STITES & HARBISON PLLC

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March 8, 2005

Judith A. Villines
[502] 209-1230
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VIA HAND DELIVERY

Beth O'Donnell
Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602-0615

Re: Application of Kentucky Power Company for Approval of an Amended Compliance Plan for Purposes of Recovering Additional Costs of Pollution Control Facilities and to Amend its Environmental Cost Recovery Surcharge Tariff
PSC Case No. 2005-00068

Dear Ms. O'Donnell:

Please find enclosed an original and ten (10) copies of Kentucky Power Company's Application for Approval of an Amended Compliance Plan for Purposes of Recovering Additional Costs of Pollution Control Facilities and to Amend its Environmental Cost Recovery Surcharge Tariff.

If you have any questions, please let me know.

Sincerely,

STITES & HARBISON, PLLC

Judith A. Villines by MRO

Judith A. Villines

JAV:las
Enclosures

cc: Errol K. Wagner

KE057:KE113:9285:FRANKFORT

COMMONWEALTH OF KENTUCKY

BEFORE THE

PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY	)	
FOR APPROVAL OF AN	)	
AMENDED COMPLIANCE PLAN FOR PURPOSES	)	CASE NO.
OF RECOVERING ADDITIONAL COSTS OF	)	2005-00068
POLLUTION CONTROL FACILITIES AND TO AMEND ITS	)	
ENVIRONMENTAL COST RECOVERY SURCHARGE TARIFF	)	

APPLICATION, DIRECT TESTIMONY AND EXHIBITS

March 8, 2005

COMMONWEALTH OF KENTUCKY
BEFORE THE
PUBLIC SERVICE COMMISSION OF KENTUCKY

RECEIVED
MAR 0 8 2005
PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR APPROVAL OF AN AMENDED COMPLIANCE PLAN FOR PURPOSES OF RECOVERING ADDITIONAL COSTS OF POLLUTION CONTROL FACILITIES AND TO AMEND ITS ENVIRONMENTAL COST RECOVERY SURCHARGE TARIFF	)	CASE NO. 2005-00068

APPLICATION

Kentucky Power Company ("KPCo" or the "Company"), pursuant to KRS 278.183, hereby applies to the Public Service Commission for approval of its Second Amended Environmental Compliance Plan and its proposed Second Amended Environmental Surcharge Tariff (Tariff E.S.) to include the cost of pollution control projects that are required by the Federal Clean Air Act as amended and borne by the Company pursuant to FERC-approved agreements between KPCo and certain of its sister American Electric Power Company, Inc. ("AEP") operating companies. In support of this application, KPCo states as follows:

1. **Address:** The applicant's full name and post office address is: Kentucky Power Company, 101A Enterprise Drive, P.O. Box 5190, Frankfort, Kentucky 40602-5190.

2. **Articles of Incorporation:** A certified copy of the Articles of Incorporation of Kentucky Power Company, and all amendments thereto, are on file with the Commission in Case No. 99-149 as Exhibit "J" and are incorporated by reference herein.

3. KPCo is a public utility engaged in generating, transmitting and distributing electric service in 20 counties in Eastern Kentucky. The proposed environmental surcharge is for

retail service to those customers applicable to the entire territory served by KPCo as on file with the Public Service Commission.

4. KPCo is a subsidiary of AEP and is a member of the integrated AEP System – an interstate public utility holding company system registered under the Public Utility Holding Company Act of 1935, 15 U.S.C. Section 79.

5. Pursuant to KRS 278.183, KPCo is entitled to the recovery of its costs of complying with the Federal Clean Air Act as amended and those federal, state or local environmental requirements which apply to coal combustion wastes and by-products from facilities used to generate electricity from coal in accordance with KPCo's compliance plan. KPCo's environmental costs include a reasonable return on construction and other capital expenditures and reasonable operating expenses for any plant, equipment, property, facility or other cost incurred to comply with applicable environmental requirements, including all costs of operating and maintaining environmental facilities, income taxes, property taxes other applicable taxes and depreciation expense.

6. The generation of electricity through the combustion of coal produces several wastes or by-products. The primary emissions in flue gases from coal-fired boilers are sulfur dioxide (SO_2), nitrogen oxide (NO_x) and fly ash.

7. KPCo's Environmental Compliance Plan before amendment in 2002 ("Original Environmental Compliance Plan") consisted of the following components: (a) low NO_x burners at Big Sandy Unit 2; (b) low NO_x burners at Big Sandy Unit 1; (c) continuous emissions monitors at Big Sandy Plant; (d) scrubbers at Gavin Plant; (e) SO_2 allowances purchased; (f) Kentucky air emissions fee for Big Sandy Plant; (g) continuous emissions

monitors at Rockport plant; and (h) Indiana air emission fees at Rockport Plant. Each component of the Environmental Compliance Plan is necessary in order for the Company to comply with the Federal Clean Air Act as amended and those federal, state or local regulations applicable to current combustion wastes and by-products from power plants.

8. KPCo's Amended Environmental Compliance Plan of 2002 ("First Amended Environmental Compliance Plan") consisted of the items contained in the Original Environmental Compliance Plan (filed in Case No. 96-489) plus the following additional components: (a) over-fire air with water injection and boiler tube overlays at Big Sandy Unit 1; (b) precipitator improvements at Big Sandy Unit 2; (c) selective catalytic reduction (SCR) at Big Sandy Unit 2; and (d) NO_x allowances purchased. Each component of the First Amended Environmental Compliance Plan is necessary in order for the Company to comply with the Federal Clean Air Act as amended and those federal, state or local regulations applicable to current combustion wastes and by-products from power plants.

9. KPCo's Second Amended Environmental Compliance Plan, Exhibit 1 hereto, consists of the items contained in the Original Environmental Compliance Plan (filed in Case No. 96-489) and in the First Amended Compliance Plan (filed in Case No. 2002-00169) plus the additional NOx pollution control compliance technology and Title V Air Emission Fees required at the other KPCo's sister utilities in the AEP System to the extent that KPCo is responsible for the cost of those facilities through either the FERC-approved Unit Power Agreement charges for the Rockport Units or the capacity equalization charges under the FERC-approved Interconnection Agreement that governs the AEP System's Pool Capacity settlement.

10. The NO_x pollution control items set forth in Paragraph 9 and included in KPCo's Second Amended Environmental Compliance Plan are necessary for compliance with regulations promulgated by the United States Environmental Protection Agency pursuant to the Federal Clean Air Act ("the Act") as amended and with state regulations promulgated in conformity with the Act.

11. A detailed statement of the facts and compliance requirements supporting this application is set forth in the Company's direct testimony and exhibits of Company witnesses Errol K. Wagner and John M. McManus which accompany this application and by this reference are incorporated herein.

