.3
12/11/02 12:01	-2.3	-0.001	11.28	0.480	117.2	0.310	104748.0	661.5
12/11/02 12:02	-3.1	-0.002	11.25	0.486	117.1	0.311	104730.0	658.3
12/11/02 12:03	-4.4	-0.003	11.24	0.487	117.1	0.311	104520.0	657.3
12/11/02 12:04	-4.6	-0.003	11.23	0.491	117.3	0.313	104418.0	657.0
12/11/02 12:05	-5.5	-0.004	11.23	0.491	117.4	0.313	104442.0	661.2
12/11/02 12:06	-4.6	-0.003	11.32	0.482	119.7	0.316	104730.0	659.8
Final Average*	**-3.8**	**-0.003**	**11.22**	**0.483**	**119.6**	**0.319**	**104553.5**	**653.9**
Maximum*	**0.0**	**0.000**	**11.36**	**0.491**	**125.0**	**0.335**	**105408.0**	**661.5**
Minimum*	**-6.1**	**-0.005**	**11.11**	**0.474**	**117.1**	**0.310**	**104250.0**	**645.9**

*Does not include Invalid Averaging Periods ("N/A")

UNIT 1 OUTLET GAS
RUN #2

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 13:22

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 12:31
Period End: 12/11/02 12:52
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/11/02 12:31	-4.1	-0.002	11.38	0.482	112.3	0.295	103446.0	653.3
12/11/02 12:32	-2.5	-0.001	11.37	0.475	110.6	0.291	103470.0	653.1
12/11/02 12:33	-1.8	-0.001	11.36	0.478	110.3	0.290	103446.0	656.9
12/11/02 12:34	-5.0	-0.004	11.34	0.480	110.0	0.290	103734.0	654.0
12/11/02 12:35	-2.3	-0.001	11.29	0.486	109.3	0.289	103806.0	651.7
12/11/02 12:36	2.6	0.003	11.25	0.488	109.4	0.291	103812.0	648.4
12/11/02 12:37	-3.5	-0.002	11.22	0.480	110.2	0.293	103824.0	648.8
12/11/02 12:38	-5.0	-0.004	11.29	0.474	110.1	0.291	103806.0	649.0
12/11/02 12:39	-2.5	-0.002	11.34	0.472	108.5	0.286	103758.0	650.7
12/11/02 12:40	-4.1	-0.002	11.26	0.468	105.6	0.280	103806.0	655.7
12/11/02 12:41	-3.5	-0.002	11.21	0.466	104.1	0.278	103824.0	660.0
12/11/02 12:42	-4.1	-0.003	11.17	0.470	103.5	0.277	103812.0	660.0
12/11/02 12:43	-4.1	-0.003	11.18	0.467	104.3	0.279	104076.0	656.3
12/11/02 12:44	-4.6	-0.003	11.24	0.469	105.5	0.280	104340.0	650.7
12/11/02 12:45	-4.6	-0.004	11.26	0.476	106.2	0.282	104352.0	650.6
12/11/02 12:46	-3.8	-0.003	11.32	0.474	109.7	0.290	104652.0	651.0
12/11/02 12:47	-3.5	-0.002	11.33	0.478	114.9	0.303	105528.0	648.3
12/11/02 12:48	-3.8	-0.002	11.25	0.483	113.9	0.303	105504.0	646.1
12/11/02 12:49	-6.3	-0.006	11.16	0.489	112.0	0.300	105528.0	653.7
12/11/02 12:50	-1.6	-0.001	11.16	0.491	110.6	0.296	106230.0	653.7
12/11/02 12:51	-0.2	0.000	11.17	0.489	110.7	0.296	106464.0	655.1
12/11/02 12:52	-5.0	-0.004	11.13	0.489	110.9	0.298	106464.0	655.0
Final Average*	**-3.3**	**-0.002**	**11.26**	**0.478**	**109.2**	**0.290**	**104440.1**	**652.8**
Maximum*	**2.6**	**0.003**	**11.38**	**0.491**	**114.9**	**0.303**	**106464.0**	**660.0**
Minimum*	**-6.3**	**-0.006**	**11.13**	**0.466**	**103.5**	**0.277**	**103446.0**	**646.1**

*Does not include Invalid Averaging Periods ("N/A")

UNIT 1 0-TIOT GAS
RUN #3

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 13:29

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 13:03
Period End: 12/11/02 13:24
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/11/02 13:03	-4.4	-0.004	11.12	0.490	108.2	0.291	106068.0	660.6
12/11/02 13:04	-4.1	-0.003	11.19	0.484	113.3	0.303	105750.0	659.2
12/11/02 13:05	-2.3	-0.002	11.18	0.481	121.3	0.324	105606.0	658.7
12/11/02 13:06	-3.5	-0.002	11.17	0.484	123.6	0.331	105624.0	654.1
12/11/02 13:07	-0.4	0.001	11.19	0.485	124.7	0.333	105342.0	649.2
12/11/02 13:08	6.5	0.007	11.34	0.484	126.6	0.334	105024.0	646.7
12/11/02 13:09	2.3	0.003	11.35	0.486	125.3	0.330	105036.0	649.4
12/11/02 13:10	-2.0	-0.001	11.26	0.480	123.1	0.326	105054.0	655.4
12/11/02 13:11	-2.9	-0.002	11.23	0.479	121.5	0.323	104856.0	652.5
12/11/02 13:12	-2.3	-0.001	11.15	0.487	120.5	0.323	104394.0	648.2
12/11/02 13:13	-4.1	-0.003	11.12	0.494	120.6	0.324	104394.0	647.6
12/11/02 13:14	-4.0	-0.003	11.11	0.493	120.7	0.324	104394.0	647.3
12/11/02 13:15	-1.4	-0.001	11.22	0.483	122.9	0.327	104814.0	646.7
12/11/02 13:16	-3.5	-0.002	11.22	0.484	123.7	0.329	105216.0	644.6
12/11/02 13:17	-2.9	-0.002	11.20	0.495	123.3	0.329	105228.0	648.9
12/11/02 13:18	-5.0	-0.004	11.20	0.494	122.4	0.326	105480.0	655.0
12/11/02 13:19	-3.5	-0.003	11.21	0.494	121.9	0.325	105714.0	653.1
12/11/02 13:20	-3.8	-0.003	11.18	0.501	120.9	0.323	105714.0	652.4
12/11/02 13:21	-5.5	-0.004	11.13	0.500	120.5	0.324	105714.0	654.9
12/11/02 13:22	-5.2	-0.004	11.17	0.490	121.1	0.324	102276.0	656.5
12/11/02 13:23	-4.1	-0.003	11.23	0.484	121.3	0.323	102264.0	665.2
12/11/02 13:24	-5.0	-0.004	11.14	0.488	119.5	0.321	102252.0	662.8
Final Average*	**-2.8**	**-0.002**	**11.20**	**0.488**	**121.2**	**0.324**	**104827.9**	**653.1**
Maximum*	**6.5**	**0.007**	**11.35**	**0.501**	**126.6**	**0.334**	**106068.0**	**665.2**
Minimum*	**-5.5**	**-0.004**	**11.11**	**0.479**	**108.2**	**0.291**	**102252.0**	**644.6**

*Does not include Invalid Averaging Periods ("N/A")

Unit 1 Outlet
Gas
Run #4

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 14:52

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 13:48
Period End: 12/11/02 14:09
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

1Unit_Load Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average MW
12/11/02 13:48	2.3	0.003	10.99	0.490	112.5	0.306	105462.0	644.1
12/11/02 13:49	1.7	0.002	10.96	0.493	111.3	0.304	105348.0	639.3
12/11/02 13:50	0.1	0.001	10.97	0.492	110.5	0.301	105360.0	637.8
12/11/02 13:51	0.5	0.001	11.03	0.490	111.2	0.301	105036.0	642.2
12/11/02 13:52	1.2	0.002	11.07	0.488	112.6	0.304	104748.0	645.7
12/11/02 13:53	1.1	0.002	11.12	0.481	112.4	0.302	104724.0	647.7
12/11/02 13:54	0.7	0.001	10.91	0.494	109.4	0.300	104706.0	650.7
12/11/02 13:55	-1.4	-0.001	10.86	0.497	109.5	0.301	104838.0	649.3
12/11/02 13:56	0.2	0.001	10.97	0.488	110.5	0.301	104970.0	644.1
12/11/02 13:57	-0.8	0.000	11.10	0.487	112.6	0.303	104958.0	639.1
12/11/02 13:58	0.7	0.001	11.08	0.488	113.2	0.305	104916.0	639.6
12/11/02 13:59	0.2	0.001	11.13	0.483	113.3	0.305	104868.0	638.0
12/11/02 14:00	1.2	0.002	11.17	0.476	112.8	0.302	104880.0	634.1
12/11/02 14:01	0.1	0.001	11.06	0.486	111.4	0.301	104862.0	631.4
12/11/02 14:02	-0.1	0.001	10.90	0.498	109.8	0.301	104928.0	637.2
12/11/02 14:03	-0.5	0.000	10.88	0.497	114.2	0.314	104946.0	637.4
12/11/02 14:04	1.1	0.002	10.96	0.491	121.6	0.332	104946.0	640.2
12/11/02 14:05	-0.4	0.000	10.86	0.494	122.2	0.336	104772.0	643.0
12/11/02 14:06	0.2	0.001	10.90	0.494	122.8	0.337	104274.0	644.6
12/11/02 14:07	1.1	0.001	10.98	0.492	124.4	0.339	104274.0	644.3
12/11/02 14:08	1.7	0.002	11.07	0.490	124.8	0.337	104286.0	642.5
12/11/02 14:09	2.1	0.002	11.09	0.484	124.8	0.336	104274.0	638.4
Final Average*	**0.6**	**0.001**	**11.00**	**0.490**	**114.9**	**0.312**	**104835.3**	**641.4**
Maximum*	**2.3**	**0.003**	**11.17**	**0.498**	**124.8**	**0.339**	**105462.0**	**650.7**
Minimum*	**-1.4**	**-0.001**	**10.86**	**0.476**	**109.4**	**0.300**	**104274.0**	**631.4**

*Does not include Invalid Averaging Periods ("N/A")

Unit 1 Outlet Gas
Run #5

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 15:16

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 14:29
Period End: 12/11/02 14:50
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/11/02 14:29	7.9	0.010	10.91	0.499	123.3	0.338	105228.0	648.8
12/11/02 14:30	8.0	0.009	10.98	0.491	123.2	0.335	105216.0	650.0
12/11/02 14:31	8.0	0.010	11.05	0.494	123.7	0.335	104712.0	651.3
12/11/02 14:32	9.0	0.011	11.09	0.498	123.7	0.333	104574.0	656.5
12/11/02 14:33	9.2	0.011	11.10	0.496	123.3	0.332	104550.0	655.0
12/11/02 14:34	7.8	0.009	11.13	0.489	123.7	0.332	104418.0	649.7
12/11/02 14:35	9.5	0.011	11.09	0.493	122.7	0.331	104376.0	642.8
12/11/02 14:36	10.0	0.012	11.06	0.500	122.8	0.332	104376.0	639.6
12/11/02 14:37	11.0	0.013	11.03	0.498	123.1	0.333	104394.0	637.6
12/11/02 14:38	9.6	0.011	11.05	0.492	123.0	0.333	104394.0	643.1
12/11/02 14:39	10.9	0.013	11.04	0.493	123.0	0.333	104382.0	647.6
12/11/02 14:40	9.0	0.011	10.95	0.502	121.0	0.330	104382.0	647.4
12/11/02 14:41	9.0	0.011	10.92	0.503	120.5	0.330	104370.0	641.5
12/11/02 14:42	8.6	0.010	10.90	0.502	120.8	0.331	104394.0	635.8
12/11/02 14:43	11.0	0.013	10.94	0.503	122.7	0.335	104286.0	635.2
12/11/02 14:44	13.0	0.016	11.14	0.491	125.8	0.337	104166.0	642.4
12/11/02 14:45	14.9	0.018	11.17	0.493	127.0	0.340	104166.0	648.4
12/11/02 14:46	9.6	0.011	11.12	0.493	126.8	0.341	104112.0	650.8
12/11/02 14:47	9.0	0.011	10.94	0.503	122.9	0.336	103968.0	651.3
12/11/02 14:48	9.2	0.011	10.83	0.505	121.5	0.335	103956.0	655.8
12/11/02 14:49	9.3	0.011	10.95	0.497	123.3	0.336	103944.0	655.9
12/11/02 14:50	8.7	0.010	11.05	0.493	124.5	0.337	104352.0	653.2
Final Average*	**9.6**	**0.012**	**11.02**	**0.497**	**123.3**	**0.334**	**104396.2**	**647.3**
Maximum*	**14.9**	**0.018**	**11.17**	**0.505**	**127.0**	**0.341**	**105228.0**	**656.5**
Minimum*	**7.8**	**0.009**	**10.83**	**0.489**	**120.5**	**0.330**	**103944.0**	**635.2**

*Does not include Invalid Averaging Periods ("N/A")

UNIT 1 Outlet Gas
Run 6

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 15:30

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 15:07
Period End: 12/11/02 15:28
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

1Unit_Load Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average MW
12/11/02 15:07	11.5	0.014	10.91	0.495	119.7	0.328	104118.0	646.4
12/11/02 15:08	8.9	0.012	10.81	0.490	117.9	0.326	104112.0	643.8
12/11/02 15:09	10.1	0.013	10.67	0.495	115.8	0.324	104088.0	642.7
12/11/02 15:10	8.6	0.010	10.63	0.501	115.4	0.324	104046.0	644.1
12/11/02 15:11	7.7	0.010	10.72	0.494	117.4	0.327	104022.0	650.0
12/11/02 15:12	9.6	0.012	10.75	0.499	118.8	0.330	104046.0	656.8
12/11/02 15:13	9.5	0.012	10.72	0.496	118.6	0.331	104022.0	655.4
12/11/02 15:14	8.9	0.011	10.66	0.502	118.5	0.332	103956.0	659.2
12/11/02 15:15	10.1	0.012	10.71	0.504	119.3	0.333	103968.0	660.6
12/11/02 15:16	7.1	0.009	10.72	0.509	119.9	0.334	103968.0	651.4
12/11/02 15:17	8.3	0.010	10.81	0.500	120.7	0.334	104130.0	647.1
12/11/02 15:18	10.0	0.012	10.86	0.488	121.1	0.333	104616.0	645.2
12/11/02 15:19	14.6	0.018	10.88	0.494	122.3	0.336	104634.0	645.1
12/11/02 15:20	12.8	0.016	10.93	0.494	122.7	0.335	104634.0	644.1
12/11/02 15:21	8.6	0.010	10.81	0.498	121.4	0.336	104472.0	637.3
12/11/02 15:22	10.1	0.012	10.71	0.511	121.0	0.338	104430.0	634.3
12/11/02 15:23	11.5	0.014	10.73	0.510	121.2	0.337	104394.0	632.2
12/11/02 15:24	8.6	0.011	10.76	0.503	122.5	0.340	103992.0	635.3
12/11/02 15:25	10.6	0.013	10.78	0.501	122.6	0.340	103542.0	638.2
12/11/02 15:26	9.1	0.011	10.78	0.490	123.4	0.342	103530.0	642.6
12/11/02 15:27	9.5	0.012	10.81	0.490	123.9	0.343	103308.0	646.8
12/11/02 15:28	11.5	0.014	10.88	0.486	124.4	0.342	102636.0	651.0
Final Average*	**9.9**	**0.012**	**10.77**	**0.498**	**120.4**	**0.334**	**104030.2**	**645.9**
Maximum*	**14.6**	**0.018**	**10.93**	**0.511**	**124.4**	**0.343**	**104634.0**	**660.6**
Minimum*	**7.1**	**0.009**	**10.63**	**0.486**	**115.4**	**0.324**	**102636.0**	**632.2**

*Does not include Invalid Averaging Periods ("N/A")

Unit 1 Outlet GA
Run #7

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 16:32

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 15:43
Period End: 12/11/02 16:04
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/11/02 15:43	11.0	0.013	11.13	0.469	127.3	0.342	103020.0	650.0
12/11/02 15:44	10.9	0.013	11.16	0.470	129.0	0.345	103032.0	647.4
12/11/02 15:45	14.5	0.017	11.17	0.473	130.4	0.349	103032.0	644.9
12/11/02 15:46	21.1	0.025	11.18	0.470	130.2	0.348	102912.0	640.5
12/11/02 15:47	19.0	0.023	11.16	0.464	129.1	0.346	102504.0	637.8
12/11/02 15:48	19.1	0.023	11.15	0.461	128.7	0.345	102528.0	637.3
12/11/02 15:49	11.9	0.014	11.06	0.469	126.8	0.342	102486.0	641.3
12/11/02 15:50	11.4	0.014	11.05	0.472	126.1	0.341	102210.0	649.0
12/11/02 15:51	12.4	0.015	11.00	0.467	125.5	0.341	102078.0	652.7
12/11/02 15:52	10.1	0.012	10.94	0.471	125.3	0.342	102096.0	655.0
12/11/02 15:53	9.6	0.011	10.99	0.471	124.7	0.339	102138.0	654.5
12/11/02 15:54	9.0	0.011	10.95	0.474	124.7	0.340	102252.0	652.0
12/11/02 15:55	9.2	0.011	11.02	0.468	125.8	0.341	102252.0	650.9
12/11/02 15:56	12.4	0.015	11.12	0.466	127.1	0.342	102264.0	648.1
12/11/02 15:57	11.9	0.014	11.17	0.465	127.7	0.342	102606.0	647.3
12/11/02 15:58	11.0	0.013	11.19	0.454	128.6	0.344	103032.0	645.6
12/11/02 15:59	15.9	0.019	11.19	0.460	128.7	0.344	103014.0	647.0
12/11/02 16:00	17.0	0.020	11.15	0.463	127.1	0.341	103320.0	647.4
12/11/02 16:01	15.4	0.019	11.08	0.471	125.4	0.339	103638.0	644.5
12/11/02 16:02	11.5	0.014	11.01	0.475	123.6	0.336	103638.0	640.3
12/11/02 16:03	13.0	0.016	11.03	0.471	125.0	0.338	103614.0	638.8
12/11/02 16:04	11.4	0.014	11.08	0.466	127.4	0.344	103836.0	637.4
Final Average*	**13.1**	**0.016**	**11.09**	**0.468**	**127.0**	**0.342**	**102795.5**	**645.9**
Maximum*	**21.1**	**0.025**	**11.19**	**0.475**	**130.4**	**0.349**	**103836.0**	**655.0**
Minimum*	**9.0**	**0.011**	**10.94**	**0.454**	**123.6**	**0.336**	**102078.0**	**637.3**

*Does not include Invalid Averaging Periods ("N/A")

Unit 1 Outlet
Run 8

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 16:50

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 16:27
Period End: 12/11/02 16:48
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/11/02 16:27	12.0	0.014	11.00	0.480	127.5	0.346	103890.0	649.5
12/11/02 16:28	9.6	0.011	10.99	0.475	127.5	0.347	103680.0	650.7
12/11/02 16:29	11.3	0.014	11.01	0.469	127.9	0.347	103650.0	648.4
12/11/02 16:30	11.9	0.014	11.00	0.472	127.5	0.347	103680.0	649.0
12/11/02 16:31	10.5	0.012	11.04	0.473	128.4	0.348	103254.0	648.4
12/11/02 16:32	13.4	0.016	11.14	0.470	130.1	0.349	103146.0	649.8
12/11/02 16:33	17.3	0.020	11.18	0.469	130.3	0.349	103152.0	652.3
12/11/02 16:34	11.5	0.014	11.11	0.478	129.6	0.348	102858.0	653.7
12/11/02 16:35	8.9	0.011	11.09	0.477	129.8	0.350	102564.0	648.8
12/11/02 16:36	11.0	0.013	11.09	0.478	130.4	0.352	102552.0	647.3
12/11/02 16:37	11.9	0.014	11.08	0.479	131.1	0.353	102564.0	647.2
12/11/02 16:38	14.1	0.016	11.15	0.482	130.4	0.350	102576.0	641.7
12/11/02 16:39	12.8	0.015	11.16	0.472	129.1	0.346	102552.0	640.9
12/11/02 16:40	10.5	0.012	11.15	0.468	128.5	0.345	102582.0	638.2
12/11/02 16:41	9.2	0.011	11.16	0.482	127.9	0.343	102576.0	639.9
12/11/02 16:42	11.1	0.013	11.09	0.473	127.6	0.344	102582.0	640.6
12/11/02 16:43	8.6	0.010	11.04	0.480	127.8	0.346	102450.0	641.1
12/11/02 16:44	9.0	0.011	10.95	0.483	126.1	0.344	102066.0	639.9
12/11/02 16:45	10.2	0.012	10.97	0.477	125.8	0.343	102096.0	638.6
12/11/02 16:46	9.6	0.011	10.99	0.487	127.1	0.345	101988.0	641.8
12/11/02 16:47	11.0	0.013	11.09	0.483	128.0	0.345	101814.0	644.0
12/11/02 16:48	10.4	0.012	11.06	0.475	125.7	0.340	101784.0	641.9
Final Average*	**11.2**	**0.013**	**11.07**	**0.476**	**128.4**	**0.347**	**102729.8**	**645.2**
Maximum*	**17.3**	**0.020**	**11.18**	**0.487**	**131.1**	**0.353**	**103890.0**	**653.7**
Minimum*	**8.6**	**0.010**	**10.95**	**0.468**	**125.7**	**0.340**	**101784.0**	**638.2**

*Does not include Invalid Averaging Periods ("N/A")

Unit 1 Outlet 9
Run 9

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 17:40

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/11/02 17:03
Period End: 12/11/02 17:24
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 1outCO_C ppm	Average 1outCO_MM #/M	Average 1outCO2_C %	Average 1outNOX_MM #/M	Average 1outSO2_C ppm	Average 1outSO2_MM #/M	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/11/02 17:03	13.4	0.016	11.12	0.479	128.0	0.345	103308.0	644.4
12/11/02 17:04	14.3	0.017	11.16	0.471	129.7	0.347	103308.0	643.7
12/11/02 17:05	10.5	0.013	11.02	0.477	128.3	0.348	101076.0	645.8
12/11/02 17:06	11.4	0.014	11.06	0.472	130.1	0.352	98838.0	646.5
12/11/02 17:07	11.9	0.014	11.14	0.470	132.2	0.354	98844.0	649.0
12/11/02 17:08	10.1	0.012	11.14	0.474	130.1	0.349	94914.0	645.8
12/11/02 17:09	10.5	0.012	11.08	0.481	128.6	0.347	93606.0	640.0
12/11/02 17:10	13.6	0.016	11.16	0.475	129.4	0.347	93582.0	633.0
12/11/02 17:11	10.5	0.012	11.17	0.475	130.2	0.349	93606.0	630.5
12/11/02 17:12	10.5	0.012	11.19	0.465	132.1	0.353	89208.0	636.0
12/11/02 17:13	12.1	0.014	11.20	0.467	133.1	0.355	89208.0	644.0
12/11/02 17:14	11.5	0.014	11.08	0.477	132.3	0.357	89220.0	643.1
12/11/02 17:15	11.0	0.013	11.01	0.484	131.8	0.358	89022.0	641.7
12/11/02 17:16	10.7	0.013	10.94	0.483	131.8	0.360	89040.0	637.2
12/11/02 17:17	10.6	0.013	10.99	0.481	131.6	0.358	89010.0	637.0
12/11/02 17:18	9.1	0.011	11.07	0.472	131.6	0.355	89460.0	639.3
12/11/02 17:19	11.3	0.013	11.16	0.467	131.6	0.353	89916.0	639.2
12/11/02 17:20	8.9	0.010	11.14	0.475	131.1	0.352	89892.0	640.8
12/11/02 17:21	8.7	0.010	11.11	0.481	130.9	0.352	89904.0	642.5
12/11/02 17:22	9.4	0.011	11.01	0.491	131.1	0.356	91902.0	642.0
12/11/02 17:23	13.3	0.016	11.08	0.487	131.8	0.356	93900.0	643.6
12/11/02 17:24	12.4	0.015	11.08	0.488	132.1	0.356	93858.0	641.6
Final Average*	**11.2**	**0.013**	**11.10**	**0.477**	**130.9**	**0.353**	**93391.9**	**641.2**
Maximum*	**14.3**	**0.017**	**11.20**	**0.491**	**133.1**	**0.360**	**103308.0**	**649.0**
Minimum*	**8.7**	**0.010**	**10.94**	**0.465**	**128.0**	**0.345**	**89010.0**	**630.5**

*Does not include Invalid Averaging Periods ("N/A")

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA

UNIT # ONE Date: 12 / 11 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		Peterson	Peterson	Peterson	Peterson	Peterson	Peterson
Time		0800	0830	0900	0930	1000	1030
Steam Flow	LB/HR x 10^6	4.54	4.62	4.60	4.64	4.44	4.65
Air Flow	%	72	73	73	73	73	73
Generator Load (Gross)	Megawatts	669	679	680	682	656	683
Boiler Thermal Demand	Megawatts	673	686	690	686	660	684
O2 Flue Gas	%	2.83 / 2.77	2.73 / 2.69	2.47 / 3.01	2.84 / 3.00	2.82 / 3.20	3.25 / 3.14
Fuel Flow	%	95.2	95.8	96	95.7	95.8	96.5
COAL TOTALIZER	**TONS**						
A		75	75	75	75	76	76
B		78	78	78	78	75	75
C		72	74	74	74	76	77
D		Ø	Ø	Ø	Ø	Ø	Ø
E		87	87	87	87	87	88
F		75	74	75	74	75	77
G		90	92	92	92	92	91

ST. JOHNS RIVER POWER PARK

BOILER CONTROL ROOM DATA

UNIT # ONE **Date:** 12 / 11 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		PETERSON	PETERSON	PETERSON	PETERSON	PETERSON	PETERSON
Time		1100	1130	1200	1230	1300	1330
Steam Flow	LB/HR x 10^6	4.57	4.46	4.47	4.43	4.46	4.39
Air Flow	%	72	72	72	71	72	71
Generator Load (Gross)	Megawatts	674	663	665	660	664	649
Boiler Thermal Demand	Megawatts	683	667	667	658	661	642
O2 Flue Gas	%	2.23 / 2.98	2.96 / 3.27	2.77 / 3.15	3.22 / 3.24	3.05 / 3.41	3.36 / 3.49
Fuel Flow	%	95.7	95.4	96.9	96.9	96.7	96.8
COAL TOTALIZER	**TONS**						
A		74	74	75	75	74	75
B		73	74	75	76	76	76
C		76	76	76	76	76	76
D		Ø	Ø	Ø	Ø	Ø	Ø
E		87	87	87	88	88	87
F		75	76	79	79	79	79
G		91	92	92	93	92	92

ST. JOHNS RIVER POWER PARK

BOILER CONTROL ROOM DATA

UNIT # ONE **Date:** 12 / 11 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		Peterson	Peterson	Peterson	Peterson	Peterson	Peterson
Time		1400	1430	1500	1530	1600	1630
Steam Flow	LB/HR x 10^6	4.31	4.35	4.40	4.48	4.28	4.38
Air Flow	%	72	71	71	71	69	69
Generator Load (Gross)	Megawatts	640	653	657	667	643	655
Boiler Thermal Demand	Megawatts	632	646	652	664	636	651
O2 Flue Gas	%	3.07 / 3.57	3.30 / 4.40	3.18 / 3.61	2.89 / 3.24	3.10 / 3.40	2.84 / 3.07
Fuel Flow	%	97.4	98	97.9	97.7	97.7	98.1
COAL TOTALIZER	**TONS**						
A		75	75	75	75	75	75
B		76	75	74	75	75	75
C		79	81	81	81	81	81
D		Ø	Ø	Ø	Ø	Ø	Ø
E		88	88	88	88	88	88
F		79	79	79	79	79	79
G		91	93	92	93	93	93

ST. JOHNS RIVER POWER PARK

BOILER CONTROL ROOM DATA

UNIT # ONE **Date:** 12 / 11 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		PETERSON	TOSO				
Time		1700	1730				
Steam Flow	LB/HR x 10^6	4.36	4.30				
Air Flow	%	70	70				
Generator Load (Gross)	Megawatts	649	644				
Boiler Thermal Demand	Megawatts	646	636				
O2 Flue Gas	%	2.76 / 3.24	3.32 / 3.42				
Fuel Flow	%	97.8	97.8				
COAL TOTALIZER	**TONS**						
A		75	75				
B		75	75				
C		81	81				
D		Ø	0				
E		88	88				
F		78	79				
G		93	93				

ST. JOHNS RIVER POWER PARK
FLUE GAS DESULFURIZATION
OPERATIONAL PARAMETERS
UNIT # 1

Date: 12 / 11 / 02
Initials: LJA

HOUR	PACKING DIFFERENTIAL PRESSURE (inches H2O column)		
	A	B	C
0000			
0100			
0200			
0300			
0400			
0500			
0600			
0700			
0800	5.8	6.0	6.1
0900	5.8	6.1	
1000	5.8	6.1	
1100	5.8	6.0	
1200	5.7	6.0	
1300	5.6	5.8	
1400	5.6	5.9	
1500	5.4	5.6	
1600	5.3	5.5	
1700	5.3	5.5	
1800	5.3	5.5	
1900			
2000			
2100			
2200			
2300			

Daily Water System Use: _____ **(Total Gallons) / 1440 (min/day) = GPM**

COMMENTS: Start - 966
END - 1000

UNIT 2

#2 Outlet Gas
Run #1

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 12:15

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 11:45
Period End: 12/10/02 12:06
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Loa MW
12/10/02 11:45	166.0	0.184	11.85	0.473	157.6	0.398	93000.0	664.1
12/10/02 11:46	143.0	0.159	11.76	0.477	154.8	0.394	93012.0	664.3
12/10/02 11:47	121.1	0.134	11.85	0.475	149.4	0.377	93012.0	663.8
12/10/02 11:48	137.9	0.151	11.94	0.464	147.0	0.368	92508.0	663.5
12/10/02 11:49	145.6	0.160	11.92	0.465	148.9	0.373	92496.0	664.5
12/10/02 11:50	148.0	0.162	11.91	0.469	152.3	0.382	92508.0	665.7
12/10/02 11:51	154.1	0.170	11.92	0.467	153.9	0.386	92652.0	665.4
12/10/02 11:52	217.4	0.237	11.90	0.466	154.1	0.387	92718.0	664.3
12/10/02 11:53	234.1	0.258	11.87	0.471	155.2	0.391	92694.0	659.2
12/10/02 11:54	172.8	0.191	11.86	0.476	156.3	0.394	93264.0	660.4
12/10/02 11:55	133.8	0.155	11.82	0.475	156.8	0.396	93846.0	663.1
12/10/02 11:56	97.1	0.108	11.74	0.483	153.4	0.391	93846.0	665.3
12/10/02 11:57	95.8	0.107	11.75	0.486	147.4	0.375	93846.0	665.5
12/10/02 11:58	126.0	0.139	11.83	0.481	146.0	0.368	93702.0	665.6
12/10/02 11:59	163.7	0.181	11.81	0.478	148.3	0.375	93672.0	665.1
12/10/02 12:00	263.5	0.292	11.81	0.478	151.9	0.384	93684.0	664.8
12/10/02 12:01	258.8	0.286	11.85	0.479	154.3	0.389	N/A	662.4
12/10/02 12:02	182.2	0.200	11.91	0.472	155.7	0.391	N/A	660.9
12/10/02 12:03	116.7	0.129	11.85	0.477	156.0	0.394	N/A	660.7
12/10/02 12:04	123.0	0.137	11.81	0.488	156.8	0.396	N/A	662.9
12/10/02 12:05	91.2	0.104	11.73	0.496	156.2	0.398	N/A	664.5
12/10/02 12:06	78.2	0.088	11.74	0.497	153.8	0.391	N/A	663.7
Final Average*	**153.2**	**0.170**	**11.84**	**0.477**	**153.0**	**0.386**	**93153.8**	**663.6**
Maximum*	**263.5**	**0.292**	**11.94**	**0.497**	**157.6**	**0.398**	**93846.0**	**665.7**
Minimum*	**78.2**	**0.088**	**11.73**	**0.464**	**146.0**	**0.368**	**92496.0**	**659.2**

*Does not include Invalid Averaging Periods ("N/A")

171

#2 Outlet GAS
Run #2

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 14:04

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 12:36
Period End: 12/10/02 12:57
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Load MW
12/10/02 12:36	119.7	0.132	11.72	0.494	150.7	0.384	93540.0	666.9
12/10/02 12:37	160.7	0.177	11.86	0.484	144.6	0.364	93504.0	667.7
12/10/02 12:38	150.6	0.167	11.93	0.479	142.8	0.357	94068.0	668.5
12/10/02 12:39	126.1	0.139	11.87	0.485	143.5	0.361	94056.0	668.6
12/10/02 12:40	100.9	0.112	11.83	0.489	145.7	0.368	94068.0	666.4
12/10/02 12:41	101.8	0.112	11.85	0.488	147.9	0.373	93882.0	663.5
12/10/02 12:42	101.2	0.112	11.83	0.489	149.2	0.377	93714.0	660.2
12/10/02 12:43	90.4	0.100	11.82	0.491	149.7	0.378	93714.0	659.2
12/10/02 12:44	86.2	0.096	11.75	0.493	149.7	0.381	93702.0	659.7
12/10/02 12:45	115.2	0.128	11.76	0.493	152.6	0.387	92970.0	660.9
12/10/02 12:46	100.3	0.112	11.78	0.492	151.6	0.384	92970.0	663.1
12/10/02 12:47	92.3	0.105	11.83	0.489	145.4	0.368	92970.0	662.9
12/10/02 12:48	75.2	0.084	11.78	0.493	143.0	0.363	92454.0	661.8
12/10/02 12:49	121.4	0.134	11.82	0.487	146.3	0.370	92250.0	662.3
12/10/02 12:50	171.6	0.190	11.81	0.487	148.3	0.375	92262.0	663.0
12/10/02 12:51	82.5	0.097	11.77	0.496	147.1	0.374	92892.0	663.5
12/10/02 12:52	93.3	0.103	11.81	0.489	147.1	0.373	93552.0	663.1
12/10/02 12:53	155.0	0.170	11.93	0.477	149.1	0.374	93570.0	662.6
12/10/02 12:54	127.5	0.141	11.85	0.481	149.2	0.377	93528.0	660.4
12/10/02 12:55	107.8	0.119	11.81	0.484	148.7	0.376	93756.0	655.4
12/10/02 12:56	126.4	0.140	11.82	0.485	146.0	0.369	93756.0	659.9
12/10/02 12:57	111.9	0.124	11.83	0.488	141.4	0.357	93738.0	665.2
Final Average*	**114.5**	**0.127**	**11.82**	**0.488**	**147.3**	**0.372**	**93405.3**	**662.9**
Maximum*	**171.6**	**0.190**	**11.93**	**0.496**	**152.6**	**0.387**	**94068.0**	**668.6**
Minimum*	**75.2**	**0.084**	**11.72**	**0.477**	**141.4**	**0.357**	**92250.0**	**655.4**

*Does not include Invalid Averaging Periods ("N/A")

128.7 11% 0.89

114.5 0.89

#2 Outlet Gas
Run #3

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 14:04

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 13:15
Period End: 12/10/02 13:36
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Loa MW
12/10/02 13:15	83.8	0.093	11.80	0.494	144.5	0.366	95022.0	659.1
12/10/02 13:16	80.4	0.089	11.78	0.496	144.3	0.367	95046.0	660.2
12/10/02 13:17	88.1	0.098	11.79	0.497	140.4	0.356	95244.0	662.6
12/10/02 13:18	108.8	0.120	11.84	0.492	139.3	0.352	95454.0	663.8
12/10/02 13:19	118.8	0.132	11.82	0.489	141.2	0.357	95472.0	662.8
12/10/02 13:20	113.1	0.125	11.87	0.481	143.4	0.361	95454.0	660.9
12/10/02 13:21	78.9	0.088	11.90	0.478	144.1	0.362	95106.0	661.8
12/10/02 13:22	65.1	0.072	11.86	0.481	140.1	0.353	95106.0	665.1
12/10/02 13:23	58.0	0.065	11.82	0.483	140.9	0.357	95118.0	667.3
12/10/02 13:24	85.3	0.094	11.84	0.486	142.1	0.359	94428.0	667.9
12/10/02 13:25	106.1	0.117	11.87	0.483	142.5	0.359	94416.0	667.0
12/10/02 13:26	69.4	0.076	11.93	0.483	141.9	0.356	94416.0	666.9
12/10/02 13:27	70.3	0.077	11.94	0.477	139.6	0.349	94416.0	666.3
12/10/02 13:28	63.7	0.071	11.84	0.485	136.9	0.345	94308.0	665.6
12/10/02 13:29	71.5	0.080	11.78	0.490	138.7	0.352	94200.0	664.8
12/10/02 13:30	67.7	0.075	11.81	0.490	139.9	0.354	94188.0	664.5
12/10/02 13:31	54.9	0.061	11.82	0.490	139.1	0.352	94560.0	663.0
12/10/02 13:32	82.8	0.092	11.81	0.485	138.5	0.350	94680.0	661.4
12/10/02 13:33	83.9	0.093	11.87	0.480	140.2	0.353	94668.0	660.8
12/10/02 13:34	86.6	0.096	11.84	0.485	140.4	0.354	94680.0	661.7
12/10/02 13:35	64.1	0.071	11.77	0.491	139.5	0.354	94560.0	664.6
12/10/02 13:36	61.2	0.068	11.81	0.490	139.3	0.353	94416.0	665.0
Final Average*	**80.1**	**0.089**	**11.84**	**0.487**	**140.8**	**0.356**	**94770.8**	**663.8**
Maximum*	**118.8**	**0.132**	**11.94**	**0.497**	**144.5**	**0.367**	**95472.0**	**667.9**
Minimum*	**54.9**	**0.061**	**11.77**	**0.477**	**136.9**	**0.345**	**94188.0**	**659.1**

