METCO ENVIRONMENTAL
P.O. Box 598
Addison, TX 75001
(972) 931-7127

SOURCE EMISSIONS SURVEY
OF
ARKANSAS POWER & LIGHT COMPANY
WHITE BLUFF PLANT
UNIT NUMBER 2 STACK (SN-02)
REDFIELD, ARKANSAS
ADEQ PERMIT 263-AOP-R3
AFIN: 35-00110
FOR
ENTERGY SERVICES, INC.

AUGUST 2005

FILE NUMBER 05-16WB2

" I certify that I have personally checked and am familiar with the information submitted herein, and based on my inquiries of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. "

James R. Monfries
Senior Quality Assurance Manager

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INTRODUCTION

METCO Environmental, P.O. Box 598, Addison, Texas, conducted a source emissions survey of Arkansas Power & Light Company, located in Redfield, Arkansas, for Entergy Services, Inc., on August 24 and 25, 2005. The purpose of these tests was to determine the concentrations of particulate matter, PM 10 particulate matter, and carbon monoxide being emitted to the atmosphere via the Unit Number 2 Stack (SN-02), in order to comply with ADEQ Permit 263-AOP-R3. The testing was performed while the unit was operating at an average heat input rate of 9,023.9 mmBtu/hr. The results demonstrated that the unit was in compliance with ADEQ Permit 263-AOP-R3.

The sampling was performed by the following METCO personnel: Jervey Cheveallier – Project Supervisor, Rodney Malone, Ben Goebel, Ryan Jones, Ben Weber, and John Branch.

The testing was observed by Ms. Sonji A. Moore of the Arkansas Department of Environmental Quality.

WB_00006293

SUMMARY OF RESULTS

Unit Number 2 Stack (SN-02)

Run Number	Front-Half Particulate Matter Emissions (gr/dscf*)	(lbs/hr)	(lbs/mmBtu)	Total Particulate Matter Emissions (gr/dscf*)	(lbs/hr)	(lbs/mmBtu)	Carbon Monoxide Emissions (dry ppm)	(lbs/hr)	(lbs/mmBtu)
1	0.0040	66.98	0.008	0.0077	128.95	0.015	3.0	25.60	0.003
2	0.0039	65.97	0.007	0.0063	105.80	0.012	4.3	36.79	0.004
3	0.0040	66.81	0.007	0.0055	91.56	0.010	5.3	44.71	0.005
Average	0.0040	66.59	0.007	0.0065	108.77	0.012	4.2	35.70	0.004
Allowable Emission Rate	----	----	0.1	----	453.0	----	----	3,247.0	----

Run Number	Front Half PM 10 Particulate Matter Emissions (gr/dscf*)	(lbs/hr)	Total PM 10 Particulate Matter Emissions (gr/dscf*)	(lbs/hr)
1	0.0015	25.77	0.0069	117.60
2	0.0006	10.33	0.0066	110.66
3	0.0004	6.05	0.0084	141.36
Average	0.0008	14.05	0.0073	123.21
Allowable Emission Rate	----	----	----	140

* 29.92 "Hg, 68°F (760 mm Hg, 20°C)

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SUMMARY OF RESULTS

Unit Number 2 Stack (SN-02)

Particulate Matter

Run Number	1	2	3
Date	08/25/05	08/25/05	08/25/05
Time	0920-1049	1215-1347	1500-1656
Stack Flow Rate - ACFM	3,542,295	3,630,278	3,593,431
Stack Flow Rate - DSCFM*	1,955,571	1,960,735	1,933,241
% Water Vapor - % Vol.	13.43	13.63	13.52
% CO_2 - % Vol.	13.1	13.6	14.3
% O_2 - % Vol.	6.0	6.0	5.3
% Excess Air @ Sampling Point	38.9	39.2	33.1
Stack Temperature - °F	346	362	364
Stack Pressure - "Hg	29.02	29.02	28.94
Percent Isokinetic	98.1	98.6	99.2
Particulate Matter Emissions Probe & Filter Catch grains/dscf*	0.0040	0.0039	0.0040
grains/cf @ Stack Conditions	0.0022	0.0021	0.0022
lbs/hr	66.98	65.97	66.81
lbs/mmBtu	0.008	0.007	0.007
Total Catch grains/dscf*	0.0077	0.0063	0.0055
grains/cf @ Stack Conditions	0.0042	0.0034	0.0030
lbs/hr	128.95	105.80	91.56
lbs/mmBtu	0.015	0.012	0.010

HI 8946.3 8028. 9126. Total Hr
0.014 0.012 0.01 Fm filt
0.007 0.007 0.007

* 29.92 "Hg, 68°F (760 mm Hg, 20°C)

SUMMARY OF RESULTS

Unit Number 2 Stack (SN-02)

Carbon Monoxide

Run Number	1	2	3
Carbon Monoxide Emissions – dry ppm	3.0	4.3	5.3
Carbon Monoxide Emissions – lbs/hr	25.60	36.79	44.71
Carbon Monoxide Emissions – lbs/mmBtu	0.003	0.004	0.005

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SUMMARY OF RESULTS

Unit Number 2 Stack (SN-02)

PM 10 Particulate Matter

Run Number	1	2	3
Date	08/25/05	08/25/05	08/25/05
Time	0920-1107	1215-1404	1500-1650
Stack Flow Rate - ACFM	3,453,495	3,542,295	3,628,980
Stack Flow Rate - DSCFM*	1,983,948	1,942,469	1,959,243
% Water Vapor - % Vol.	13.94	14.01	13.42
% CO_2 - % Vol.	13.1	13.6	14.3
% O_2 - % Vol.	6.0	6.0	5.3
Excess Air @ Sampling Point - %	38.9	39.2	33.1
Stack Temperature - °F	310	346	362
Stack Pressure - "Hg	29.02	29.02	28.94
Percent Isokinetic	90.6	99.1	95.0
Calculated Cut-Off Diameter - microns	10.5	9.9	10.2
PM 10 Particulate Matter Emissions Filter Catch grains/dscf*	0.0015	0.0006	0.0004
grains/cf @ Stack Conditions	0.0009	0.0003	0.0002
lbs/hr	25.77	10.33	6.05
Total Catch grains/dscf*	0.0069	0.0066	0.0084
grains/cf @ Stack Conditions	0.0040	0.0036	0.0045
lbs/hr	117.60	110.66	141.36

HI 8914.3 8992.1 [illegible]

* 29.92 "Hg, 68°F (760 mm Hg, 20°C)

0.013 0.012 0.015 PM10 tot

0.0029 0.001 .0006 PM10 filt