12. The proposed Revised Environmental Surcharge Tariff, the Second Amended Environmental Compliance Plan, and a complete copy of this Application and supporting testimony and exhibits are available for public inspection at the Frankfort, Ashland, Hazard and Pikeville offices of KPCo. The company is giving notice to the public of the proposed environmental surcharge by newspaper publication. An initial Certificate of Notice and Publication is filed with this application, Exhibit 2, hereto, and a Certificate of Completed Notice and Publication will be filed with the Commission upon the completion of this notice.

13. The proposed Second Amended Tariff E.S.-First Revised Sheet No. 23-1, and Second Revised Sheet No. 23-2, Exhibit 3 hereto, will allow the Company to recover the costs of complying with the Federal Clean Air Act as amended at facilities used to generate electricity from coal for KPCo in accordance with the Company's Second Amended Environmental Compliance Plan.

14. KPCo's total additional environmental cost for the projects at the AEP System plants in the Second Amended Environmental Compliance Plan is approximately $2.8 Million. The projected annual revenue requirement for the new projects is $1.9 Million which represents an increase of less than 1% (approximately 0.61%) for Kentucky retail customers.

WHEREFORE, pursuant to KRS 278.183, KPCo hereby requests the Commission to approve the proposed Second Amended Environmental Compliance Plan and proposed Tariff E. S., Sheet Nos. 23-1 and 23-2 to become effective for bills rendered on and after April 29, 2005.

Respectfully submitted,

Judith A. Villines

Judith A. Villines
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Kevin F. Duffy
AMERICAN ELECTRIC POWER
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Columbus, Ohio 43215
Telephone: 614-223-1000

COUNSEL FOR:
KENTUCKY POWER COMPANY

Kentucky Power Company's
Second Amended Environmental Compliance Plan
Pursuant to KRS 278.183

Project	Pollutant	Description	Year
1	NOx	Low NOx Burners at Big Sandy Unit 2	1994
2	NOx	Low NOx Burners at Big Sandy Unit 1	1998
3	SO_2/NOx	Continuous Emission Monitors at Big Sandy Plant	1994
4	SO_2	Scrubbers at Gavin Plant	1995
5	SO_2	SO_2 Allowances Purchased	1995
6	SO_2/NOx/ Particulates	Kentucky Air Emissions Fee for Big Sandy Plant	Annual
7	SO_2/NOx	Continuous Emission Monitors at Rockport Plant	1994
8	SO_2/NOx/ Particulates	Indiana Air Emission Fee at Rockport Plant	Annual
9	NOx	Over-Fire Air Water Injection w/Boiler Tubes Overlays at Big Sandy Unit l	2002
10	Particulates	Precipitator Improvements at Big Sandy Unit 2	2002
11	NOx	Selective Catalytic Reduction at Big Sandy Unit 2	2003
12	NOx	NOx Allowances Purchased	2004
		Kentucky Power's share of the Pool Capacity Costs associated with the following:	
13	SO_2/NOx/ Particulates	Amos Unit No. 3 CEMS, Low NOx Burners and SCR	1995-98-2003
14	SO_2/NOx/ Particulates	Cardinal Unit No 1 CEMS, Low NO_x Burners, SCR and associated SO_3 Mitigation System	1994-1998-2003-2004
15	NOx	Gavin Plant SCR, SCR Catalyst Replacement and SO_3 Mitigation System	2005
16	NOx	Gavin Unit No 1 and 2 Low NOx Burners	1999
17	SO_2/NOx/ Particulates	Kammer Unit Nos 1,2 and 3 CEMS, Over Fire Air and Duct Modification	1999-2003
18	NOx	Mitchell Unit Nos 1 and 2 Water Injection, Low NOx Burners and Low NOx Burner Modification	1993-1994-2002-2004
19	SO_2/NOx/ Particulates	Mitchell Plant Common CEMS, Replace Burner Barrier Valves	1993-2004
20	NOx	Muskingum River Unit No 1 Low NOx Ductwork, Over Fire Air, Over Fire Air Modification, Water Injection and Water Injection Modification	2000-2003-2004
21	NOx	Muskingum River Unit No 2 Low Lox Ductwork, Over Fire Air, Over Fire Air Modification and Water Injection	2000-2004
22	NOx	Muskingum River Unit 3 Over Fire, Over Fire Air Modification with NOx Instrumentation	2000-2003-2004
23	NOx	Muskingum River Unit No 4 Over Fire Air with Modification	2000-2004
24	SO_2/NOx	Muskingum River Unit No 5 Low NOx Burner with Modification and Weld Overlays and an SCR	1994-2004-2005

Project	Pollutant	Description	Year
25	SO_2/NOx/ Particulates	Muskingum River Common CEMS	1993
26	NOx	Phillip Sporn Unit No 2 Low NOx Burners with Modifications	1997-2003
27	NOx	Phillip Sporn Unit No 4 and 5 Low NOx Burners and Modulating Inject. Air System with Modifications	1998-1999-2004
28	SO_2/NOx/ Particulates	Phillip Sporn Common CEMS and SO_3	1994-2003
29	NOx	Rockport Unit No 1 and 2 Low NOx Burners	2003-2004
30	NOx	Tanners Creek Unit No 1 Low NOx Burners with Modifications and Low NOx Burners Leg Replacements	1995-2004
31	NOx	Tanners Creek Unit No 2 and 3 Low NOx Burners with Modifications	1998-1999-2003-2004
32	NOx/Particulates	Tanners Creek Unit No 4 Over Fire Air, Low NOx Burners and ESP Controls Upgrade	2002-2004
33	SO_2/NOx/ Particulates	Tanners Creek Common CEMS	1995-1996
34	SO_2/NOx/ Particulates/VOC and etc.	Title V Air Emission Fees at Amos, Cardinal, Gavin, Kammer, Mitchell, Muskingum River, Phillip Sporn. Rockport and Tanners Creek plants	Annual

NOTICE TO CUSTOMERS
OF
KENTUCKY POWER COMPANY
PROPOSED CHANGES TO THE ENVIRONMENTAL SURCHARGE TARIFF

PLEASE TAKE NOTICE that on March 7, 2005, Kentucky Power Company (KPCo) will file with the Kentucky Public Service Commission (the Commission) in Case No. 2005-00068 an Application pursuant to Kentucky Revised Statutes 278.183 for authorization to make changes to the environmental surcharge for customer bills rendered on and after April 29, 2005 in accordance with proposed changes to Tariff E.S. KPCo is requesting the Commission to approve the proposed changes to the Tariff E.S. This tariff contains the environmental surcharge ratemaking formula and other terms and conditions. The proposed changes, if approved, will allow KPCo to apply a surcharge to all customer bills rendered on and after April 29, 2005 to recover additional cost of complying with the Federal Clean Air Act and other federal and state or local environmental requirements which apply to coal combustion wastes and by-products from facilities utilized for the production of energy from coal in accordance with KPCo's environmental compliance plan.

The full terms and conditions and ratemaking formula of Tariff E.S. are set forth below:

APPLICABLE.

To Tariffs R.S., R.S.-L.M.-T.O.D., Experimental R.S.-T.O.D., S.G.S., M.G.S., Experimental M.G.S.-T.O.D., L.G.S., Q.P., C.I.P.-T.O.D., C.S.- I.R.P., M.W., O.L., and S.L.