*Does not include Invalid Averaging Periods ("N/A")

#2 Outlet GAS
Run #4

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 14:28

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 13:56
Period End: 12/10/02 14:17
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Load MW
12/10/02 13:56	47.2	0.052	11.81	0.488	133.9	0.339	93672.0	667.1
12/10/02 13:57	43.9	0.049	11.72	0.498	131.5	0.336	93660.0	667.4
12/10/02 13:58	61.8	0.069	11.81	0.492	133.6	0.338	93660.0	666.9
12/10/02 13:59	80.6	0.089	11.93	0.483	138.0	0.346	94584.0	665.8
12/10/02 14:00	71.4	0.078	11.97	0.480	140.9	0.352	94902.0	665.4
12/10/02 14:01	67.7	0.075	11.87	0.485	145.5	0.366	94902.0	666.3
12/10/02 14:02	51.2	0.057	11.78	0.498	150.6	0.381	94914.0	665.6
12/10/02 14:03	47.7	0.053	11.76	0.500	150.8	0.383	94920.0	664.5
12/10/02 14:04	57.4	0.064	11.79	0.495	154.5	0.392	94902.0	664.6
12/10/02 14:05	59.3	0.067	11.84	0.488	156.9	0.396	94914.0	664.6
12/10/02 14:06	48.9	0.054	11.79	0.490	154.7	0.393	94902.0	665.3
12/10/02 14:07	58.0	0.064	11.82	0.490	152.1	0.385	94914.0	666.0
12/10/02 14:08	67.8	0.075	11.82	0.489	150.6	0.381	94890.0	666.3
12/10/02 14:09	92.8	0.102	11.87	0.479	152.7	0.384	94914.0	667.4
12/10/02 14:10	100.8	0.111	11.87	0.478	154.9	0.390	94926.0	667.5
12/10/02 14:11	88.4	0.097	11.90	0.479	153.4	0.385	97656.0	668.3
12/10/02 14:12	67.3	0.075	11.84	0.484	151.5	0.382	97650.0	667.8
12/10/02 14:13	59.3	0.066	11.82	0.488	153.2	0.387	97650.0	667.4
12/10/02 14:14	64.9	0.071	11.89	0.483	156.6	0.394	97638.0	666.4
12/10/02 14:15	63.8	0.071	11.89	0.481	158.3	0.399	100998.0	665.3
12/10/02 14:16	59.8	0.067	11.81	0.486	156.8	0.398	101010.0	666.5
12/10/02 14:17	52.3	0.058	11.76	0.491	154.9	0.394	100980.0	668.5
Final Average*	**64.2**	**0.071**	**11.83**	**0.488**	**149.4**	**0.377**	**96052.6**	**666.4**
Maximum*	**100.8**	**0.111**	**11.97**	**0.500**	**158.3**	**0.399**	**101010.0**	**668.5**
Minimum*	**43.9**	**0.049**	**11.72**	**0.478**	**131.5**	**0.336**	**93660.0**	**664.5**

*Does not include Invalid Averaging Periods ("N/A")

#2 OUT GAS
RUN #5

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 15:19

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 14:43
Period End: 12/10/02 15:04
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Loa MW
12/10/02 14:43	58.8	0.065	11.74	0.485	156.6	0.399	100650.0	660.3
12/10/02 14:44	52.3	0.058	11.75	0.491	158.3	0.403	100662.0	662.1
12/10/02 14:45	44.2	0.050	11.71	0.493	158.3	0.404	100902.0	663.6
12/10/02 14:46	43.4	0.048	11.73	0.492	158.6	0.404	101172.0	666.7
12/10/02 14:47	46.7	0.052	11.73	0.490	156.9	0.400	101124.0	668.7
12/10/02 14:48	57.3	0.064	11.74	0.487	156.4	0.398	101160.0	669.0
12/10/02 14:49	91.7	0.102	11.80	0.484	159.8	0.405	101448.0	668.5
12/10/02 14:50	69.9	0.078	11.87	0.480	162.5	0.409	101550.0	668.6
12/10/02 14:51	71.4	0.079	11.88	0.479	159.9	0.403	101556.0	668.7
12/10/02 14:52	72.3	0.080	11.83	0.485	158.7	0.401	100914.0	668.2
12/10/02 14:53	67.8	0.076	11.75	0.491	158.9	0.404	100692.0	667.7
12/10/02 14:54	55.7	0.062	11.80	0.488	161.1	0.408	100686.0	666.3
12/10/02 14:55	63.2	0.070	11.85	0.484	164.0	0.414	100686.0	665.0
12/10/02 14:56	65.2	0.073	11.79	0.488	163.7	0.415	100758.0	664.2
12/10/02 14:57	55.8	0.062	11.86	0.486	160.0	0.404	100818.0	661.6
12/10/02 14:58	59.7	0.065	11.79	0.487	160.0	0.406	100818.0	662.3
12/10/02 14:59	84.8	0.094	11.82	0.484	162.7	0.412	100794.0	664.2
12/10/02 15:00	63.2	0.071	11.75	0.488	162.1	0.412	101058.0	665.0
12/10/02 15:01	53.4	0.060	11.69	0.493	160.3	0.410	101112.0	665.9
12/10/02 15:02	58.3	0.065	11.81	0.487	162.1	0.410	101112.0	665.7
12/10/02 15:03	73.4	0.081	11.86	0.485	164.9	0.416	101124.0	664.5
12/10/02 15:04	70.6	0.078	11.78	0.490	164.6	0.418	101100.0	660.2
Final Average*	**62.7**	**0.070**	**11.79**	**0.487**	**160.5**	**0.407**	**100995.3**	**665.3**
Maximum*	**91.7**	**0.102**	**11.88**	**0.493**	**164.9**	**0.418**	**101556.0**	**669.0**
Minimum*	**43.4**	**0.048**	**11.69**	**0.479**	**156.4**	**0.398**	**100650.0**	**660.2**

*Does not include Invalid Averaging Periods ("N/A")

#2 Outlet GA
Run #6

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 16:15

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 15:20
Period End: 12/10/02 15:41
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Load MW
12/10/02 15:20	54.3	0.060	11.86	0.483	170.6	0.431	100338.0	666.6
12/10/02 15:21	52.7	0.059	11.80	0.484	168.7	0.427	100362.0	666.5
12/10/02 15:22	69.1	0.076	11.84	0.482	167.4	0.422	100440.0	666.3
12/10/02 15:23	70.9	0.079	11.82	0.482	167.3	0.423	100470.0	665.0
12/10/02 15:24	71.0	0.079	11.77	0.485	169.2	0.429	100452.0	662.2
12/10/02 15:25	58.3	0.064	11.86	0.480	172.6	0.435	99894.0	657.0
12/10/02 15:26	69.8	0.077	11.85	0.481	172.3	0.435	99858.0	657.5
12/10/02 15:27	69.3	0.077	11.82	0.488	169.3	0.428	99894.0	662.1
12/10/02 15:28	59.9	0.067	11.71	0.497	166.3	0.424	100344.0	664.0
12/10/02 15:29	62.5	0.070	11.75	0.490	169.3	0.430	100518.0	665.2
12/10/02 15:30	63.6	0.071	11.80	0.486	173.5	0.440	100518.0	665.9
12/10/02 15:31	64.7	0.072	11.83	0.483	173.8	0.439	100494.0	666.9
12/10/02 15:32	77.3	0.085	11.85	0.481	172.5	0.436	100770.0	667.0
12/10/02 15:33	88.2	0.098	11.80	0.483	174.4	0.442	100782.0	667.1
12/10/02 15:34	94.1	0.104	11.93	0.474	178.3	0.447	100770.0	666.7
12/10/02 15:35	69.7	0.077	11.89	0.475	179.8	0.452	101010.0	665.5
12/10/02 15:36	61.2	0.068	11.84	0.488	178.5	0.451	101112.0	666.5
12/10/02 15:37	68.4	0.076	11.78	0.485	170.6	0.433	101112.0	667.8
12/10/02 15:38	66.8	0.074	11.77	0.487	165.0	0.419	101046.0	669.3
12/10/02 15:39	92.9	0.103	11.80	0.481	168.4	0.426	100770.0	670.0
12/10/02 15:40	103.9	0.115	11.89	0.473	171.8	0.431	100746.0	668.0
12/10/02 15:41	93.2	0.102	11.94	0.468	169.9	0.426	100734.0	665.2
Final Average*	**71.9**	**0.080**	**11.83**	**0.483**	**171.3**	**0.433**	**100565.2**	**665.4**
Maximum*	**103.9**	**0.115**	**11.94**	**0.497**	**179.8**	**0.452**	**101112.0**	**670.0**
Minimum*	**52.7**	**0.059**	**11.71**	**0.468**	**165.0**	**0.419**	**99858.0**	**657.0**

*Does not include Invalid Averaging Periods ("N/A")

#2 Outlet Gas
Run # 7

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 16:37

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 16:01
Period End: 12/10/02 16:22
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Loa MW
12/10/02 16:01	86.1	0.095	11.78	0.485	165.0	0.418	99978.0	665.0
12/10/02 16:02	101.9	0.112	11.90	0.471	164.2	0.412	100002.0	660.9
12/10/02 16:03	95.0	0.105	11.92	0.470	165.9	0.416	99990.0	658.5
12/10/02 16:04	67.8	0.075	11.85	0.478	166.7	0.420	99954.0	662.6
12/10/02 16:05	61.3	0.068	11.80	0.484	166.8	0.423	99990.0	665.6
12/10/02 16:06	61.5	0.069	11.70	0.490	168.7	0.432	99954.0	666.7
12/10/02 16:07	85.7	0.095	11.82	0.482	164.9	0.417	99978.0	667.8
12/10/02 16:08	107.4	0.119	11.86	0.479	163.6	0.412	99978.0	668.2
12/10/02 16:09	84.0	0.093	11.87	0.478	164.8	0.416	100086.0	667.2
12/10/02 16:10	95.9	0.106	11.83	0.476	165.8	0.418	100074.0	665.5
12/10/02 16:11	112.4	0.124	11.89	0.472	164.3	0.414	100074.0	664.9
12/10/02 16:12	114.2	0.126	11.89	0.475	160.9	0.404	100440.0	665.0
12/10/02 16:13	79.1	0.088	11.76	0.487	159.3	0.405	100782.0	665.1
12/10/02 16:14	71.6	0.080	11.77	0.486	162.0	0.411	100746.0	665.9
12/10/02 16:15	69.9	0.077	11.83	0.476	166.2	0.420	100506.0	665.1
12/10/02 16:16	93.9	0.103	11.91	0.466	168.1	0.422	100266.0	664.0
12/10/02 16:17	102.0	0.113	11.82	0.474	163.9	0.415	100308.0	662.9
12/10/02 16:18	111.3	0.124	11.78	0.477	161.4	0.409	100278.0	662.9
12/10/02 16:19	77.2	0.086	11.76	0.483	162.4	0.413	100386.0	663.3
12/10/02 16:20	74.9	0.084	11.74	0.483	165.3	0.420	100464.0	663.7
12/10/02 16:21	90.7	0.101	11.77	0.487	164.1	0.417	100440.0	663.2
12/10/02 16:22	94.9	0.105	11.79	0.483	161.1	0.409	100044.0	664.2
Final Average*	**88.1**	**0.098**	**11.82**	**0.479**	**164.3**	**0.416**	**100214.5**	**664.5**
Maximum*	**114.2**	**0.126**	**11.92**	**0.490**	**168.7**	**0.432**	**100782.0**	**668.2**
Minimum*	**61.3**	**0.068**	**11.70**	**0.466**	**159.3**	**0.404**	**99954.0**	**658.5**

*Does not include Invalid Averaging Periods ("N/A")

#2 Outlet GAS
Run #3

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 17:23

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 16:38
Period End: 12/10/02 16:59
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Loa MW
12/10/02 16:38	71.2	0.079	11.83	0.473	161.9	0.409	101208.0	666.1
12/10/02 16:39	79.2	0.088	11.83	0.471	161.9	0.409	101244.0	664.5
12/10/02 16:40	90.8	0.100	11.86	0.474	165.1	0.416	101022.0	661.6
12/10/02 16:41	89.7	0.100	11.80	0.479	163.1	0.413	101034.0	661.2
12/10/02 16:42	88.8	0.099	11.79	0.474	162.1	0.411	101010.0	665.0
12/10/02 16:43	67.9	0.075	11.79	0.478	162.2	0.411	101034.0	665.9
12/10/02 16:44	69.3	0.077	11.77	0.479	164.2	0.416	100968.0	666.8
12/10/02 16:45	122.3	0.136	11.82	0.474	167.6	0.424	100968.0	667.8
12/10/02 16:46	121.3	0.134	11.85	0.472	170.8	0.431	100944.0	666.0
12/10/02 16:47	145.7	0.161	11.89	0.467	168.0	0.422	100362.0	665.6
12/10/02 16:48	164.4	0.180	11.93	0.465	166.8	0.419	100158.0	666.4
12/10/02 16:49	91.7	0.101	11.84	0.474	166.1	0.419	100146.0	666.5
12/10/02 16:50	66.2	0.073	11.77	0.479	166.7	0.423	100254.0	665.8
12/10/02 16:51	108.4	0.121	11.76	0.478	166.5	0.423	100506.0	666.6
12/10/02 16:52	118.0	0.130	11.87	0.471	165.7	0.418	100494.0	666.3
12/10/02 16:53	159.8	0.176	11.92	0.470	165.7	0.415	100536.0	665.7
12/10/02 16:54	104.3	0.116	11.81	0.477	167.5	0.423	100704.0	664.5
12/10/02 16:55	84.5	0.094	11.86	0.475	169.8	0.428	100674.0	660.8
12/10/02 16:56	71.7	0.079	11.86	0.475	169.5	0.427	100674.0	661.3
12/10/02 16:57	81.3	0.090	11.83	0.475	165.6	0.418	100668.0	664.8
12/10/02 16:58	77.8	0.087	11.77	0.479	161.9	0.411	100638.0	664.2
12/10/02 16:59	70.3	0.078	11.82	0.477	161.8	0.410	100650.0	663.4
Final Average*	**97.5**	**0.108**	**11.83**	**0.474**	**165.5**	**0.418**	**100722.5**	**664.9**
Maximum*	**164.4**	**0.180**	**11.93**	**0.479**	**170.8**	**0.431**	**101244.0**	**667.8**
Minimum*	**66.2**	**0.073**	**11.76**	**0.465**	**161.8**	**0.409**	**100146.0**	**660.8**

*Does not include Invalid Averaging Periods ("N/A")

2 OUTLET GAS
Run #9

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 17:49

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 17:17
Period End: 12/10/02 17:38
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2outCO_C ppm	Average 2outCO_MM #/M	Average 2outCO2_C %	Average 2outNOX_MM #/M	Average 2outSO2_C ppm	Average 2outSO2_MM #/M	Average 2Stk_kscfh kscfh	Average 2Unit_Loa MW
12/10/02 17:17	71.3	0.079	11.83	0.474	165.7	0.419	101034.0	664.0
12/10/02 17:18	65.3	0.073	11.75	0.477	162.3	0.413	101040.0	664.7
12/10/02 17:19	74.2	0.083	11.74	0.475	164.9	0.420	101076.0	665.3
12/10/02 17:20	70.9	0.079	11.76	0.474	167.7	0.426	101100.0	665.2
12/10/02 17:21	55.2	0.061	11.78	0.473	167.3	0.425	101076.0	665.2
12/10/02 17:22	64.4	0.071	11.84	0.470	165.4	0.417	101022.0	665.9
12/10/02 17:23	94.1	0.104	11.81	0.474	164.4	0.416	100944.0	667.2
12/10/02 17:24	82.1	0.091	11.77	0.476	165.6	0.421	100968.0	665.3
12/10/02 17:25	89.4	0.098	11.87	0.466	169.3	0.426	100902.0	660.5
12/10/02 17:26	94.3	0.104	11.86	0.465	169.5	0.427	100728.0	658.8
12/10/02 17:27	98.1	0.109	11.84	0.463	165.7	0.418	100734.0	663.3
12/10/02 17:28	71.7	0.080	11.75	0.468	160.5	0.408	100734.0	666.2
12/10/02 17:29	68.7	0.076	11.75	0.473	159.9	0.407	100662.0	665.5
12/10/02 17:30	82.5	0.092	11.75	0.470	162.5	0.413	100638.0	665.8
12/10/02 17:31	85.9	0.096	11.79	0.466	165.0	0.419	100626.0	664.4
12/10/02 17:32	74.9	0.083	11.82	0.467	164.7	0.417	100596.0	663.1
12/10/02 17:33	59.3	0.066	11.72	0.475	164.6	0.419	100386.0	663.3
12/10/02 17:34	60.4	0.068	11.71	0.474	166.9	0.426	100362.0	663.8
12/10/02 17:35	82.0	0.091	11.75	0.469	168.6	0.429	100374.0	664.7
12/10/02 17:36	78.1	0.087	11.76	0.471	170.8	0.434	99714.0	665.0
12/10/02 17:37	66.2	0.074	11.76	0.471	166.1	0.422	99702.0	665.3
12/10/02 17:38	71.1	0.079	11.79	0.470	161.9	0.410	99726.0	665.6
Final Average*	**75.5**	**0.084**	**11.78**	**0.471**	**165.4**	**0.420**	**100642.9**	**664.5**
Maximum*	**98.1**	**0.109**	**11.87**	**0.477**	**170.8**	**0.434**	**101100.0**	**667.2**
Minimum*	**55.2**	**0.061**	**11.71**	**0.463**	**159.9**	**0.407**	**99702.0**	**658.8**

*Does not include Invalid Averaging Periods ("N/A")

ST. JOHNS RIVER POWER PARK

BOILER CONTROL ROOM DATA

UNIT # 2 **Date:** 12/10/02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		DB	DB	DB	DB	DB	DB
Time		09:00	09:30	10:00	10:30	11:00	11:30
Steam Flow	LB/HR x 10^6	4.64	4.73	4.64	4.65	4.72	4.72
Air Flow	%	66	66	66	66	66	66
Generator Load (Gross)	Megawatts	660	658	653	652	659	663
Boiler Thermal Demand	Megawatts	663	660	657	654	662	666
O2 Flue Gas	%	2.8	2.8	2.9	2.8	2.8	2.6
Fuel Flow	%	93.2	93.5	93.4	93.4	92.8	93.3
COAL TOTALIZER	**TONS**						
A		18819	18843	18864	18888	18909	18934
B		14847	14869	14889	14912	14930	14954
C		11306	11328	11347	11370	11388	11412
D		19605	19605	19605	19605	19605	19605
E		4637	4656	4673	4692	4708	4729
F		13055	13076	13095	13117	13135	13158
G		6612	6632	6650	6670	6687	6708

ST. JOHNS RIVER POWER PARK

BOILER CONTROL ROOM DATA

UNIT # 2 **Date:** 12/10/02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		DB	DB	DB	DB	DB	DB
Time		12:00	12:30	13:00	13:30	14:00	14:30
Steam Flow	LB/HR x 10^6	4.71	4.70	4.74	4.76	4.76	4.72
Air Flow	%	67	67	67	67	68	67
Generator Load (Gross)	Megawatts	662	659	662	668	667	668
Boiler Thermal Demand	Megawatts	664	663	664	678	670	671
O2 Flue Gas	%	2.8	2.9	2.9	2.9	3.0	3.1
Fuel Flow	%	94.4	94.5	93.5	94.5	94.5	94
COAL TOTALIZER	**TONS**						
A		18954	18976	18995	19018	19040	19065
B		14971	14993	15011	15031	15052	15076
C		11428	11450	11468	11488	11509	11532
D		19605	19605	19605	19605	19605	19605
E		4742	4762	4778	4796	4814	4835
F		13172	13194	13212	13232	13252	13274
G		6728	6746	6761	6780	6800	6822

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA
UNIT # 2 **Date:** 12/10/02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		DB	DB	DB	DB	DB	DB
Time		15:00	15:30	16:00	16:30	17:00	17:30
Steam Flow	LB/HR x 10^6	4.73	4.67	4.74	4.74	4.75	4.74
Air Flow	%	68	67	68	66	66	67
Generator Load (Gross)	Megawatts	664	657	665	667	664	670
Boiler Thermal Demand	Megawatts	667	661	668	670	667	667
O2 Flue Gas	%	3.1	3.0	3.0	2.8	2.9	3.1
Fuel Flow	%	93.9	93.4	94.2	93.9	94	93.6
COAL TOTALIZER	**TONS**						
A		19083	19107	19127	19148	19171	19191
B		15093	15115	15135	15154	15177	15196
C		11549	11572	11591	11610	11633	11651
D		19605	19605	19605	19605	19605	19605
E		4850	4870	4887	4904	4923	4940
F		13291	13312	13331	13350	13371	13389
G		6838	6859	6877	6895	6916	6933

ST. JOHNS RIVER POWER PARK
FLUE GAS DESULFURIZATION
OPERATIONAL PARAMETERS
UNIT # 2

Date: 12/10/02
Initials: [illegible]

HOUR	PACKING DIFFERENTIAL PRESSURE (inches H2O column)		
	A	B	C
0000			
0100			
0200			
0300			
0400			
0500			
0600			
0700			
0800	5.9	[illegible]	5.3
0900	6.0		5.6
1000	6.0		5.6
1100	6.0		5.6
1200	6.0		5.6
1300	6.0		5.6
1400	5.9		5.7
1500	5.9		5.6
1600	5.8		5.5
1700	5.9		5.6
1800			
1900			
2000			
2100			
2200			
2300			

Daily Water System Use: _____ **(Total Gallons) / 1440 (min/day) = GPM**

COMMENTS: Start 798 [illegible]
END 834

PARTICULATE EMISSIONS TEST REPORT No. 130 – 001

UNITS 1 & 2 - SJRPP

Commissioned By: St. Johns River Power Park
11201 New Berlin Road
Jacksonville, FL 32226

Prepared By: Coastal Air Consulting, Inc.
January 13, 2003

COASTAL AIR CONSULTING INC.

1531 Wyngate Drive DeLand, FL 32724
Phone (386) 943 9241 / Cell (386) 451-0169 / Fax (386) 943 9212

COMPLETE EMISSIONS TESTING SERVICES • PERMITTING ASSISTANCE • CEMS CERTIFICATION • AMBIENT AIR MONITORING

STATEMENT OF VALIDITY

All testing activities and results represented herein were conducted and obtained in accordance with the approved, industry standard, EPA protocols listed in CFR 40 Part 60. The contents have been reviewed and verified, to the extent practical, to be valid and accurate representation of the source emissions at the time of testing.

Stephen C. Webb
President

PROJECT STATISTICS

Client:	St. Johns River Power Park
Facility:	SJRPP Units 1 & 2
Location:	11201 New Berlin Road Jacksonville, FL 32226
Type of Process Tested:	Coal Fired Utility Steam Generating Units
Test Protocols Performed:	Particulate-EPA Method 5B Opacity-EPA Method 9
Testing Firm:	Coastal Air Consulting, Inc. 1531 Wyngate Dr. DeLand, FL 32724
Test Personnel:	Steve Webb — Site Supervisor Joe Cieslinske — Technician Monte Crosby — Technician Melvin Petiet — Technician
Test Date:	December 9 & 10, 2002
Client Representative:	Bruce Kofler
Observers:	John Gay — DEP Northeast District William Coffman — City of Jacksonville

TABLE OF CONTENTS

1.0 Introduction

Coastal Air Consulting, Inc. (Coastal) was contracted by SJRPP to perform the annual compliance testing for particulate emissions at the SJRPP Units 1 & 2 in Jacksonville, Florida.

The sampling program was conducted on December 9 & 10, 2002. The testing was performed by Coastal personnel. Mr. Bruce Kofler of SJRPP coordinated plant operations during the testing.

2.0 Test Program Summary

A summary of test results developed by this source sampling program is presented in TABLES 1 and 2 as follows;

TABLE 1
Summary of Particulate Emissions

Source	Particulate (lb/mmBtu)	Permit (lb/mmBtu)
Unit 1 Compliance	0.005	0.03
Unit 2 Compliance	0.003	0.03

TABLE 2
Summary of Visible Emissions

Source	Average VE (%)	Highest 6 min (%)	Permitted (%)
Unit 1 Stack Soot Blowing	10.7	11.7	20
Unit 2 Stack Soot Blowing	5.3	7.5	20
Flyash Area Around Baghouse	0.2	1.9	10
Limestone Hopper	0.0	0.0	10
Limestone Day Baghouse Unit 1	0.0	0.0	10
Limestone Day Baghouse Unit 2	0.0	0.0	10
Flyash Silo Baghouse Unit 1	0.0	0.0	10
Flyash Silo Baghouse Unit 2	0.0	0.0	10

3.0 Results of Testing

Individual test run results are shown in Tables 3 and 4 and are tabulated in Appendix 1. These results indicate that Units 1 and 2 were in compliance at the time of testing under normal operating conditions.

TABLE 3
COASTAL AIR CONSULTING, INC.

PARTICULATE EMISSION TEST SUMMARY

CLIENT: St. Johns River Power Park
PLANT: SJRPP
UNIT: 1
TEST: COMPLIANCE
METHOD: 5B

		Soot Blowing	
	RUN 1	RUN 2	RUN 3
DATE OF RUN	12/9/02	12/9/02	12/9/02
GROSS LOAD (MW)	655	661	670
START TIME (24-HR CLOCK)	900	1216	1516
END TIME (24-HR CLOCK)	1110	1424	1724
VOL DRY GAS SAMPLED METER COND (DCF)	113.497	115.477	112.782
BAROMETRIC PRESSURE (IN. HG)	29.63	29.63	29.63
AVG ORIFICE PRESSURE DROP (IN. H20)	2.788	2.917	2.800
AVG GAS METER TEMP (F)	100.2	101.5	101.4
GAS METER CALIBRATION FACTOR	1.0050	1.0050	1.0050
VOL GAS SAMPLED STD COND (DSCF)	107.166	108.811	106.257
TOTAL WATER COLLECTED (G)	317.4	354.5	348.6
VOL WATER COLLECTED STD COND (SCF)	14.97	16.71	16.44
MOISTURE IN STACK GAS (% VOL)	12.25	13.32	13.40
MOLE FRACTION DRY GAS	0.877	0.867	0.866
CO2 VOL PERCENT DRY	12.2	12.4	12.6
O2 VOL PERCENT DRY	6.4	6.6	6.6
N2 VOL PERCENT DRY	81.40	81.00	80.80
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.21	30.25	30.28
MOL. WT. WET STACK GAS (LB/LB-MOLE)	28.71	28.62	28.63
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-0.76	-0.78	-0.81
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.57	29.57	29.57
AVERAGE SQUARE ROOT VELOCITY HEAD	1.176	1.205	1.180
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	146.9	152.9	147.6
STACK GAS VELOCITY STACK COND (FT/SEC)	71.41	73.65	71.79
CROSS SECTION STACK AREA (SQ FT)	471.435	471.435	471.435
STACK GAS FLOW RATE STD COND (DSCFM)	1524026.2	1537534.1	1510328.4
STACK GAS FLOW RATE STACK COND (ACFM)	2019915.2	2083285.5	2030657.0
NET TIME OF RUN (MIN)	120	120	120
NOZZLE DIAMETER (IN)	0.225	0.225	0.225
PERCENT ISOKINETIC	100.11	100.75	100.16
PARTICULATE COLLECTED (MG)	11.6	20.0	19.2
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9780.00	9780.00	9780.00
HEAT INPUT COAL (%)	100.0	100.0	100.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.0017	0.0028	0.0028
PARTICULATE EMISSIONS (LB/HR)	21.81	37.37	36.09
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.0034	0.0058	0.0057
AVERAGE PARTICULATE EMISSIONS (LB/HR)		**31.76**	
AVERAGE PARTICULATE EMISSIONS (LB/MMBTU)		**0.0049**	

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

TABLE 4
COASTAL AIR CONSULTING, INC.

PARTICULATE EMISSION TEST SUMMARY

CLIENT: St. Johns River Power Park
PLANT: SJRPP
UNIT: 2
TEST: COMPLIANCE
METHOD: 5B

	RUN 1	RUN 2	RUN 3
DATE OF RUN	12/10/02	12/10/02	12/10/02
GROSS LOAD (MW)	659	664	665
START TIME (24-HR CLOCK)	915	1210	1500
END TIME (24-HR CLOCK)	1124	1416	1706
VOL DRY GAS SAMPLED METER COND (DCF)	111.855	113.809	111.991
BAROMETRIC PRESSURE (IN. HG)	29.65	29.65	29.65
AVG ORIFICE PRESSURE DROP (IN. H20)	2.717	2.750	2.700
AVG GAS METER TEMP (F)	95.9	98.4	98.1
GAS METER CALIBRATION FACTOR	1.0050	1.0050	1.0050
VOL GAS SAMPLED STD COND (DSCF)	106.476	107.860	106.187
TOTAL WATER COLLECTED (G)	321.7	313.8	322.4
VOL WATER COLLECTED STD COND (SCF)	15.17	14.80	15.20
MOISTURE IN STACK GAS (% VOL)	12.47	12.06	12.52
MOLE FRACTION DRY GAS	0.875	0.879	0.875
CO2 VOL PERCENT DRY	12.8	12.6	12.8
O2 VOL PERCENT DRY	6.0	6.2	5.9
N2 VOL PERCENT DRY	81.20	81.20	81.30
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.29	30.26	30.28
MOL. WT. WET STACK GAS (LB/LB-MOLE)	28.76	28.78	28.75
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-0.80	-0.78	-0.82
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.59	29.59	29.59
AVERAGE SQUARE ROOT VELOCITY HEAD	1.163	1.171	1.159
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	141.1	141.6	144.2
STACK GAS VELOCITY STACK COND (FT/SEC)	70.22	70.64	70.17
CROSS SECTION STACK AREA (SQ FT)	471.435	471.435	471.435
STACK GAS FLOW RATE STD COND (DSCFM)	1510379.9	1525372.5	1500726.3
STACK GAS FLOW RATE STACK COND (ACFM)	1986330.3	1998335.8	1985069.7
NET TIME OF RUN (MIN)	120	120	120
NOZZLE DIAMETER (IN)	0.225	0.225	0.225
PERCENT ISOKINETIC	100.36	100.67	100.73
PARTICULATE COLLECTED (MG)	9.1	12.6	5.8
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9780.00	9780.00	9780.00
HEAT INPUT COAL (%)	100.0	100.0	100.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.0013	0.0018	0.0008
PARTICULATE EMISSIONS (LB/HR)	17.07	23.56	10.84
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.0026	0.0036	0.0016
AVERAGE PARTICULATE EMISSIONS (LB/HR)		**17.16**	
AVERAGE PARTICULATE EMISSIONS (LB/MMBTU)		**0.0026**	

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

4.0 Description of Source

St. Johns River Power Park Units 1 and 2 are coal fired utility steam generators. These units are located in Duval County, Florida.

The flue gas is exhausted through the Units 1 and 2 common stack. A schematic of the process and stack sampling location is included in Appendix 3 "Figures".

5.0 Sampling Procedures

EPA testing protocols utilized during this test program include the following;

EPA Method 1	Sample and Velocity Traverse for Stationary Sources
EPA Method 2	Determination of Stack Gas Velocity and Volumetric Flow Rate
EPA Method 3	Gas Analysis for CO2, O2, Excess Air and Dry Molecular Weight
EPA Method 4	Determination of Moisture Content in Stack Gas
EPA Method 5B	Determination of Nonsulfuric Acid Particulate Matter From Stationary Sources

The test runs were conducted in triplicate for all parameters with each being 120 minutes in duration.

5.1 Particulate – EPA Method 5B

This method of analysis is similar to EPA Method 5 except where specifically modified for the determination of nonsulfuric acid particulate matter from stationary sources. Emissions were determined in accordance with procedures outlined in EPA Method 5B. Specifically, while maintaining the probe liner and filter heater box to 320 $\pm$ 25 °F a sample of flue gas is isokinetically extracted from the stack gas stream and the particulate emissions are calculated by gravimetrically determining the amount of particulate matter collected in the glass nozzle, glass probe liner and glass fiber filter.

Gas sample volume is measured by passing the gas through a set of weighed impingers used to determine moisture content then through a calibrated dry gas meter. An S-type pitot tube is attached to the probe to simultaneously measure stack gas velocity and is used to maintain an isokinetic sampling profile. A "K-type" thermocouple, integral with the probe is used to measure the flue gas temperature.

Following each run, the nozzle, probe liner and filter holder upstream of the filter are brushed and rinsed with acetone and stored in a leak free container for transport to the laboratory. The total impinger content is weighed and compared to pretest weights to calculate the increase in grams of moisture used in determining flue gas water content.

Particulate matter is determined by drying each filter at 320 ^{0}F for six hours, desiccated to a final weight and results are recorded to within +/- 0.1 mg. Evaporate the acetone rinse in a tared beaker, desiccate to a final weight and record results to within +/- 0.1 mg.

Testing was conducted in a vertical section of the stack which is 294.0 inches in diameter. There are four test ports orientated 90 degrees apart. The test ports are located greater than 8 duct diameters downstream and greater than 2 duct diameters upstream from the nearest flow disturbance. The sampling was performed at three (3) traverse points for each port, 12 total points. Each test point was sampled for 10 minutes for a total sample time of 120 minutes.

6.0 Operating Conditions

St. Johns River Power Park personnel monitored operating conditions throughout the duration of the sampling program. The units were operating under normal conditions at an approximate output of 662 MW (gross).

7.0 Quality Assurance Procedures

Quality assurance procedures followed during these testing activities were applied consistent with the requirements outlined by the EPA methods referenced in CFR 40 Part 60. The specific procedures for this test program are listed below.

7.1 Isokinetic Equipment

- Nozzles - Inspected and measured across three different diameters to ensure uniformity to determine the appropriate nozzle diameter.
- S-type pitot tubes were visually inspected and measured to meet the design specifications of EPA Method 2 for a 0.84 pitot coefficient.
- Both legs of the pitot tube were leaked checked before and after each sample run.
- Thermocouples were calibrated prior to the testing and a post-test check is performed after each testing project.
- Manometers are leveled and zeroed before each sample run.
- Dry gas meters are fully calibrated on a semi-annual schedule using a set of EPA critical orifices.
- Post-test dry gas meter checks were completed to verify the accuracy of the meter Y values.
- Pre-test and post-test leak checks were completed and were less than 0.02 cfm at the highest sampling vacuum.

7.2 Chain of Custody

All the field samples were collected, sealed and transported to the Coastal office in DeLand, FL under the supervision of Steve Webb.