RATE.

1. The environmental surcharge shall provide for periodic adjustments based on a percent of revenues equal to the difference between the environmental compliance costs in the base period and in the current period according to the following formula:

$$\text{Monthly Environmental Surcharge Factor} = \frac{\text{Net KY Retail E(m)}}{\text{KY Retail R(m)}}$$

Where:

Net KY Retail E(m) = Monthly E(m) allocated to Kentucky Retail Customers, net of Over/(Under) Recovery Adjustment; Allocation based on Percentage of Kentucky Retail Revenues to Total Company Revenues in the Expense Month

(For purposes of this formula, Total Company Revenues do not include Non-Physical Revenues.)

KY Retail R(m) = Kentucky Retail Revenues for the Expense Month

2. Monthly Environmental Surcharge Gross Revenue Requirement, E(m)

E(m) = CRR - BRR

Where:

CRR = Current Period Revenue Requirement for the Expense Month

BRR = Base Period Revenue Requirement

3. Base Period Revenue Requirement, BRR

$$BRR = ((RB_{KP(B)})(ROR_{KP(B)})/12) + OE_{KP(B)} + [((RB_{IM(B)})(ROR_{IM(B)})/12) + OE_{IM(B)}](.15)$$

Where:

$RB_{KP(B)}$ = Environmental Compliance Rate Base For Big Sandy

$ROR_{KP(B)}$	=	Annual Rate of Return on Big Sandy Rate Base; Annual Rate divided by 12 to restate to a Monthly Rate of Return
$OE_{KP(B)}$	=	Monthly Pollution Control Operating Expenses for Big Sandy
$RB_{IM(B)}$	=	Environmental Compliance Rate Base for Rockport
$ROR_{IM(B)}$	=	Annual Rate of Return on Rockport Rate Base; Annual Rate divided by 12 to restate to a Monthly Rate of Return
$OE_{IM(B)}$	=	Monthly Pollution Control Operating Expenses for Rockport

"KP(B)" identifies components from the Big Sandy Units – Base Period, and "IM(B)" identifies components from the Indiana Michigan Power Company's Rockport Units – Base Period.

The Rate Base for both Kentucky Power and Rockport should reflect the account balances as of December 31, 1990. The Operating Expense amounts should reflect the December 1990 expense. The amounts reflect retirements of replacements resulting from the 1997 Plan, the 2003 Plan and the 2005 Plan.

The Rate of Return for Kentucky Power is a weighted average cost of capital calculation, reflecting the cost of debt as of December 31, 1990 and the rate of return on common equity authorized in Case No. 1996-00489. The Kentucky Power component in the Base Period Revenue Requirement is a result of the adoption of the settlement agreement in Case No. 1999-00149. As Kentucky Power's last general rate case had been settled, Kentucky Power proposed and the Commission accepted the use of the rate of return on common equity established in Case No. 1996-00489.

The Rate of Return for Rockport should reflect the requirements of the Rockport Unit Power Agreement.

The Base Period Revenue Requirement will remain fixed until either a) a 2-year review case results in the roll-in of the surcharge into existing base rates, or b) further retirements or replacements of pollution control utility plant occur due to the installation of new pollution control utility plant associated with the approved compliance plan.

4. Current Period Revenue Requirement, CRR

$$CRR=((RB_{KP(C)})(ROR_{KP(C)}/12)) + OE_{KP(C)} + [((RB_{IM(c)}) (ROR_{IM(c)}/12) + OE_{IM(c)}] (.15)-AS$$

Where:

$RB_{KP(c)}$	=	Environmental Compliance Rate Base for Big Sandy.
$ROR_{KP(c)}$	=	Annual Rate of Return on Big Sandy Rate Base Annual Rate divided by 12 to restate to a Monthly Rate of Return.
$OE_{KP(C)}$	=	Monthly Pollution Control Operating Expenses for Big Sandy.
$RB_{IM(C)}$	=	Environmental Compliance Rate Base for Rockport.
$ROR_{IM(C)}$	=	Annual Rate of Return on Rockport Rate Base; Annual Rate divided by 12 to restate to a Monthly Rate of Return.
$OE_{IM(C)}$	=	Monthly Pollution Control Operating Expenses for Rockport.

AS = Net proceeds from the sale of SO_2 emission allowances, ERCs, and NO_x emission allowances reflected in the month of receipt. The SO_2 allowance sales can be from either EPA Auctions or the AEP Interim Allowance Agreement Allocations.

"KP(C)" identifies components from the Big Sandy Units-Current Period, and "IM(C)" identifies components from the Indiana Michigan Power Company's Rockport Units- Current Period.

The Rate Base for both Kentucky Power and Rockport should reflect the current costs associated with the 1997 Plan, the 2003 Plan and the 2005 Plan. The Rate Base for Kentucky Power should also include a cash working capital allowance based on the 1/8 formula approach, due to the inclusion of Kentucky Power's accounts receivable financing in the capital structure and weighted average cost of capital. The Operating Expenses for both Kentucky Power and Rockport should reflect the current operating expenses associated with the 1997 Plan, the 2003 Plan, and the 2005 Plan.

The Rate of Return for Kentucky Power is the weighted average cost of capital as authorized by the Commission in Case No. 2002-00169.

The Rate of Return for Rockport should reflect the requirements of the Rockport Unit Power Agreement.

Net Proceeds from the sale of emission allowances and ERCs that reflect net gains will be a reduction to the Current Period Revenue Requirement, while net losses will be an increase.

The Current Period Revenue Requirement will reflect the balances and expenses as of the Expense Month of the filing.

5. Environmental costs "E" shall be the Company's costs of compliance with the Clean Air Act and those environmental requirements shall apply to coal combustion wastes and by-products, as follows:

    (a) cost associated with Continuous Emission Monitors (CEMS)

    (b) costs associated with the terms of the Rockport Unit Power Agreement

    (c) the Company's share of the pool capacity costs associated with Gavin scrubber(s)

    (d) return on SO_2 allowance inventory

    (e) costs associated with air emission fees

    (f) over/under recovery balances between the actual costs incurred less the amount collected through the environmental surcharge

    (g) costs associated with any Commission's consultant approved by the Commission

    (h) costs associated with Low Nitrogen Oxide (NO_x) burners at the Big Sandy Generating Plant

    (i) costs associated with the consumption of SO_2 allowances

    (j) costs associated with the SCR at the Big Sandy Generating Plant

    (k) costs associated with the upgrade of the precipitator at the Big Sandy Generating Plant

(l) costs associated with the over-fire air with water injection at the Big Sandy Generating Plant

(m) costs associated with the consumption of NO_x allowances

(n) return on NO_x allowance inventroy

(o) 25% of the costs associated with the Reverse Osmosis Water System (the amount is subject to adjustment at subsequent 6 month surcharge reviews based on the documented utilization of the RO Water System by the SCR)

(p) costs associated with operating approved pollution control equipment

(q) costs associated with maintaining approved pollution control equipment including material and contract labor (excluding plant labor)

(r) the Company's share of the pool capacity costs associated with the following

- Amos Unit No 3 CEMS, Low NO_x Burners and SCR
- Cardinal Unit No 1 CEMS, Low NO_x Burners, SCR and associated SO_3 Mitigation System
- Gavin Plant SCR, SCR Catalyst Replacement and SO_3 Mitigation System
- Gavin Unit Nos 1 and 2 Low NOx Burners
- Kammer Unit Nos 1, 2 and 3 CEMS, Over Fire Air and Duct Modification
- Mitchell Unit Nos 1 and 2 Low NOx Burners and Low NOx Burner Modification. Unit No. 1 Water Injection
- Mitchell Plant Common CEMS, Replace Burner Barrier Valves
- Muskingum River Unit No 1 Low NOx Ductwork, Over Fire Air, Over Fire Air Modification, Water Injection and Water Injection Modification
- Muskingum River Unit No 2 Low NOx Ductwork, Over Fire Air, Over Fire Air Modification and Water Injection
- Muskingum River Unit No 3 Over Fire Air, Over Fire Air Modification with NOx Instrumentation
- Muskingum River Unit No 4 Over Fire Air with Modification
- Muskingum River Unit No 5 Low NOx Burner with Modification and Weld Overlays and an SCR
- Muskingum River Common CEMS
- Phillip Sporn Unit No 2 Low NOx Burners with Modifications
- Phillip Sporn Unit Nos 4 and 5 Low NOx Burners and Modulating Injection Air System with Modifications
- Phillip Sporn Common CEMS and SO_3 injection system
- Rockport Unit Nos 1 and 2 Low NOx Burners

- Tanners Creek Unit No 1 Low NOx Burners, with Modifications and Low NOx Burners Leg Replacement

- Tanners Creek Unit Nos 2 and 3 Low NOx Burners with Modifications

- Tanners Creek Unit No 4 Over Fire Air, Low NOx Burners and ESP Controls Upgrade

- Tanner Creek Common CEMS.

6. The monthly environmental surcharge shall be filed with the Commission ten (10) days before it is scheduled to go into effect, along with all necessary supporting data to justify the amount of the adjustments which shall include data and information as may be required by the Commission.

****

The changes to Tariff E.S. contained in this notice are proposed by KPCo. The estimated effect of the proposed changes to the environmental surcharge tariff for a residential customer using an average of 1,000 kWh per month would increase a customer's bill $0.34 per month, or approximately 0.6 percent. However, the Public Service Commission may order changes to Tariff E.S. to be different from the proposed changes. Such action may result in a change in the environmental surcharge amount for customers to be different than the environmental surcharge amounts in this notice.

Any corporation, association, body politic or person may, by motion within thirty (30) days after publication or mailing of notice of the proposed changes to the environmental surcharge tariff, request leave to intervene in Case NO. 2005-00068. That motion shall be submitted to the Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602-0614, and shall set forth the grounds for the request including the status and interest of the party.

Intervenors may obtain copies of the Application and testimony by contacting Kentucky Power Company at 101A Enterprise Drive, P.O. Box 5190 Frankfort, Kentucky 40602-5190, attention Errol K. Wagner. A copy of the Application and testimony is available for public inspection at KPCo's district service buildings located in Ashland, Hazard and Pikeville.

American Electric Power

2nd Revised SHEET NO. 23-1
CANCELING 1st Revised SHEET NO. 23-1

P.S.C. Electric No. 7

APPLICABLE.

To Tariffs R.S., R.S.-L.M.-T.O.D., Experimental R.S.-T.O.D., S.G.S., M.G.S., Experimental M.G.S.-T.O.D., L.G.S., Q.P., C.I.P.-T.O.D., C.S.- I.R.P., M.W., O.L., and S.L.

RATE.

1. The environmental surcharge shall provide for periodic adjustments based on a percent of revenues equal to the difference between the environmental compliance costs in the base period and in the current period according to the following formula:

$$\text{Monthly Environmental Surcharge Factor} = \frac{\text{Net KY Retail E(m)}}{\text{KY Retail R(m)}}$$

Where:

Net KY Retail E(m) = Monthly E(m) allocated to Kentucky Retail Customers, net of Over/(Under) Recovery Adjustment; Allocation based on Percentage of Kentucky Retail Revenues to Total Company Revenues in the Expense Month.

(For purposes of this formula, Total Company Revenues do not include Non-Physical Revenues.)

KY Retail R(m) = Kentucky Retail Revenues for the Expense Month.

2. Monthly Environmental Surcharge Gross Revenue Requirement, E(m)

$$E(m) = CRR - BRR$$

Where:

CRR = Current Period Revenue Requirement for the Expense Month.

BRR = Base Period Revenue Requirement.

3. Base Period Revenue Requirement, BRR

$$BRR = ((RB_{KP(B)})(ROR_{KP(B)})/12) + OE_{KP(B)} + [((RB_{IM(B)})(ROR_{IM(B)})/12) + OE_{IM(B)}](.15)$$

Where:

$RB_{KP(B)}$ = Environmental Compliance Rate Base for Big Sandy

$ROR_{KP(B)}$ = Annual Rate of Return on Big Sandy Rate Base; Annual Rate divided by 12 to restate to a Monthly Rate of Return.

$OE_{KP(B)}$ = Monthly Pollution Control Operating Expenses for Big Sandy.

$RB_{IM(B)}$ = Environmental Compliance Rate Base for Rockport

$ROR_{IM(B)}$ = Annual Rate of Return on Rockport Rate Base; Annual Rate divided by 12 to restate to a Monthly Rate of Return.

$OE_{IM(B)}$ = Monthly Pollution Control Operating Expenses for Rockport.

"KP(B)" identifies components from the Big Sandy Units – Base Period, and "IM(B)" identifies components from the Indiana Michigan Power Company's Rockport Units – Base Period.

The Rate Base for both Kentucky Power and Rockport should reflect the account balances as of December 31, 1990. The Operating Expense amounts should reflect the December 1990 expense. The amounts reflect retirements or replacements resulting from the 1997 Plan, the 2003 Plan and the 2005 Plan. (T)

(Continued on Sheet 23-2)

DATE OF ISSUE March 8, 2005 BILLS RENDERED ON OR AFTER April 29, 2005

E.K. Wagner

ISSUED BY E.K. WAGNER DIRECTOR OF REGULATORY SERVICES FRANKFORT, KENTUCKY
NAME TITLE ADDRESS

Issued by authority of an Order of the Public Service Commission in Case No. 2005-00068 dated

ENVIRONMENTAL SURCHARGE (E.S.)