APPENDIX 1
REFERENCE DATA

UNIT 1

PARTICULATE TEST FIELD DATA SHEET

Client: SJRPP	Reference:	2.03	Filter #:	B13
Plant & Unit: SJRPP 1	Bar. Pressure (in.Hg):	29.63	Nozzle #:	G1
Type of test: Compliance	Static Pressure (H2O):	-0.76	Nozzle Dia.(in):	0.225
Method: 1-4 and 5B	Meter Box #:	CAC1	^H@ 1.797 Yi	1.0050
Run Number: 1	Ini. Pitot Leak Check:	OK @ 4"	Pitot # CAC11G	0.84
Date: 12/9/02	Fin. Pitot Leak Check:	OK @ 6"	Thermocouple #	11G
Sample Location: Stack	Ini. Leak Rate:0.00@	15 "	Impinger Set:	A
Operators: JLC/MLC	Fin. Leak Rate:0.00@	6 "	Sample Head:	A

POINT #	CLOCK TIME	SAMPLE TIME	DRY GAS VOLUME	VELOCITY HEAD (in H2O)	ORIFICE ^H (in H2O)	METER TEMP (F)	STACK TEMP (F)	PROBE TEMP (F)	HOT BOX TEMP (F)	IMPINGER TEMP (F)	VAC. (IN.HG)
			590.536								
S-1	900	10	600.1	1.50	3.00	85	146	313	315	60	5.0
S-2		20	610.2	1.50	3.00	92	147	313	318	57	5.0
S-3		30	617.425	0.93	1.86	96	145	313	325	58	3.0
W-1		10	628.4	1.60	3.20	98	146	310	315	60	5.0
W-2		20	637.5	1.50	3.00	99	146	315	324	61	5.0
W-3		30	646.579	1.20	2.40	102	146	308	315	63	4.0
N-1		10	656.6	1.60	3.20	102	146	316	318	64	5.0
N-2		20	666.8	1.60	3.20	107	146	313	316	60	5.0
N-3		30	675.677	1.20	2.40	107	147	308	313	63	4.0
E-1		10	685.6	1.60	3.20	102	148	308	315	62	5.0
E-2		20	695.7	1.50	3.00	105	150	311	321	64	5.0
E-3	1110	30	704.033	1.00	2.00	107	150	308	316	62	5.0
			113.497	1.176	2.788	100.2	146.9				

MOISTURE, PARTICULATE CATCH AND DRY MOLECULAR WEIGHT DATA

PLANT: SJRPP #1 **RUN 1**

DATE: 12/9/02

METHOD 4 MOISTURE DETERMINATION

IMPG SET:	A				
	IMPG.#1	**IMPG.#2**	**IMPG.#3**	**IMPG.#4**	**WT. BY**
FINAL WT.	913.0	740.7	620.1	951.1	SCW
INITIAL WT.	694.0	696.2	608.5	908.8	SCW
NET WT.	219.0	44.5	11.6	42.3	SCW
TOTAL WT.	317.4	note: all weights in grams			

PARTICULATE FILTER CATCH

FILTER #	B13	**BY**	**BEAKER #**	1	**BY**
FINAL WT.	0.3285	SCW	FINAL WT.	72.9430	SCW
INITIAL WT.	0.3236	SCW	INITIAL WT.	72.9363	SCW
NET WT.	0.0049	SCW	NET WT.	0.0067	SCW

TOTAL CATCH (grams)	0.0116
TOTAL CATCH (mg)	11.6

DRY MOLECULAR WEIGHT

GAS	1	2	3	**AVG**	**Fo:** 1.189
CO2	12.2	12.2	12.2	12.2	**ALLOWED Fo RANGE**
O2+CO2	18.6	18.6	18.6	-------	OIL: 1.210 TO 1.370
O2	6.4	6.4	6.4	6.4	COAL: 1.083 TO 1.230

4 MINUTE ORSAT ANALYZER CHECK

	BEFORE	**AFTER**	
BURETTE MENISCUS READING:	15	15	<0.2 ? YES
CO2 CAPILLARY TUBE LEVEL:	OK	OK	
O2 CAPILLARY TUBE LEVEL:	OK	OK	

PARTICULATE TEST FIELD DATA SHEET

Client: SJRPP	Reference:	2.01	Filter #: B15
Plant & Unit: SJRPP 1	Bar. Pressure (in.Hg):	29.63	Nozzle #: G2
Type of Test: Soot Blowing	Static Pressure (H2O):	-0.78	Nozzle Diam.(in): 0.225
Method: 1-4 and 5B	Meter Box #:	CAC1	^H@ 1.797 Yi 1.0050
Run Number: 2	Ini. Pitot Leak Check:	OK @ 5"	Pitot # CAC11G 0.84
Date: 12/9/02	Fin. Pitot Leak Check:	OK @ 4"	Thermocouple # 11G
Sample Location: Stack	Ini. Leak Rate:0.00@	15 "	Impinger Set: B
Operators: JLC/MLC	Fin. Leak Rate:0.00@	6 "	Sample Head: A

POINT #	CLOCK TIME	SAMPLE TIME	DRY GAS VOLUME	VELOCITY HEAD (in H2O)	ORIFICE ^H (in H2O)	METER TEMP (F)	STACK TEMP (F)	PROBE TEMP (F)	HOT BOX TEMP (F)	IMPINGER TEMP (F)	VAC. (IN.HG)
			704.650								
E-1	1216	10	715.4	1.60	3.20	90	153	300	310	63	5.0
E-2		20	724.0	1.60	3.20	96	154	307	314	51	5.0
E-3		30	733.895	1.20	2.40	100	153	306	318	53	4.0
N-1		10	743.7	1.60	3.20	98	153	308	313	55	5.0
N-2		20	753.5	1.60	3.20	102	154	308	318	53	5.0
N-3		30	762.419	1.20	2.40	104	153	306	318	56	4.0
W-1		10	772.5	1.60	3.20	102	153	310	312	55	5.0
W-2		20	782.4	1.50	3.00	104	153	310	319	53	5.0
W-3		30	791.189	1.20	2.40	106	154	312	319	55	4.0
S-1		10	801.3	1.60	3.20	102	153	306	316	59	5.0
S-2		20	811.4	1.60	3.20	107	151	316	319	55	5.0
S-3	1424	30	820.127	1.20	2.40	107	151	308	319	58	4.5
			115.477	1.205	2.917	101.5	152.9				

MOISTURE, PARTICULATE CATCH AND DRY MOLECULAR WEIGHT DATA

PLANT: SJRPP #1 **RUN 2 SB**

DATE: 12/9/02

METHOD 4 MOISTURE DETERMINATION

IMPG SET:	B				
	IMPG.#1	**IMPG.#2**	**IMPG.#3**	**IMPG.#4**	**WT. BY**
FINAL WT.	909.7	824.2	606.1	1032.2	SCW
INITIAL WT.	715.0	699.6	600.5	1002.6	SCW
NET WT.	194.7	124.6	5.6	29.6	SCW
TOTAL WT.	354.5	note: all weights in grams			

PARTICULATE FILTER CATCH

FILTER #	B15	**BY**	**BEAKER #**	3	**BY**
FINAL WT.	0.3370	SCW	FINAL WT.	73.2826	SCW
INITIAL WT.	0.3248	SCW	INITIAL WT.	73.2748	SCW
NET WT.	0.0122	SCW	NET WT.	0.0078	SCW

TOTAL CATCH (grams)	0.0200
TOTAL CATCH (mg)	20

DRY MOLECULAR WEIGHT

GAS	1	2	3	**AVG**	**Fo:** 1.153
CO2	12.4	12.4	12.4	12.4	**ALLOWED Fo RANGE**
O2+CO2	19.0	19.0	19.0	-------	OIL: 1.210 TO 1.370
O2	6.6	6.6	6.6	6.6	COAL: 1.083 TO 1.230

4 MINUTE ORSAT ANALYZER CHECK

	BEFORE	**AFTER**	
BURETTE MENISCUS READING:	15	15	<0.2 ? YES
CO2 CAPILLARY TUBE LEVEL:	OK	OK	
O2 CAPILLARY TUBE LEVEL:	OK	OK	

PARTICULATE TEST FIELD DATA SHEET

Client: SJRPP	Reference:	1.99	Filter #:	B14
Plant & Unit: SJRPP 1	Bar. Pressure (in.Hg):	29.63	Nozzle #:	G1
Type of test: Compliance	Static Pressure (H2O):	-0.81	Nozzle Diam.(in):	0.225
Method: 1-4 and 5B	Meter Box #:	CAC1	^H@ 1.797 Yi	1.0050
Run Number: 3	Ini. Pitot Leak Check:	OK @ 5"	Pitot # CAC11G	0.84
Date: 12/9/02	Fin. Pitot Leak Check:	OK @ 6"	Thermocouple #	11G
Sample Location: Stack	Ini. Leak Rate:0.00@	15 "	Impinger Set:	C
Operators: JLC/MLC	Fin. Leak Rate:0.00@	6 "	Sample Head:	A

POINT #	CLOCK TIME	SAMPLE TIME	DRY GAS VOLUME	VELOCITY HEAD (in H2O)	ORIFICE ^H (in H2O)	METER TEMP (F)	STACK TEMP (F)	PROBE TEMP (F)	HOT BOX TEMP (F)	IMPINGER TEMP (F)	VAC. (IN.HG)
			820.341								
S-1	1516	10	830.6	1.60	3.20	91	152	310	308	63	5.0
S-2		20	840.1	1.50	3.00	97	151	308	321	46	5.0
S-3		30	848.924	1.20	2.40	100	147	307	319	46	4.5
W-1		10	859.0	1.60	3.20	98	147	310	320	49	5.0
W-2		20	868.4	1.40	2.80	102	147	310	320	46	5.0
W-3		30	877.230	1.20	2.40	104	147	310	320	48	4.0
N-1		10	887.4	1.60	3.20	101	147	300	322	54	5.0
N-2		20	897.3	1.60	3.20	104	147	304	321	50	5.0
N-3		30	905.633	1.10	2.20	106	147	304	320	52	4.5
E-1		10	916.1	1.60	3.20	101	147	302	319	57	5.0
E-2		20	924.6	1.30	2.60	106	146	306	321	52	5.0
E-3	1724	30	933.123	1.10	2.20	107	146	303	319	54	4.0
			112.78	1.180	2.800	101.4	147.6				

MOISTURE, PARTICULATE CATCH AND DRY MOLECULAR WEIGHT DATA

PLANT: SJRPP #1 **RUN 3**
DATE: 12/9/02

METHOD 4 MOISTURE DETERMINATION

IMPG SET:	C				
	IMPG.#1	**IMPG.#2**	**IMPG.#3**	**IMPG.#4**	**WT. BY**
FINAL WT.	929.8	793.7	623.7	1049.2	SCW
INITIAL WT.	721.3	687.0	618.5	1021.0	SCW
NET WT.	208.5	106.7	5.2	28.2	SCW
TOTAL WT.	348.6	note: all weights in grams			

PARTICULATE FILTER CATCH

FILTER #	B14	**BY**	**BEAKER #**	2	**BY**
FINAL WT.	0.3273	SCW	FINAL WT.	73.0668	SCW
INITIAL WT.	0.3228	SCW	INITIAL WT.	73.0521	SCW
NET WT.	0.0045	SCW	NET WT.	0.0147	SCW

TOTAL CATCH (grams)	0.0192
TOTAL CATCH (mg)	19.2

DRY MOLECULAR WEIGHT

GAS	1	2	3	**AVG**	**Fo:** 1.135
CO2	12.6	12.6	12.6	12.6	**ALLOWED Fo RANGE**
O2+CO2	19.2	19.2	19.2	-------	OIL: 1.210 TO 1.370
O2	6.6	6.6	6.6	6.6	COAL: 1.083 TO 1.230

4 MINUTE ORSAT ANALYZER CHECK

	BEFORE	**AFTER**	
BURETTE MENISCUS READING:	15	15	<0.2 ? YES
CO2 CAPILLARY TUBE LEVEL:	OK	OK	
O2 CAPILLARY TUBE LEVEL:	OK	OK	

UNIT 2

PARTICULATE TEST FIELD DATA SHEET

Client:	SJRPP	Reference:	2.03	Filter #:	B16
Plant & Unit:	SJRPP 2	Bar. Pressure (in.Hg):	29.65	Nozzle #:	G2
Type of test:	Compliance	Static Pressure (H2O):	-0.8	Nozzle Dia.(in):	0.225
Method:	1-4 and 5B	Meter Box #:	CAC1	^H@ 1.797 Yi	1.0050
Run Number:	1	Ini. Pitot Leak Check:	OK @ 4"	Pitot # CAC11G	0.84
Date:	12/10/02	Fin. Pitot Leak Check:	OK @ 6"	Thermocouple #	11G
Sample Location:	Stack	Ini. Leak Rate:0.00@	15 "	Impinger Set:	A
Operators:	JLC/MLC	Fin. Leak Rate:0.00@	6 "	Sample Head:	A

POINT #	CLOCK TIME	SAMPLE TIME	DRY GAS VOLUME	VELOCITY HEAD (in H2O)	ORIFICE ^H (in H2O)	METER TEMP (F)	STACK TEMP (F)	PROBE TEMP (F)	HOT BOX TEMP (F)	IMPINGER TEMP (F)	VAC. (IN.HG)
			940.965								
E-1	915	10	951.0	1.60	3.20	83	143	308	331	60	5.0
E-2		20	961.1	1.60	3.20	89	141	308	328	48	5.0
E-3		30	969.935	1.30	2.60	93	141	308	330	52	4.0
N-1		10	979.8	1.50	3.00	93	141	309	319	56	5.0
N-2		20	989.4	1.50	3.00	98	141	306	327	54	5.0
N-3		30	998.095	1.10	2.20	99	141	307	324	57	4.5
W-1		10	1007.3	1.30	2.60	96	141	300	324	60	4.0
W-2		20	1016.3	1.30	2.60	100	141	301	325	59	4.0
W-3		30	1024.856	1.10	2.20	101	140	302	324	62	4.0
S-1		10	1034.1	1.30	2.60	96	141	301	307	62	4.5
S-2		20	1043.6	1.40	2.80	101	141	300	318	60	5.0
S-3	1124	30	1052.820	1.30	2.60	102	141	301	315	60	4.5

111.855	1.163	2.717	95.9	141.1

MOISTURE, PARTICULATE CATCH AND DRY MOLECULAR WEIGHT DATA

PLANT: SJRPP #2 **RUN 1**

DATE: 12/10/02

METHOD 4 MOISTURE DETERMINATION

IMPG SET:	A				
	IMPG.#1	**IMPG.#2**	**IMPG.#3**	**IMPG.#4**	**WT. BY**
FINAL WT.	892.0	823.6	621.7	977.7	SCW
INITIAL WT.	692.3	740.7	612.0	948.3	SCW
NET WT.	199.7	82.9	9.7	29.4	SCW
TOTAL WT.	321.7	note: all weights in grams			

PARTICULATE FILTER CATCH

FILTER #	B16	**BY**	**BEAKER #**	4	**BY**
FINAL WT.	0.3252	SCW	FINAL WT.	72.5498	SCW
INITIAL WT.	0.3219	SCW	INITIAL WT.	72.5440	SCW
NET WT.	0.0033	SCW	NET WT.	0.0058	SCW

TOTAL CATCH (grams)	0.0091
TOTAL CATCH (mg)	9.1

DRY MOLECULAR WEIGHT

GAS	1	2	3	**AVG**	**Fo:** 1.164
CO2	12.8	12.8	12.8	12.8	**ALLOWED Fo RANGE**
O2+CO2	18.8	18.8	18.8	———	OIL: 1.210 TO 1.370
O2	6.0	6.0	6.0	6.0	COAL: 1.083 TO 1.230

4 MINUTE ORSAT ANALYZER CHECK

	BEFORE	**AFTER**	
BURETTE MENISCUS READING:	15	15	<0.2 ? YES
CO2 CAPILLARY TUBE LEVEL:	OK	OK	
O2 CAPILLARY TUBE LEVEL:	OK	OK	

PARTICULATE TEST FIELD DATA SHEET

Client:	SJRPP	Reference:	2.03	Filter #:	B17
Plant & Unit:	SJRPP 2	Bar. Pressure (in.Hg):	29.65	Nozzle #:	G1
Type of test:	Soot Blow	Static Pressure (H2O):	-0.78	Nozzle Diam.(in):	0.225
Method:	1-4 and 5B	Meter Box #:	CAC1	^H@ 1.797 Yi	1.0050
Run Number:	2	Ini. Pitot Leak Check:	OK @ 6"	Pitot # CAC11G	0.84
Date:	12/10/02	Fin. Pitot Leak Check:	OK @ 4"	Thermocouple #	11G
Sample Location:	Stack	Ini. Leak Rate:0.00@	15 "	Impinger Set:	B
Operators:	JLC/MLC	Fin. Leak Rate:0.00@	6 "	Sample Head:	A

POINT #	CLOCK TIME	SAMPLE TIME	DRY GAS VOLUME	VELOCITY HEAD (in H2O)	ORIFICE ^H (in H2O)	METER TEMP (F)	STACK TEMP (F)	PROBE TEMP (F)	HOT BOX TEMP (F)	IMPINGER TEMP (F)	VAC. (IN.HG)
			53.151								
S-1	1210	10	63.0	1.50	3.00	88	140	318	316	62	5.0
S-2		20	72.5	1.50	3.00	95	141	320	318	47	5.0
S-3		30	81.928	1.30	2.60	98	141	303	316	49	5.0
W-1		10	91.5	1.50	3.00	95	140	300	305	54	5.0
W-2		20	100.8	1.30	2.60	101	141	301	318	50	4.5
W-3		30	109.367	1.10	2.20	101	141	303	318	51	4.0
N-1		10	119.3	1.50	3.00	98	140	301	319	55	5.0
N-2		20	129.8	1.50	3.00	101	142	322	321	51	5.0
N-3		30	138.471	1.30	2.60	102	142	318	320	52	4.5
E-1		10	149.3	1.60	3.20	98	141	318	324	55	5.0
E-2		20	158.5	1.30	2.60	102	144	316	320	52	5.0
E-3	1416	30	166.960	1.10	2.20	102	146	317	319	54	4.0
			113.809	1.171	2.750	98.4	141.6				

MOISTURE, PARTICULATE CATCH AND DRY MOLECULAR WEIGHT DATA

PLANT: SJRPP #2 **RUN 2 SB**

DATE: 12/10/02

METHOD 4 MOISTURE DETERMINATION

IMPG SET:	B				
	IMPG.#1	**IMPG.#2**	**IMPG.#3**	**IMPG.#4**	**WT. BY**
FINAL WT.	909.6	802.8	608.8	1019.2	SCW
INITIAL WT.	719.1	709.2	606.1	992.2	SCW
NET WT.	190.5	93.6	2.7	27.0	SCW
TOTAL WT.	313.8	note: all weights in grams			

PARTICULATE FILTER CATCH

FILTER #	B17	**BY**	**BEAKER #**	5	**BY**
FINAL WT.	0.3246	SCW	FINAL WT.	72.3273	SCW
INITIAL WT.	0.3201	SCW	INITIAL WT.	72.3192	SCW
NET WT.	0.0045	SCW	NET WT.	0.0081	SCW

TOTAL CATCH (grams)	0.0126
TOTAL CATCH (mg)	12.6

DRY MOLECULAR WEIGHT

GAS	1	2	3	**AVG**	**Fo:** 1.167
CO2	12.6	12.6	12.6	12.6	**ALLOWED Fo RANGE**
O2+CO2	18.8	18.8	18.8	-------	OIL: 1.210 TO 1.370
O2	6.2	6.2	6.2	6.2	COAL: 1.083 TO 1.230

4 MINUTE ORSAT ANALYZER CHECK

	BEFORE	**AFTER**	
BURETTE MENISCUS READING:	15	15	<0.2 ? YES
CO2 CAPILLARY TUBE LEVEL:	OK	OK	
O2 CAPILLARY TUBE LEVEL:	OK	OK	

PARTICULATE TEST FIELD DATA SHEET

Client:	SJRPP	Reference:	2.03	Filter #:	B18
Plant & Unit:	SJRPP 2	Bar. Pressure (in.Hg):	29.65	Nozzle #:	G2
Type of test:	Compliance	Static Pressure (H2O):	-0.82	Nozzle Diam.(in):	0.225
Method:	1-4 and 5B	Meter Box #:	CAC1	^H@ 1.797 Yi	1.0050
Run Number:	3	Ini. Pitot Leak Check:	OK @ 6"	Pitot # CAC11G	0.84
Date:	12/10/02	Fin. Pitot Leak Check:	OK @ 6"	Thermocouple #	11G
Sample Location:	Stack	Ini. Leak Rate:0.00@	15 "	Impinger Set:	C
Operators:	JLC/MLC	Fin. Leak Rate:0.00@	6 "	Sample Head:	A

POINT #	CLOCK TIME	SAMPLE TIME	DRY GAS VOLUME	VELOCITY HEAD (in H2O)	ORIFICE ^H (in H2O)	METER TEMP (F)	STACK TEMP (F)	PROBE TEMP (F)	HOT BOX TEMP (F)	IMPINGER TEMP (F)	VAC. (IN.HG)
			167.255								
E-1	1500	10	177.1	1.50	3.00	88	145	312	326	55	5.0
E-2		20	187.2	1.30	2.60	93	144	310	330	48	5.0
E-3		30	195.160	1.10	2.20	97	144	313	319	50	4.0
N-1		10	204.7	1.50	3.00	95	143	314	326	52	4.5
N-2		20	214.5	1.50	3.00	99	144	313	327	52	4.5
N-3		30	222.922	1.10	2.20	101	144	314	319	54	4.0
W-1		10	232.7	1.50	3.00	98	144	304	333	57	5.0
W-2		20	242.3	1.50	3.00	101	145	300	322	56	5.0
W-3		30	251.230	1.20	2.40	102	144	300	319	58	4.0
S-1		10	259.9	1.50	3.00	98	144	305	322	61	5.0
S-2		20	270.4	1.40	2.80	102	145	311	323	58	5.0
S-3	1706	30	279.246	1.10	2.20	103	144	303	321	61	4.0
			111.99	1.159	2.700	98.1	144.2				

MOISTURE, PARTICULATE CATCH AND DRY MOLECULAR WEIGHT DATA

PLANT: SJRPP #2 **RUN 3**
DATE: 12/10/02

METHOD 4 MOISTURE DETERMINATION

IMPG SET:	C				
	IMPG.#1	**IMPG.#2**	**IMPG.#3**	**IMPG.#4**	**WT. BY**
FINAL WT.	944.8	793.7	626.6	994.9	SCW
INITIAL WT.	736.2	709.0	623.7	968.7	SCW
NET WT.	208.6	84.7	2.9	26.2	SCW
TOTAL WT.	322.4	note: all weights in grams			

PARTICULATE FILTER CATCH

FILTER #	B18	**BY**	**BEAKER #**	7	**BY**
FINAL WT.	0.3211	SCW	FINAL WT.	72.5330	SCW
INITIAL WT.	0.3168	SCW	INITIAL WT.	72.5315	SCW
NET WT.	0.0043	SCW	NET WT.	0.0015	SCW

TOTAL CATCH (grams)	0.0058
TOTAL CATCH (mg)	5.8

DRY MOLECULAR WEIGHT

GAS	1	2	3	**AVG**	**Fo:** 1.172
CO2	12.8	12.8	12.8	12.8	**ALLOWED Fo RANGE**
O2+CO2	18.7	18.7	18.7	------	OIL: 1.210 TO 1.370
O2	5.9	5.9	5.9	5.9	COAL: 1.083 TO 1.230

4 MINUTE ORSAT ANALYZER CHECK

	BEFORE	**AFTER**	
BURETTE MENISCUS READING:	15	15	<0.2 ? YES
CO2 CAPILLARY TUBE LEVEL:	OK	OK	
O2 CAPILLARY TUBE LEVEL:	OK	OK	

VISIBLE EMISSIONS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number		Page 1	Of 1
Continued on VEO Form Number			

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name: St. Johns River Power Park
Facility Name:
Street Address: 11201 New Berlin Rd.
City: Jacksonville | State: FL. | Zip: 32226

Process: Coal Fired Boiler Dust Plan | Unit # 1 | Operating Mode: 100%
Control Equipment: ESP | Operating Mode: 100%

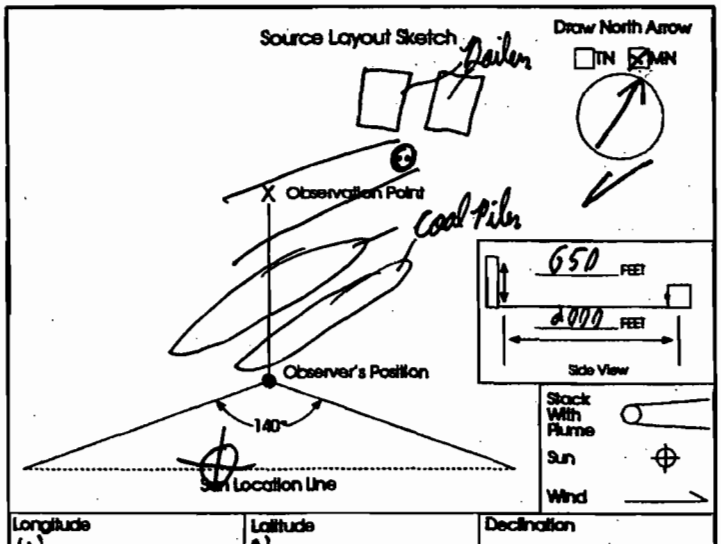
Describe Emission Point: Concrete double Stack

	Start	End
Height of Emiss. Pt.	650'	✓
Height of Emiss. Pt. Rel. to Observer	650'	✓
Distance to Emiss. Pt.	2000'	✓
Direction to Emiss. Pt. (Degrees)	370°	✓
Vertical Angle to Obs. Pt.	18°	✓
Direction to Obs. Pt. (Degrees)	340°	✓
Distance and Direction to Observation Point from Emission Point	1000' due west	✓

Describe Emissions: Start: Leaving Plume | End: ✓
Emission Color: Start: Lt. Brown | End: ✓
Water Droplet Plume: Attached ☒ Detached ☐ None ☐

Describe Plume Background: Start: Sky | End: ✓
Background Color: Start: Grey | End: ✓
Sky Conditions: Start: overcast | End: ✓
Wind Speed: Start: 10 mph | End: ✓
Wind Direction: Start: SW | End: ✓
Ambient Temp.: Start: 61° | End: 63°
Wet Bulb Temp.: 59°
RH Percent: 90%

Source Layout Sketch



Longitude: W | Latitude: N | Declination:

Additional Information: Sun location an estimate due to overcast Sky

Observation Date	Time Zone	Start Time	End Time
12-9-02	E	1215	1315

Min \ Sec	0	15	30	45	Min \ Sec	0	15	30	45
1	10	10	10	10	31	10	15	10	10
2	10	10	10	10	32	10	10	10	10
3	15	15	10	10	33	10	10	10	15
4	10	10	10	10	34	15	15	15	10
5	10	10	15	10	35	10	10	15	10
6	10	10	10	10	36	10	15	10	10
7	10	10	10	10	37	10	10	10	10
8	10	10	10	15	38	10	10	10	10
9	10	10	10	10	39	10	10	10	10
10	10	10	10	10	40	10	10	10	10
11	10	15	10	10	41	10	10	10	10
12	10	10	10	10	42	10	10	10	10
13	10	10	15	15	43	10	15	15	10
14	15	10	10	10	44	10	10	10	10
15	10	10	10	10	45	10	10	15	10
16	10	10	15	10	46	10	10	10	10
17	10	10	10	10	47	10	10	10	10
18	10	10	10	10	48	10	10	10	10
19	10	10	10	10	49	10	10	10	10
20	10	10	10	10	50	10	10	10	10
21	10	15	15	15	51	10	10	10	10
22	15	10	10	15	52	10	10	10	10
23	10	15	10	10	53	10	10	10	10
24	10	10	10	10	54	10	10	10	10
25	10	10	10	10	55	10	15	15	15
26	10	10	15	15	56	10	10	10	10
27	10	10	10	10	57	10	10	10	10
28	10	10	10	10	58	10	10	10	10
29	10	10	15	15	59	10	10	10	10
30	10	10	10	10	60	10	10	10	10

Observer's Name (Print): Melvin Petiet
Observer's Signature: _____ Date: 12-9-02
Organization: CAE
Certified By: ETA Date: 12-4-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client: _____
Plant: SJRPP

Observation Date: 12/9/02

Gross Generation: 661 MW

Unit: 1

Fuel: 100 Coal% _____ Oil %

Particulate Test: Yes Type / Run #: SB 2

Start: 1215 Stop: 1315

Observer: Melvin Petiet

	0	15	30	45	"ROLLING" SIX MINUTE AVERAGE
1	10	10	10	10	
2	10	10	10	10	
3	15	15	10	10	
4	10	10	10	10	
5	10	10	15	10	
6	10	10	10	10	**10.83**
7	10	10	10	10	**10.83**
8	10	10	10	15	**10.83**
9	10	10	10	10	**10.42**
10	10	10	10	10	**10.42**
11	10	15	10	10	**10.42**
12	10	10	10	10	**10.42**
13	10	10	15	15	**10.83**
14	15	10	10	10	**10.83**
15	10	10	10	10	**10.83**
16	10	10	15	10	**11.04**
17	10	10	10	10	**10.83**
18	10	10	10	10	**10.83**
19	10	10	10	10	**10.42**
20	10	10	10	10	**10.21**
21	10	15	15	15	**10.83**
22	15	10	10	15	**11.04**
23	10	15	10	10	**11.25**
24	10	10	10	10	**11.25**
25	10	10	10	10	**11.25**
26	10	10	15	15	**11.67**
27	10	10	10	10	**11.04**
28	10	10	10	10	**10.83**
29	10	10	15	15	**10.83**
30	10	10	10	10	**10.83**
31	10	15	10	10	**11.04**
32	10	10	10	10	**10.83**
33	10	10	10	15	**10.83**
34	15	15	15	10	**11.46**
35	10	10	15	10	**11.25**
36	10	15	10	10	**11.46**
37	10	10	10	10	**11.25**
38	10	10	10	10	**11.25**
39	10	10	10	10	**11.04**
40	10	10	10	10	**10.42**
41	10	10	10	10	**10.21**
42	10	10	10	10	**10.00**
43	10	15	15	10	**10.42**
44	10	10	10	10	**10.42**
45	10	10	15	10	**10.83**
46	10	10	10	10	**10.83**
47	10	10	10	10	**10.83**
48	10	10	10	10	**10.83**
49	10	10	10	10	**10.21**
50	10	10	10	10	**10.21**
51	10	10	10	10	**10.00**
52	10	10	10	10	**10.00**
53	10	10	10	10	**10.00**
54	10	10	10	10	**10.00**
55	10	15	15	15	**10.83**
56	10	10	10	10	**10.83**
57	10	10	10	10	**10.83**
58	10	10	10	10	**10.83**
59	10	10	10	10	**10.83**
60	10	10	10	10	**10.83**

Over-all Average Opacity: **10.67**

Highest 6-Minute Average: **11.67**

Next Highest 6-Minute Average: **11.46**

File name: VEFORM.XLS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number						Page	Of
Continued on VEO Form Number							

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name: JEA St. Johns River Power Park		
Facility Name: SJRPP		
Street Address: 11201 New Berlin Rd		
City: Jacksonville	State: FL	Zip: 32226

Process: Coal Fired Boiler	Unit #: 2	Operating Mode: 100% Soot Blowing
Control Equipment: ESP		Operating Mode: 100%

Describe Emission Point: Concrete double stack

Height of Emiss. Pt. Start: ~650' End: "	Height of Emiss. Pt. Rel. to Observer Start: ~650' End: "
Distance to Emiss. Pt. Start: ~3600' End: "	Direction to Emiss. Pt. (Degrees) Start: 150° End: "
Vertical Angle to Obs. Pt. Start: <5° End:	Direction to Obs. Pt. (Degrees) Start: 150° End: "
Distance and Direction to Observation Point from Emission Point Start: ~600' above End: ↓	

Describe Emissions: Start: Straight above End: "

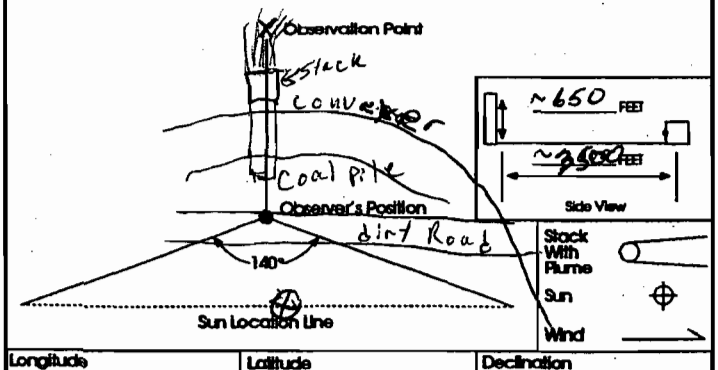
Emission Color: Start: light Brown End: | Water Droplet Plume: Attached ☑ Detached ☐ None ☐

Describe Plume Background: Start: SKY End: "

Background Color: Start: Gray End: "	Sky Conditions: Start: Scattered End:
Wind Speed: Start: 0 End: 0	Wind Direction: Start: SE End: No wind
Ambient Temp. Start: 67°F End: 65°	Wet Bulb Temp.:	RH Percent:

Source Layout Sketch

Draw North Arrow ☐TN ☐MN



Longitude	Latitude	Declination
W	N	

Additional Information:

Observation Date	Time Zone	Start Time	End Time
12-12-01	EST	1040	1140

Sec / Min	0	15	30	45	Sec / Min	0	15	30	45
1	5	5	5	5	31	5	5	5	5
2	5	5	5	5	32	5	5	5	5
3	5	5	5	5	33	5	5	5	5
4	5	5	5	5	34	5	5	5	5
5	5	5	5	5	35	5	5	5	5
6	5	5	5	5	36	5	5	5	5
7	5	5	5	5	37	5	5	5	5
8	5	5	5	5	38	5	5	5	5
9	5	5	5	5	39	5	5	5	5
10	5	5	5	5	40	5	5	5	5
11	5	5	5	5	41	5	5	5	5
12	5	5	5	5	42	5	5	5	5
13	5	5	5	5	43	5	5	5	5
14	5	5	5	5	44	5	5	5	5
15	5	5	5	5	45	5	5	5	5
16	5	5	5	5	46	5	5	5	10
17	5	5	5	5	47	10	10	10	10
18	5	5	5	5	48	10	5	5	5
19	5	5	5	5	49	5	5	5	5
20	5	5	5	5	50	5	5	5	5
21	5	5	5	5	51	5	10	10	10
22	5	5	5	5	52	10	10	10	10
23	5	5	5	5	53	10	10	5	5
24	5	5	5	5	54	5	5	5	5
25	5	5	5	5	55	5	5	5	5
26	5	5	5	5	56	5	5	5	5
27	5	5	5	5	57	5	5	5	5
28	5	5	5	5	58	5	5	5	5
29	5	5	5	5	59	5	5	5	5
30	5	5	5	5	60	5	5	5	5

Observer's Name (Print): Steve Webb	
Observer's Signature: Stephen C. Webb	Date: 12-12-02
Organization: Coastal Air Consulting	
Certified By: ETA	Date: 8-14-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client: _____
Plant: SJRPP

Observation Date: 12/12/02

Gross Generation: Normal MW

Unit: 2

Fuel: 100 Coal% _____ Oil %

Particulate Test: No Type / Run #: SB

Start: 1040 Stop: 1140

Observer: Stephen Webb

Over-all Average Opacity: 5.31

Highest 6-Minute Average: 7.50

Next Highest 6-Minute Average: 7.08

	0	15	30	45		"ROLLING" SIX MINUTE AVERAGE
1	5	5	5	5		
2	5	5	5	5		
3	5	5	5	5		
4	5	5	5	5		
5	5	5	5	5		
6	5	5	5	5		5.00
7	5	5	5	5		5.00
8	5	5	5	5		5.00
9	5	5	5	5		5.00
10	5	5	5	5		5.00
11	5	5	5	5		5.00
12	5	5	5	5		5.00
13	5	5	5	5		5.00
14	5	5	5	5		5.00
15	5	5	5	5		5.00
16	5	5	5	5		5.00
17	5	5	5	5		5.00
18	5	5	5	5		5.00
19	5	5	5	5		5.00
20	5	5	5	5		5.00
21	5	5	5	5		5.00
22	5	5	5	5		5.00
23	5	5	5	5		5.00
24	5	5	5	5		5.00
25	5	5	5	5		5.00
26	5	5	5	5		5.00
27	5	5	5	5		5.00
28	5	5	5	5		5.00
29	5	5	5	5		5.00
30	5	5	5	5		5.00
31	5	5	5	5		5.00
32	5	5	5	5		5.00
33	5	5	5	5		5.00
34	5	5	5	5		5.00
35	5	5	5	5		5.00
36	5	5	5	5		5.00
37	5	5	5	5		5.00
38	5	5	5	5		5.00
39	5	5	5	5		5.00
40	5	5	5	5		5.00
41	5	5	5	5		5.00
42	5	5	5	5		5.00
43	5	5	5	5		5.00
44	5	5	5	5		5.00
45	5	5	5	5		5.00
46	5	5	5	10		5.21
47	10	10	10	10		6.04
48	10	5	5	5		6.25
49	5	5	5	5		6.25
50	5	5	5	5		6.25
51	5	10	10	10		6.88
52	10	10	10	10		7.50
53	10	10	5	5		7.08
54	5	5	5	5		6.88
55	5	5	5	5		6.88
56	5	5	5	5		6.88
57	5	5	5	5		6.25
58	5	5	5	5		5.42
59	5	5	5	5		5.00
60	5	5	5	5		5.00

File name: VEFORM.XLS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number		Page 1 Of 1
Continued on VEO Form Number		

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Company Name: JEA

Facility Name: St. Johns River Power Park (SJRPP

Street Address: 11201 New Berlin Rd

City: Jacksonville | State: FL | Zip: 32226

Process	Unit #	Operating Mode
Loading		Operating
Control Equipment		Operating Mode

Describe Emission Point: All Fly Ash Area Around Baghouse

Height of Emiss. Pt.	Height of Emiss. Pt. Rel. to Observer
Start ~400' End "	Start 0~100' End "
Distance to Emiss. Pt.	Direction to Emiss. Pt. (Degrees)
Start ~500' End "	Start 250° End "

Vertical Angle to Obs. Pt.	Direction to Obs. Pt. (Degrees)
Start <180° End "	Start 25° End "
Distance and Direction to Observation Point from Emission Point	
Start 250°	End "

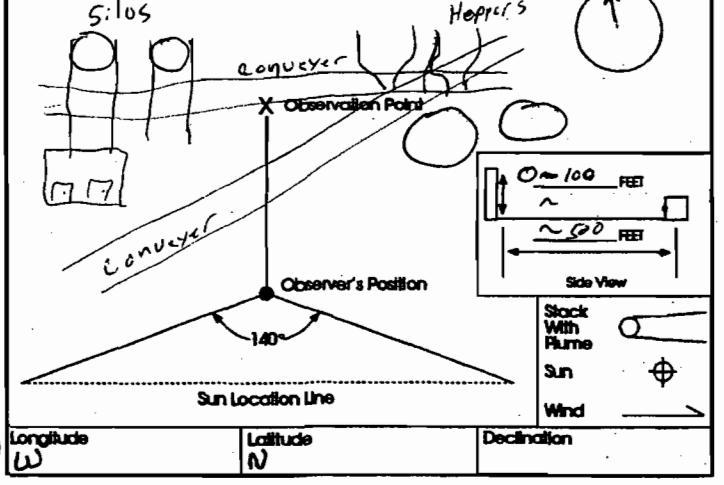
Describe Emissions: Start clear End Clear