RATE (Cont'd)

The Rate of Return for Kentucky Power is a weighted average cost of capital calculation, reflecting the cost of debt as of December 31, 1990 and the rate of return on common equity authorized in Case No. 1996-00489. The Kentucky Power component in the Base Period Revenue Requirement is a result of the adoption of the settlement agreement in Case No. 1999-00149. As Kentucky Power's last general rate case had been settled, Kentucky Power proposed and the Commission accepted the use of the rate of return on common equity established in Case No. 1996-00489.

The Rate of Return for Rockport should reflect the requirements of the Rockport Unit Power Agreement.

The Base Period Revenue Requirement will remain fixed until either a) a 2-year review case results in the roll-in of the surcharge into existing base rates, or b) further retirements or replacements of pollution control utility plant occur due to the installation of new pollution control utility plant associated with the approved compliance plan.

4. Current Period Revenue Requirement, CRR

$$CRR=((RB_{KP(C)})(ROR_{KP(C)})/12) + OE_{KP(C)} + [((RB_{IM(C)}) (ROR_{IM(C)})/12) + OE_{IM(C)}] (.15) - AS$$

Where:

$RB_{KP(C)}$	=	Environmental Compliance Rate Base for Big Sandy.
$ROR_{KP(C)}$	=	Annual Rate of Return on Big Sandy Rate Base; Annual Rate divided by 12 to restate to a Monthly Rate of Return.
$OE_{KP(C)}$	=	Monthly Pollution Control Operating Expenses for Big Sandy.
$RB_{IM(C)}$	=	Environmental Compliance Rate Base for Rockport.
$ROR_{IM(C)}$	=	Annual Rate of Return on Rockport Rate Base; Annual Rate divided by 12 to restate to a Monthly Rate of Return.
$OE_{IM(C)}$	=	Monthly Pollution Control Operating Expenses for Rockport.
AS	=	Net proceeds from the sale of SO_2 emission allowances, ERCs, and NOx emission allowances, reflected in the month of receipt. The SO_2 allowance sales can be from either EPA Auctions or the AEP Interim Allowance Agreement Allocations.

"KP(C)" identifies components from the Big Sandy Units – Current Period, and "IM(C)" identifies components from the Indiana Michigan Power Company's Rockport Units – Current Period.

The Rate Base for both Kentucky Power and Rockport should reflect the current costs associated with the 1997 Plan, the 2003 Plan and the 2005 Plan. The Rate Base for Kentucky Power should also include a cash working capital allowance based on the 1/8 formula approach, due to the inclusion of Kentucky Power's accounts receivable financing in the capital structure and weighted average cost of capital. The Operating Expenses for both Kentucky Power and Rockport should reflect the current operating expenses associated with the 1997 Plan, the 2003 Plan and the 2005 Plan. (T)

The Rate of Return for Kentucky Power is the weighted average cost of capital as authorized by the Commission in Case No. 2002-00169.

(Cont'd on Sheet 23-3)

DATE OF ISSUE March 8, 2005 BILLS RENDERED ON OR AFTER April 29, 2005

ISSUED BY E.K. WAGNER DIRECTOR OF REGULATORY SERVICES FRANKFORT, KENTUCKY
NAME TITLE ADDRESS

Issued by authority of an Order of the Public Service Commission in Case No. 2005-00068 dated

ENVIRONMENTAL SURCHARGE (E.S.)

RATE (Cont'd)

The Rate of Return for Rockport should reflect the requirements of the Rockport Unit Power Agreement.

Net Proceeds from the sale of emission allowances and ERCs that reflect net gains will be a reduction to the Current Period Revenue Requirement, while net losses will be an increase.

The Current Period Revenue Requirement will reflect the balances and expenses as of the Expense Month of the filing.

5. Environmental costs "E" shall be the Company's costs of compliance with the Clean Air Act and those environmental requirements that apply to coal combustion wastes and by-products, as follows:

(a) cost associated with Continuous Emission Monitors (CEMS)

(b) costs associated with the terms of the Rockport Unit Power Agreement

(c) the Company's share of the pool capacity costs associated with Gavin scrubber(s)

(d) return on SO_2 allowance inventory

(e) costs associated with air emission fees

(f) over/under recovery balances between the actual costs incurred less the amount collected through the environmental surcharge

(g) costs associated with any Commission's consultant approved by the Commission

(h) costs associated with Low Nitrogen Oxide (NO_x) burners at the Big Sandy Generating Plant

(i) costs associated with the consumption of SO_2 allowances

(j) costs associated with the Selective Catalytic Reduction (SCR) at the Big Sandy Generating Plant (T)

(k) costs associated with the upgrade of the precipitator at the Big Sandy Generating Plant

(l) costs associated with the over-fire air with water injection at the Big Sandy Generating Plant

(m) costs associated with the consumption of NO_x allowances

(n) return on NO_x allowance inventory

(o) 25% of the costs associated with the Reverse Osmosis Water System (the amount is subject to adjustment at subsequent 6 month surcharge reviews based on the documented utilization of of the RO Water System by the SCR)

(p) costs associated with operating approved pollution control equipment

(Cont'd on Sheet 23-4)

DATE OF ISSUE March 8, 2005 BILLS RENDERED ON OR AFTER April 29, 2005

ISSUED BY E.K. Wagner E. K. WAGNER DIRECTOR OF REGULATORY SERVICES FRANKFORT, KENTUCKY
NAME TITLE ADDRESS

Issued by authority of an order of the Public Service Commission in Case No. 2005-00068 dated

ENVIRONMENTAL SURCHARGE (E.S.)

(q) costs associated with maintaining approved pollution control equipment including material and contract labor (excluding plant labor)

(r) the Company's share of the pool Capacity costs associated with the following:

- Amos Unit No. 3 CEMS, Low NO_x Burners and SCR (T)
- Cardinal Unit No 1 CEMS, Low NO_x Burners, SCR and associated SO_3 Mitigation System (T)
- Gavin Plant SCR, SCR Catalyst Replacement and SO_3 Mitigation System (T)
- Gavin Unit No 1 and 2 Low NO_x Burners (T)
- Kammer Unit Nos 1,2 and 3 CEMS, Over Fire Air and Duct Modification (T)
- Mitchell Unit Nos 1 and 2 Water Injection, Low NO_x burners and Low NO_x burner Modification (T)
- Mitchell Plant Common CEMS, Replace Burner Barrier Valves (T)
- Muskingum River Unit No 1 Low NO_x Ductwork, Over Fire Air , Over Fire Air Modification, Water Injection and Water Injection Modification (T)
- Muskingum River Unit No 2 Low NO_x Ductwork, Over Fire Air, Over Fire Air Modification and Water Injection (T)
- Muskingum River Unit No 3 Over Fire Air, Over Fire Air Modification with NO_x Instrumentation (T)
- Muskingum River Unit No 4 Over Fire Air with Modification (T)
- Muskingum River Unit No 5 Low NO_x Burner with Modification and Weld Overlays and an SCR (T)
- Muskingum River Common CEMS (T)
- Phillip Sporn Unit No 2 Low NO_x Burners with Modifications (T)
- Phillip Sporn Unit No 4 and 5 Low NO_x Burners and Modulating Injection Air system with Modifications (T)
- Phillip Sporn Common CEMS and SO_3 injection system (T)
- Rockport Unit No 1 and 2 Low NO_x Burners (T)

(Cont'd on Sheet 23-5)

DATE OF ISSUE March 8, 2005 BILLS RENDERED ON OR AFTER April 29, 2005

ISSUED BY E. K. WAGNER DIRECTOR OF REGULATORY SERVICES FRANKFORT, KENTUCKY
NAME TITLE ADDRESS

Issued by authority of an order of the Public Service Commission in Case No. 2005-00068 dated

American Electric Power

ORIGINAL SHEET NO. 23-5
CANCELING__________SHEET NO. 23-5

P.S.C. Electric No. 7

ENVIRONMENTAL SURCHARGE (E.S.)

- Tanners Creek Unit No 1 Low NO_x Burners, with Modifications and Low NO_x Burners Leg Replacement (T)
- Tanners Creek Unit No 2 and 3 Low NO_x Burners with Modifications (T)
- Tanners Creek Unit No 4 Over Fire Air, Low NO_x Burners and ESP Controls Upgrade (T)
- Tanners Creek Common CEMS (T)
- Title V Air Emission Fees at Amos, Cardinal, Gavin, Kammer, Mitchell, Muskingum River, Phillip Sporn, Rockport and Tanners Creek plants. (T)

6. The monthly environmental surcharge shall be filed with the Commission ten (10) days before it is scheduled to go into effect, along with all necessary supporting data to justify the amount of the adjustments which shall include data and information as may be required by the Commission.

DATE OF ISSUE March 8, 2005 BILLS RENDERED ON OR AFTER April 29, 2005

ISSUED BY E. K. WAGNER DIRECTOR OF REGULATORY SERVICES FRANKFORT, KENTUCKY
NAME TITLE ADDRESS

Issued by authority of an order of the Public Service Commission in Case No. 2005-00068 dated

COMMONWEALTH OF KENTUCKY

BEFORE THE

PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF

KENTUCKY POWER COMPANY'S SECOND	)	
AMENDED ENVIRONMENTAL COMPLIANCE	)	**Case No. 2005-00068**
PLAN AND SECOND REVISED TARIFF	)	

DIRECT TESTIMONY

OF

JOHN M MCMANUS

March 8, 2005

DIRECT TESTIMONY OF
JOHN M. MCMANUS, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Q: Please state your name, position and business address.

A: My name is John M. McManus. I am Vice President of the Environmental Services Division of the American Electric Power Service Corporation. The American Electric Power Service Corporation (AEPSC) is a wholly owned subsidiary of American Electric Power Company, Inc. (AEP) the parent of Kentucky Power Company (KPCo). My business address is 1 Riverside Plaza, Columbus, Ohio 43215.

Q: Please describe your work experience.

A: I earned a Bachelor of Science Degree in Environmental Engineering from Rensselaer Polytechnic Institute in 1976 and undertook graduate studies at the same location from 1976-77. I joined the AEPSC Environmental Engineering Division in September 1977. After holding various positions in the environmental division over the years, I was appointed as Manager-Environmental Services in December 2002 and remained in that position until April 2003. I was appointed to my current position as Vice President of Environmental Services in April 2003. In my current position, I am responsible for oversight of environmental support for all AEP generation and energy delivery facilities. I am the Company's listed Designated Representative on Title IV Acid Rain Program matters and the listed NO_x Authorized Account Representative on NO_x SIP Call Program matters. I am also a registered professional engineer in the State of Ohio.

Q: What are your responsibilities as Vice President of Environmental Services?

A: As Vice President of the Environmental Services Department (ESD), I am responsible for leading the Department by providing overall management guidance, as well as developing and implementing a Department business plan that will enable my staff to fulfill our Department's responsibilities. The ESD has the responsibility to provide policy and technical guidance in all aspects of environmental compliance for the AEP generation fleet and Transmission and Distribution (T&D) operations. The ESD provides cost-effective and timely compliance solutions and guidance on complex environmental permitting and regulatory issues in the areas of air emissions, water quality and waste management. The ESD is also charged with developing appropriate policy guidance and directives, preparing procedure and program manuals and training materials consistent with applicable regulations. ESD is also the primary contact with regulatory agency personnel to resolve compliance issues, new regulation development, and permit applications. ESD helps to establish the appropriate standard of care that goes beyond minimum compliance requirements where cost-effective solutions can be deployed to the benefit of our customers, communities and shareholders.

Q: What is the purpose of your current testimony?

A: The purpose of my current testimony is to describe to the Commission the regulatory programs for reduction of emissions of nitrogen oxides (NO_x), for federal Title V operating permits, and for state implementation of the national ambient air quality particulate standards with which the surplus Companies in the

AEP Interconnection Agreement (Ohio Power Company and Indiana Michigan Power Company) must comply and to describe why the projects in the Company's proposed Second Amended Environmental Compliance Plan are needed to meet these Clean Air Act (CAA) requirements.

Q: How are your responsibilities as Designated Representative (D.R.) under the Title IV Acid Rain Program and Authorized Account Representative (A.A.R) under the NO_x SIP Call Program related to the power plants and associated environmental facilities addressed in the Company's Second Amended Environmental Compliance Plan?

A: As both the Designated Representative and the Authorized Account Representative, I am the person legally authorized to represent each of the affected facilities in matters related to the Title IV Acid Rain Program and the NO_x SIP Call Program, respectively. My duties as the D.R. and A.A.R for the Ohio Power Company and Indiana Michigan Power Company affected sources include not only participating in the development of environmental compliance plans for those facilities, but also certifying compliance with the Title IV Acid Rain Program and NO_x SIP Call Program for those facilities.

Q: Have you testified in a hearing before this Commission previously?

A: Yes. I provided both written and oral testimony on behalf of Kentucky Power Company in Case No. 96-489, the Company's first environmental surcharge case. The testimony in that case was related to environmental facilities installed at Big Sandy Plant in support of the Title IV Acid Rain Program.

Q: Have you previously provided written testimony to this Commission concerning KPCo's NO_x compliance plan?

A: Yes. I provided written testimony in April 2001 in the Certificate of Public Convenience and Necessity Case No. 2001-093.

Q: What did the Case No. 2001-093 testimony address?

A: That testimony addressed the CAA's regulatory requirements for NO_x under the NO_x SIP Call and the need for installation of an SCR on Big Sandy Unit 2 in order to meet those NO_x emission control requirements.

Q: Have you previously provided other testimony to this Commission concerning KPCo's NO_x compliance plan?

A: Yes. I provided both written and oral testimony in Kentucky Power Company's September 2002 environmental surcharge Case No. 2002-00169.

Q: What did the Case No. 2002-00169 testimony address?