Emission Color: Start clear End " | Water Droplet Plume: Attached ☐ Detached ☐ None ☑

Describe Plume Background: Start SKY End

Background Color	Sky Conditions
Start Gray End "	Start overcast End "
Wind Speed	Wind Direction
Start 0-3 End "	Start Variable End "
Ambient Temp.	Wet Bulb Temp. / RH Percent
Start 63 End 60	

Source Layout Sketch — Draw North Arrow ☐TN ☐MN



Longitude	Latitude	Declination
W	N	

Additional Information: P_b 30.22" Hg

Observation Date	Time Zone	Start Time	End Time
12-12-02	EST	1220	1320

Sec / Min	0	15	30	45	Sec / Min	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	5	5	5	5	48	0	0	0	0
19	5	5	5	5	49	0	0	0	0
20	5	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Observer's Name (Print)	
Stephen C. Webb	
Observer's Signature: Stephen C. Webb	Date: 12-12-02
Organization: Coastal Air Consulting, Inc.	
Certified By: ETA	Date: 8-14-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client: _____

Plant: SJRPP

Observation Date: 12/12/02

Gross Generation: NA MW

Unit: All Fly Ash Area Around Baghouse

Fuel: NA Coal% _____ Oil %

Particulate Test: NA Type / Run #: NA

Start: 1220 Stop: 1320

Observer: Stephen Webb

Over-all Average Opacity: 0.19

Highest 6-Minute Average: 1.88

Next Highest 6-Minute Average: 1.67

	0	15	30	45	"ROLLING" SIX MINUTE AVERAGE
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	0.00
7	0	0	0	0	0.00
8	0	0	0	0	0.00
9	0	0	0	0	0.00
10	0	0	0	0	0.00
11	0	0	0	0	0.00
12	0	0	0	0	0.00
13	0	0	0	0	0.00
14	0	0	0	0	0.00
15	0	0	0	0	0.00
16	0	0	0	0	0.00
17	0	0	0	0	0.00
18	5	5	5	5	0.83
19	5	5	5	5	1.67
20	5	0	0	0	1.88
21	0	0	0	0	1.88
22	0	0	0	0	1.88
23	0	0	0	0	1.88
24	0	0	0	0	1.04
25	0	0	0	0	0.21
26	0	0	0	0	0.00
27	0	0	0	0	0.00
28	0	0	0	0	0.00
29	0	0	0	0	0.00
30	0	0	0	0	0.00
31	0	0	0	0	0.00
32	0	0	0	0	0.00
33	0	0	0	0	0.00
34	0	0	0	0	0.00
35	0	0	0	0	0.00
36	0	0	0	0	0.00
37	0	0	0	0	0.00
38	0	0	0	0	0.00
39	0	0	0	0	0.00
40	0	0	0	0	0.00
41	0	0	0	0	0.00
42	0	0	0	0	0.00
43	0	0	0	0	0.00
44	0	0	0	0	0.00
45	0	0	0	0	0.00
46	0	0	0	0	0.00
47	0	0	0	0	0.00
48	0	0	0	0	0.00
49	0	0	0	0	0.00
50	0	0	0	0	0.00
51	0	0	0	0	0.00
52	0	0	0	0	0.00
53	0	0	0	0	0.00
54	0	0	0	0	0.00
55	0	0	0	0	0.00
56	0	0	0	0	0.00
57	0	0	0	0	0.00
58	0	0	0	0	0.00
59	0	0	0	0	0.00
60	0	0	0	0	0.00

File name: VEFORM.XLS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number		Page 1	Of 1
Continued on VEO Form Number			

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Company Name: St. Johns River Power Park		
Facility Name:		
Street Address: 11201 New Berlin Rd.		
City: Jacksonville	State: FL	Zip: 32226

Process: Limestone Reclaim Hopper	Unit #	Operating Mode: Loading
Control Equipment: Baghouse		Operating Mode: operating

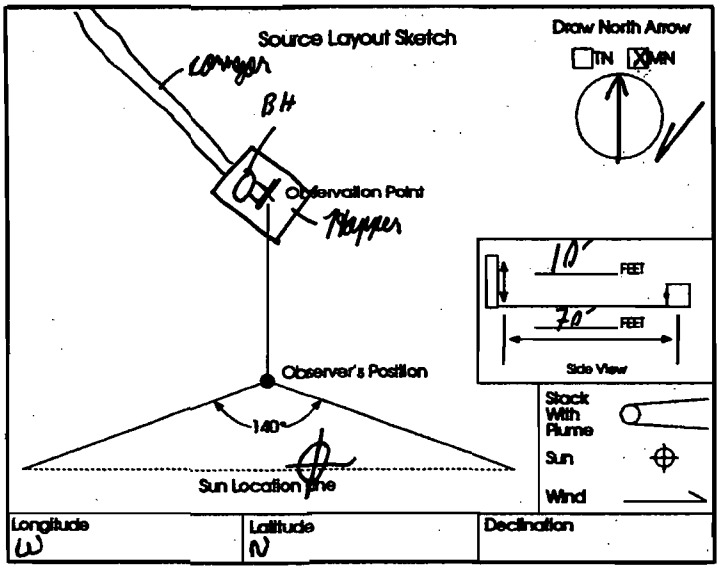
Describe Emission Point: 10"x10" vent on E side of Baghouse

Height of Emiss. Pt. Start: 10' End: ✓	Height of Emiss. Pt. Rel. to Observer Start: 5' End: ✓
Distance to Emiss. Pt. Start: 70' End: ✓	Direction to Emiss. Pt. (Degrees) Start: 360° End: ✓

Vertical Angle to Obs. Pt. Start: 2° End: ✓	Direction to Obs. Pt. (Degrees) Start: 360° End: ✓
Distance and Direction to Observation Point from Emission Point Start: at exit	End: ✓

Describe Emissions Start: Clear	End: ✓
Emission Color Start: Clear End: ✓	Water Droplet Plume: Attached ☐ Detached ☐ None ☒

Describe Plume Background Start: E cooling Towers	End: ✓	
Background Color Start: Concrete End: ✓	Sky Conditions Start: Overcast End: ✓	
Wind Speed Start: 10-12 kt. End: ✓	Wind Direction Start: SW End: ✓	
Ambient Temp. Start: 55° End: ✓	Wet Bulb Temp. 53°	RH Percent 88%



Longitude	Latitude	Declination
W	N	

Additional Information: Sun location an estimate due to overcast sky

Observation Date	Time Zone	Start Time	End Time
12-10-02	E	0935	1035

Min \ Sec	0	15	30	45	Min \ Sec	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Observer's Name (Print): Melvin Petiet	
Observer's Signature:	Date: 12-10-02
Organization: CAC	
Certified By: ETA	Date: 12-4-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client: _____

Plant: SJRPP

Observation Date: 12/10/02

Gross Generation: NA MW

Unit: Limestone Hopper

Fuel: NA _____
Coal% Oil %

Particulate Test: NA Type / Run #: NA

Start: 935 Stop: 1035

Observer: Milvin Petiet

	0	15	30	45	"ROLLING" SIX MINUTE AVERAGE
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	0.00
7	0	0	0	0	0.00
8	0	0	0	0	0.00
9	0	0	0	0	0.00
10	0	0	0	0	0.00
11	0	0	0	0	0.00
12	0	0	0	0	0.00
13	0	0	0	0	0.00
14	0	0	0	0	0.00
15	0	0	0	0	0.00
16	0	0	0	0	0.00
17	0	0	0	0	0.00
18	0	0	0	0	0.00
19	0	0	0	0	0.00
20	0	0	0	0	0.00
21	0	0	0	0	0.00
22	0	0	0	0	0.00
23	0	0	0	0	0.00
24	0	0	0	0	0.00
25	0	0	0	0	0.00
26	0	0	0	0	0.00
27	0	0	0	0	0.00
28	0	0	0	0	0.00
29	0	0	0	0	0.00
30	0	0	0	0	0.00
31	0	0	0	0	0.00
32	0	0	0	0	0.00
33	0	0	0	0	0.00
34	0	0	0	0	0.00
35	0	0	0	0	0.00
36	0	0	0	0	0.00
37	0	0	0	0	0.00
38	0	0	0	0	0.00
39	0	0	0	0	0.00
40	0	0	0	0	0.00
41	0	0	0	0	0.00
42	0	0	0	0	0.00
43	0	0	0	0	0.00
44	0	0	0	0	0.00
45	0	0	0	0	0.00
46	0	0	0	0	0.00
47	0	0	0	0	0.00
48	0	0	0	0	0.00
49	0	0	0	0	0.00
50	0	0	0	0	0.00
51	0	0	0	0	0.00
52	0	0	0	0	0.00
53	0	0	0	0	0.00
54	0	0	0	0	0.00
55	0	0	0	0	0.00
56	0	0	0	0	0.00
57	0	0	0	0	0.00
58	0	0	0	0	0.00
59	0	0	0	0	0.00
60	0	0	0	0	0.00

Over-all Average Opacity:	0.00
Highest 6-Minute Average:	0.00
Next Highest 6-Minute Average:	0.00

File name: VEFORM.XLS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number		Page 1	Of 1
Continued on VEO Form Number			

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name: Ft. Johns River Power Park

Facility Name

Street Address: 11201 New Berlin Rd.

City: Jacksonville | State: FL | Zip: 32226

Process	Unit #	Operating Mode
Limestone day Silo BH	1	loading
Control Equipment: Baghouse		Operating Mode: operating

Describe Emission Point: Red Haze on top of limestone Silo

Height of Emiss. Pt.	Height of Emiss. Pt. Rel. to Observer
Start 60' End ✓	Start 55' End ✓
Distance to Emiss. Pt.	**Direction to Emiss. Pt. (Degrees)**
Start 220' End ✓	Start 327° End ✓

Vertical Angle to Obs. Pt.	Direction to Obs. Pt. (Degrees)
Start 10° End ✓	Start 327° End ✓

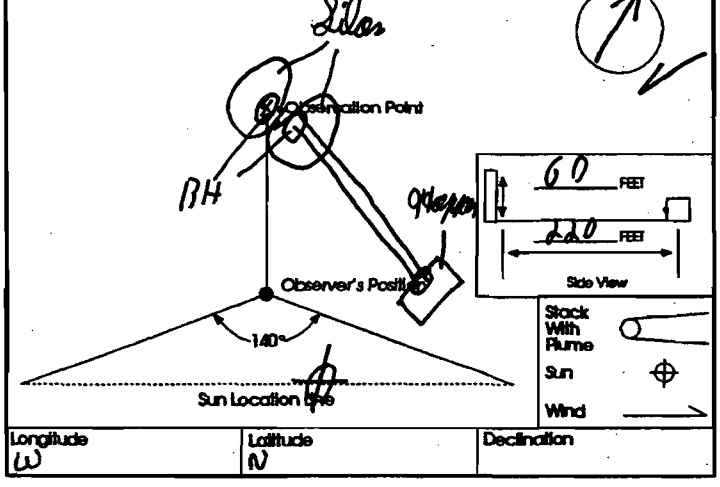
Distance and Direction to Observation Point from Emission Point: Start at exit End ✓

Describe Emissions	
Start Clear	End ✓
Emission Color	**Water Droplet Plume**
Start Clear End ✓	Attached ☐ Detached ☐ None ☒

Describe Plume Background	
Start Sky	End
Background Color	**Sky Conditions**
Start Grey End ✓	Start overcast End ✓
Wind Speed	**Wind Direction**
Start 10-12 mph. End ✓	Start SW End ✓
Ambient Temp.	**Wet Bulb Temp.** / **RH Percent**
Start 55° End 55°	53 / 88%

Source Layout Sketch

Draw North Arrow: ☐ TN ☒ MN



Longitude	Latitude	Declination
W	N	

Additional Information: Sun location an estimate due to overcast sky

Observation Date	Time Zone	Start Time	End Time
12-10-02	E	0830	0930

Sec / Min	0	15	30	45	Sec / Min	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Observer's Name (Print): Melvin Petiet

Observer's Signature | Date: 12-10-02

Organization: CAC

Certified By: ETA | Date: 12-4-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client: _____

Plant: SJRPP

Observation Date: 12/10/02

Gross Generation: NA MW

Unit: Limestone Day Silo Baghouse Unit 1

Fuel: NA _____

Coal% Oil %

Particulate Test: NA Type / Run #: NA

Start: 830 Stop: 930

Observer: Milvin Petiet

Over-all Average Opacity: 0.00

Highest 6-Minute Average: 0.00

Next Highest 6-Minute Average: 0.00

	0	15	30	45	"ROLLING" SIX MINUTE AVERAGE
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	0.00
7	0	0	0	0	0.00
8	0	0	0	0	0.00
9	0	0	0	0	0.00
10	0	0	0	0	0.00
11	0	0	0	0	0.00
12	0	0	0	0	0.00
13	0	0	0	0	0.00
14	0	0	0	0	0.00
15	0	0	0	0	0.00
16	0	0	0	0	0.00
17	0	0	0	0	0.00
18	0	0	0	0	0.00
19	0	0	0	0	0.00
20	0	0	0	0	0.00
21	0	0	0	0	0.00
22	0	0	0	0	0.00
23	0	0	0	0	0.00
24	0	0	0	0	0.00
25	0	0	0	0	0.00
26	0	0	0	0	0.00
27	0	0	0	0	0.00
28	0	0	0	0	0.00
29	0	0	0	0	0.00
30	0	0	0	0	0.00
31	0	0	0	0	0.00
32	0	0	0	0	0.00
33	0	0	0	0	0.00
34	0	0	0	0	0.00
35	0	0	0	0	0.00
36	0	0	0	0	0.00
37	0	0	0	0	0.00
38	0	0	0	0	0.00
39	0	0	0	0	0.00
40	0	0	0	0	0.00
41	0	0	0	0	0.00
42	0	0	0	0	0.00
43	0	0	0	0	0.00
44	0	0	0	0	0.00
45	0	0	0	0	0.00
46	0	0	0	0	0.00
47	0	0	0	0	0.00
48	0	0	0	0	0.00
49	0	0	0	0	0.00
50	0	0	0	0	0.00
51	0	0	0	0	0.00
52	0	0	0	0	0.00
53	0	0	0	0	0.00
54	0	0	0	0	0.00
55	0	0	0	0	0.00
56	0	0	0	0	0.00
57	0	0	0	0	0.00
58	0	0	0	0	0.00
59	0	0	0	0	0.00
60	0	0	0	0	0.00

File name: VEFORM.XLS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number		Page 1	Of 1
Continued on VEO Form Number			

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name	St. Johns River Power Park
Facility Name	
Street Address	11201 New Berlin Rd.
City	Jacksonville
State	FL
Zip	32226

Process	Limestone Day Silo BH	Unit #	2
Operating Mode	Loading		
Control Equipment	Baghouse	Operating Mode	operating

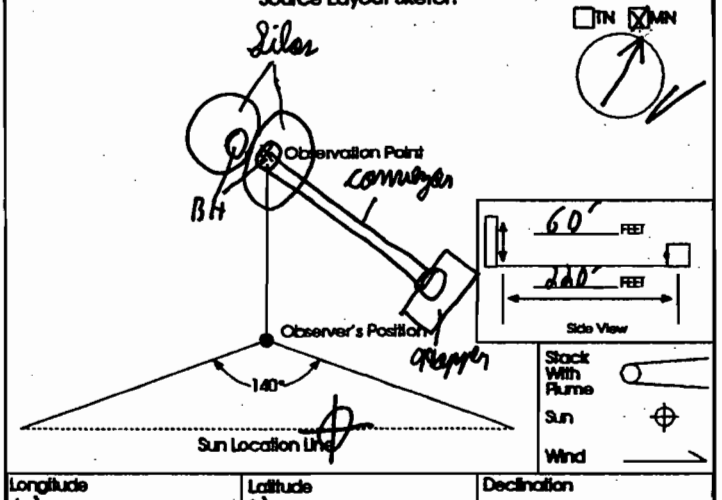
Describe Emission Point: Red Baghouse on top of Limestone Silo

Height of Emiss. Pt.	Start 60' ✓ End ✓	Height of Emiss. Pt. Rel. to Observer	Start 55' ✓ End ✓
Distance to Emiss. Pt.	Start 220' ✓ End ✓	Direction to Emiss. Pt. (Degrees)	Start 330° End ✓
Vertical Angle to Obs. Pt.	Start 10° End ✓	Direction to Obs. Pt. (Degrees)	Start 330° End ✓
Distance and Direction to Observation Point from Emission Point	Start at exit		End ✓

Describe Emissions	Start Clear		End ✓
Emission Color	Start Clear End ✓	Water Droplet Plume	Attached ☐ Detached ☐ None ☒

Describe Plume Background	Start Concrete Stack		End ✓	
Background Color	Start Concrete End ✓	Sky Conditions	Start overcast End ✓	
Wind Speed	Start 10-12 mph. End ✓	Wind Direction	Start SW End ✓	
Ambient Temp.	Start 55° End 55°	Wet Bulb Temp. 53°		RH Percent 88%

Source Layout Sketch



Longitude	Latitude	Declination
W	N	

Additional Information: Sun location an estimate due to overcast sky

Observation Date	Time Zone	Start Time	End Time
12-10-02	E	0830	0930

Min \ Sec	0	15	30	45	Min \ Sec	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Observer's Name (Print)	Melvin Petiet	
Observer's Signature		Date 12-10-02
Organization	CAS	
Certified By	ETA	Date 12-4-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client: _____
Plant: SJRPP

Observation Date: 12/10/02

Gross Generation: NA MW

Unit: Limestone Day Silo Baghouse Unit 2

Fuel: NA _____
Coal% Oil %

Particulate Test: NA Type / Run #: NA

Start: 830 Stop: 930

Observer: Milvin Petiet

Over-all Average Opacity: 0.00

Highest 6-Minute Average: 0.00

Next Highest 6-Minute Average: 0.00

	0	15	30	45	"ROLLING" SIX MINUTE AVERAGE
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	0.00
7	0	0	0	0	0.00
8	0	0	0	0	0.00
9	0	0	0	0	0.00
10	0	0	0	0	0.00
11	0	0	0	0	0.00
12	0	0	0	0	0.00
13	0	0	0	0	0.00
14	0	0	0	0	0.00
15	0	0	0	0	0.00
16	0	0	0	0	0.00
17	0	0	0	0	0.00
18	0	0	0	0	0.00
19	0	0	0	0	0.00
20	0	0	0	0	0.00
21	0	0	0	0	0.00
22	0	0	0	0	0.00
23	0	0	0	0	0.00
24	0	0	0	0	0.00
25	0	0	0	0	0.00
26	0	0	0	0	0.00
27	0	0	0	0	0.00
28	0	0	0	0	0.00
29	0	0	0	0	0.00
30	0	0	0	0	0.00
31	0	0	0	0	0.00
32	0	0	0	0	0.00
33	0	0	0	0	0.00
34	0	0	0	0	0.00
35	0	0	0	0	0.00
36	0	0	0	0	0.00
37	0	0	0	0	0.00
38	0	0	0	0	0.00
39	0	0	0	0	0.00
40	0	0	0	0	0.00
41	0	0	0	0	0.00
42	0	0	0	0	0.00
43	0	0	0	0	0.00
44	0	0	0	0	0.00
45	0	0	0	0	0.00
46	0	0	0	0	0.00
47	0	0	0	0	0.00
48	0	0	0	0	0.00
49	0	0	0	0	0.00
50	0	0	0	0	0.00
51	0	0	0	0	0.00
52	0	0	0	0	0.00
53	0	0	0	0	0.00
54	0	0	0	0	0.00
55	0	0	0	0	0.00
56	0	0	0	0	0.00
57	0	0	0	0	0.00
58	0	0	0	0	0.00
59	0	0	0	0	0.00
60	0	0	0	0	0.00

File name: VEFORM.XLS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number		Page 1	Of 1
Continued on VEO Form Number			

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name: St Johns River Power Park
Facility Name:
Street Address: 11201 New Berlin Rd.
City: Jacksonville | State: Fl. | Zip: 32226

Process: Flyash Silo Baghouse | Unit #: 1 | Operating Mode: operating
Control Equipment: Baghouse | Operating Mode: operating

Describe Emission Point: Area around Silo Baghouse

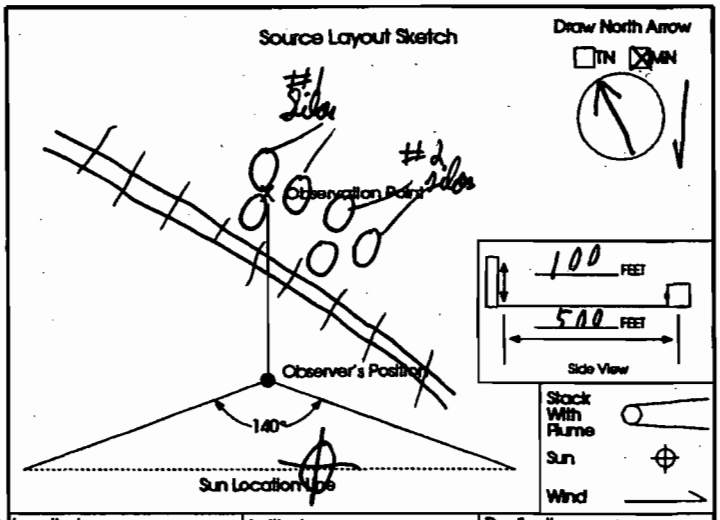
Height of Emiss. Pt. Start: 100' ✓ End: ✓	Height of Emiss. Pt. Rel. to Observer Start: 95' ✓ End: ✓
Distance to Emiss. Pt. Start: 500' ✓ End: ✓	Direction to Emiss. Pt. (Degrees) Start: 40° ✓ End: ✓
Vertical Angle to Obs. Pt. Start: 9° ✓ End: ✓	Direction to Obs. Pt. (Degrees) Start: 40° ✓ End: ✓
Distance and Direction to Observation Point from Emission Point Start: At Split ✓ End: ✓	

Describe Emissions: Start: Clear ✓ End: ✓
Emission Color: Start: Clear ✓ End: ✓
Water Droplet Plume: Attached ☐ Detached ☐ None ☒

Describe Plume Background: Start: Sky ✓ End: ✓

Background Color Start: Grey ✓ End: ✓	Sky Conditions Start: Overcast ✓ End: ✓
Wind Speed Start: 10 mph ✓ End: ✓	Wind Direction Start: SW ✓ End: ✓
Ambient Temp. Start: 58° ✓ End: ✓	Wet Bulb Temp.: 56° / RH Percent: 84%

Source Layout Sketch



Longitude: W | Latitude: N | Declination:

Additional Information: Sun location an estimate due to overcast Sky

Observation Date: 12-10-02 | Time Zone: E | Start Time: 1050 | End Time: 1150

Sec / Min	0	15	30	45	Sec / Min	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Observer's Name (Print): Melvin Petiet
Observer's Signature: _____ Date: 12-10-02
Organization: CAC
Certified By: ETA Date: 12-4-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client:
Plant: SJRPP

Observation Date: 12/10/02

Gross Generation: NA MW

Unit: Fly Ash Silo Baghouse Unit 1

Fuel: NA Coal% ____ Oil %

Particulate Test: NA Type / Run #: NA

Start: 1050 Stop: 1150

Observer: Milvin Petlet

Over-all Average Opacity: 0.00

Highest 6-Minute Average: 0.00

Next Highest 6-Minute Average: 0.00

	0	15	30	45		"ROLLING" SIX MINUTE AVERAGE
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		
6	0	0	0	0		0.00
7	0	0	0	0		0.00
8	0	0	0	0		0.00
9	0	0	0	0		0.00
10	0	0	0	0		0.00
11	0	0	0	0		0.00
12	0	0	0	0		0.00
13	0	0	0	0		0.00
14	0	0	0	0		0.00
15	0	0	0	0		0.00
16	0	0	0	0		0.00
17	0	0	0	0		0.00
18	0	0	0	0		0.00
19	0	0	0	0		0.00
20	0	0	0	0		0.00
21	0	0	0	0		0.00
22	0	0	0	0		0.00
23	0	0	0	0		0.00
24	0	0	0	0		0.00
25	0	0	0	0		0.00
26	0	0	0	0		0.00
27	0	0	0	0		0.00
28	0	0	0	0		0.00
29	0	0	0	0		0.00
30	0	0	0	0		0.00
31	0	0	0	0		0.00
32	0	0	0	0		0.00
33	0	0	0	0		0.00
34	0	0	0	0		0.00
35	0	0	0	0		0.00
36	0	0	0	0		0.00
37	0	0	0	0		0.00
38	0	0	0	0		0.00
39	0	0	0	0		0.00
40	0	0	0	0		0.00
41	0	0	0	0		0.00
42	0	0	0	0		0.00
43	0	0	0	0		0.00
44	0	0	0	0		0.00
45	0	0	0	0		0.00
46	0	0	0	0		0.00
47	0	0	0	0		0.00
48	0	0	0	0		0.00
49	0	0	0	0		0.00
50	0	0	0	0		0.00
51	0	0	0	0		0.00
52	0	0	0	0		0.00
53	0	0	0	0		0.00
54	0	0	0	0		0.00
55	0	0	0	0		0.00
56	0	0	0	0		0.00
57	0	0	0	0		0.00
58	0	0	0	0		0.00
59	0	0	0	0		0.00
60	0	0	0	0		0.00

File name: VEFORM.XLS

EPA

VISIBLE EMISSION OBSERVATION FORM 1

Form Number		Page 1	Of 1
Continued on VEO Form Number			

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name: St. Johns River Power Park
Facility Name:
Street Address: 11201 New Berlin Rd.
City: Jacksonville | State: FL | Zip: 32226

Process: Fly ash Silo Baghouse | Unit #: 2 | Operating Mode: operating
Control Equipment: Baghouses | Operating Mode: operating

Describe Emission Point: area around Silo Baghouses

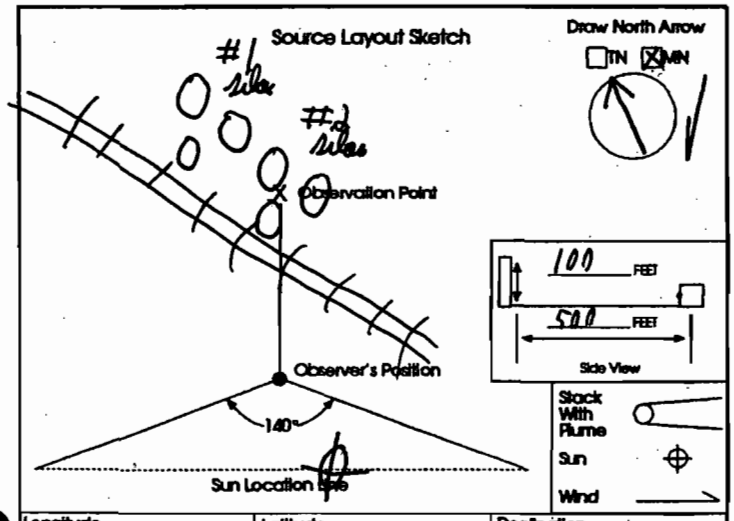
Height of Emiss. Pt. Start: 100' End: ✓	Height of Emiss. Pt. Rel. to Observer Start: 95' End: ✓
Distance to Emiss. Pt. Start: 500' End: ✓	Direction to Emiss. Pt. (Degrees) Start: 50 End: ✓
Vertical Angle to Obs. Pt. Start: 90° End: ✓	Direction to Obs. Pt. (Degrees) Start: 50° End: ✓
Distance and Direction to Observation Point from Emission Point Start: at exit End: ✓	

Describe Emissions: Start: clear End: ✓
Emission Color: Start: clear End: ✓ | Water Droplet Plume: Attached ☐ Detached ☐ None ☒

Describe Plume Background: Start: sky End: ✓

Background Color: Start: Grey End: ✓	Sky Conditions: Start: overcast End: ✓
Wind Speed: Start: 10 mph. End: ✓	Wind Direction: Start: SW End: ✓
Ambient Temp. Start: 58° End: ✓	Wet Bulb Temp.: 56°	RH Percent: 88%

Source Layout Sketch



Draw North Arrow: ☐ TN ☒ MN

Longitude	Latitude	Declination
W	N	

Additional Information: Sun location an estimate due to overcast sky

Observation Date	Time Zone	Start Time	End Time
12-10-02	E	1050	1150

Sec / Min	0	15	30	45	Sec / Min	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Observer's Name (Print): Melvin Petiet
Observer's Signature: _____ Date: 12-10-02
Organization: CAC
Certified By: ETA Date: 12-4-02

Coastal Air Consulting,Inc.

Visible Emission Evaluation Spreadsheet

Client: [illegible]
Plant: SJRPP

Observation Date: 12/10/02

Gross Generation: NA MW

Unit: Fly Ash Silo Baghouse Unit 2

Fuel: NA Coal% ____ Oil %

Particulate Test: NA Type / Run #: NA

Start: 1050 Stop: 1150

Observer: Milvin Petiet

Over-all Average Opacity: 0.00

Highest 6-Minute Average: 0.00

Next Highest 6-Minute Average: 0.00

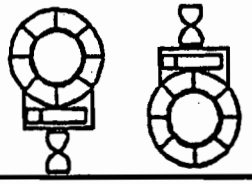
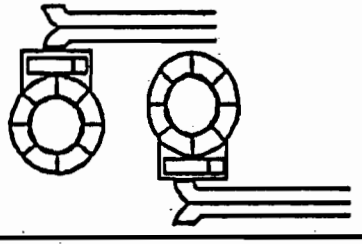
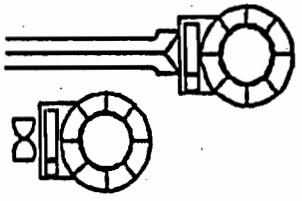
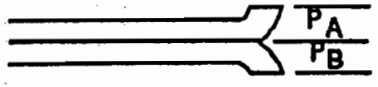
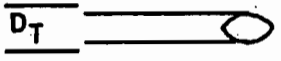
	0	15	30	45	"ROLLING" SIX MINUTE AVERAGE
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	0.00
7	0	0	0	0	0.00
8	0	0	0	0	0.00
9	0	0	0	0	0.00
10	0	0	0	0	0.00
11	0	0	0	0	0.00
12	0	0	0	0	0.00
13	0	0	0	0	0.00
14	0	0	0	0	0.00
15	0	0	0	0	0.00
16	0	0	0	0	0.00
17	0	0	0	0	0.00
18	0	0	0	0	0.00
19	0	0	0	0	0.00
20	0	0	0	0	0.00
21	0	0	0	0	0.00
22	0	0	0	0	0.00
23	0	0	0	0	0.00
24	0	0	0	0	0.00
25	0	0	0	0	0.00
26	0	0	0	0	0.00
27	0	0	0	0	0.00
28	0	0	0	0	0.00
29	0	0	0	0	0.00
30	0	0	0	0	0.00
31	0	0	0	0	0.00
32	0	0	0	0	0.00
33	0	0	0	0	0.00
34	0	0	0	0	0.00
35	0	0	0	0	0.00
36	0	0	0	0	0.00
37	0	0	0	0	0.00
38	0	0	0	0	0.00
39	0	0	0	0	0.00
40	0	0	0	0	0.00
41	0	0	0	0	0.00
42	0	0	0	0	0.00
43	0	0	0	0	0.00
44	0	0	0	0	0.00
45	0	0	0	0	0.00
46	0	0	0	0	0.00
47	0	0	0	0	0.00
48	0	0	0	0	0.00
49	0	0	0	0	0.00
50	0	0	0	0	0.00
51	0	0	0	0	0.00
52	0	0	0	0	0.00
53	0	0	0	0	0.00
54	0	0	0	0	0.00
55	0	0	0	0	0.00
56	0	0	0	0	0.00
57	0	0	0	0	0.00
58	0	0	0	0	0.00
59	0	0	0	0	0.00
60	0	0	0	0	0.00

File name: VEFORM.XLS

APPENDIX 2
REFERENCE METHOD QUALITY ASSURANCE

Equipment Calibrations

TYPE "S" PITOT TUBE CALIBRATION

PARAMETER	SPECIFICATION	EXAMPLE	MEASUREMENT INSTRUMENT
IMPACT/ a1	(< 10 DEG)		DEGREE INDICATING LEVEL
STATIC/ a2	(< 10 DEG)		
STATIC/ B1	(< 5 DEG)		DEGREE INDICATING LEVEL
IMPACT/ B2	(< 5 DEG)		
γ	DEGREES		DEGREE INDICATING LEVEL
θ	DEGREES		
P_A	INCHES		RULER
P_B	INCHES		
$P_A + P_B = A$	INCHES		
D_T	INCHES		MICROMETER

$Z = A \sin \gamma$ (LIMIT < 0.125 INCHES) $W = A \sin \theta$ (LIMIT < 0.03125 INCHES)

PITOT #	a1	a2	B1	B2	γ	θ	PA	PB	A	DT	Z	W	DAMAGE ?
Flow	3	0	2	2	0	0	0.4945	0.4945	0.9890	0.3905	0	0	None
8G	0	0	1	3	1	0	0.5033	0.5033	1.0065	0.3836	0.0176	0	None
11G	0	2	0	0	0	0	0.4883	0.4883	0.9765	0.4175	0	0	None

CALIBRATED BY: S. Webb DATE: 12-3-02

BY: RRR 3-93
FILE: PITOT-5

SAMPLE NOZZLE CALIBRATION

REFERENCE: EPA METHOD 5

PROCEDURE: MEASURE THE INNER DIAMETER OF THE SAMPLING NOZZLE TO THE NEAREST 0.001 INCHES. REPEAT UNTIL THREE MEASUREMENTS ARE MADE AT DIFFERENT POINTS ON THE NOZZLE DIAMETER.

DATE: 12-3-02

TOLERANCE: RANGE NOT TO EXCEED 0.004 INCHES

BY: S, Webb

NOZZLE NUMBER	1ST MEAS.	2ND MEAS.	3RD MEAS.	AVERAGE	MAXIMUM RANGE
G1	0.224	0.225	0.225	0.225	
G2	0.225	0.225	0.225	0.225	
G3	0.250	0.250	0.250	0.250	
G4	0.250	0.250	0.251	0.250	

COASTAL AIR CONSULTING, INC.
EPA Method 5
Meter Box Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Date:	8/16/2002
Box:	CAC 1
Serial:	

Barometric Pressure:	30.12	(in Hg)
Theoretical Critical Vacuum:	14.21	(in Hg)

IMPORTANT For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

DRY GAS METER READINGS							Critical Orifice Readings			AMBIENT TEMPERATURE		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Temp Initial (deg F)	Temp Final (deg F)	Orifice Serial #	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
0.3	16	400.324	405.497	5.173	90	90	40	0.243	23.5	84	84	84
0.67	11	394.701	399.943	5.242	89	90	48	0.357	22	84	84	84
1.2	8	388.402	393.42	5.018	89	90	55	0.471	21	83	83	83
2	7	382.654	388.104	5.45	89	90	63	0.600	19	83	83	83
3.8	5.1	375.454	381.135	5.681	88	89	73	0.841	16	83	83	83

CORRECTED VOLUME	
DRY GAS METER Vm(std) (cu ft)	ORIFICE Vcr(std) (cu ft)
5.001	5.021
5.077	5.071
4.866	4.870
5.295	5.429
5.554	5.544

DRY GAS METER CALIBRATION FACTOR Y	
Value	Variation
1.004	-0.001
0.999	-0.0065
1.001	-0.0046
1.025	0.01977
0.998	-0.0072

ORIFICE CALIBRATION FACTOR dH@	
Value (in H20)	Variation (in H20)
1.714	-0.084
1.773	-0.024
1.821	0.024
1.870	0.07297
1.809	0.0114

Average	1.005	Average	1.797

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: Stephen C. Webb Date: 8-16-02

$$V_{m(std)} = 17.64\,(V_m)\frac{P_b + \frac{\Delta H}{13.6}}{t_m + 460}$$

$$V_{cr(std)} = K'\frac{P_b\theta}{\sqrt{t_{amb} + 460}}$$

$$Y = \frac{V_{cr(std)}}{V_{m(std)}}$$

$$\Delta H_@ = \Delta H\left(\frac{.75\theta}{V_{cr(std)}}\right)^2$$

Coastal Air Consulting, Inc.
EPA Method 5
Meter Box Calibration
Post-Test Orifice Method

Date:	12/18/2002
Box:	CAC 1
Serial:	

Barometric Pressure:	30.08	(in Hg)
Theoretical Critical Vacuum:	14.19	(in Hg)

IMPORTAI For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTAI The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

DRY GAS METER READINGS							Critical Orifice Readings					
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Temp Initial (deg F)	Temp Final (deg F)	Orifice Serial #	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	AMBIENT TEMPERATURE Initial (deg F)	Final (deg F)	Average (deg F)
2.0	10	351.744	359.756	8.012	81	81	63	0.600	19.0	74	73	73.5
2.0	10	359.756	367.774	8.018	81	81	63	0.600	19.0	73	73	73
2.0	10	367.774	375.895	8.121	81	81	63	0.600	19.0	73	72	72.5

CORRECTED VOLUME	
DRY GAS METER Vm(std) (cu ft)	ORIFICE Vcr(std) (cu ft)
7.897	7.814
7.902	7.817
8.004	7.821

DRY GAS METER CALIBRATION FACTOR Y	
Value	Variation
0.990	0.004
0.989	0.0039
0.977	-0.0082

ORIFICE CALIBRATION FACTOR dH@	
Value (in H20)	Variation (in H20)
1.843	0.002
1.841	0.000
1.839	-0.002

Average	0.985

Average	1.841

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: Stephen C. Webb Date: 12-18-02

$$V_{m(std)} = 17.64 (V_m) \frac{P_b + \frac{\Delta H}{13.6}}{t_m + 460}$$

$$V_{cr(std)} = K' \frac{P_b \theta}{\sqrt{t_{amb} + 460}}$$

$$Y = \frac{V_{cr(std)}}{V_{m(std)}}$$

$$\Delta H_@ = \Delta H \left(\frac{.75\theta}{V_{cr(std)}} \right)^2$$

Coastal Air Consulting, Inc.
EPA Method 5
Meter Box Calibration
Post-Test Orifice Method

Date:	12/18/2002
Box:	CAC 1
Serial:	

Barometric Pressure:	30.08	(in Hg)
Theoretical Critical Vacuum:	14.19	(in Hg)

IMPORTAI For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTAI The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

DRY GAS METER READINGS							Critical Orifice Readings			AMBIENT TEMPERATURE		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Temp Initial (deg F)	Temp Final (deg F)	Orifice Serial #	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
3.8	10	315.437	326.434	10.997	82	82	73	0.841	15.1	76	75	75.5
3.8	10	326.434	337.485	11.051	82	83	73	0.841	15.1	75	74	74.5
3.8	10	337.484	348.567	11.083	83	85	73	0.841	15.1	74	74	74

CORRECTED VOLUME	
DRY GAS METER Vm(std) (cu ft)	ORIFICE Vcr(std) (cu ft)
10.866	10.931
10.909	10.941
10.911	10.946

DRY GAS METER CALIBRATION FACTOR Y	
Value	Variation
1.006	0.002
1.003	-0.0011
1.003	-0.0008

ORIFICE CALIBRATION FACTOR dH@	
Value (in H20)	Variation (in H20)
1.789	0.003
1.786	-0.001
1.784	-0.002

Average	1.004

Average	1.786

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: Stephen C. Welch Date: 12-18-02

$$V_{m(std)} = 17.64\,(V_m)\frac{P_b + \frac{\Delta H}{13.6}}{t_m + 460}$$

$$V_{cr(std)} = K'\frac{P_b\theta}{\sqrt{t_{amb} + 460}}$$

$$Y = \frac{V_{cr(std)}}{V_{m(std)}}$$

$$\Delta H_@ = \Delta H\left(\frac{.75\theta}{V_{cr(std)}}\right)^2$$

THERMOCOUPLE POSTTEST CALIBRATION CHECK

Standard: National Bureau of Standards Thermocouple

Reference: Q.A. sec 3.1.2

Procedure: Test thermocouple and NBS thermocouple are wrapped in a heating mat. The temperature is controlled by the current flow into the mat, and is stabilized at a point within 10% of the average stack temperature during the test.