A: That testimony was principally related to environmental facilities installed at the Big Sandy Plant in response to the NO_x SIP Call. The testimony addressed: 1) regulatory programs for reduction of emissions of nitrogen oxides (NO_x) with which the Company's Big Sandy Plant must comply; 2) the selection process for the NO_x controls that were included in the Amended Environmental Compliance Plan currently on file with the Commission; 3) why the projects in the Company's First Amended Environmental Compliance Plan were needed to meet CAA requirements; and 4) the operation of the NO_x allowance program, including the benefits from early compliance.

Q: Can you describe the type of environmental facilities that are the subject of this current testimony?

A: Yes, the types of environmental facilities that AEP has installed are Low NO_x Burners (LNB), Over Fire Air (OFA) NO_x Control Systems, Water Injection NO_x Control Systems, and Selective Catalytic Reduction (SCR) Systems. Furthermore, additional installations included an upgrade to an electrostatic precipitator (ESP) control system, additional NO_x reduction related instrumentation, stack flue gas Continuous Emissions Monitoring Systems, and a flue gas conditioning system.

Q: Please describe, in general, a low NO_x burner system.

A: A low NO_x burner system on a coal-fired furnace utilizes coal burners that have a split air supply used to stage the combustion of coal. These multiple register systems create a high-temperature, fuel-rich zone near the outlet of the burner nozzle and then use air injected into the furnace through outer rings of the burner to mix with the flame deeper into the furnace. NO_x formed during the initial combustion of coal is decomposed in these deeper stages of combustion.

Q: Please describe, in general, the Over Fire Air (OFA) NO_x Control Systems.

A: OFA uses a process to stage combustion of coal to reduce NO_x formation in the furnace. This is accomplished by installing ports for additional combustion air in the upper furnace above the existing coal burners. The quantity of air delivered to the existing burners is significantly reduced thereby placing the initial combustion process in a 'fuel rich' environment. This condition suppresses the flame temperature and creates limited availability of free oxygen resulting in reduced NO_x formation. The new upper furnace ports then provide the air needed to complete combustion when the partially burned fuel passes through this 'air rich' zone. The increased time for complete combustion allows for additional cooling of the combustion gases above the burner zone and assures near complete burnout of the combustion products in a safe and controllable manner.

Q: Please describe, in general, a water injection NO_x control system.

A: Water injection NO_x control systems use water to attemperate the peak flame temperature in the furnace. Cooling the peak flame temperature helps to reduce NO_x formation.

Q: Please describe, in general, the SCR compliance option.

A: SCR uses a catalyst that, in the presence of ammonia, will convert NO_x to nitrogen gas and water vapor. The use of a catalyst provides a much higher reagent efficiency and high NO_x control efficiency (greater than 85% NO_x reduction). While it is the most capital-intensive technology, SCR provides the highest control level for coal-fired units.

Q: Please list the generating plants for which these environmental facilities have been implemented.

A: The projects have been installed at Ohio Power Company's (OPCo) John E. Amos Plant, Cardinal Plant, General James M. Gavin Plant, Mitchell Plant, Kammer Plant, Muskingum River Plant, and the Philip Sporn Plant; as well as Indiana Michigan Power Company's (I&M) Rockport Plant and Tanners Creek Plant.

Q: Could you please list the environmental facilities installed at each of the respective facilities and the year in which the environmental facility was placed in-service?

A: The new environmental facilities for which cost recovery is being pursued are listed in Exhibit JMM-1.

Q: What are the CAA regulations and legal requirements applicable to the previously listed projects at the various facilities?

A: The applicable CAA regulatory program for each of the environmental facilities is indicated in Exhibit JMM-1

Q: Please provide a general description of the environmental facilities placed in service at Amos Plant Unit 3 to control NO_x.

A: In 1998, the Amos Plant Unit 3 furnace was retrofitted with low NO_x burners in order to help the AEP Pool comply with Title IV Acid Rain NO_x requirements. In 2002, the Amos Plant Unit 3 furnace was retrofitted with a post-combustion SCR system to further reduce NO_x to levels that would allow the AEP Pool to comply with NO_x SIP Call requirements.

Q: Please provide a general description of the environmental facilities placed in service at Cardinal Plant Unit 1 to control NO_x.

A: In 1998, the Cardinal Plant Unit 1 furnace was retrofitted with low NO_x burners in order to help the AEP Pool comply with Title IV Acid Rain NO_x requirements. In 2003, the Cardinal Plant Unit 1 furnace was retrofitted with a post-combustion SCR system to further reduce NO_x to levels that would allow the AEP Pool to comply with NO_x SIP Call requirements. In conjunction with the construction of the SCR system, Cardinal Plant Unit 1 also constructed an SO_3 mitigation system in 2004 to reduce elevated SO_3 concentrations in the flue gas that can result from

SCR operation.

Q: Please provide a general description of the environmental facilities placed in service at Gavin Plant to control NO_x.

A: In 1999, the Gavin Plant Unit 1 and 2 furnaces were retrofitted with low NO_x burners in order to help comply with Title IV Acid Rain NO_x requirements. In 2001, the Gavin Plant Unit 1 and 2 furnaces were retrofitted with post-combustion SCR systems to further reduce NO_x to levels that would allow the AEP Pool to comply with NO_x SIP Call requirements. The Gavin SCR project was the first SCR project on the AEP system. After the SCR system was installed and operational, it became necessary to design, construct and operate an SO_3 mitigation system to reduce elevated SO_3 concentrations in the flue gas that can result from SCR operation. The SO_3 mitigation system was developed and implemented in phases using various products (e.g. ammonia, Trona, etc) for injection into the boiler or ductwork downstream of the boiler. Various phases of the SO_3 mitigation system were constructed and placed into service during 2003 and 2004. In early 2005, Gavin Plant Unit 1 will undertake a project to begin replacement of SCR catalyst. The catalyst replacement is necessary on a periodic basis to maintain the removal capabilities of the SCR systems.

Q: Please provide a general description of the environmental facilities placed in service at Kammer Plant Units 1, 2 and 3 to control NO_x.

A: Kammer Plant Units 1, 2 and 3 were retrofitted with over fire air systems in 1999. These over fire air systems were intended to help the AEP Pool comply with Title IV Acid Rain NO_x requirements. In 2003 and 2004, the over fire air systems installed on the three Kammer Plant units were modified to further reduce NOx emissions by staging combustion air deeper into the furnace. These modifications were intended to further reduce NO_x to levels that would allow the AEP Pool to comply with NO_x SIP Call requirements.

Q: Please provide a general description of the environmental facilities placed in service at Mitchell Plant to control NO_x.

A: In 1993 and 1994, the Mitchell Plant Unit 1 and 2 furnaces were retrofitted with low NO_x burners in order to help comply with Title IV Acid Rain NO_x requirements. In 2002, the Mitchell Plant Unit 2 low NO_x burners were further modified and the furnace was retrofitted with a water injection NO_x control system in an effort to further reduce NO_x to levels that would help the AEP Pool to comply with NO_x SIP Call requirements. In 2004, improvements were made on the Mitchell Plant low NOx burners to further improve the NOx reductions. These improvements were also made in an effort to reduce NO_x to levels that would help the AEP Pool to comply with NO_x SIP Call requirements

Q: Please provide a general description of the environmental facilities placed in service at Muskingum River Plant Units 1, 2, 3, 4, and 5 to control NO_x.