Tolerance: +/- 1.5% of actual absolute temperature

Test site:SJRPP — Check date: 12/18/02
Test date: 12/9-11/02 — Check by: S. C. Webb
Avg. stack temp. 145

T/C #	LENGTH ft	REFERENCE TEMP. F	MEASURED TEMP. F	DIFFERENCE %
FLOW	12	150	149	-0.16
11G	11	150	150	0.00

FILE:PTCALCH.xls

THERMOCOUPLE CALIBRATION DATA

STANDARD: National Bureau of Standards Thermocouple

REFERENCE: EPA Method 2.

FREQUENCY: Annualy

PROCEDURE: Thermocouple and NBS thermocouple are inserted into a thermostatically controlled oil bath. Temperatures are stabilized at approximately 230 & 340 F. Potentiometer and thermocouple readings are compared.

TOLERENCE: + / - 1.5% of actual absolute temperature.

REFERENCE TEMPERATURES

AMBIENT	65.0	MID	230.0	HIGH	350.0

T/C. Number	Length (ft)	OBS TEMP (F)	DIFF (%)	OBS TEMP (F)	DIFF (%)	OBS TEMP (%)	DIFF (%)
15	15	65.0	0.00	232.0	0.29	349.0	-0.12
10	10	65.0	0.00	230.0	0.00	350.0	0.00
8	8	65.0	0.00	231.0	0.14	349.0	-0.12
6	6	65.0	0.00	229.0	-0.14	347.0	-0.37
3	3	65.0	0.00	230.0	0.00	348.0	-0.25
7	7	65.0	0.00	230.0	0.00	350.0	0.00
11G	11	65.0	0.00	230.0	0.00	350.0	0.00
FLOW	12	65.0	0.00	234.0	0.58	349.0	-0.12

Calibrated by: S. C. Webb
Date: 1/2/02
Due: 1/2/03

FILE:STKTCCAL.XLS

DRY GAS METER
THERMOCOUPLE CALIBRATION DATA

Frequency: Annual (two point) calibration.

Standard: ASTM Hg in glass thermometer, NBS ice point reference chamber, and potentiometer.

Reference: EPA Method 5, Section 2.1.8

Procedure: 1. Place ASTM thermometer and dry gas meter thermocouples (inlet and outlet) in hot water bath where the temperature is maintained between 100 F and 125 F. When the temperature has stabilized the thermocouple and ASTM thermometer are compared.

2. Remove ASTM thermometer and thermocouples from the warm bath, dry thoroughly, and place in a room with constant temperature and humidity. Allow a period of stabilization and record the readings.

Tolerance: +/- 5.4 F

Therm ID No.	Location	Reference Temp. (F) 1	Reference Temp. (F) 2	Observed Temp. (F) 1	Observed Temp. (F) 2	Difference (F) 1	Difference (F) 2
1 MB	Meter Box No. CAC1	120.0	70.0	120.0	70.0	0.0	0.0
2 MB	Meter Box No. CAC1	120.0	70.0	120.0	70.0	0.0	0.0
1 MB	Meter Box No. CAC2	120.0	70.0	120.0	70.0	0.0	0.0
2 MB	Meter Box No. CAC2	120.0	70.0	120.0	70.0	0.0	0.0

CALIBRATED BY: S. Webb
DATE: 01/02/02
DUE: 01/02/03

FILE:MBTCCAL.XLS

SAMPLE HEAD HOOK-UP THERMOCOUPLE CALIBRATION PROCEDURES

FREQUENCY: Quarterly (two point calibration)

1. Place ASTM thermometer and sample head hook-up thermocouple in ice bath, allow time for both to equilibrate. Compare and record readings after they have stabilized.

2. Remove both the ASTM thermometer and sample head hook-up thermocouple. Dry off thoroughly and place in a room with constant temperature and humidity. Allow a period of stabilization and record readings.

Acceptance Standard: The test thermocouple (sample head hook up) shall be acceptable if both temperatures are within + / - 2 F of the ASTM standard thermometer.

Note: If the thermocouple is not within the tolerances, discard and calibrate one which will be satisfactory.

Thermo. I.D. No.		Location	Reference Temp. (F) 1	2	Observed Temp. (F) 1	2	Difference Temp. (F) 1	2
A		SHH-A	32.0	65.0	32.0	65.0	0.0	0.0
B		SHH-B	32.0	65.0	32.0	65.0	0.0	0.0
							0.0	0.0
							0.0	0.0
							0.0	0.0
							0.0	0.0

Calibrated by: S. C. Webb
Date: 1/2/02
Due: 1/2/03

FILE:SHHTHCAL.XLS

VE Certification

VISIBLE EMISSIONS EVALUATOR

This is to certify that

Melvin Petiet

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.

302774	Jacksonville, Florida	December 4, 2002
Certificate Number	Location	Date

President

Director of Training

VISIBLE EMISSIONS EVALUATOR

This is to certify that

Steve Webb

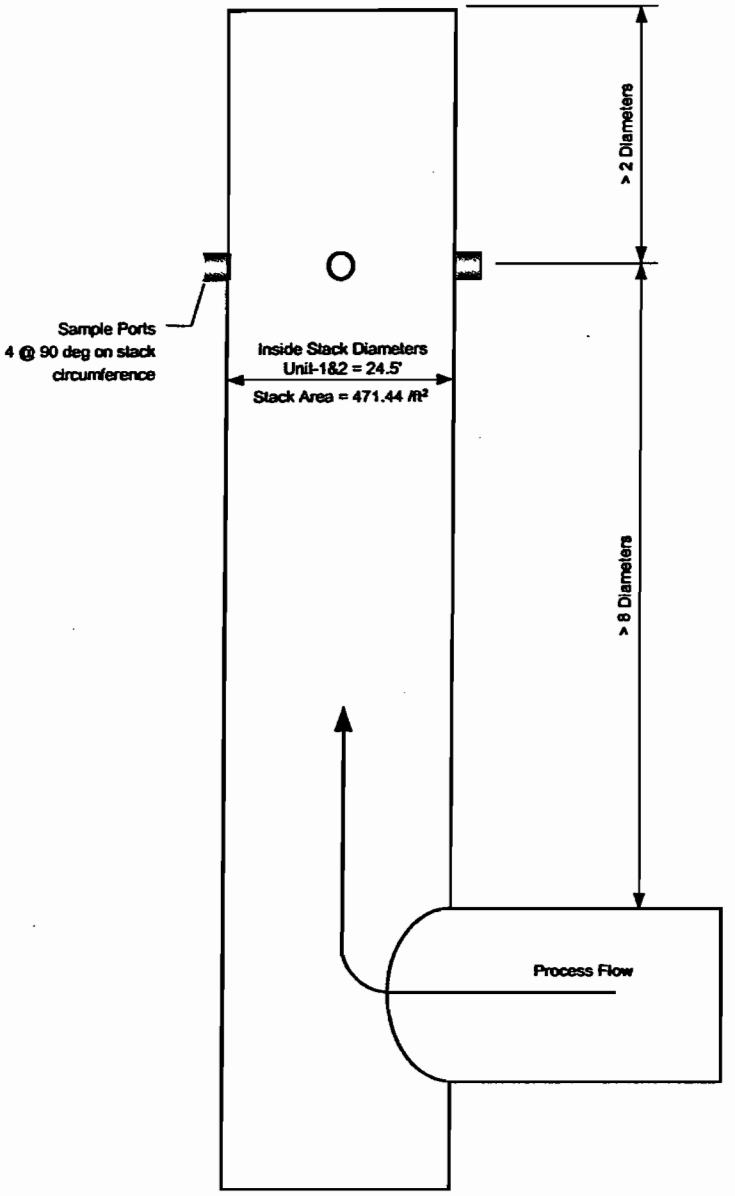
met the specifications of Federal Reference Method 9 and qualified as a visible emissions evaluator. Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of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

297781	*Orlando, Florida*	*August 14, 2002*
Certificate Number	Location	Date of Issue

Thomas Hoke
President

Michael W. Sumsford
Director of Training

APPENDIX 3
FIGURES



SAMPLE POINT PROFILE
Particulate, CEMS & FLOW

UNIT 1 Particulate

1. 84.0"
2. 42.9"
3. 12.9"

UNIT 1 CEMS

1. 1.3'
2. 4.0'
3. 6.5'

UNIT 1 Flow

1. 95.0"
2. 57.0"
3. 30.9"
4. 9.4"

UNIT 2 Particulate

1. 84.0"
2. 42.9"
3. 12.9"

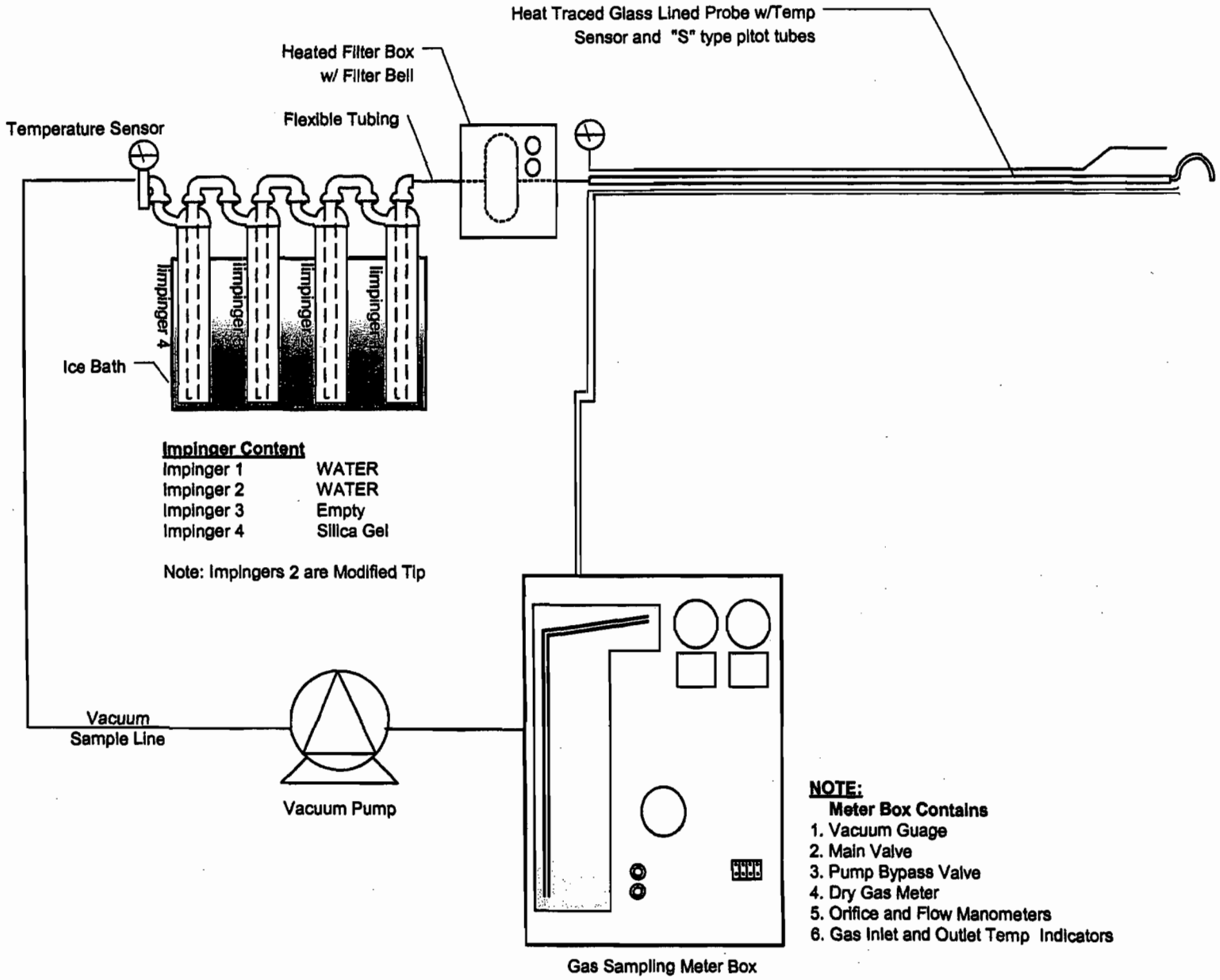
UNIT 2 CEMS

1. 1.3'
2. 4.0'
3. 6.5'

UNIT 2 Flow

1. 95.0"
2. 57.0"
3. 30.9"
4. 9.4"

DRAWN BY R F Cobb		**TITLE** St Johns River Power Park - SJRPP	**Coastal Air Consulting, Inc.** 1531 Wyngate Drive, Deland FL (386) 943-9241 Fax (386) 943 9212
DATE 12-06-02	**SCALE** NONE	**DESCRIPTION** Unit I & II Stack and Sample Port Configuration	



Coastal Air Consulting, Inc
1531 Wyngate Drive, Deland FL
(386) 943-9241 Fax (386) 943 9212

DRAWN BY R F Cobb	TITLE EPA Method 5 Sample Train	DESCRIPTION
DATE 4/15/02	SCALE NONE	

APPENDIX 4
SAMPLE CALCULATIONS

SAMPLE EQUATIONS
FOR ISOKINETIC SAMPLING

CALCULATIONS FOR FLUE GAS VOLUME AND ISOKINETIC RATIO

Time	Dry Gas Meter Ft^3	Pitot ΔP In. H_2O	Orifice ΔH In. H_2O	Dry Gas Temp.°F In	Out	Flue Gas Static Pressure In. H_2O	Stack Temp.°F
T	V_m	Δp	ΔH	TMI	TMO	P_g	t_s

1. D_n = Nozzle Diameter (inches)

1a. A_n = Area of Nozzle (ft^2)

2. P_{bar} = Barometric Pressure (in. Hg)

3. TT = Net Sampling Time (minutes)

4. V_m = V_m Final - V_m Initial = Sample Gas Volume (Ft^3)

5. T_m = Average Dry Gas Temperature at Meter (°F)

$$T_m = \frac{Avg.TMI + Avg.TMO}{2}$$

6. Δp = Velocity head of stack gas (in. H_2O)

7. ΔH = Average Orifice Pressure Drop (in.H_2O)

8. Volume of dry gas sampled at standard conditions[a] (DSCF)

$$V_{m(std)} = \frac{(17.64)(V_m)(Y)\left(P_{bar} + \frac{\Delta H}{13.6}\right)}{(T_m + 460)}$$

9. V_{lc} = Total Water Collected = gm H_2O Silica gel + ml Imp. H_2O = ml

10. Volume of water vapor at standard conditions[b] (SCF)

$$V_{w(std)} = 0.0471(V_{lc}) = SCF$$

11. Percent moisture in flue gas

$$\%M = \frac{100(V_{w(std)})}{V_{m(std)} + V_{w(std)}}$$

12. Mole fraction of water vapor in flue gas

$$B_{ws} = \frac{\%M}{100}$$

13. Molecular Weight of dry flue gas

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$$

13a. %EA = % Excess Air =

$$\frac{\left[(\%O_2) - 0.5(\%CO)\right]}{\left[0.264(\%N_2)\right] - \left[(\%O_2) - 0.5(\%CO)\right]} x100$$

14. Molecular weight of wet flue gas

$$M_s = M_d(1 - B_{ws}) + 18(B_{ws})$$

15. A = Cross-sectional area of stack (Ft^2)

$$\frac{\pi r^2}{144}$$

16. P_s = Flue gas pressure (in, Hg)

$$P_s = P_{bar} + P_g$$

NOTE: $$P_g(Hg) = \frac{P_g(in.H_2O)}{13.6}$$

17. T_s = Absolute stack temperature (°R)

$$T_s = 460 + t_s$$

18. Flue velocity at stack conditions (FT/SEC)

$$V_s = (K_p)(C_p)\left[\left(\sqrt{\Delta p}\right)avg\right]\sqrt{\frac{T_s(avg)}{P_s * M_s}}$$

C_p = pitot tube coefficient
K_p = pitot tube constant = 85.49ft/sec

19. Flue gas volumetric flow rate at standard conditions[b] (SCFM)

$$Q_s = (V_s)(A)\left(\frac{528}{T_s(avg.)}\right)\left(\frac{P_s}{29.92}\right)(60)$$

20. Flue gas volumetric flow rate at standard conditions[c] (DSCFM)

$$Q_{sd} = (1 - B_{ws})(V_s)(A)\left(\frac{528}{T_s(avg.)}\right)\left(\frac{P_s}{29.92}\right)(60)$$

21. Flue gas volumetric flow rate at stack conditions (ACFM)

$$Q_a = (V_s)(A)(60)$$

22. Percent Isokinetic

$$\%I = \frac{K_4(T_s)(V_{m(std)})}{P_s V_s A_n \Theta(1 - B_{ws})}$$

$K_4 = 0.09450$
$\Theta = time(\min)$

NOTES:
[a]Dry standard cubic feet at 68°F, 29.92 in. Hg
[b]Standard conditions at 68°F, 29.92 in. Hg
[c]Dry standard cubic feet per minute at 68°F, 29.92 in. Hg

II. Calculations for grain loading and emission rates

23. Particulate (gr/DSCF)

$$gr / DSCF = 0.01543\left(\frac{mg}{V_{m(std)}}\right)$$

24. Particulate at stack conditions (gr/ACF)

$$gr / ACF = \frac{17.64 gr / DSCF(P_s)(M_d)}{(T_s + 460)}$$

25. Particulate (lbs/hr), concentration method

$$lbs / hr = 0.00857 * gr / DSCF * Q_{sd}$$

26. Particulate (lbs/hr), area method

$$lbs / hr = 0.132 * \frac{particulate(g) * A}{\frac{(D_n)^2}{2} * TT}$$

27. Particulate (lbs/mmBtu)

$$\frac{lbs / hr}{10^6 Btu / hr}$$

28. Particulate (lbs/ton)

$$lbs / ton = \frac{lbs / hr}{tons / hr}$$

29. Particulate (lbs/mmBtu), F-Factor Method

$$\text{Using } O_2 = \frac{(0.01543)(mg)(F - Factor)(20.9)}{(7000)(V_{m(std)})(20.9 - \%O_2)}$$

30. Particulate (gr/dscf) @ % Excess Air

gr/dscf @ % EA = ((100 + %EA)/150) (gr/dscf)

31. Particulate (lbs/mmBtu), F-Factor Method (Continued)

$$\text{Using } CO_2 = \frac{(0.01543)(mg)(F-Factor)(100)}{(7000)(V_{m(std)})(\%CO_2)}$$

32. F-Factor (dscf/mmBtu)

Wet Basis (F_w)

$$F_w = \frac{10^6\ Btu/mmBtu\left[5.57(\%H)+1.53(\%C)+0.57(\%S)+0.14(\%N)-0.46(\%O_2)+0.21(\%H_2O)\right]}{GCV_w}$$

Dry Basis (F_d)

$$F_d = \frac{10^6\ Btu/mmBtu\left[3.64(\%H)+1.53(\%C)+0.57(\%S)+0.14(\%N)-0.46(\%O_2)\right]}{GCV_d}$$

Carbon Basis (F_c)

$$F_c = \frac{10^6\ Btu/mmBtu\left[0.321(\%C)\right]}{GCV_d}$$

33. Particulate Emissions, (grams/DSCF)

Cs = Particulate (mg) / 1000 / DSCF

34. Particulate Emissions, (lb/ton) of Kiln Feed

(Cs) (DSCFH) / (130 tph) (453.6g/lb)

Calculation Quality Assurance Check

CALCULATIONS FOR RUN 1 Unit 1

1. Volume of dry gas sampled at standard conditions, DSCF

$$V_{m\,std} = 17.64 * 113.497 * 1.0050 * \frac{29.63 + (2.788 / 13.6)}{100.2 + 460}$$

2. Volume of water vapor at standard conditions, SCF

$$V_{m\,gas} = 0.04715 * 317.4$$

3. Percent moisture in stack gas

$$\%M = 100 * 14.97 / (107.166 + 14.97)$$

4. Mole fraction dry gas

$$Md = (100 - 12.25) / 100$$

5. Percent nitrogen in dry stack gas, lb/lb-mole

$$\%N2 = 100 - 12.20 - 6.40$$

6. Molecular weight of dry stack gas, lb/lb-mole

$$MWd = (12.20 * 0.44) + (6.40 * 0.32) + (81.40 * 0.28)$$

7. Molecular weight of wet stack gas, lb/lb-mole

$$MW = (30.21 * 0.877) + [18 * (1 - 0.8775)]$$

8. Stack gas static pressure, in. Hg abs.

$$Psa = (-0.76 * 13.6) + 29.63 - (0.001 * 0.00)$$

9. Stack gas velocity at standard conditions, fps

$$Vs = 85.49 * 0.84 * (1.176)^{1/2} * \left| (146.92 + 460) \middle/ (29.57 * 28.712) \right|^{1/2}$$

10. Stack gas volumetric flow rate at standard conditions, DSCFM

$$Qs = \frac{(1058.82 * 71.41 * 471.44 * 0.877 * 29.57)}{(146.9 + 460)}$$

11. Stack gas volumetric flow rate at stack conditions, ACFM

$$Qa = 0.05667 * 1524026.2 * (146.9 + 460) / (29.57 * 0.877)$$

12. Percent isokinetic

$$\%I = \frac{17.326 * 107.166 * (146.9 + 460)}{71.41 * 120 * 29.57 * 0.877 * (0.225)^2}$$

13. Particulate emission rate, grains/SCF

Eg = 0.01543 *(11.6 / 107.166)

14. Particulate emission rate, lbs/HR

Eh = 0.00857 * 1524026.2 * 0.0017

15. Particulate emission rate, lbs/MMBTU

Eb = 9780 * 0.0017 / 7000)*[20.9 / (20.9 - 6.40)]

CALCULATIONS FOR RUN 1 Unit 2

1. Volume of dry gas sampled at standard conditions, DSCF

$$V_{m_{std}} = 17.64 * 111.855 * 1.0050 * \frac{29.65 + (2.717 / 13.6)}{95.9 + 460}$$

2. Volume of water vapor at standard conditions, SCF

$$V_{m_{gas}} = 0.04715 * 321.7$$

3. Percent moisture in stack gas

$$\%M = 100 * 15.17 / (106.476 + 15.17)$$

4. Mole fraction dry gas

$$Md = (100 - 12.47) / 100$$

5. Percent nitrogen in dry stack gas, lb/lb-mole

$$\%N2 = 100 - 12.80 - 6.00$$

6. Molecular weight of dry stack gas, lb/lb-mole

$$MWd = (12.80 * 0.44) + (6.00 * 0.32) + (81.20 * 0.28)$$

7. Molecular weight of wet stack gas, lb/lb-mole

$$MW = (30.29 * 0.875) + [18 * (1 - 0.8753)]$$

8. Stack gas static pressure, in. Hg abs.

$$Psa = (-0.80 * 13.6) + 29.65 - (0.001 * 0.00)$$

9. Stack gas velocity at standard conditions, fps

$$Vs = 85.49 * 0.84 * (1.163)^{1/2} * \left(\frac{141.08 + 460}{29.59 * 28.756}\right)^{1/2}$$

10. Stack gas volumetric flow rate at standard conditions, DSCFM

$$Qs = \frac{(1058.82 * 70.22 * 471.44 * 0.875 * 29.59)}{(141.1 + 460)}$$

11. Stack gas volumetric flow rate at stack conditions, ACFM

$$Qa = 0.05667 * 1510379.9 * (141.1 + 460) / (29.59 * 0.875)$$

12. Percent isokinetic

$$\%I = \frac{17.326 * 106.476 * (141.1 + 460)}{70.22 * 120 * 29.59 * 0.875 * (0.225)^2}$$

13. Particulate emission rate, grains/SCF

Eg = 0.01543 *(9.1 / 106.476)

14. Particulate emission rate, lbs/HR

Eh = 0.00857 * 1510379.9 * 0.0013

15. Particulate emission rate, lbs/MMBTU

Eb = 9780 *(0.0013 / 7000)*[20.9 / (20.9 - 6.00)]

APPENDIX 5
LAB ANALYSIS

Fuel

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-0305
SINCE 1936
SGS Member of the SGS Group (Société Générale de Surveillance)
Committed To Excellence
ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 752
HENDERSON, KY 42419
TEL: (270) 827-1187
FAX: (270) 826-0719

December 23, 2002

ST. JOHNS RIVER POWER PARK
11201 NEW BERLIN RD
JACKSONVILLE FL 32226

Sample identification by SJRPP

Stack Test
Collection Date: 12-09-02
Collection Time: 09:30 am
SJRPP Lab ID#: SJ-120902-0930
SampleL: Domestic Blend
P.O. #34531

Kind of sample reported to us: Coal
Sample taken at: -----
Sample taken by: -----
Date sampled: December 9, 2002
Date received: December 17, 2002

Analysis Report No. 63-77709

SHORT PROXIMATE ANALYSIS

	As Received	Dry Basis		
% Moisture	9.13	xxxxx		
% Ash	6.28	6.91		
Btu/lb	12747	14028	MAF	15069
% Sulfur	2.20	2.42		

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.
Henderson Laboratory

MEMBER ACII

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1616 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-9306

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Committed To Excellence

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 752
HENDERSON, KY 42419
TEL: (270) 826-1187
FAX: (270) 826-0719

December 23, 2002

ST. JOHNS RIVER POWER PARK
11201 NEW BERLIN RD
JACKSONVILLE FL 32226

Sample identification by
SJRPP

Stack Test
Collection Date: 12-09-02
Collection Time: 22:45 pm
SJRPP Lab ID#: SJ-120902-2245
SampleL: Domestic Blend
P.O. #34531

Kind of sample reported to us	Coal
Sample taken at	-----
Sample taken by	-----
Date sampled	December 9, 2002
Date received	December 17, 2002

Analysis Report No. 63-77710

SHORT PROXIMATE ANALYSIS

	As Received	Dry Basis		
% Moisture	7.70	xxxxx		
% Ash	6.75	7.31		
Btu/lb	12855	13927	MAF	15025
% Sulfur	1.47	1.59		

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Henderson Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.
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ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 752
HENDERSON, KY 42419
TEL: (270) 827-1187
FAX: (270) 826-0718

December 23, 2002

ST. JOHNS RIVER POWER PARK
11201 NEW BERLIN RD
JACKSONVILLE FL 32226

Sample identification by
SJRPP

Stack Test
Collection Date: 12-10-02
Collection Time: 10:00 am
SJRPP Lab ID#: SJ-121002-1000
SampleL: Domestic Blend
P.O. #34531

Kind of sample reported to us: Coal

Sample taken at: -----

Sample taken by: -----

Date sampled: December 10, 2002

Date received: December 17, 2002

Analysis Report No. 63-77711

SHORT PROXIMATE ANALYSIS

	As Received	Dry Basis		
% Moisture	7.77	xxxxx		
% Ash	4.90	5.31		
Btu/lb	12628	13692	MAF	14460
% Sulfur	2.78	3.01		

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Henderson Laboratory

MEMBER ACIL

APPENDIX 6
PLANT DATA

UNIT 1

Unit 1 Particulate
Run 1

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 14:54

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/09/02 09:00
Period End: 12/09/02 11:10
Validation Type: 1/1 min
Averaging Period: 1/1 min
Type: Rolling Avg

Period_Start	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/09/02 09:00	95934.0	657.8
12/09/02 09:01	95616.0	654.9
12/09/02 09:02	95616.0	654.9
12/09/02 09:03	95616.0	654.9
12/09/02 09:04	95616.0	654.9
12/09/02 09:05	95616.0	654.9
12/09/02 09:06	95616.0	654.9
12/09/02 09:07	95616.0	654.9
12/09/02 09:08	95616.0	654.9
12/09/02 09:09	95616.0	654.9
12/09/02 09:10	95616.0	654.9
12/09/02 09:11	95616.0	654.9
12/09/02 09:12	95616.0	654.9
12/09/02 09:13	95616.0	654.9
12/09/02 09:14	95616.0	654.9
12/09/02 09:15	95616.0	654.9
12/09/02 09:16	96060.0	654.7
12/09/02 09:17	96060.0	654.7
12/09/02 09:18	96060.0	654.7
12/09/02 09:19	96060.0	654.7
12/09/02 09:20	96060.0	654.7
12/09/02 09:21	96060.0	654.7
12/09/02 09:22	96060.0	654.7
12/09/02 09:23	96060.0	654.7
12/09/02 09:24	96060.0	654.7
12/09/02 09:25	96060.0	654.7
12/09/02 09:26	96060.0	654.7
12/09/02 09:27	96060.0	654.7
12/09/02 09:28	96060.0	654.7
12/09/02 09:29	96060.0	654.7
12/09/02 09:30	96060.0	654.7
12/09/02 09:31	95664.0	654.0
12/09/02 09:32	95664.0	654.0
12/09/02 09:33	95664.0	654.0
12/09/02 09:34	95664.0	654.0
12/09/02 09:35	95664.0	654.0
12/09/02 09:36	95664.0	654.0
12/09/02 09:37	95664.0	654.0
12/09/02 09:38	95664.0	654.0

12/09/02 09:39	95664.0	654.0
12/09/02 09:40	95664.0	654.0
12/09/02 09:41	95664.0	654.0
12/09/02 09:42	95664.0	654.0
12/09/02 09:43	95664.0	654.0
12/09/02 09:44	95664.0	654.0
12/09/02 09:45	95664.0	654.0
12/09/02 09:46	96024.0	655.7
12/09/02 09:47	96024.0	655.7
12/09/02 09:48	96024.0	655.7
12/09/02 09:49	96024.0	655.7
12/09/02 09:50	96024.0	655.7
12/09/02 09:51	96024.0	655.7
12/09/02 09:52	96024.0	655.7
12/09/02 09:53	96024.0	655.7
12/09/02 09:54	96024.0	655.7
12/09/02 09:55	96024.0	655.7
12/09/02 09:56	96024.0	655.7
12/09/02 09:57	96024.0	655.7
12/09/02 09:58	96024.0	655.7
12/09/02 09:59	96024.0	655.7
12/09/02 10:00	96024.0	655.7
12/09/02 10:01	95826.0	655.5
12/09/02 10:02	95826.0	655.5
12/09/02 10:03	95826.0	655.5
12/09/02 10:04	95826.0	655.5
12/09/02 10:05	95826.0	655.5
12/09/02 10:06	95826.0	655.5
12/09/02 10:07	95826.0	655.5
12/09/02 10:08	95826.0	655.5
12/09/02 10:09	95826.0	655.5
12/09/02 10:10	95826.0	655.5
12/09/02 10:11	95826.0	655.5
12/09/02 10:12	95826.0	655.5
12/09/02 10:13	95826.0	655.5
12/09/02 10:14	95826.0	655.5
12/09/02 10:15	95826.0	655.5
12/09/02 10:16	96042.0	654.2
12/09/02 10:17	96042.0	654.2
12/09/02 10:18	96042.0	654.2
12/09/02 10:19	96042.0	654.2
12/09/02 10:20	96042.0	654.2
12/09/02 10:21	96042.0	654.2
12/09/02 10:22	96042.0	654.2
12/09/02 10:23	96042.0	654.2
12/09/02 10:24	96042.0	654.2
12/09/02 10:25	96042.0	654.2
12/09/02 10:26	96042.0	654.2
12/09/02 10:27	96042.0	654.2
12/09/02 10:28	96042.0	654.2
12/09/02 10:29	96042.0	654.2
12/09/02 10:30	96042.0	654.2

12/09/02 10:31	96042.0	656.7
12/09/02 10:32	96042.0	656.7
12/09/02 10:33	96042.0	656.7
12/09/02 10:34	96042.0	656.7
12/09/02 10:35	96042.0	656.7
12/09/02 10:36	96042.0	656.7
12/09/02 10:37	96042.0	656.7
12/09/02 10:38	96042.0	656.7
12/09/02 10:39	96042.0	656.7
12/09/02 10:40	96042.0	656.7
12/09/02 10:41	96042.0	656.7
12/09/02 10:42	96042.0	656.7
12/09/02 10:43	96042.0	656.7
12/09/02 10:44	96042.0	656.7
12/09/02 10:45	96042.0	656.7
12/09/02 10:46	96084.0	652.4
12/09/02 10:47	96084.0	652.4
12/09/02 10:48	96084.0	652.4
12/09/02 10:49	96084.0	652.4
12/09/02 10:50	96084.0	652.4
12/09/02 10:51	96084.0	652.4
12/09/02 10:52	96084.0	652.4
12/09/02 10:53	96084.0	652.4
12/09/02 10:54	96084.0	652.4
12/09/02 10:55	96084.0	652.4
12/09/02 10:56	96084.0	652.4
12/09/02 10:57	96084.0	652.4
12/09/02 10:58	96084.0	652.4
12/09/02 10:59	96084.0	652.4
12/09/02 11:00	96084.0	652.4
12/09/02 11:01	96006.0	652.3
12/09/02 11:02	96006.0	652.3
12/09/02 11:03	96006.0	652.3
12/09/02 11:04	96006.0	652.3
12/09/02 11:05	96006.0	652.3
12/09/02 11:06	96006.0	652.3
12/09/02 11:07	96006.0	652.3
12/09/02 11:08	96006.0	652.3
12/09/02 11:09	96006.0	652.3
12/09/02 11:10	96006.0	652.3
Final Average*	**95926.5**	**654.6**
Maximum*	**96084.0**	**657.8**
Minimum*	**95616.0**	**652.3**

*Does not include Invalid Averaging Periods ("N/A")

Unit 1 Particulate
Run 2

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 14:55

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/09/02 12:16
Period End: 12/09/02 14:24
Validation Type: 1/1 min
Averaging Period: 1/1 min
Type: Rolling Avg

Period Start	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/09/02 12:16	95874.0	658.0
12/09/02 12:17	95874.0	658.0
12/09/02 12:18	95874.0	658.0
12/09/02 12:19	95874.0	658.0
12/09/02 12:20	95874.0	658.0
12/09/02 12:21	95874.0	658.0
12/09/02 12:22	95874.0	658.0
12/09/02 12:23	95874.0	658.0
12/09/02 12:24	95874.0	658.0
12/09/02 12:25	95874.0	658.0
12/09/02 12:26	95874.0	658.0
12/09/02 12:27	95874.0	658.0
12/09/02 12:28	95874.0	658.0
12/09/02 12:29	95874.0	658.0
12/09/02 12:30	95874.0	658.0
12/09/02 12:31	96180.0	658.9
12/09/02 12:32	96180.0	658.9
12/09/02 12:33	96180.0	658.9
12/09/02 12:34	96180.0	658.9
12/09/02 12:35	96180.0	658.9
12/09/02 12:36	96180.0	658.9
12/09/02 12:37	96180.0	658.9
12/09/02 12:38	96180.0	658.9
12/09/02 12:39	96180.0	658.9
12/09/02 12:40	96180.0	658.9
12/09/02 12:41	96180.0	658.9
12/09/02 12:42	96180.0	658.9
12/09/02 12:43	96180.0	658.9
12/09/02 12:44	96180.0	658.9
12/09/02 12:45	96180.0	658.9
12/09/02 12:46	95898.0	657.7
12/09/02 12:47	95898.0	657.7
12/09/02 12:48	95898.0	657.7
12/09/02 12:49	95898.0	657.7
12/09/02 12:50	95898.0	657.7
12/09/02 12:51	95898.0	657.7
12/09/02 12:52	95898.0	657.7
12/09/02 12:53	95898.0	657.7

12/09/02 12:54	95898.0	657.7
12/09/02 12:55	95898.0	657.7
12/09/02 12:56	95898.0	657.7
12/09/02 12:57	95898.0	657.7
12/09/02 12:58	95898.0	657.7
12/09/02 12:59	95898.0	657.7
12/09/02 13:00	95898.0	657.7
12/09/02 13:01	96324.0	661.7
12/09/02 13:02	96324.0	661.7
12/09/02 13:03	96324.0	661.7
12/09/02 13:04	96324.0	661.7
12/09/02 13:05	96324.0	661.7
12/09/02 13:06	96324.0	661.7
12/09/02 13:07	96324.0	661.7
12/09/02 13:08	96324.0	661.7
12/09/02 13:09	96324.0	661.7
12/09/02 13:10	96324.0	661.7
12/09/02 13:11	96324.0	661.7
12/09/02 13:12	96324.0	661.7
12/09/02 13:13	96324.0	661.7
12/09/02 13:14	96324.0	661.7
12/09/02 13:15	96324.0	661.7
12/09/02 13:16	96636.0	663.6
12/09/02 13:17	96636.0	663.6
12/09/02 13:18	96636.0	663.6
12/09/02 13:19	96636.0	663.6
12/09/02 13:20	96636.0	663.6
12/09/02 13:21	96636.0	663.6
12/09/02 13:22	96636.0	663.6
12/09/02 13:23	96636.0	663.6
12/09/02 13:24	96636.0	663.6
12/09/02 13:25	96636.0	663.6
12/09/02 13:26	96636.0	663.6
12/09/02 13:27	96636.0	663.6
12/09/02 13:28	96636.0	663.6
12/09/02 13:29	96636.0	663.6
12/09/02 13:30	96636.0	663.6
12/09/02 13:31	96426.0	660.8
12/09/02 13:32	96426.0	660.8
12/09/02 13:33	96426.0	660.8
12/09/02 13:34	96426.0	660.8
12/09/02 13:35	96426.0	660.8
12/09/02 13:36	96426.0	660.8
12/09/02 13:37	N/A	660.8
12/09/02 13:38	N/A	660.8
12/09/02 13:39	N/A	660.8
12/09/02 13:40	N/A	660.8
12/09/02 13:41	N/A	660.8
12/09/02 13:42	N/A	660.8
12/09/02 13:43	N/A	660.8
12/09/02 13:44	N/A	660.8
12/09/02 13:45	N/A	660.8

12/09/02 13:46	N/A	664.0
12/09/02 13:47	96306.0	664.0
12/09/02 13:48	96306.0	664.0
12/09/02 13:49	96306.0	664.0
12/09/02 13:50	96306.0	664.0
12/09/02 13:51	96306.0	664.0
12/09/02 13:52	96306.0	664.0
12/09/02 13:53	96306.0	664.0
12/09/02 13:54	96306.0	664.0
12/09/02 13:55	96306.0	664.0
12/09/02 13:56	96306.0	664.0
12/09/02 13:57	96306.0	664.0
12/09/02 13:58	96306.0	664.0
12/09/02 13:59	96306.0	664.0
12/09/02 14:00	96306.0	664.0
12/09/02 14:01	96204.0	667.3
12/09/02 14:02	96204.0	667.3
12/09/02 14:03	96204.0	667.3
12/09/02 14:04	96204.0	667.3
12/09/02 14:05	96204.0	667.3
12/09/02 14:06	96204.0	667.3
12/09/02 14:07	96204.0	667.3
12/09/02 14:08	96204.0	667.3
12/09/02 14:09	96204.0	667.3
12/09/02 14:10	96204.0	667.3
12/09/02 14:11	96204.0	667.3
12/09/02 14:12	96204.0	667.3
12/09/02 14:13	96204.0	667.3
12/09/02 14:14	96204.0	667.3
12/09/02 14:15	96204.0	667.3
12/09/02 14:16	96132.0	659.8
12/09/02 14:17	96132.0	659.8
12/09/02 14:18	96132.0	659.8
12/09/02 14:19	96132.0	659.8
12/09/02 14:20	96132.0	659.8
12/09/02 14:21	96132.0	659.8
12/09/02 14:22	96132.0	659.8
12/09/02 14:23	96132.0	659.8
12/09/02 14:24	96132.0	659.8
Final Average*	**96208.1**	**661.4**
Maximum*	**96636.0**	**667.3**
Minimum*	**95874.0**	**657.7**

*Does not include Invalid Averaging Periods ("N/A")

Unit 1 Particulate Run #3

Enertec NTDAHS®
Average Values Report
Generated : 12/11/02 14:56

Company: St. Johns River Power Park U#1
Plant: 11201 New Berlin Road
City/St: Jacksonville, FL 32226
Source: Unit 1

Period Start: 12/09/02 15:16
Period End: 12/09/02 17:24
Validation Type: 1/1 min
Averaging Period: 1/1 min
Type: Rolling Avg

Period Start	Average 1Stk_kscfh kscfh	Average 1Unit_Load MW
12/09/02 15:16	95676.0	668.9
12/09/02 15:17	95676.0	668.9
12/09/02 15:18	95676.0	668.9
12/09/02 15:19	95676.0	668.9
12/09/02 15:20	95676.0	668.9
12/09/02 15:21	95676.0	668.9
12/09/02 15:22	95676.0	668.9
12/09/02 15:23	95676.0	668.9
12/09/02 15:24	95676.0	668.9
12/09/02 15:25	95676.0	668.9
12/09/02 15:26	95676.0	668.9
12/09/02 15:27	95676.0	668.9
12/09/02 15:28	95676.0	668.9
12/09/02 15:29	95676.0	668.9
12/09/02 15:30	95676.0	668.9
12/09/02 15:31	95322.0	672.3
12/09/02 15:32	95322.0	672.3
12/09/02 15:33	95322.0	672.3
12/09/02 15:34	95322.0	672.3
12/09/02 15:35	95322.0	672.3
12/09/02 15:36	95322.0	672.3
12/09/02 15:37	95322.0	672.3
12/09/02 15:38	95322.0	672.3
12/09/02 15:39	95322.0	672.3
12/09/02 15:40	95322.0	672.3
12/09/02 15:41	95322.0	672.3
12/09/02 15:42	95322.0	672.3
12/09/02 15:43	95322.0	672.3
12/09/02 15:44	95322.0	672.3
12/09/02 15:45	95322.0	672.3
12/09/02 15:46	94524.0	667.9
12/09/02 15:47	94524.0	667.9
12/09/02 15:48	94524.0	667.9
12/09/02 15:49	94524.0	667.9
12/09/02 15:50	94524.0	667.9
12/09/02 15:51	94524.0	667.9
12/09/02 15:52	94524.0	667.9
12/09/02 15:53	94524.0	667.9
12/09/02 15:54	94524.0	667.9

12/09/02 15:55	94524.0	667.9
12/09/02 15:56	94524.0	667.9
12/09/02 15:57	94524.0	667.9
12/09/02 15:58	94524.0	667.9
12/09/02 15:59	94524.0	667.9
12/09/02 16:00	94524.0	667.9
12/09/02 16:01	95058.0	668.4
12/09/02 16:02	95058.0	668.4
12/09/02 16:03	95058.0	668.4
12/09/02 16:04	95058.0	668.4
12/09/02 16:05	95058.0	668.4
12/09/02 16:06	95058.0	668.4
12/09/02 16:07	95058.0	668.4
12/09/02 16:08	95058.0	668.4
12/09/02 16:09	95058.0	668.4
12/09/02 16:10	95058.0	668.4
12/09/02 16:11	95058.0	668.4
12/09/02 16:12	95058.0	668.4
12/09/02 16:13	95058.0	668.4
12/09/02 16:14	95058.0	668.4
12/09/02 16:15	95058.0	668.4
12/09/02 16:16	94242.0	674.7
12/09/02 16:17	94242.0	674.7
12/09/02 16:18	94242.0	674.7
12/09/02 16:19	94242.0	674.7
12/09/02 16:20	94242.0	674.7
12/09/02 16:21	94242.0	674.7
12/09/02 16:22	94242.0	674.7
12/09/02 16:23	94242.0	674.7
12/09/02 16:24	94242.0	674.7
12/09/02 16:25	94242.0	674.7
12/09/02 16:26	94242.0	674.7
12/09/02 16:27	94242.0	674.7
12/09/02 16:28	94242.0	674.7
12/09/02 16:29	94242.0	674.7
12/09/02 16:30	94242.0	674.7
12/09/02 16:31	94092.0	671.6
12/09/02 16:32	94092.0	671.6
12/09/02 16:33	94092.0	671.6
12/09/02 16:34	94092.0	671.6
12/09/02 16:35	94092.0	671.6
12/09/02 16:36	94092.0	671.6
12/09/02 16:37	94092.0	671.6
12/09/02 16:38	94092.0	671.6
12/09/02 16:39	94092.0	671.6
12/09/02 16:40	94092.0	671.6
12/09/02 16:41	94092.0	671.6
12/09/02 16:42	94092.0	671.6
12/09/02 16:43	94092.0	671.6
12/09/02 16:44	94092.0	671.6
12/09/02 16:45	94092.0	671.6
12/09/02 16:46	94860.0	672.9

12/09/02	16:47	94860.0	672.9
12/09/02	16:48	94860.0	672.9
12/09/02	16:49	94860.0	672.9
12/09/02	16:50	94860.0	672.9
12/09/02	16:51	94860.0	672.9
12/09/02	16:52	94860.0	672.9
12/09/02	16:53	94860.0	672.9
12/09/02	16:54	94860.0	672.9
12/09/02	16:55	94860.0	672.9
12/09/02	16:56	94860.0	672.9
12/09/02	16:57	94860.0	672.9
12/09/02	16:58	94860.0	672.9
12/09/02	16:59	94860.0	672.9
12/09/02	17:00	94860.0	672.9
12/09/02	17:01	95286.0	669.4
12/09/02	17:02	95286.0	669.4
12/09/02	17:03	95286.0	669.4
12/09/02	17:04	95286.0	669.4
12/09/02	17:05	95286.0	669.4
12/09/02	17:06	95286.0	669.4
12/09/02	17:07	95286.0	669.4
12/09/02	17:08	95286.0	669.4
12/09/02	17:09	95286.0	669.4
12/09/02	17:10	95286.0	669.4
12/09/02	17:11	95286.0	669.4
12/09/02	17:12	95286.0	669.4
12/09/02	17:13	95286.0	669.4
12/09/02	17:14	95286.0	669.4
12/09/02	17:15	95286.0	669.4
12/09/02	17:16	94812.0	663.4
12/09/02	17:17	94812.0	663.4
12/09/02	17:18	94812.0	663.4
12/09/02	17:19	94812.0	663.4
12/09/02	17:20	94812.0	663.4
12/09/02	17:21	94812.0	663.4
12/09/02	17:22	94812.0	663.4
12/09/02	17:23	94812.0	663.4
12/09/02	17:24	94812.0	663.4
Final	**Average***	**94877.6**	**670.2**
	Maximum*	**95676.0**	**674.7**
	Minimum*	**94092.0**	**663.4**

*Does not include Invalid Averaging Periods ("N/A")

8:00

Actual Values At: ~~6:00:00~~ AM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	202	47.0	43.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-21	15.0	195	63.0	38.6	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-31	15.0	197	63.0	39.5	0.0	0.0	0.0	3.0	1.6	1.5	50.0
1A TR-41	20.0	177	67.0	32.2	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	201	126	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	37.9	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	218	189	38.6	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	202	45.0	42.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-22	15.0	198	61.0	38.7	0.0	0.0	0.0	3.0	1.5	1.7	50.0
1A TR-32	Power Off										
1A TR-42	20.0	185	79.0	37.3	0.0	0.0	0.0	3.7	1.9	1.7	50.0
1A TR-52	30.0	201	126	37.6	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-62	35.0	207	154	38.0	0.0	0.0	0.0	7.2	3.8	1.6	70.0
1A TR-72	45.0	225	217	39.5	0.0	0.0	0.0	10.1	5.9	1.5	90.0
1A TR-13	12.0	196	51.0	40.2	0.0	0.0	0.0	2.4	1.1	1.7	50.0
1A TR-23	15.0	194	63.0	40.0	0.0	0.0	0.0	2.9	1.5	1.6	50.0
1A TR-33	15.0	193	63.0	38.2	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	177	83.0	36.4	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	205	130	37.3	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1A TR-63	35.0	207	162	36.6	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	225	217	39.2	0.0	0.0	1.0	10.1	5.7	1.5	90.0
1A TR-14	12.0	200	51.0	41.4	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-24	15.0	200	61.0	39.5	0.0	0.0	0.0	3.0	1.7	1.5	50.0
1A TR-34	15.0	177	59.0	35.3	0.0	0.0	0.0	2.7	1.3	1.7	50.0
1A TR-44	20.0	171	77.0	34.0	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-54	30.0	192	0.0	32.8	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	198	158	35.9	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-74	45.0	215	213	36.1	0.0	0.0	0.0	9.7	5.4	1.5	90.0
1A TR-15	12.0	198	43.0	41.3	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	177	59.0	36.9	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 6:00:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	174	61.0	34.0	0.0	0.0	0.0	2.6	1.3	1.6	50.0
1A TR-45	20.0	167	83.0	33.5	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-55	30.0	189	134	35.2	0.0	0.0	0.0	5.7	3.0	1.6	60.0
1A TR-65	35.0	195	156	36.9	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	212	98.0	32.8	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	192	47.0	40.0	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1A TR-26	15.0	180	71.0	50.9	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1A TR-36	15.0	174	61.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	164	79.0	33.1	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	134	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	220	213	39.0	0.0	0.0	0.0	9.9	5.5	1.5	90.0
Analog											
1A East	8.5	%									
1A West	7.4	%									

Actual Values At: 6:15:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-11	12.0	190	47.0	39.3	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-21	15.0	183	63.0	37.2	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-31	15.0	164	59.0	32.8	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-41	20.0	170	77.0	34.4	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-51	30.0	197	132	37.0	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-61	35.0	208	166	37.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-71	36.0	200	162	36.1	0.0	0.0	0.0	7.2	3.9	1.6	90.0
1B TR-12	12.0	190	45.0	40.6	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-22	15.0	194	63.0	38.7	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-32	15.0	180	59.0	16.8	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-42	20.0	178	83.0	36.9	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-52	30.0	198	126	37.3	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-62	35.0	210	162	38.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
1B TR-72	45.0	215	203	39.1	0.0	0.0	0.0	9.7	5.4	1.5	90.0
1B TR-13	12.0	194	47.0	40.3	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-23	15.0	194	63.0	38.1	0.0	0.0	0.0	2.9	1.5	1.6	50.0
1B TR-33	15.0	184	59.0	36.9	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-43	20.0	180	79.0	36.8	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-53	30.0	205	134	37.8	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1B TR-63	35.0	201	156	38.0	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1B TR-73	45.0	226	181	35.5	0.0	0.0	0.0	10.2	5.7	1.5	90.0
1B TR-14	12.0	201	51.0	41.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1B TR-24	Hopper High Power Off										
1B TR-34	15.0	197	63.0	39.4	0.0	0.0	0.0	3.0	1.6	1.5	50.0
1B TR-44	20.0	185	75.0	37.8	0.0	0.0	0.0	3.7	1.7	1.8	50.0
1B TR-54	30.0	220	126	41.7	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-64	35.0	231	162	41.2	0.0	0.0	0.0	8.1	4.5	1.5	70.0
1B TR-74	36.0	214	162	38.7	0.0	0.0	0.0	7.7	4.1	1.6	90.0
1B TR-15	Hopper High Power Off										
1B TR-25	1.0	75.0	3.0	19.1	0.0	0.0	207	0.1	0.0	2.1	50.0

Actual Values At: 6:15:00 AM

Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	222	63.0	43.2	0.0	0.0	0.0	3.3	1.8	1.5	50.0
1B TR-45	20.0	203	83.0	41.4	0.0	0.0	0.0	4.1	2.0	1.7	50.0
1B TR-55	30.0	221	126	42.2	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	236	162	42.6	0.0	0.0	0.0	8.3	4.6	1.5	70.0
1B TR-75	36.0	232	162	41.2	0.0	0.0	0.0	8.4	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	15.0	225	61.0	45.8	0.0	0.0	0.0	3.4	1.9	1.5	50.0
1B TR-46	20.0	199	77.0	40.8	0.0	0.0	0.0	4.0	2.0	1.7	50.0
1B TR-56	30.0	226	130	41.9	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	234	162	42.3	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	295	225	42.3	0.0	0.0	0.0	13.3	7.4	1.5	90.0
Analog											
1B East	8.4	%									
1B West	3.1	%									

9:00

Actual Values At: ~~7:00:00~~ AM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	205	47.0	43.6	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-21	15.0	195	61.0	38.7	0.0	0.0	0.0	2.9	1.6	1.6	50.0
1A TR-31	15.0	194	61.0	39.2	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-41	20.0	175	67.0	32.1	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	200	130	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	38.0	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	217	187	38.7	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	202	45.0	42.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-22	15.0	196	61.0	38.4	0.0	0.0	0.0	3.0	1.5	1.7	50.0
1A TR-32	Power Off										
1A TR-42	20.0	185	77.0	37.2	0.0	0.0	0.0	3.7	1.9	1.7	50.0
1A TR-52	30.0	201	126	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-62	35.0	206	154	37.9	0.0	0.0	0.0	7.2	3.8	1.6	70.0
1A TR-72	45.0	225	217	39.5	0.0	0.0	0.0	10.1	5.9	1.5	90.0
1A TR-13	12.0	199	51.0	40.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-23	15.0	194	61.0	40.1	0.0	0.0	0.0	2.9	1.5	1.6	50.0
1A TR-33	15.0	194	61.0	38.1	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	177	83.0	36.4	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	205	130	37.3	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1A TR-63	35.0	207	162	36.6	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	225	217	39.2	0.0	0.0	0.0	10.1	5.7	1.5	90.0
1A TR-14	12.0	201	51.0	41.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-24	15.0	198	61.0	39.4	0.0	0.0	0.0	3.0	1.6	1.6	50.0
1A TR-34	15.0	175	59.0	35.1	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-44	20.0	168	75.0	34.0	0.0	0.0	0.0	3.4	1.7	1.6	50.0
1A TR-54	30.0	193	0.0	32.9	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	198	156	35.9	0.0	0.0	0.0	6.9	3.7	1.6	70.0
1A TR-74	45.0	216	213	36.2	0.0	0.0	0.0	9.8	5.5	1.5	90.0
1A TR-15	12.0	197	45.0	41.2	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	177	59.0	37.0	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 7:00:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	174	61.0	34.0	0.0	0.0	0.0	2.6	1.3	1.6	50.0
1A TR-45	21.0	168	83.0	33.5	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-55	30.0	190	130	35.2	0.0	0.0	0.0	5.7	3.0	1.6	60.0
1A TR-65	35.0	195	156	36.9	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	211	98.0	32.8	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	195	47.0	40.5	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1A TR-26	15.0	180	71.0	51.0	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1A TR-36	15.0	173	61.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	164	79.0	33.3	0.0	0.0	0.0	3.3	1.6	1.8	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	134	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	220	213	39.0	0.0	0.0	0.0	9.9	5.5	1.5	90.0
Analog											
1A East	8.9	%									
1A West	7.0	%									

Actual Values At: 7:15:01 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-11	12.0	193	47.0	40.0	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-21	15.0	182	61.0	37.1	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-31	15.0	164	59.0	32.8	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-41	20.0	169	79.0	34.5	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-51	30.0	197	134	36.9	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-61	35.0	208	166	37.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-71	36.0	200	162	36.1	0.0	0.0	0.0	7.2	3.9	1.6	90.0
1B TR-12	12.0	190	45.0	40.5	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-22	15.0	194	63.0	38.7	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-32	15.0	180	61.0	16.7	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-42	20.0	177	83.0	36.7	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1B TR-52	30.0	197	126	37.2	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-62	35.0	209	162	38.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-72	45.0	214	203	39.1	0.0	0.0	0.0	9.6	5.4	1.5	90.0
1B TR-13	12.0	195	47.0	40.4	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-23	15.0	191	61.0	37.8	0.0	0.0	0.0	2.9	1.4	1.7	50.0
1B TR-33	15.0	182	59.0	36.8	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-43	20.0	179	83.0	36.8	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-53	30.0	204	134	37.8	0.0	0.0	0.0	6.1	3.2	1.6	60.0
1B TR-63	35.0	200	156	37.8	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1B TR-73	45.0	226	177	35.5	0.0	0.0	0.0	10.2	5.7	1.5	90.0
1B TR-14	12.0	202	51.0	42.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1B TR-24	Hopper High Power Off										
1B TR-34	15.0	196	63.0	39.4	0.0	0.0	0.0	2.9	1.6	1.6	50.0
1B TR-44	20.0	185	75.0	37.6	0.0	0.0	0.0	3.7	1.7	1.8	50.0
1B TR-54	30.0	220	126	41.7	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-64	35.0	230	156	41.0	0.0	0.0	0.0	8.0	4.4	1.5	70.0
1B TR-74	36.0	212	158	38.5	0.0	0.0	0.0	7.6	4.1	1.6	90.0
1B TR-15	Hopper High Power Off										
1B TR-25	2.0	90.0	11.0	18.3	0.0	0.0	210	0.1	0.0	2.7	50.0

Actual Values At: 7:15:01 AM

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	223	61.0	43.5	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1B TR-45	20.0	203	79.0	41.4	0.0	0.0	0.0	4.1	2.0	1.7	50.0
1B TR-55	30.0	220	126	42.0	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	235	162	42.5	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-75	36.0	231	162	41.2	0.0	0.0	0.0	8.3	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	15.0	228	61.0	46.3	0.0	0.0	0.0	3.4	1.9	1.5	50.0
1B TR-46	20.0	197	77.0	40.4	0.0	0.0	0.0	3.9	2.0	1.7	50.0
1B TR-56	30.0	226	126	41.9	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	233	162	42.2	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	294	225	42.3	0.0	0.0	0.0	13.2	7.4	1.5	90.0
Analog											
1B East	8.2	%									
1B West	3.6	%									

10:00

Actual Values At: ~~8:00:00~~ AM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	206	47.0	43.9	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-21	15.0	195	63.0	38.7	0.0	0.0	0.0	2.9	1.5	1.6	50.0
1A TR-31	15.0	195	61.0	39.2	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-41	20.0	176	67.0	32.2	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	201	130	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	38.0	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	218	191	38.7	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	203	43.0	43.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-22	15.0	196	61.0	38.3	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-32	Power Off										
1A TR-42	20.0	184	77.0	37.0	0.0	0.0	0.0	3.7	1.8	1.7	50.0
1A TR-52	30.0	200	126	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-62	35.0	207	154	38.0	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-72	45.0	226	217	39.5	0.0	0.0	0.0	10.2	5.9	1.5	90.0
1A TR-13	12.0	198	51.0	40.7	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-23	15.0	194	61.0	40.0	0.0	0.0	0.0	2.9	1.6	1.7	50.0
1A TR-33	15.0	193	61.0	38.1	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	177	77.0	36.4	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	205	126	37.3	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1A TR-63	35.0	207	158	36.6	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	224	213	39.2	0.0	0.0	1.0	10.1	5.6	1.5	90.0
1A TR-14	12.0	201	47.0	41.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-24	15.0	198	61.0	39.4	0.0	0.0	0.0	3.0	1.6	1.6	50.0
1A TR-34	15.0	177	59.0	35.1	0.0	0.0	0.0	2.6	1.3	1.6	50.0
1A TR-44	20.0	165	75.0	33.7	0.0	0.0	0.0	3.4	1.6	1.7	50.0
1A TR-54	30.0	193	0.0	32.8	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	198	156	35.9	0.0	0.0	0.0	6.9	3.7	1.6	70.0
1A TR-74	45.0	217	213	36.2	0.0	0.0	0.0	9.8	5.5	1.5	90.0
1A TR-15	12.0	200	45.0	41.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	177	59.0	37.1	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 8:00:00 AM

Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	174	61.0	34.0	0.0	0.0	0.0	2.6	1.4	1.7	50.0
1A TR-45	20.0	167	83.0	33.4	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-55	30.0	190	134	35.2	0.0	0.0	0.0	5.7	3.0	1.6	60.0
1A TR-65	35.0	195	156	36.9	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	212	98.0	32.9	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	194	47.0	40.4	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1A TR-26	15.0	180	71.0	50.9	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1A TR-36	15.0	173	61.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	165	83.0	33.3	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	134	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	220	213	39.0	0.0	0.0	0.0	9.9	5.5	1.5	90.0
Analog											
1A East	10.1	%									
1A West	7.5	%									

Actual Values At: 8:15:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-11	12.0	194	47.0	40.1	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-21	15.0	184	61.0	37.3	0.0	0.0	0.0	2.8	1.5	1.5	50.0
1B TR-31	15.0	164	59.0	32.9	0.0	0.0	0.0	2.5	1.2	1.6	50.0
1B TR-41	20.0	170	79.0	34.5	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-51	30.0	197	134	37.0	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-61	35.0	208	166	37.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-71	36.0	200	162	36.1	0.0	0.0	0.0	7.2	3.9	1.6	90.0
1B TR-12	12.0	190	47.0	40.5	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-22	15.0	194	61.0	38.8	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-32	15.0	180	61.0	16.7	0.0	0.0	0.0	2.7	1.5	1.6	50.0
1B TR-42	20.0	177	77.0	36.7	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1B TR-52	30.0	198	126	37.3	0.0	0.0	0.0	5.9	3.2	1.6	60.0
1B TR-62	35.0	209	160	38.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-72	45.0	215	203	39.1	0.0	0.0	0.0	9.6	5.4	1.5	90.0
1B TR-13	12.0	195	47.0	40.5	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-23	15.0	193	67.0	38.0	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-33	15.0	184	59.0	36.9	0.0	0.0	0.0	2.8	1.5	1.5	50.0
1B TR-43	20.0	180	83.0	36.9	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-53	30.0	205	132	37.8	0.0	0.0	0.0	6.2	3.2	1.6	60.0
1B TR-63	35.0	201	156	37.9	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1B TR-73	45.0	226	179	35.5	0.0	0.0	0.0	10.2	5.7	1.5	90.0
1B TR-14	12.0	204	47.0	42.3	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1B TR-24	Hopper High Power Off										
1B TR-34	15.0	197	63.0	39.4	0.0	0.0	0.0	3.0	1.5	1.6	50.0
1B TR-44	20.0	185	75.0	37.8	0.0	0.0	0.0	3.7	1.7	1.8	50.0
1B TR-54	30.0	220	126	41.7	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-64	35.0	231	158	41.0	0.0	0.0	0.0	8.1	4.4	1.5	70.0
1B TR-74	36.0	213	162	38.7	0.0	0.0	0.0	7.7	4.1	1.6	90.0
1B TR-15	Hopper High Power Off										
1B TR-25	2.0	85.0	7.0	16.5	0.0	0.0	190	0.1	0.0	2.3	50.0

Actual Values At: 8:15:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	224	61.0	43.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-45	20.0	203	83.0	41.5	0.0	0.0	0.0	4.1	2.0	1.7	50.0
1B TR-55	30.0	220	130	42.0	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	235	162	42.6	0.0	0.0	0.0	8.3	4.6	1.5	70.0
1B TR-75	36.0	231	162	41.2	0.0	0.0	0.0	8.3	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	15.0	229	61.0	46.2	0.0	0.0	0.0	3.4	1.9	1.5	50.0
1B TR-46	20.0	198	77.0	40.5	0.0	0.0	0.0	4.0	2.0	1.7	50.0
1B TR-56	30.0	226	130	41.9	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	234	162	42.2	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	294	225	42.3	0.0	0.0	0.0	13.2	7.4	1.5	90.0
Analog											
1B East	8.7	%									
1B West	3.8	%									

11:00

Actual Values At: ~~9:00:00~~ AM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	207	47.0	44.1	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-21	15.0	196	61.0	38.9	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-31	15.0	195	61.0	39.4	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-41	20.0	175	67.0	32.2	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	200	130	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	37.9	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	217	189	38.7	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	205	43.0	43.5	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-22	15.0	199	61.0	38.8	0.0	0.0	0.0	3.0	1.5	1.7	50.0
1A TR-32	Power Off										
1A TR-42	20.0	185	77.0	37.2	0.0	0.0	0.0	3.7	1.9	1.7	50.0
1A TR-52	30.0	201	126	37.6	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-62	35.0	207	154	38.0	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-72	45.0	225	217	39.5	0.0	0.0	0.0	10.2	5.9	1.5	90.0
1A TR-13	12.0	198	51.0	40.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-23	15.0	195	61.0	40.3	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-33	15.0	194	61.0	38.2	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	178	79.0	36.4	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	205	126	37.3	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1A TR-63	35.0	207	162	36.5	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	223	213	39.1	0.0	0.0	1.0	10.1	5.6	1.5	90.0
1A TR-14	12.0	203	51.0	42.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-24	15.0	200	61.0	39.6	0.0	0.0	0.0	3.0	1.7	1.5	50.0
1A TR-34	15.0	177	59.0	35.2	0.0	0.0	0.0	2.7	1.3	1.7	50.0
1A TR-44	20.0	168	75.0	33.9	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1A TR-54	30.0	193	0.0	32.8	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	198	156	35.9	0.0	0.0	0.0	7.0	3.8	1.6	70.0
1A TR-74	45.0	215	213	36.2	0.0	0.0	0.0	9.7	5.4	1.5	90.0
1A TR-15	12.0	199	45.0	41.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	179	59.0	37.5	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 9:00:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	174	61.0	34.0	0.0	0.0	0.0	2.6	1.4	1.6	50.0
1A TR-45	20.0	165	83.0	33.4	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-55	30.0	190	134	35.2	0.0	0.0	0.0	5.7	3.0	1.6	60.0
1A TR-65	35.0	195	156	36.9	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	212	98.0	32.8	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	196	45.0	40.8	0.0	0.0	0.0	2.4	1.1	1.7	50.0
1A TR-26	15.0	180	71.0	51.3	0.0	0.0	0.0	2.7	1.4	1.7	50.0
1A TR-36	15.0	173	61.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	165	83.0	33.3	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	134	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	220	213	39.0	0.0	0.0	0.0	9.9	5.5	1.5	90.0
Analog											
1A East	10.1	%									
1A West	7.5	%									

Actual Values At: 9:15:00 AM

Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-11	12.0	194	47.0	40.1	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-21	15.0	183	61.0	37.3	0.0	0.0	0.0	2.8	1.5	1.6	50.0
1B TR-31	15.0	164	59.0	32.9	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-41	20.0	168	79.0	34.4	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-51	30.0	197	134	37.0	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-61	35.0	208	166	37.3	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-71	36.0	200	162	36.1	0.0	0.0	0.0	7.2	3.9	1.6	90.0
1B TR-12	12.0	192	43.0	41.1	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-22	15.0	194	63.0	38.9	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-32	15.0	180	61.0	16.8	0.0	0.0	0.0	2.7	1.5	1.6	50.0
1B TR-42	20.0	177	79.0	36.7	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1B TR-52	30.0	197	126	37.2	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-62	35.0	209	158	38.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-72	45.0	214	203	39.1	0.0	0.0	0.0	9.6	5.4	1.5	90.0
1B TR-13	12.0	198	47.0	41.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1B TR-23	15.0	194	61.0	38.3	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1B TR-33	15.0	184	59.0	36.9	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-43	20.0	180	83.0	36.9	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-53	30.0	204	134	37.8	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1B TR-63	35.0	200	156	37.8	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1B TR-73	45.0	226	179	35.5	0.0	0.0	0.0	10.2	5.7	1.5	90.0
1B TR-14	12.0	205	51.0	42.6	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-24	Hopper High Power Off										
1B TR-34	15.0	197	63.0	39.4	0.0	0.0	0.0	3.0	1.5	1.6	50.0
1B TR-44	20.0	185	75.0	37.8	0.0	0.0	0.0	3.7	1.7	1.8	50.0
1B TR-54	30.0	219	126	41.6	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-64	35.0	229	158	41.0	0.0	0.0	0.0	8.0	4.4	1.5	70.0
1B TR-74	36.0	212	158	38.5	0.0	0.0	0.0	7.6	4.1	1.6	90.0
1B TR-15	Hopper High Power Off										
1B TR-25	1.0	76.0	3.0	17.0	0.0	0.0	126	0.1	0.1	1.4	50.0

Actual Values At: 9:15:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	225	61.0	43.8	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-45	20.0	203	79.0	41.4	0.0	0.0	0.0	4.1	2.0	1.7	50.0
1B TR-55	30.0	221	130	42.2	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	235	162	42.6	0.0	0.0	0.0	8.3	4.6	1.5	70.0
1B TR-75	36.0	231	162	41.2	0.0	0.0	0.0	8.3	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	15.0	228	61.0	46.7	0.0	0.0	0.0	3.5	1.9	1.5	50.0
1B TR-46	20.0	200	75.0	40.8	0.0	0.0	0.0	4.0	2.0	1.7	50.0
1B TR-56	30.0	225	130	41.9	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	234	162	42.2	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	294	225	42.3	0.0	0.0	0.0	13.2	7.4	1.5	90.0
Analog											
1B East	8.5	%									
1B West	3.9	%									

12:00 PM

Actual Values At: ~~10:00:00~~ AM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	209	47.0	44.4	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-21	15.0	195	61.0	38.8	0.0	0.0	0.0	2.9	1.5	1.6	50.0
1A TR-31	15.0	195	63.0	39.4	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-41	20.0	176	67.0	32.2	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	200	130	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	37.9	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	218	187	38.7	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	206	43.0	43.7	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-22	15.0	198	61.0	38.8	0.0	0.0	0.0	3.0	1.5	1.7	50.0
1A TR-32	Power Off										
1A TR-42	20.0	185	77.0	37.3	0.0	0.0	0.0	3.7	1.9	1.7	50.0
1A TR-52	30.0	201	126	37.6	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-62	35.0	207	156	38.0	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-72	45.0	225	217	39.5	0.0	0.0	0.0	10.1	5.9	1.5	90.0
1A TR-13	12.0	200	51.0	41.2	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-23	15.0	195	61.0	40.2	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-33	15.0	194	63.0	38.3	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	178	83.0	36.4	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	205	130	37.3	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1A TR-63	35.0	207	162	36.5	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	224	217	39.1	0.0	0.0	0.0	10.1	5.6	1.5	90.0
1A TR-14	12.0	204	51.0	42.3	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-24	15.0	200	61.0	39.7	0.0	0.0	0.0	3.0	1.7	1.5	50.0
1A TR-34	15.0	176	59.0	35.2	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-44	20.0	167	75.0	33.8	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-54	30.0	193	0.0	32.8	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	199	158	35.9	0.0	0.0	0.0	7.0	3.8	1.5	70.0
1A TR-74	45.0	216	213	36.2	0.0	0.0	0.0	9.8	5.4	1.5	90.0
1A TR-15	12.0	202	43.0	42.3	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	178	59.0	37.4	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 10:00:00 AM

Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	175	61.0	34.0	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-45	21.0	168	83.0	33.4	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-55	30.0	190	134	35.2	0.0	0.0	0.0	5.7	3.0	1.6	60.0
1A TR-65	35.0	195	156	36.9	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	212	98.0	32.8	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	197	47.0	41.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-26	15.0	182	71.0	51.6	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1A TR-36	15.0	174	61.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	164	79.0	33.2	0.0	0.0	0.0	3.3	1.5	1.8	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	134	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	220	213	39.0	0.0	0.0	0.0	9.9	5.5	1.5	90.0

Analog		
1A East	9.9	%
1A West	7.5	%

Actual Values At: 10:15:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-11	12.0	192	47.0	40.0	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-21	15.0	184	61.0	37.5	0.0	0.0	0.0	2.8	1.4	1.7	50.0
1B TR-31	15.0	165	59.0	33.0	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-41	21.0	171	77.0	34.4	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-51	30.0	197	134	36.9	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-61	35.0	208	166	37.3	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1B TR-71	36.0	200	162	36.1	0.0	0.0	0.0	7.2	3.9	1.6	90.0
1B TR-12	12.0	191	47.0	40.7	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-22	15.0	194	67.0	38.7	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-32	15.0	180	59.0	16.7	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-42	20.0	177	79.0	36.7	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1B TR-52	30.0	197	126	37.2	0.0	0.0	0.0	5.9	3.2	1.6	60.0
1B TR-62	35.0	209	162	38.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-72	45.0	214	203	39.1	0.0	0.0	0.0	9.6	5.4	1.5	90.0
1B TR-13	12.0	196	47.0	40.8	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-23	15.0	193	63.0	38.1	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1B TR-33	15.0	182	59.0	36.7	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-43	20.0	180	83.0	36.8	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-53	30.0	204	134	37.8	0.0	0.0	0.0	6.1	3.2	1.6	60.0
1B TR-63	35.0	200	154	37.9	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1B TR-73	45.0	226	179	35.5	0.0	0.0	0.0	10.2	5.7	1.5	90.0
1B TR-14	12.0	204	47.0	42.6	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-24	Hopper High Power Off										
1B TR-34	15.0	197	61.0	39.4	0.0	0.0	0.0	3.0	1.5	1.7	50.0
1B TR-44	20.0	185	75.0	37.7	0.0	0.0	0.0	3.7	1.7	1.8	50.0
1B TR-54	30.0	219	126	41.6	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-64	35.0	229	158	41.0	0.0	0.0	0.0	8.1	4.4	1.5	70.0
1B TR-74	36.0	212	158	38.5	0.0	0.0	0.0	7.6	4.1	1.6	90.0
1B TR-15	Hopper High Power Off										
1B TR-25	1.0	73.0	3.0	20.0	0.0	0.0	112	0.1	0.0	2.9	50.0

Actual Values At: 10:15:00 AM

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	225	61.0	43.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
1B TR-45	20.0	204	79.0	41.6	0.0	0.0	0.0	4.1	2.0	1.7	50.0
1B TR-55	30.0	220	128	42.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	236	162	42.6	0.0	0.0	0.0	8.3	4.6	1.5	70.0
1B TR-75	36.0	231	162	41.2	0.0	0.0	0.0	8.3	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	16.0	232	59.0	46.6	0.0	0.0	0.0	3.5	1.9	1.5	50.0
1B TR-46	20.0	198	75.0	40.5	0.0	0.0	0.0	4.0	2.0	1.7	50.0
1B TR-56	30.0	225	130	41.8	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	233	162	42.2	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	293	225	42.3	0.0	0.0	0.0	13.2	7.4	1.5	90.0
Analog											
1B East	8.5	%									
1B West	3.7	%									

1:00 PM

Actual Values At: ~~11:00:00~~ AM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	205	47.0	43.7	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-21	15.0	195	61.0	38.8	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-31	15.0	195	61.0	39.3	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-41	20.0	176	67.0	32.2	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	200	126	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	37.9	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	217	187	38.6	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	204	45.0	43.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-22	15.0	200	63.0	38.9	0.0	0.0	0.0	3.0	1.7	1.5	50.0
1A TR-32	Power Off										
1A TR-42	20.0	185	77.0	37.3	0.0	0.0	0.0	3.7	1.9	1.7	50.0
1A TR-52	30.0	201	126	37.6	0.0	0.0	0.0	6.0	3.1	1.6	60.0
1A TR-62	35.0	207	154	38.0	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-72	45.0	225	217	39.5	0.0	0.0	0.0	10.1	5.9	1.5	90.0
1A TR-13	12.0	197	47.0	40.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-23	15.0	194	61.0	40.1	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-33	15.0	193	61.0	38.3	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	177	83.0	36.5	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	205	130	37.3	0.0	0.0	0.0	6.2	3.3	1.6	60.0
1A TR-63	35.0	207	162	36.5	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	222	197	37.9	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-14	12.0	201	51.0	41.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-24	15.0	200	61.0	39.6	0.0	0.0	0.0	3.0	1.7	1.5	50.0
1A TR-34	15.0	176	59.0	35.1	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-44	20.0	166	75.0	33.7	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-54	30.0	193	0.0	32.8	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	199	158	35.9	0.0	0.0	0.0	7.0	3.8	1.5	70.0
1A TR-74	45.0	216	217	36.2	0.0	0.0	0.0	9.7	5.4	1.5	90.0
1A TR-15	12.0	200	43.0	41.7	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	177	59.0	37.1	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 11:00:00 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	175	61.0	34.0	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-45	20.0	166	79.0	33.3	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-55	30.0	190	132	35.2	0.0	0.0	0.0	5.6	3.0	1.6	60.0
1A TR-65	35.0	195	156	36.9	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	211	98.0	32.8	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	198	47.0	41.2	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1A TR-26	15.0	182	71.0	51.7	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1A TR-36	15.0	173	59.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	164	79.0	33.2	0.0	0.0	0.0	3.3	1.5	1.7	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	132	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	220	217	38.9	0.0	0.0	0.0	9.9	5.5	1.5	90.0
Analog											
1A East	10.2	%									
1A West	7.2	%									

Actual Values At: 11:15:01 AM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	221	61.0	43.2	0.0	0.0	0.0	3.3	1.8	1.6	50.0
1B TR-45	20.0	204	79.0	41.5	0.0	0.0	0.0	4.1	2.0	1.7	50.0
1B TR-55	30.0	220	130	42.0	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	235	162	42.5	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-75	36.0	231	162	41.2	0.0	0.0	0.0	8.3	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	15.0	228	61.0	46.2	0.0	0.0	0.0	3.4	1.9	1.5	50.0
1B TR-46	20.0	199	77.0	40.8	0.0	0.0	0.0	4.0	2.0	1.7	50.0
1B TR-56	30.0	226	130	41.9	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	234	162	42.3	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	293	225	42.3	0.0	0.0	0.0	13.2	7.4	1.5	90.0
Analog											
1B East	8.5	%									
1B West	3.3	%									

2:00 PM

Actual Values At: ~~12:00:00~~ PM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	207	47.0	44.1	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-21	15.0	195	67.0	38.5	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-31	15.0	195	67.0	39.2	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-41	20.0	175	67.0	32.0	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	201	126	37.4	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	37.9	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	217	189	38.6	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	203	45.0	43.0	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-22	15.0	196	61.0	38.3	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-32	Power Off										
1A TR-42	20.0	185	79.0	37.0	0.0	0.0	0.0	3.7	1.9	1.7	50.0
1A TR-52	30.0	201	130	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-62	35.0	207	156	38.0	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-72	45.0	225	217	39.5	0.0	0.0	0.0	10.1	5.9	1.5	90.0
1A TR-13	12.0	200	47.0	40.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-23	15.0	194	63.0	40.0	0.0	0.0	0.0	2.9	1.5	1.6	50.0
1A TR-33	15.0	193	63.0	38.1	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	177	83.0	36.3	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	204	126	37.1	0.0	0.0	0.0	6.1	3.1	1.6	60.0
1A TR-63	35.0	207	162	36.5	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	222	213	39.1	0.0	0.0	0.0	10.0	5.6	1.5	90.0
1A TR-14	12.0	204	47.0	42.5	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-24	15.0	198	61.0	39.4	0.0	0.0	0.0	3.0	1.6	1.6	50.0
1A TR-34	15.0	175	61.0	35.1	0.0	0.0	0.0	2.6	1.4	1.5	50.0
1A TR-44	20.0	166	75.0	33.7	0.0	0.0	0.0	3.3	1.7	1.6	50.0
1A TR-54	30.0	193	0.0	32.8	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	199	158	35.9	0.0	0.0	0.0	7.0	3.8	1.5	70.0
1A TR-74	45.0	217	213	36.2	0.0	0.0	0.0	9.7	5.4	1.5	90.0
1A TR-15	12.0	200	43.0	41.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	178	59.0	37.3	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 12:00:00 PM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	174	63.0	33.9	0.0	0.0	0.0	2.6	1.4	1.6	50.0
1A TR-45	20.0	167	83.0	33.5	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-55	30.0	188	130	35.1	0.0	0.0	0.0	5.6	2.9	1.6	60.0
1A TR-65	35.0	194	154	36.7	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	212	98.0	32.8	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	195	45.0	40.6	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1A TR-26	15.0	180	71.0	51.3	0.0	0.0	0.0	2.7	1.5	1.6	50.0
1A TR-36	15.0	173	59.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	164	79.0	33.1	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	134	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	220	213	39.0	0.0	0.0	0.0	9.9	5.5	1.5	90.0
Analog											
1A East	10.3	%									
1A West	6.9	%									

Actual Values At: 12:15:00 PM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-11	12.0	192	47.0	40.0	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-21	15.0	183	61.0	37.2	0.0	0.0	0.0	2.8	1.5	1.5	50.0
1B TR-31	15.0	164	59.0	33.0	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-41	21.0	172	79.0	34.4	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1B TR-51	30.0	197	134	36.9	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-61	35.0	208	166	37.3	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1B TR-71	36.0	200	162	36.1	0.0	0.0	0.0	7.2	3.9	1.6	90.0
1B TR-12	12.0	188	47.0	40.2	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-22	15.0	194	63.0	38.8	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-32	15.0	180	61.0	16.8	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-42	20.0	176	77.0	36.6	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1B TR-52	30.0	197	126	37.2	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-62	35.0	209	162	38.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-72	45.0	214	203	39.1	0.0	0.0	0.0	9.6	5.4	1.5	90.0
1B TR-13	12.0	195	47.0	40.5	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-23	15.0	192	67.0	38.0	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-33	15.0	183	59.0	36.8	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-43	20.0	180	83.0	36.7	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-53	30.0	204	134	37.7	0.0	0.0	0.0	6.1	3.2	1.6	60.0
1B TR-63	35.0	200	156	37.8	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1B TR-73	45.0	226	179	35.5	0.0	0.0	0.0	10.2	5.7	1.5	90.0
1B TR-14	12.0	204	47.0	42.5	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1B TR-24	Hopper High Power Off										
1B TR-34	15.0	197	61.0	39.5	0.0	0.0	0.0	2.9	1.6	1.7	50.0
1B TR-44	20.0	185	75.0	37.6	0.0	0.0	0.0	3.7	1.7	1.8	50.0
1B TR-54	30.0	219	126	41.6	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-64	35.0	230	162	41.0	0.0	0.0	0.0	8.0	4.4	1.5	70.0
1B TR-74	36.0	212	158	38.5	0.0	0.0	0.0	7.6	4.1	1.6	90.0
1B TR-15	Hopper High Power Off										
1B TR-25	2.0	83.0	7.0	17.3	0.0	0.0	206	0.2	0.1	2.9	50.0

Actual Values At: 12:15:00 PM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	222	61.0	43.4	0.0	0.0	0.0	3.3	1.7	1.6	50.0
1B TR-45	20.0	201	79.0	41.2	0.0	0.0	0.0	4.0	2.0	1.7	50.0
1B TR-55	30.0	219	126	42.0	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	235	162	42.5	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-75	36.0	231	162	41.1	0.0	0.0	0.0	8.3	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	15.0	229	61.0	46.1	0.0	0.0	0.0	3.4	1.9	1.5	50.0
1B TR-46	20.0	196	77.0	40.2	0.0	0.0	0.0	3.9	2.0	1.7	50.0
1B TR-56	30.0	225	130	41.7	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	233	162	42.2	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	293	227	42.2	0.0	0.0	0.0	13.2	7.4	1.5	90.0
Analog											
1B East	8.7	%									
1B West	4.2	%									

3:00

Actual Values At: ~~1:00:01~~ PM

Page: 1
Printed At:
12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-11	12.0	207	51.0	44.1	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-21	15.0	194	67.0	38.5	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-31	15.0	194	61.0	39.1	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-41	20.0	175	67.0	32.0	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-51	30.0	200	126	37.4	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-61	35.0	215	162	37.8	0.0	0.0	0.0	7.5	4.1	1.5	70.0
1A TR-71	40.0	217	187	38.6	0.0	0.0	0.0	8.7	4.9	1.5	90.0
1A TR-12	12.0	205	45.0	43.2	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1A TR-22	15.0	197	61.0	38.5	0.0	0.0	0.0	3.0	1.5	1.7	50.0
1A TR-32	Power Off										
1A TR-42	20.0	184	77.0	37.0	0.0	0.0	0.0	3.7	1.8	1.7	50.0
1A TR-52	30.0	201	126	37.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
1A TR-62	35.0	207	154	38.0	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-72	45.0	225	217	39.5	0.0	0.0	0.0	10.1	5.9	1.5	90.0
1A TR-13	12.0	199	51.0	40.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-23	15.0	194	63.0	40.0	0.0	0.0	0.0	2.9	1.5	1.7	50.0
1A TR-33	15.0	193	61.0	38.2	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1A TR-43	20.0	177	83.0	36.4	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1A TR-53	30.0	204	126	37.2	0.0	0.0	0.0	6.1	3.1	1.7	60.0
1A TR-63	35.0	207	162	36.5	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1A TR-73	45.0	223	213	39.1	0.0	0.0	2.0	10.0	5.6	1.5	90.0
1A TR-14	12.0	203	51.0	41.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-24	15.0	198	61.0	39.4	0.0	0.0	0.0	3.0	1.5	1.7	50.0
1A TR-34	15.0	175	59.0	35.1	0.0	0.0	0.0	2.6	1.3	1.6	50.0
1A TR-44	20.0	168	77.0	33.7	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-54	30.0	193	0.0	32.8	0.0	0.0	0.0	5.8	3.1	1.6	60.0
1A TR-64	35.0	199	156	35.9	0.0	0.0	0.0	7.0	3.8	1.5	70.0
1A TR-74	45.0	217	213	36.2	0.0	0.0	0.0	9.7	5.4	1.5	90.0
1A TR-15	12.0	199	43.0	41.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1A TR-25	14.0	178	59.0	37.3	0.0	0.0	0.0	2.5	1.3	1.6	49.0

Actual Values At: 1:00:01 PM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1A TR-35	15.0	174	61.0	33.9	0.0	0.0	0.0	2.6	1.4	1.6	50.0
1A TR-45	20.0	165	83.0	33.3	0.0	0.0	0.0	3.3	1.7	1.7	50.0
1A TR-55	30.0	187	130	35.0	0.0	0.0	0.0	5.6	2.8	1.7	60.0
1A TR-65	35.0	193	154	36.7	0.0	0.0	0.0	6.8	3.6	1.6	70.0
1A TR-75	45.0	212	98.0	32.8	0.0	0.0	0.0	9.5	5.3	1.5	90.0
1A TR-16	12.0	195	47.0	40.7	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1A TR-26	15.0	180	75.0	51.3	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1A TR-36	15.0	173	61.0	34.7	0.0	0.0	0.0	2.6	1.3	1.7	50.0
1A TR-46	20.0	164	79.0	33.1	0.0	0.0	0.0	3.3	1.6	1.7	50.0
1A TR-56	Power Off										
1A TR-66	35.0	200	134	33.1	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1A TR-76	45.0	219	213	38.9	0.0	0.0	0.0	9.9	5.5	1.5	90.0
Analog											
1A East	10.2	%									
1A West	7.8	%									

Actual Values At: 1:15:01 PM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-11	12.0	193	45.0	40.1	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-21	15.0	183	61.0	37.3	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-31	15.0	164	59.0	33.0	0.0	0.0	0.0	2.5	1.2	1.7	50.0
1B TR-41	20.0	168	77.0	34.4	0.0	0.0	0.0	3.4	1.7	1.8	50.0
1B TR-51	30.0	197	134	36.9	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-61	35.0	208	166	37.3	0.0	0.0	0.0	7.2	4.0	1.5	70.0
1B TR-71	36.0	200	162	36.1	0.0	0.0	0.0	7.2	3.9	1.6	90.0
1B TR-12	12.0	190	47.0	40.5	0.0	0.0	0.0	2.3	1.1	1.7	50.0
1B TR-22	15.0	192	61.0	38.4	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-32	15.0	180	61.0	16.8	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-42	20.0	177	77.0	36.6	0.0	0.0	0.0	3.5	1.8	1.7	50.0
1B TR-52	30.0	197	126	37.2	0.0	0.0	0.0	5.9	3.1	1.6	60.0
1B TR-62	35.0	209	162	38.4	0.0	0.0	0.0	7.3	4.0	1.5	70.0
1B TR-72	45.0	214	203	39.1	0.0	0.0	0.0	9.6	5.4	1.5	90.0
1B TR-13	12.0	199	47.0	41.3	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1B TR-23	15.0	192	59.0	38.1	0.0	0.0	0.0	2.9	1.4	1.7	50.0
1B TR-33	15.0	183	59.0	36.8	0.0	0.0	0.0	2.7	1.5	1.5	50.0
1B TR-43	20.0	179	83.0	36.7	0.0	0.0	0.0	3.6	1.8	1.7	50.0
1B TR-53	30.0	202	130	37.6	0.0	0.0	0.0	6.1	3.2	1.6	60.0
1B TR-63	35.0	200	158	37.9	0.0	0.0	0.0	7.0	3.7	1.6	70.0
1B TR-73	45.0	226	177	35.5	0.0	0.0	0.0	10.2	5.7	1.5	90.0
1B TR-14	12.0	204	45.0	42.5	0.0	0.0	0.0	2.4	1.2	1.7	50.0
1B TR-24	Hopper High Power Off										
1B TR-34	15.0	196	67.0	39.3	0.0	0.0	0.0	2.9	1.6	1.5	50.0
1B TR-44	20.0	185	75.0	37.6	0.0	0.0	0.0	3.7	1.7	1.8	50.0
1B TR-54	30.0	220	126	41.6	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-64	35.0	229	158	40.9	0.0	0.0	0.0	8.0	4.4	1.5	70.0
1B TR-74	36.0	212	158	38.5	0.0	0.0	0.0	7.6	4.1	1.6	90.0
1B TR-15	Hopper High Power Off										
1B TR-25	1.0	80.0	3.0	20.2	0.0	0.0	213	0.1	0.1	1.3	50.0

Actual Values At: 1:15:01 PM

Printed At:

12/9/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
1B TR-35	15.0	222	61.0	43.4	0.0	0.0	0.0	3.3	1.8	1.6	50.0
1B TR-45	20.0	204	83.0	41.4	0.0	0.0	0.0	4.1	2.0	1.7	50.0
1B TR-55	30.0	220	130	42.0	0.0	0.0	0.0	6.6	3.5	1.6	60.0
1B TR-65	35.0	234	162	42.3	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-75	36.0	232	162	41.2	0.0	0.0	0.0	8.3	4.5	1.6	90.0
1B TR-16	Halted										
1B TR-26	No Response										
1B TR-36	16.0	231	61.0	46.6	0.0	0.0	0.0	3.4	1.9	1.5	50.0
1B TR-46	20.0	197	77.0	40.5	0.0	0.0	0.0	4.0	2.0	1.7	50.0
1B TR-56	30.0	225	126	41.6	0.0	0.0	0.0	6.8	3.6	1.6	60.0
1B TR-66	35.0	233	162	42.2	0.0	0.0	0.0	8.2	4.5	1.5	70.0
1B TR-76	45.0	293	225	42.3	0.0	0.0	0.0	13.2	7.4	1.5	90.0
Analog											
1B East	8.8	%									
1B West	3.8	%									

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA
UNIT # ONE **Date:** 12 / 9 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data	PETERSON	PETERSON	PETERSON	PETERSON	PETERSON	PETERSON	PETERSON
Time		0800	0935	0901	0930	1000	1030
Steam Flow	LB/HR x 10^6	4.54	4.46	4.45	4.49	4.48	4.51
Air Flow	%	71	72	70	72	70	70
Generator Load (Gross)	Megawatts	663	660	654	669	661	665
Boiler Thermal Demand	Megawatts	669	658	658	674	664	671
O2 Flue Gas	%	2.90 / 3.02	3.02 / 3.11	3.00 / 3.07	2.71 / 2.88	2.94 / 3.01	2.48 / 2.94
Fuel Flow	%	99.2	99.1	99.1	99	99.2	99.2
COAL TOTALIZER	**TONS**						
A		72	72	71	71	73	72
B		72	72	72	72	72	72
C		81	81	81	81	81	81
D		Ø	Ø	Ø	Ø	Ø	Ø
E		93	93	93	93	93	93
F		82	82	82	83	82	82
G		97	97	97	97	97	97

ST. JOHNS RIVER POWER PARK

BOILER CONTROL ROOM DATA

UNIT # ONE **Date:** 12 / 9 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		PETERSON	PETERSON	PETERSON	PETERSON	PETERSON	PETERSON
Time		1100	1130	1200	1230	1300	1330
Steam Flow	LB/HR x 10^6	4.45	4.50	4.60	4.48	4.52	4.48
Air Flow	%	70	70	71	71	70	71
Generator Load (Gross)	Megawatts	655	669	671	659	667	658
Boiler Thermal Demand	Megawatts	658	674	679	662	671	658
O2 Flue Gas	%	2.93 / 3.15	2.61 / 2.98	2.59 / 2.88	2.91 / 3.09	2.63 / 2.73	2.73 / 2.88
Fuel Flow	%	99.4	99.3	99.2	99.1	99.1	99
COAL TOTALIZER	**TONS**						
A		72	72	71	73	72	72
B		72	72	72	72	72	72
C		81	81	81	81	81	81
D		Ø	Ø	Ø	Ø	Ø	Ø
E		93	94	93	93	93	93
F		82	84	82	82	82	82
G		97	96	97	97	97	97

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA
UNIT # ONE Date: 12 / 9 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		PETERSON	PETERSON	PETERSON	PETERSON	PETERSON	PETERSON
Time		1400	1430	1500	1530	1600	1630
Steam Flow	LB/HR x 10^6	4.58	4.63	4.54	4.62	4.64	4.57
Air Flow	%	69	72	71	71	71	70
Generator Load (Gross)	Megawatts	671	685	674	675	680	662
Boiler Thermal Demand	Megawatts	676	683	683	680	687	667
O2 Flue Gas	%	2.40 / 2.78	2.38 / 2.49	2.33 / 2.60	2.72 / 2.91	2.32 / 2.66	2.54 / 2.90
Fuel Flow	%	99.4	98.9	99.1	99	98.8	99
COAL TOTALIZER	**TONS**						
A		72	72	72	72	72	72
B		72	72	72	73	72	72
C		81	81	82	81	81	81
D		Ø	Ø	Ø	Ø	Ø	Ø
E		93	93	93	93	93	93
F		82	82	82	82	82	82
G		97	95	96	96	96	96

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA
UNIT # ONE **Date:** 12 / 9 / 02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		PETERSON	TOSO	TOSO	TOSO	TOSO	TOSO
Time		1700	1730	1800	1830	1900	1930
Steam Flow	LB/HR x 10^6	4.71	4.60	4.65	4.60	4.67	4.58
Air Flow	%	71	72	71	71	72	71
Generator Load (Gross)	Megawatts	686	680	680	680	682	676
Boiler Thermal Demand	Megawatts	690	688	685	684	687	683
O2 Flue Gas	%	/	2.41 / 1.64	2.76 / 2.75	2.34 / 2.44	2.34 / 2.52	2.41 / 2.50
Fuel Flow	%	97.1	97.2	97.0	97.3	97.0	96.4
COAL TOTALIZER	**TONS**						
A		71	72	73	73	72	71
B		72	72	72	72	72	72
C		81	81	81	81	81	81
D		Ø	—	—	—	—	—
E		90	89	90	90	90	89
F		82	82	82	82	82	81
G		90	90	90	90	90	89

ST. JOHNS RIVER POWER PARK
FLUE GAS DESULFURIZATION
OPERATIONAL PARAMETERS
UNIT # 1

Date: 12 / 9 / 07
Initials: LJA

HOUR	PACKING DIFFERENTIAL PRESSURE (inches H2O column)		
	A	B	C
0000			
0100			
0200			
0300			
0400			
0500			
0600			
0700			
0800	5.7	5.8	0.5
0900	5.6	5.9	
1000	5.6	5.8	
1100	5.5	5.8	
1200	5.5	5.7	
1300	5.5	5.7	
1400	5.5	5.7	
1500	5.6	5.7	
1600	5.6	5.8	
1700	5.7	5.9	
1800	5.7	5.8	
1900	5.7	5.8	
2000	5.7	6.0	
2100			
2200			
2300			

Daily Water System Use: _____ **(Total Gallons) / 1440 (min/day) = GPM**

COMMENTS: WW Start - 749 x 10 ⁵
End - 799

UNIT 2

#2 Unit Load
Run #1

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 18:03

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 09:15
Period End: 12/10/02 11:24
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2Unit_Load MW
12/10/02 09:15	665.0
12/10/02 09:16	666.9
12/10/02 09:17	667.3
12/10/02 09:18	667.6
12/10/02 09:19	669.7
12/10/02 09:20	670.2
12/10/02 09:21	669.6
12/10/02 09:22	668.2
12/10/02 09:23	667.4
12/10/02 09:24	667.9
12/10/02 09:25	668.1
12/10/02 09:26	669.0
12/10/02 09:27	669.0
12/10/02 09:28	668.3
12/10/02 09:29	667.1
12/10/02 09:30	661.4
12/10/02 09:31	652.6
12/10/02 09:32	650.7
12/10/02 09:33	651.1
12/10/02 09:34	653.4
12/10/02 09:35	655.0
12/10/02 09:36	653.3
12/10/02 09:37	657.1
12/10/02 09:38	657.2
12/10/02 09:39	656.9
12/10/02 09:40	659.9
12/10/02 09:41	663.1
12/10/02 09:42	663.6
12/10/02 09:43	660.1
12/10/02 09:44	655.8
12/10/02 09:45	653.8
12/10/02 09:46	652.8
12/10/02 09:47	651.9
12/10/02 09:48	657.8
12/10/02 09:49	658.1
12/10/02 09:50	657.6
12/10/02 09:51	656.5
12/10/02 09:52	657.9
12/10/02 09:53	660.9
12/10/02 09:54	660.9
12/10/02 09:55	659.7
12/10/02 09:56	658.1
12/10/02 09:57	656.7
12/10/02 09:58	659.0
12/10/02 09:59	660.5
12/10/02 10:00	659.6
12/10/02 10:01	660.7
12/10/02 10:02	660.4

12/10/02 10:03	657.1
12/10/02 10:04	653.6
12/10/02 10:05	653.0
12/10/02 10:06	656.4
12/10/02 10:07	658.6
12/10/02 10:08	660.5
12/10/02 10:09	658.0
12/10/02 10:10	654.1
12/10/02 10:11	652.2
12/10/02 10:12	653.8
12/10/02 10:13	657.4
12/10/02 10:14	659.2
12/10/02 10:15	661.6
12/10/02 10:16	658.6
12/10/02 10:17	656.9
12/10/02 10:18	660.7
12/10/02 10:19	663.9
12/10/02 10:20	664.9
12/10/02 10:21	663.3
12/10/02 10:22	660.2
12/10/02 10:23	660.2
12/10/02 10:24	661.0
12/10/02 10:25	661.2
12/10/02 10:26	655.5
12/10/02 10:27	651.4
12/10/02 10:28	650.4
12/10/02 10:29	652.6
12/10/02 10:30	656.0
12/10/02 10:31	658.2
12/10/02 10:32	658.9
12/10/02 10:33	659.1
12/10/02 10:34	656.3
12/10/02 10:35	654.8
12/10/02 10:36	655.9
12/10/02 10:37	659.5
12/10/02 10:38	657.4
12/10/02 10:39	657.5
12/10/02 10:40	654.8
12/10/02 10:41	656.9
12/10/02 10:42	660.2
12/10/02 10:43	659.6
12/10/02 10:44	654.7
12/10/02 10:45	651.3
12/10/02 10:46	653.0
12/10/02 10:47	657.1
12/10/02 10:48	658.0
12/10/02 10:49	658.1
12/10/02 10:50	659.7
12/10/02 10:51	662.4
12/10/02 10:52	662.7
12/10/02 10:53	662.8
12/10/02 10:54	661.4
12/10/02 10:55	660.2
12/10/02 10:56	655.7
12/10/02 10:57	657.6
12/10/02 10:58	658.9
12/10/02 10:59	655.7
12/10/02 11:00	654.3
12/10/02 11:01	656.7
12/10/02 11:02	656.4
12/10/02 11:03	660.0
12/10/02 11:04	661.8

12/10/02	11:05	662.1
12/10/02	11:06	661.7
12/10/02	11:07	660.8
12/10/02	11:08	659.6
12/10/02	11:09	660.8
12/10/02	11:10	662.8
12/10/02	11:11	664.8
12/10/02	11:12	664.6
12/10/02	11:13	660.4
12/10/02	11:14	654.7
12/10/02	11:15	656.3
12/10/02	11:16	660.1
12/10/02	11:17	663.4
12/10/02	11:18	662.9
12/10/02	11:19	662.6
12/10/02	11:20	664.8
12/10/02	11:21	666.2
12/10/02	11:22	665.4
12/10/02	11:23	660.9
12/10/02	11:24	656.4
Final Average*		**659.4**
Maximum*		**670.2**
Minimum*		**650.4**

*Does not include Invalid Averaging Periods ("N/A")

#2 Unit Load
Run #3

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 18:03

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 12:10
Period End: 12/10/02 14:16
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2Unit Load MW
12/10/02 12:10	657.1
12/10/02 12:11	655.4
12/10/02 12:12	659.8
12/10/02 12:13	663.3
12/10/02 12:14	664.7
12/10/02 12:15	666.1
12/10/02 12:16	667.1
12/10/02 12:17	666.4
12/10/02 12:18	666.7
12/10/02 12:19	667.8
12/10/02 12:20	667.6
12/10/02 12:21	666.6
12/10/02 12:22	666.5
12/10/02 12:23	663.4
12/10/02 12:24	658.2
12/10/02 12:25	660.2
12/10/02 12:26	662.3
12/10/02 12:27	664.2
12/10/02 12:28	665.2
12/10/02 12:29	665.5
12/10/02 12:30	664.9
12/10/02 12:31	660.0
12/10/02 12:32	656.4
12/10/02 12:33	660.1
12/10/02 12:34	665.8
12/10/02 12:35	667.3
12/10/02 12:36	666.9
12/10/02 12:37	667.7
12/10/02 12:38	668.5
12/10/02 12:39	668.6
12/10/02 12:40	666.4
12/10/02 12:41	663.5
12/10/02 12:42	660.2
12/10/02 12:43	659.2
12/10/02 12:44	659.7
12/10/02 12:45	660.9
12/10/02 12:46	663.1
12/10/02 12:47	662.9
12/10/02 12:48	661.8
12/10/02 12:49	662.3
12/10/02 12:50	663.0
12/10/02 12:51	663.5
12/10/02 12:52	663.1
12/10/02 12:53	662.6
12/10/02 12:54	660.4
12/10/02 12:55	655.4
12/10/02 12:56	659.9
12/10/02 12:57	665.2

12/10/02 12:58	666.0
12/10/02 12:59	664.9
12/10/02 13:00	663.3
12/10/02 13:01	663.0
12/10/02 13:02	662.5
12/10/02 13:03	658.1
12/10/02 13:04	655.3
12/10/02 13:05	655.1
12/10/02 13:06	656.9
12/10/02 13:07	663.5
12/10/02 13:08	666.6
12/10/02 13:09	667.3
12/10/02 13:10	668.0
12/10/02 13:11	665.4
12/10/02 13:12	663.7
12/10/02 13:13	662.1
12/10/02 13:14	658.9
12/10/02 13:15	659.1
12/10/02 13:16	660.2
12/10/02 13:17	662.6
12/10/02 13:18	663.8
12/10/02 13:19	662.8
12/10/02 13:20	660.9
12/10/02 13:21	661.8
12/10/02 13:22	665.1
12/10/02 13:23	667.3
12/10/02 13:24	667.9
12/10/02 13:25	667.0
12/10/02 13:26	666.9
12/10/02 13:27	666.3
12/10/02 13:28	665.6
12/10/02 13:29	664.8
12/10/02 13:30	664.5
12/10/02 13:31	663.0
12/10/02 13:32	661.4
12/10/02 13:33	660.8
12/10/02 13:34	661.7
12/10/02 13:35	664.6
12/10/02 13:36	665.0
12/10/02 13:37	666.0
12/10/02 13:38	667.1
12/10/02 13:39	667.8
12/10/02 13:40	668.3
12/10/02 13:41	668.2
12/10/02 13:42	668.8
12/10/02 13:43	668.5
12/10/02 13:44	667.4
12/10/02 13:45	667.0
12/10/02 13:46	665.7
12/10/02 13:47	663.8
12/10/02 13:48	663.5
12/10/02 13:49	663.8
12/10/02 13:50	663.4
12/10/02 13:51	663.7
12/10/02 13:52	663.0
12/10/02 13:53	661.7
12/10/02 13:54	662.0
12/10/02 13:55	664.5
12/10/02 13:56	667.1
12/10/02 13:57	667.4
12/10/02 13:58	666.9
12/10/02 13:59	665.8

12/10/02	14:00	665.4
12/10/02	14:01	666.3
12/10/02	14:02	665.6
12/10/02	14:03	664.5
12/10/02	14:04	664.6
12/10/02	14:05	664.6
12/10/02	14:06	665.3
12/10/02	14:07	666.0
12/10/02	14:08	666.3
12/10/02	14:09	667.4
12/10/02	14:10	667.5
12/10/02	14:11	668.3
12/10/02	14:12	667.8
12/10/02	14:13	667.4
12/10/02	14:14	666.4
12/10/02	14:15	665.3
12/10/02	14:16	666.5
Final Average*		**664.0**
Maximum*		**668.8**
Minimum*		**655.1**

*Does not include Invalid Averaging Periods ("N/A")

#2 Unit Load
Run #3

Enertec NTDAHS®
Average Values Report
Generated : 12/10/02 18:02

Company: St. Johns Unit 2
Plant:
City/St:
Source: Unit 2

Period Start: 12/10/02 15:10
Period End: 12/10/02 17:06
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start	Average 2Unit Load MW
12/10/02 15:10	665.5
12/10/02 15:11	665.0
12/10/02 15:12	665.7
12/10/02 15:13	665.0
12/10/02 15:14	664.8
12/10/02 15:15	666.6
12/10/02 15:16	668.0
12/10/02 15:17	667.5
12/10/02 15:18	667.2
12/10/02 15:19	666.5
12/10/02 15:20	666.6
12/10/02 15:21	666.5
12/10/02 15:22	666.3
12/10/02 15:23	665.0
12/10/02 15:24	662.2
12/10/02 15:25	657.0
12/10/02 15:26	657.5
12/10/02 15:27	662.1
12/10/02 15:28	664.0
12/10/02 15:29	665.2
12/10/02 15:30	665.9
12/10/02 15:31	666.9
12/10/02 15:32	667.0
12/10/02 15:33	667.1
12/10/02 15:34	666.7
12/10/02 15:35	665.5
12/10/02 15:36	666.5
12/10/02 15:37	667.8
12/10/02 15:38	669.3
12/10/02 15:39	670.0
12/10/02 15:40	668.0
12/10/02 15:41	665.2
12/10/02 15:42	663.0
12/10/02 15:43	659.1
12/10/02 15:44	658.1
12/10/02 15:45	657.8
12/10/02 15:46	660.7
12/10/02 15:47	664.8
12/10/02 15:48	666.6
12/10/02 15:49	666.6
12/10/02 15:50	666.9
12/10/02 15:51	667.2
12/10/02 15:52	667.2
12/10/02 15:53	666.6
12/10/02 15:54	665.7
12/10/02 15:55	664.8
12/10/02 15:56	660.3
12/10/02 15:57	659.1

12/10/02	15:58	663.9
12/10/02	15:59	667.1
12/10/02	16:00	667.1
12/10/02	16:01	665.0
12/10/02	16:02	660.9
12/10/02	16:03	658.5
12/10/02	16:04	662.6
12/10/02	16:05	665.6
12/10/02	16:06	666.7
12/10/02	16:07	667.8
12/10/02	16:08	668.2
12/10/02	16:09	667.2
12/10/02	16:10	665.5
12/10/02	16:11	664.9
12/10/02	16:12	665.0
12/10/02	16:13	665.1
12/10/02	16:14	665.9
12/10/02	16:15	665.1
12/10/02	16:16	664.0
12/10/02	16:17	662.9
12/10/02	16:18	662.9
12/10/02	16:19	663.3
12/10/02	16:20	663.7
12/10/02	16:21	663.2
12/10/02	16:22	664.2
12/10/02	16:23	664.0
12/10/02	16:24	665.0
12/10/02	16:25	666.3
12/10/02	16:26	668.5
12/10/02	16:27	669.2
12/10/02	16:28	669.3
12/10/02	16:29	668.4
12/10/02	16:30	667.8
12/10/02	16:31	667.0
12/10/02	16:32	668.2
12/10/02	16:33	668.1
12/10/02	16:34	668.1
12/10/02	16:35	667.3
12/10/02	16:36	666.8
12/10/02	16:37	666.9
12/10/02	16:38	666.1
12/10/02	16:39	664.5
12/10/02	16:40	661.6
12/10/02	16:41	661.2
12/10/02	16:42	665.0
12/10/02	16:43	665.9
12/10/02	16:44	666.8
12/10/02	16:45	667.8
12/10/02	16:46	666.0
12/10/02	16:47	665.6
12/10/02	16:48	666.4
12/10/02	16:49	666.5
12/10/02	16:50	665.8
12/10/02	16:51	666.6
12/10/02	16:52	666.3
12/10/02	16:53	665.7
12/10/02	16:54	664.5
12/10/02	16:55	660.8
12/10/02	16:56	661.3
12/10/02	16:57	664.8
12/10/02	16:58	664.2
12/10/02	16:59	663.4

12/10/02	17:00	662.8
12/10/02	17:01	660.3
12/10/02	17:02	658.0
12/10/02	17:03	657.9
12/10/02	17:04	660.8
12/10/02	17:05	663.5
12/10/02	17:06	666.0
Final Average*		**664.9**
Maximum*		**670.0**
Minimum*		**657.0**

*Does not include Invalid Averaging Periods ("N/A")

8:00

Actual Values At: ~~6:45~~:00 AM

Page: 1
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	202	47.0	38.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	191	63.0	35.6	0.0	0.0	0.0	2.9	1.4	1.6	50.0
2B TR-31	15.0	196	63.0	37.6	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-41	20.0	187	79.0	35.8	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-51	30.0	205	130	37.2	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	211	158	36.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	219	213	36.9	0.0	0.0	0.0	9.8	5.5	1.5	90.0
2B TR-12	12.0	199	47.0	39.4	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	194	67.0	36.5	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-32	15.0	197	67.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	37.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	130	36.5	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-62	35.0	216	158	36.3	0.0	0.0	0.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	234	217	37.3	0.0	0.0	0.0	10.5	6.1	1.5	90.0
2B TR-13	12.0	201	51.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	205	67.0	38.3	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	210	67.0	39.6	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	187	79.0	36.5	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	209	130	38.2	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	221	162	39.2	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	218	203	39.1	0.0	0.0	0.0	9.8	5.7	1.5	90.0
2B TR-14	12.0	203	51.0	35.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-24	15.0	214	61.0	39.8	0.0	0.0	0.0	3.2	1.7	1.5	50.0
2B TR-34	15.0	192	63.0	36.8	0.0	0.0	0.0	2.9	1.4	1.6	50.0
2B TR-44	20.0	170	77.0	34.6	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	211	130	38.6	0.0	0.0	0.0	6.3	3.4	1.6	60.0
2B TR-64	35.0	214	166	37.3	0.0	0.0	0.0	7.5	3.9	1.6	70.0
2B TR-74	45.0	223	209	36.0	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	198	47.0	39.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	211	67.0	39.3	0.0	0.0	0.0	3.2	1.8	1.5	50.0

Actual Values At: 6:45:00 AM

Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	194	67.0	37.1	0.0	0.0	0.0	2.9	1.5	1.5	50.0
2B TR-45	20.0	182	83.0	35.7	0.0	0.0	0.0	3.7	1.8	1.7	50.0
2B TR-55	30.0	220	134	39.4	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	222	156	40.0	0.0	0.0	0.0	7.8	4.3	1.5	70.0
2B TR-75	45.0	245	217	39.1	0.0	0.0	0.0	11.0	6.2	1.5	90.0
2B TR-16	12.0	204	51.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-26	4.0	38.0	13.0	4.5	0.0	0.0	144	0.2	0.1	1.0	50.0
2B TR-36	15.0	204	67.0	37.3	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	187	79.0	36.8	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-56	30.0	220	130	41.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	212	154	40.6	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-76	45.0	256	217	40.5	0.0	0.0	0.0	11.5	6.7	1.5	90.0
Analog											
2B East	9.1	%									
2B West	11.3	%									

9:00

Actual Values At: ~~7:45:00~~ AM

Page: 1
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	204	47.0	39.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	191	63.0	35.6	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-31	15.0	195	67.0	37.6	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-41	20.0	187	83.0	35.7	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-51	30.0	204	130	37.1	0.0	0.0	0.0	6.1	3.2	1.6	60.0
2B TR-61	35.0	211	158	36.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	219	213	36.9	0.0	0.0	0.0	9.9	5.5	1.5	90.0
2B TR-12	12.0	200	45.0	39.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	194	67.0	36.4	0.0	0.0	0.0	2.9	1.6	1.6	50.0
2B TR-32	15.0	197	67.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	189	83.0	37.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	134	36.5	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-62	35.0	217	160	36.3	0.0	0.0	1.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	232	217	37.1	0.0	0.0	0.0	10.4	5.8	1.5	90.0
2B TR-13	12.0	202	51.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	205	67.0	38.1	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	210	67.0	39.5	0.0	0.0	0.0	3.1	1.7	1.6	50.0
2B TR-43	20.0	187	79.0	36.6	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	209	130	38.1	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-63	35.0	220	162	39.1	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	218	203	39.1	0.0	0.0	0.0	9.8	5.6	1.5	90.0
2B TR-14	12.0	203	51.0	35.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-24	15.0	214	67.0	39.8	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-34	15.0	192	63.0	36.7	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-44	20.0	168	75.0	34.6	0.0	0.0	0.0	3.3	1.6	1.7	50.0
2B TR-54	30.0	210	130	38.5	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-64	35.0	215	169	37.3	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-74	45.0	222	209	36.0	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	198	47.0	39.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	211	67.0	39.2	0.0	0.0	0.0	3.2	1.8	1.5	50.0

Actual Values At: 7:45:00 AM

Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	193	67.0	36.9	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-45	20.0	182	79.0	35.5	0.0	0.0	0.0	3.6	1.7	1.7	50.0
2B TR-55	30.0	221	134	39.4	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	222	156	40.0	0.0	0.0	0.0	7.8	4.3	1.5	70.0
2B TR-75	45.0	246	217	39.1	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2B TR-16	12.0	204	51.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-26	2.0	137	7.0	31.3	0.0	0.0	50.0	0.3	0.1	3.0	50.0
2B TR-36	15.0	207	71.0	37.7	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	186	79.0	36.7	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-56	30.0	221	130	41.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	212	154	40.6	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-76	45.0	255	217	40.4	0.0	0.0	0.0	11.5	6.6	1.5	90.0
Analog											
2B East	8.9	%									
2B West	11.2	%									

Actual Values At: 10:45:00 AM

Page: 1
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	203	47.0	38.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	191	67.0	35.6	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-31	15.0	196	67.0	37.6	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-41	20.0	187	83.0	35.8	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-51	30.0	204	130	37.1	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	210	158	36.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	219	217	37.0	0.0	0.0	0.0	9.9	5.7	1.5	90.0
2B TR-12	12.0	200	47.0	39.7	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	194	67.0	36.5	0.0	0.0	0.0	2.9	1.5	1.6	50.0
2B TR-32	15.0	197	67.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	37.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	134	36.5	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-62	35.0	217	162	36.4	0.0	0.0	4.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	233	217	37.2	0.0	0.0	0.0	10.5	6.1	1.5	90.0
2B TR-13	12.0	202	51.0	40.2	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	206	67.0	38.5	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	210	67.0	39.6	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	187	79.0	36.6	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-53	30.0	209	130	38.1	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-63	35.0	221	162	39.1	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	217	203	39.1	0.0	0.0	0.0	9.8	5.7	1.5	90.0
2B TR-14	12.0	204	51.0	35.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-24	15.0	212	61.0	39.8	0.0	0.0	0.0	3.3	1.8	1.5	50.0
2B TR-34	15.0	192	61.0	36.9	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-44	21.0	172	79.0	34.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	210	130	38.5	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-64	35.0	215	169	37.4	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-74	45.0	223	209	36.0	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	198	47.0	39.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	212	71.0	39.4	0.0	0.0	0.0	3.2	1.8	1.5	50.0

Actual Values At: 10:45:00 AM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	194	67.0	37.1	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-45	20.0	182	77.0	35.6	0.0	0.0	0.0	3.6	1.8	1.7	50.0
2B TR-55	30.0	221	134	39.4	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	222	158	40.0	0.0	0.0	0.0	7.8	4.3	1.5	70.0
2B TR-75	45.0	246	217	39.1	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2B TR-16	12.0	205	51.0	40.3	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	151	11.0	34.7	0.0	0.0	45.0	0.8	0.3	1.7	50.0
2B TR-36	15.0	207	67.0	38.3	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-46	20.0	186	79.0	36.9	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-56	30.0	221	130	41.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	213	154	40.6	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-76	45.0	255	217	40.4	0.0	0.0	0.0	11.5	6.6	1.5	90.0
Analog											
2B East	8.8	%									
2B West	10.5	%									

Actual Values At: 11:36:41 AM

Page: 1
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2A TR-11	12.0	220	47.0	43.4	0.0	0.0	0.0	2.6	1.3	1.7	50.0
2A TR-21	15.0	200	67.0	38.0	0.0	0.0	0.0	3.0	1.6	1.6	50.0
2A TR-31	0.0	67.0	0.0	19.2	0.0	0.0	119	0.1	0.0	3.0	50.0
2A TR-41	20.0	186	79.0	36.8	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2A TR-51	Power Off										
2A TR-61	35.0	229	154	39.9	0.0	0.0	0.0	8.0	0.0	1.6	70.0
2A TR-71	45.0	246	217	40.6	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2A TR-12	12.0	211	51.0	40.9	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2A TR-22	15.0	205	61.0	38.0	0.0	0.0	0.0	3.1	1.5	1.7	50.0
2A TR-32	15.0	196	67.0	36.6	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2A TR-42	21.0	182	83.0	35.1	0.0	0.0	0.0	3.6	0.0	1.7	50.0
2A TR-52	30.0	200	130	36.4	0.0	0.0	0.0	6.0	3.0	1.7	60.0
2A TR-62	35.0	209	154	36.6	0.0	0.0	0.0	7.3	4.0	1.5	70.0
2A TR-72	45.0	221	217	36.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2A TR-13	12.0	208	45.0	39.2	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2A TR-23	15.0	198	67.0	37.3	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2A TR-33	15.0	197	67.0	37.3	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2A TR-43	20.0	184	75.0	36.2	0.0	0.0	0.0	3.7	1.8	1.7	50.0
2A TR-53	30.0	199	130	35.2	0.0	0.0	0.0	6.0	3.2	1.6	60.0
2A TR-63	35.0	203	158	30.8	0.0	0.0	0.0	7.1	3.9	1.5	70.0
2A TR-73	45.0	224	213	35.4	0.0	0.0	0.0	10.1	5.6	1.5	90.0
2A TR-14	12.0	206	51.0	41.4	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2A TR-24	15.0	202	65.0	37.8	0.0	0.0	0.0	3.0	1.7	1.5	50.0
2A TR-34	15.0	191	67.0	36.2	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2A TR-44	20.0	177	83.0	35.1	0.0	0.0	0.0	3.5	1.8	1.7	50.0
2A TR-54	30.0	195	134	35.2	0.0	0.0	0.0	5.9	3.1	1.6	60.0
2A TR-64	35.0	201	158	36.5	0.0	0.0	0.0	7.0	3.7	1.6	70.0
2A TR-74	45.0	215	213	36.2	0.0	0.0	0.0	9.7	0.0	1.5	90.0
2A TR-15	5.0	160	11.0	37.3	0.0	0.0	55.0	0.7	0.3	1.8	50.0
2A TR-25	15.0	206	67.0	41.8	0.0	0.0	0.0	3.1	1.7	1.5	50.0

Actual Values At: 11:36:41 AM

Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2A TR-35	15.0	198	67.0	38.0	0.0	0.0	0.0	3.0	1.6	1.5	50.0
2A TR-45	20.0	187	79.0	36.4	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2A TR-55	30.0	201	134	36.5	0.0	0.0	0.0	6.0	3.2	1.6	60.0
2A TR-65	35.0	211	156	35.5	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2A TR-75	45.0	226	217	37.7	0.0	0.0	0.0	10.2	5.9	1.5	90.0
2A TR-16	12.0	195	47.0	38.4	0.0	0.0	0.0	2.3	1.1	1.7	50.0
2A TR-26	15.0	205	67.0	37.8	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2A TR-36	15.0	185	67.0	34.8	0.0	0.0	0.0	2.8	1.5	1.5	50.0
2A TR-46	21.0	179	83.0	35.2	0.0	0.0	0.0	3.5	1.8	1.7	50.0
2A TR-56	9.0	72.0	29.0	15.5	0.0	0.0	124	0.5	0.2	1.7	60.0
2A TR-66	35.0	201	150	36.7	0.0	0.0	0.0	7.0	3.9	1.5	70.0
2A TR-76	45.0	222	217	36.2	0.0	0.0	0.0	10.0	5.6	1.5	90.0
Analog											
2A west	4.2	%									
2A East	6.0	%									

Actual Values At: 11:37:31 AM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	203	47.0	39.0	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	191	63.0	35.6	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-31	15.0	197	61.0	37.8	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-41	20.0	187	83.0	35.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-51	30.0	205	130	37.2	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	211	162	36.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	220	217	36.9	0.0	0.0	0.0	9.9	5.7	1.5	90.0
2B TR-12	12.0	200	51.0	39.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	194	67.0	36.5	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-32	15.0	198	67.0	37.0	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	37.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	134	36.5	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-62	35.0	215	156	36.2	0.0	0.0	0.0	7.5	4.0	1.6	70.0
2B TR-72	45.0	234	217	37.2	0.0	0.0	0.0	10.5	6.1	1.5	90.0
2B TR-13	12.0	203	51.0	40.4	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	208	67.0	38.7	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	212	71.0	39.7	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	187	79.0	36.5	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	209	130	38.1	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	221	162	39.1	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	217	203	39.1	0.0	0.0	0.0	9.8	5.6	1.5	90.0
2B TR-14	12.0	204	51.0	35.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-24	15.0	212	61.0	40.0	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-34	15.0	193	61.0	37.0	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-44	21.0	173	77.0	34.7	0.0	0.0	0.0	3.4	1.6	1.7	50.0
2B TR-54	30.0	211	130	38.5	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-64	35.0	215	169	37.3	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-74	45.0	222	209	35.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	199	47.0	39.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	213	71.0	39.5	0.0	0.0	0.0	3.2	1.8	1.5	50.0

Actual Values At: 11:37:31 AM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	194	67.0	37.3	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-45	20.0	182	77.0	35.7	0.0	0.0	0.0	3.6	1.8	1.7	50.0
2B TR-55	30.0	220	134	39.3	0.0	0.0	0.0	6.6	3.4	1.6	60.0
2B TR-65	35.0	222	156	39.9	0.0	0.0	0.0	7.8	4.3	1.5	70.0
2B TR-75	45.0	246	217	39.1	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2B TR-16	12.0	205	51.0	40.2	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	154	11.0	35.5	0.0	0.0	61.0	0.7	0.3	1.7	50.0
2B TR-36	15.0	208	67.0	38.0	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	187	77.0	36.9	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-56	30.0	220	130	40.9	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	212	154	40.6	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-76	45.0	255	217	40.4	0.0	0.0	0.0	11.5	6.6	1.5	90.0

Analog			
2B East	8.8	%	
2B West	10.5	%	

Actual Values At: 11:45:00 AM

Page: 1
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	205	47.0	39.4	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-21	15.0	193	67.0	35.9	0.0	0.0	0.0	2.9	1.5	1.6	50.0
2B TR-31	15.0	197	63.0	37.7	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-41	20.0	188	83.0	35.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-51	30.0	204	130	37.2	0.0	0.0	0.0	6.2	3.2	1.6	60.0
2B TR-61	35.0	211	162	36.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	220	217	36.9	0.0	0.0	0.0	9.9	5.7	1.5	90.0
2B TR-12	12.0	202	47.0	40.0	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	195	67.0	36.8	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-32	15.0	198	67.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	37.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	132	36.5	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-62	35.0	217	162	36.2	0.0	0.0	0.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	233	217	37.2	0.0	0.0	0.0	10.5	6.1	1.5	90.0
2B TR-13	12.0	204	51.0	40.5	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	208	67.0	38.7	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	212	67.0	39.8	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	187	77.0	36.7	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	208	130	38.1	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	220	162	39.1	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	218	203	39.1	0.0	0.0	0.0	9.8	5.6	1.5	90.0
2B TR-14	12.0	207	51.0	36.5	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-24	16.0	218	63.0	40.1	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-34	15.0	192	61.0	36.9	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-44	20.0	170	79.0	34.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	210	130	38.5	0.0	0.0	0.0	6.3	3.4	1.6	60.0
2B TR-64	35.0	215	169	37.3	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-74	45.0	222	209	35.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	200	47.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	213	67.0	39.5	0.0	0.0	0.0	3.1	1.8	1.5	50.0

Actual Values At: 11:45:00 AM

Page: 2
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	195	67.0	37.3	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-45	20.0	182	79.0	35.7	0.0	0.0	0.0	3.6	1.8	1.7	50.0
2B TR-55	30.0	219	130	39.3	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	222	156	40.0	0.0	0.0	0.0	7.8	4.3	1.5	70.0
2B TR-75	45.0	246	217	39.1	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2B TR-16	12.0	206	51.0	40.4	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	154	11.0	35.2	0.0	0.0	56.0	0.8	0.4	1.7	50.0
2B TR-36	15.0	210	67.0	38.1	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	188	79.0	37.0	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-56	30.0	221	130	41.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	213	154	40.6	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-76	45.0	255	217	40.4	0.0	0.0	0.0	11.5	6.6	1.5	90.0
Analog											
2B East	9.0	%									
2B West	10.8	%									

Actual Values At: 12:45:01 PM

Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	204	47.0	39.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	192	67.0	35.7	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-31	15.0	196	63.0	37.5	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-41	20.0	187	83.0	35.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-51	30.0	205	130	37.2	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	209	158	36.3	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	219	213	36.9	0.0	0.0	0.0	9.8	5.5	1.5	90.0
2B TR-12	12.0	203	47.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	195	67.0	36.7	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-32	15.0	197	67.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	37.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	130	36.5	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-62	35.0	217	162	36.2	0.0	0.0	0.0	7.6	4.1	1.5	70.0
2B TR-72	45.0	232	217	37.0	0.0	0.0	0.0	10.4	5.8	1.5	90.0
2B TR-13	12.0	204	51.0	40.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	208	67.0	38.7	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	211	67.0	39.7	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	188	79.0	36.6	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	208	130	38.1	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-63	35.0	220	162	39.1	0.0	0.0	0.0	7.7	4.0	1.6	70.0
2B TR-73	45.0	217	201	39.0	0.0	0.0	0.0	9.7	5.6	1.5	90.0
2B TR-14	12.0	205	51.0	36.2	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-24	15.0	217	67.0	40.1	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-34	15.0	193	63.0	37.0	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-44	20.0	168	77.0	34.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	211	130	38.5	0.0	0.0	0.0	6.3	3.4	1.6	60.0
2B TR-64	35.0	215	166	37.3	0.0	0.0	0.0	7.5	4.0	1.6	70.0
2B TR-74	45.0	222	209	35.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	200	51.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	214	67.0	39.4	0.0	0.0	0.0	3.2	1.7	1.6	50.0

Actual Values At: 12:45:01 PM

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	195	67.0	37.4	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-45	20.0	182	77.0	35.8	0.0	0.0	0.0	3.6	1.8	1.7	50.0
2B TR-55	30.0	220	134	39.4	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	220	154	39.7	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-75	45.0	245	217	39.0	0.0	0.0	0.0	11.0	6.4	1.5	90.0
2B TR-16	12.0	208	51.0	40.6	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	156	11.0	35.5	0.0	0.0	63.0	0.8	0.4	1.7	50.0
2B TR-36	15.0	208	67.0	38.0	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	188	77.0	37.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-56	30.0	220	130	41.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	212	154	40.6	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-76	45.0	253	217	40.2	0.0	0.0	0.0	11.4	6.6	1.5	90.0
Analog											
2B East	9.0	%									
2B West	11.0	%									

Actual Values At: 1:45:00 PM

Page: 1
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	202	47.0	38.7	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	192	63.0	35.8	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-31	15.0	196	63.0	37.6	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-41	20.0	188	83.0	35.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-51	30.0	205	130	37.2	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	210	158	36.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	218	213	36.9	0.0	0.0	0.0	9.9	5.5	1.5	90.0
2B TR-12	12.0	205	47.0	40.8	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-22	15.0	195	67.0	36.6	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-32	15.0	197	67.0	36.8	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	37.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	207	130	36.5	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-62	35.0	217	158	36.3	0.0	0.0	2.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	232	217	37.0	0.0	0.0	0.0	10.4	5.8	1.5	90.0
2B TR-13	12.0	204	51.0	40.5	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	207	67.0	38.6	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	211	67.0	39.7	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	188	79.0	36.7	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	209	130	38.1	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	221	162	39.1	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	217	201	39.0	0.0	0.0	0.0	9.7	5.5	1.5	90.0
2B TR-14	12.0	204	51.0	36.0	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-24	15.0	217	61.0	40.1	0.0	0.0	0.0	3.3	1.8	1.5	50.0
2B TR-34	15.0	193	61.0	37.0	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-44	21.0	168	75.0	34.6	0.0	0.0	0.0	3.4	1.6	1.7	50.0
2B TR-54	30.0	211	130	38.6	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-64	35.0	214	166	37.3	0.0	0.0	0.0	7.5	3.9	1.6	70.0
2B TR-74	45.0	223	209	35.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	199	47.0	40.0	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	16.0	214	67.0	39.4	0.0	0.0	0.0	3.1	1.7	1.5	50.0

Actual Values At: 1:45:00 PM

Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	195	67.0	37.4	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-45	20.0	182	77.0	35.7	0.0	0.0	0.0	3.6	1.8	1.7	50.0
2B TR-55	30.0	220	134	39.4	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	221	156	39.8	0.0	0.0	0.0	7.7	4.3	1.5	70.0
2B TR-75	45.0	245	215	39.0	0.0	0.0	0.0	11.0	6.3	1.5	90.0
2B TR-16	12.0	205	51.0	40.4	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	156	11.0	35.5	0.0	0.0	51.0	0.8	0.4	1.7	50.0
2B TR-36	15.0	208	67.0	38.0	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	187	79.0	36.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-56	30.0	220	130	41.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	212	154	40.6	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-76	45.0	254	217	40.3	0.0	0.0	0.0	11.4	6.6	1.5	90.0
Analog											
2B East	9.1	%									
28 West	10.4	%									

Actual Values At: 2:45:00 PM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	202	51.0	38.8	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	191	67.0	35.6	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-31	15.0	197	63.0	37.6	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-41	20.0	188	83.0	35.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-51	30.0	205	130	37.2	0.0	0.0	0.0	6.2	3.2	1.6	60.0
2B TR-61	35.0	211	162	36.4	0.0	0.0	0.0	7.4	4.1	1.5	70.0
2B TR-71	45.0	220	213	37.0	0.0	0.0	0.0	9.9	5.7	1.5	90.0
2B TR-12	12.0	200	47.0	39.5	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	195	67.0	36.7	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-32	15.0	198	67.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	38.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	209	132	36.6	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-62	35.0	217	158	36.4	0.0	0.0	0.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	233	217	37.2	0.0	0.0	0.0	10.5	6.1	1.5	90.0
2B TR-13	12.0	202	51.0	40.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	206	67.0	38.4	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	212	67.0	39.8	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	188	79.0	36.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-53	30.0	209	126	38.1	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	221	162	39.1	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	218	203	39.1	0.0	0.0	0.0	9.8	5.6	1.5	90.0
2B TR-14	12.0	204	51.0	36.0	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-24	15.0	212	61.0	39.9	0.0	0.0	0.0	3.3	1.8	1.5	50.0
2B TR-34	15.0	194	67.0	37.0	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-44	20.0	171	77.0	34.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	211	130	38.6	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-64	35.0	215	166	37.3	0.0	0.0	0.0	7.5	4.0	1.6	70.0
2B TR-74	45.0	222	209	35.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	198	47.0	39.9	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	211	67.0	39.1	0.0	0.0	0.0	3.2	1.8	1.5	50.0

Actual Values At: 2:45:00 PM

Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	196	67.0	37.4	0.0	0.0	0.0	2.9	1.6	1.6	50.0
2B TR-45	20.0	183	77.0	35.8	0.0	0.0	0.0	3.7	1.8	1.7	50.0
2B TR-55	30.0	221	130	39.3	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	222	156	39.9	0.0	0.0	0.0	7.8	4.3	1.5	70.0
2B TR-75	45.0	246	217	39.1	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2B TR-16	12.0	205	51.0	40.1	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	2.0	95.0	3.0	20.0	0.0	0.0	101	0.2	0.0	3.0	50.0
2B TR-36	15.0	206	67.0	37.9	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	188	79.0	37.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-56	30.0	220	130	41.2	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	213	150	40.6	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-76	45.0	255	217	40.4	0.0	0.0	0.0	11.5	6.6	1.5	90.0
Analog											
2B East	8.7	%									
2B West	9.7	%									

Actual Values At: 3:45:00 PM

Page: 1
Printed At:
12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	204	51.0	39.1	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-21	15.0	191	61.0	35.7	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-31	15.0	197	67.0	37.6	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-41	20.0	187	79.0	35.8	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-51	30.0	205	130	37.2	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	209	158	36.3	0.0	0.0	0.0	7.3	3.9	1.6	70.0
2B TR-71	45.0	218	213	36.9	0.0	0.0	0.0	9.8	5.5	1.5	90.0
2B TR-12	12.0	201	47.0	39.7	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	194	67.0	36.5	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-32	15.0	198	65.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	38.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	209	134	36.6	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-62	35.0	217	162	36.3	0.0	0.0	2.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	234	217	37.2	0.0	0.0	0.0	10.5	6.1	1.5	90.0
2B TR-13	12.0	205	51.0	40.8	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-23	15.0	207	67.0	38.6	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	210	67.0	39.5	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	187	77.0	36.5	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	209	130	38.1	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	221	162	39.1	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	218	203	39.1	0.0	0.0	0.0	9.8	5.6	1.5	90.0
2B TR-14	12.0	204	51.0	36.1	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-24	15.0	218	61.0	40.3	0.0	0.0	0.0	3.3	1.8	1.5	50.0
2B TR-34	15.0	194	63.0	37.1	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-44	21.0	170	75.0	34.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	211	130	38.7	0.0	0.0	0.0	6.3	3.4	1.6	60.0
2B TR-64	35.0	215	166	37.3	0.0	0.0	0.0	7.5	4.1	1.6	70.0
2B TR-74	45.0	222	209	35.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	200	47.0	40.2	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	213	67.0	39.6	0.0	0.0	0.0	3.2	1.8	1.5	50.0

Actual Values At: 3:45:00 PM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	196	67.0	37.3	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-45	20.0	183	77.0	35.8	0.0	0.0	0.0	3.7	1.8	1.7	50.0
2B TR-55	31.0	225	134	39.4	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	220	154	39.8	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-75	45.0	247	217	39.1	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2B TR-16	12.0	207	51.0	40.6	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	153	11.0	35.2	0.0	0.0	79.0	0.8	0.3	1.9	50.0
2B TR-36	15.0	202	67.0	37.7	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	188	77.0	37.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-56	30.0	220	130	41.1	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	213	150	40.6	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-76	45.0	255	217	40.4	0.0	0.0	0.0	11.5	6.6	1.5	90.0

Analog		
2B East	9.0	%
2B West	10.7	%

Actual Values At: 4:45:00 PM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	207	47.0	39.5	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-21	15.0	192	67.0	35.6	0.0	0.0	0.0	2.9	1.6	1.5	50.0
2B TR-31	15.0	197	63.0	37.6	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-41	20.0	187	79.0	35.7	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-51	30.0	205	130	37.2	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	209	156	36.3	0.0	0.0	0.0	7.4	3.9	1.6	70.0
2B TR-71	45.0	219	213	36.9	0.0	0.0	0.0	9.9	5.5	1.5	90.0
2B TR-12	12.0	202	51.0	40.0	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	195	67.0	36.9	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-32	15.0	198	63.0	36.9	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	38.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	130	36.5	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-62	35.0	217	158	36.2	0.0	0.0	1.0	7.4	4.0	1.5	70.0
2B TR-72	45.0	232	217	37.1	0.0	0.0	0.0	10.4	6.0	1.5	90.0
2B TR-13	12.0	205	51.0	40.7	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-23	15.0	207	67.0	38.6	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	209	67.0	39.4	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-43	20.0	187	77.0	36.6	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-53	30.0	209	130	38.2	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	219	158	38.9	0.0	0.0	0.0	7.7	4.0	1.6	70.0
2B TR-73	45.0	217	201	39.1	0.0	0.0	0.0	9.8	5.5	1.5	90.0
2B TR-14	12.0	206	51.0	36.3	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-24	16.0	217	61.0	40.0	0.0	0.0	0.0	3.3	1.8	1.5	50.0
2B TR-34	15.0	193	61.0	37.0	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-44	20.0	169	75.0	34.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	211	130	38.7	0.0	0.0	0.0	6.3	3.4	1.6	60.0
2B TR-64	35.0	215	166	37.3	0.0	0.0	0.0	7.5	4.0	1.6	70.0
2B TR-74	45.0	223	209	35.9	0.0	0.0	0.0	10.0	5.6	1.5	90.0
2B TR-15	12.0	201	47.0	40.3	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	215	67.0	40.0	0.0	0.0	0.0	3.2	1.7	1.6	50.0

Actual Values At: 4:45:00 PM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	197	67.0	37.6	0.0	0.0	0.0	3.0	1.6	1.5	50.0
2B TR-45	20.0	183	79.0	35.8	0.0	0.0	0.0	3.7	1.8	1.7	50.0
2B TR-55	30.0	222	134	39.3	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	220	154	39.8	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-75	45.0	246	217	39.0	0.0	0.0	0.0	11.0	6.3	1.5	90.0
2B TR-16	12.0	207	51.0	40.5	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	45.0	11.0	11.5	0.0	0.0	49.0	0.5	0.2	1.8	50.0
2B TR-36	15.0	207	67.0	37.6	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	188	77.0	37.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-56	30.0	220	130	41.2	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	213	154	40.7	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-76	45.0	254	217	40.3	0.0	0.0	0.0	11.4	6.6	1.5	90.0

Analog		
2B East	8.8	%
2B West	10.8	%

Actual Values At: 5:45:00 PM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-11	12.0	207	51.0	39.7	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-21	15.0	191	67.0	35.7	0.0	0.0	0.0	2.9	1.4	1.7	50.0
2B TR-31	15.0	197	63.0	37.7	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-41	20.0	187	83.0	35.8	0.0	0.0	0.0	3.7	1.9	1.7	50.0
2B TR-51	30.0	206	130	37.3	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-61	35.0	210	156	36.3	0.0	0.0	0.0	7.4	3.9	1.6	70.0
2B TR-71	45.0	219	217	36.9	0.0	0.0	0.0	9.9	5.5	1.5	90.0
2B TR-12	12.0	203	51.0	40.2	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-22	15.0	195	67.0	36.8	0.0	0.0	0.0	2.9	1.6	1.6	50.0
2B TR-32	15.0	198	67.0	37.0	0.0	0.0	0.0	3.0	1.5	1.7	50.0
2B TR-42	20.0	190	83.0	37.9	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-52	30.0	208	130	36.5	0.0	0.0	0.0	6.2	3.3	1.6	60.0
2B TR-62	35.0	216	158	36.3	0.0	0.0	0.0	7.6	4.2	1.5	70.0
2B TR-72	45.0	233	217	37.1	0.0	0.0	0.0	10.4	6.1	1.5	90.0
2B TR-13	12.0	205	51.0	40.6	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-23	15.0	208	67.0	38.8	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-33	15.0	210	67.0	39.5	0.0	0.0	0.0	3.2	1.8	1.5	50.0
2B TR-43	20.0	188	77.0	36.8	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-53	30.0	210	130	38.3	0.0	0.0	0.0	6.3	3.3	1.6	60.0
2B TR-63	35.0	221	162	39.2	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-73	45.0	217	201	39.0	0.0	0.0	0.0	9.8	5.5	1.5	90.0
2B TR-14	12.0	206	51.0	36.2	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-24	15.0	215	61.0	40.1	0.0	0.0	0.0	3.3	1.8	1.5	50.0
2B TR-34	15.0	194	61.0	37.2	0.0	0.0	0.0	2.9	1.5	1.7	50.0
2B TR-44	21.0	173	77.0	34.7	0.0	0.0	0.0	3.4	1.7	1.7	50.0
2B TR-54	30.0	211	130	38.7	0.0	0.0	0.0	6.3	3.4	1.6	60.0
2B TR-64	35.0	215	166	37.3	0.0	0.0	0.0	7.5	4.1	1.6	70.0
2B TR-74	45.0	224	209	36.0	0.0	0.0	0.0	10.1	5.6	1.5	90.0
2B TR-15	12.0	200	47.0	40.2	0.0	0.0	0.0	2.4	1.2	1.7	50.0
2B TR-25	15.0	212	67.0	39.6	0.0	0.0	0.0	3.1	1.8	1.5	50.0

Actual Values At: 5:45:00 PM

Printed At:

12/10/02

SQ 300	Amps	Volts	mA	KV	KVmin	KVpeak	Spk/Min	KVA	KW	Fm Factor	EM Limit
2B TR-35	15.0	198	67.0	37.6	0.0	0.0	0.0	3.0	1.6	1.5	50.0
2B TR-45	20.0	184	77.0	35.9	0.0	0.0	0.0	3.7	1.8	1.7	50.0
2B TR-55	30.0	220	130	39.4	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-65	35.0	221	154	39.8	0.0	0.0	0.0	7.7	4.1	1.6	70.0
2B TR-75	45.0	246	217	39.1	0.0	0.0	0.0	11.1	6.4	1.5	90.0
2B TR-16	12.0	206	51.0	40.5	0.0	0.0	0.0	2.5	1.2	1.7	50.0
2B TR-26	5.0	151	13.0	34.7	0.0	0.0	54.0	0.8	0.4	1.7	50.0
2B TR-36	15.0	204	67.0	37.6	0.0	0.0	0.0	3.1	1.7	1.5	50.0
2B TR-46	20.0	188	79.0	37.0	0.0	0.0	0.0	3.8	1.9	1.7	50.0
2B TR-56	32.0	227	130	41.3	0.0	0.0	0.0	6.6	3.5	1.6	60.0
2B TR-66	35.0	214	154	40.8	0.0	0.0	0.0	7.5	4.1	1.5	70.0
2B TR-76	45.0	254	217	40.3	0.0	0.0	0.0	11.5	6.6	1.5	90.0
Analog											
2B East	9.1	%									
2B West	10.2	%									

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA
UNIT # 2 **Date:** 12/10/02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		DB	DB	DB	DB	DB	DB
Time		09:00	09:30	10:00	10:30	11:00	11:30
Steam Flow	LB/HR x 10^6	4.64	4.73	4.64	4.65	4.72	4.72
Air Flow	%	66	66	66	66	66	66
Generator Load (Gross)	Megawatts	660	658	653	652	659	663
Boiler Thermal Demand	Megawatts	663	660	657	654	662	666
O2 Flue Gas	%	2.8	2.8	2.9	2.8	2.8	2.6
Fuel Flow	%	93.2	93.5	93.4	93.4	92.8	93.3
COAL TOTALIZER	**TONS**						
A		18819	18843	18864	18888	18909	18934
B		14847	14869	14889	14912	14930	14954
C		11306	11328	11347	11370	11388	11412
D		19605	19605	19605	19605	19605	19605
E		4637	4656	4673	4692	4708	4729
F		13055	13076	13095	13117	13135	13158
G		6612	6632	6650	6670	6687	6708

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA
UNIT # 2 **Date:** 12/10/02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		DB	DB	DB	DB	DB	DB
Time		12:00	12:30	13:00	13:30	14:00	14:30
Steam Flow	LB/HR x 10^6	4.71	4.70	4.74	4.76	4.76	4.72
Air Flow	%	67	67	67	67	68	67
Generator Load (Gross)	Megawatts	662	659	662	668	667	668
Boiler Thermal Demand	Megawatts	664	663	664	678	670	671
O2 Flue Gas	%	2.8	2.9	2.9	2.9	3.0	3.1
Fuel Flow	%	94.4	94.5	93.5	94.5	94.5	94
COAL TOTALIZER	**TONS**						
A		18954	18976	18995	19018	19040	19065
B		14971	14993	15011	15031	15052	15076
C		11428	11450	11468	11488	11509	11532
D		19605	19605	19605	19605	19605	19605
E		4742	4762	4778	4796	4814	4835
F		13172	13194	13212	13232	13252	13274
G		6728	6746	6761	6780	6800	6822

ST. JOHNS RIVER POWER PARK
BOILER CONTROL ROOM DATA
UNIT # 2 **Date:** 12/10/02

PARAMETER	UNITS	READING (30 minute intervals)					
Person Recording Data		DB	DB	DB	DB	DB	DB
Time		15:00	15:30	16:00	16:30	17:00	17:30
Steam Flow	LB/HR x 10^6	4.73	4.67	4.74	4.74	4.75	4.74
Air Flow	%	68	67	68	66	66	67
Generator Load (Gross)	Megawatts	664	657	665	667	664	670
Boiler Thermal Demand	Megawatts	667	661	668	670	667	667
O2 Flue Gas	%	3.1	3.0	3.0	2.8	2.9	3.1
Fuel Flow	%	93.9	93.4	94.2	93.9	94	93.6
COAL TOTALIZER	**TONS**						
A		19083	19107	19127	19148	19171	19191
B		15093	15115	15135	15154	15177	15196
C		11549	11572	11591	11610	11633	11651
D		19605	19605	19605	19605	19605	19605
E		4850	4870	4887	4904	4923	4940
F		13291	13312	13331	13350	13371	13389
G		6838	6859	6877	6895	6916	6933

ST. JOHNS RIVER POWER PARK
FLUE GAS DESULFURIZATION
OPERATIONAL PARAMETERS
UNIT # 2

Date: 12/10/02
Initials: BJH

HOUR	PACKING DIFFERENTIAL PRESSURE (inches H2O column)		
	A	B	C
0000			
0100			
0200			
0300			
0400			
0500			
0600			
0700			
0800	5.9	[illegible]	5.3
0900	6.0		5.6
1000	6.0		5.6
1100	6.0		5.6
1200	6.0		5.6
1300	6.0		5.6
1400	5.9		5.7
1500	5.9		5.6
1600	5.8		5.5
1700	5.9		5.6
1800			
1900			
2000			
2100			
2200			
2300			

Daily Water System Use: _____ **(Total Gallons) / 1440 (min/day) = GPM**

COMMENTS: Start 798
[illegible]
END 834