A: Muskingum River Plant Units 1, 2, 3, and 4 were retrofitted with over fire air systems and associated ductwork in 2000. These over fire air systems were intended to help the AEP Pool comply with Title IV Acid Rain NO_x requirements. In 2003 and 2004, the over fire air systems installed on the Muskingum River Plant Units 1-4 were modified to further reduce NO_x emissions by staging combustion air deeper into the furnace. These modifications were intended to further reduce NO_x to levels that would allow the AEP Pool to comply with NO_x SIP Call requirements. Furthermore, Muskingum River Plant Units 1 and 2 were also retrofitted with water injection NO_x control systems in 2003 and 2004 to further reduce NO_x concentrations in support of the AEP NO_x compliance plan for the NO_x SIP Call. Muskingum River Plant Unit 3 was also retrofitted with a CO monitoring grid system (NO_x Instrumentation) in 2004 in order to help provide the plant operators with information that would allow for optimized NO_x reduction. In 1994, the Muskingum River Plant Unit 5 furnace was retrofitted with low NO_x burners in order to help the AEP Pool comply with Title IV Acid Rain NO_x requirements. In 2004, the low NO_x burners installed on the Muskingum River Plant Unit 5 were modified to further reduce NO_x emissions by staging the burners deeper and also weld overlays were installed as necessary. These modifications were intended to further reduce NO_x to levels that would help the AEP Pool to comply with NO_x SIP Call requirements. In 2005, a post-combustion SCR system will be placed in service on Muskingum River Plant Unit 5 to reduce NO_x to levels that will further help the AEP Pool to comply with NO_x SIP Call requirements.

Q: Please provide a general description of the environmental facilities placed in service at Sporn Plant Units 2, 4, and 5 to control NO_x.

A: In order to help the AEP Pool comply with Title IV NO_x requirements, low NOx burners with interjectory air were installed on Sporn Plant Units 2, 4, and 5 in 1997, 1998, and 1999, respectively. In 2003 and 2004, the low NOx Burner systems on Sporn Plant Units 2, and 4 were modified in an attempt to further reduce NOx emissions to levels that would help the AEP Pool comply with NO_x SIP Call requirements.

Q: Please provide a general description of the environmental facilities placed in service at Rockport Plant Units 1 and 2 to control NO_x.

A: In 2003 and 2004, the Rockport Plant Unit 1 and 2 furnaces were retrofitted with new low NO_x burners in order to reduce NO_x to levels that would help the AEP Pool comply with NO_x SIP Call requirements.

Q: Please provide a general description of the environmental facilities placed in service at Tanners Creek Plant Units 1, 2, 3, and 4 to control NO_x.

A: In 1995, low NO_x burners were installed on Tanners Creek Plant Unit 1 in order to help the AEP Pool comply with Title IV Acid Rain NO_x requirements. In 2004, the low NO_x burner system was modified and coal burner legs were replaced on Tanners Creek Plant Unit 1 in an attempt to further reduce NO_x emissions to levels that would help the AEP Pool comply with NO_x SIP Call requirements. In 1998 and 1999, low NO_x burners with interjectory air were installed on Tanners Creek Plant Units 2 and 3 in order to help the AEP Pool comply with Title IV Acid Rain NO_x requirements. In 2003 and 2004, the low NO_x burner systems on Tanners Creek Plant Units 2 and 3 were modified to further reduce NO_x emissions by staging combustion air deeper into the furnace. These modifications were intended to further reduce NO_x to levels that would allow the AEP Pool to comply with NO_x SIP Call requirements. In 2002, Tanners Creek Unit 4 was retrofitted with an over fire air system in order to help the AEP Pool comply with the further NO_x reductions required by the NO_x SIP Call requirements.

Q: Could you please provide an example of the effectiveness of the aforementioned NO_x Control projects as it relates to reducing NO_x emissions?

A: Yes. Exhibit JMM-2 provides typical NO_x emission rates before and after the various NO_x control projects described in this testimony. As can be seen in the table, each of the projects has resulted in post-project NO_x emission rates that are lower than those prior to installation of the projects.

Q: Please describe the applicability of the various NO_x Programs to the affected generating units.

A: Each of the previously listed facilities is subject to more than one regulation to control NO_x emissions from the facility. The first regulation, promulgated by U.S. EPA, is referred to as the Title IV Acid Rain Program. The second regulation, also promulgated by U.S. EPA, is commonly referred to as the NO_x SIP Call rule or NO_x Budget Program. Environmental agencies in Ohio, Indiana, West Virginia and Kentucky have each promulgated rules implementing the federal Acid Rain and NO_x SIP Call rules. The Acid Rain rules established annual reduced NO_x rates that varied depending on the type of boiler but allowed for companies to comply with the new standards by using systemwide-averaging plans. The Acid Rain NO_x Program was implemented in two phases, beginning in 1996 and 2000. The NO_x SIP Call rules generally required electric generating units to reduce NO_x emissions to a level roughly equivalent to a 0.15 lb/MMBtu emission rate. However, the NO_x SIP Call reductions are only applicable during the ozone season that runs from May 1 through the end of September each year and are implemented through a market-based, cap and trade program. The initial compliance deadline for the NO_x SIP Call emission reductions was May 31, 2004.

Q: What are the applicable Title IV Acid Rain NO_x emission reduction regulations applicable to affected sources in Ohio, Indiana, and West Virginia?

A: The Federal Title IV NO_x emission reduction program is codified in 40 CFR 76. The Ohio State Title IV program is codified in Ohio Administrative Code Chapter 3745-103. The Indiana and West Virginia State Title IV programs were established by incorporating federal acid rain regulations by reference in Indiana Administrative Code 326 IAC 21 and West Virginia Code of State Regulations 45 CSR 33, respectively.

Q: How is the NO_x SIP Call compliance program structured?

A: This compliance program is designed to address an air quality concern that occurs only during the summer months, known as the "ozone season". The program requires compliance during the months of May through September, with the exception of the 2004 compliance period, which began May 31 of that year. For all years following 2004, the compliance period will begin May 1 and end on September 30. The program is designed to limit total NO_x emissions from electric generating units and large industrial sources of NO_x on a broad regional basis but to provide flexibility in meeting compliance. The program utilizes NO_x allowances that can be transferred between sources to provide this flexibility. With this approach, each source is allocated a specific number of NO_x allowances that represent a broad based reduction in NO_x emissions from pre-NO_x SIP Call levels. If a source does not reduce its actual emissions to the allowance allocation level, it must obtain additional allowances from another source.

Q: Please provide regulatory citations for the NO_x SIP Call regulations applicable to affected sources in Ohio, Indiana, and West Virginia.

A: The Federal NO_x SIP Call, which is applicable to each of the three states, was codified in 40 CFR 96. The Ohio State NO_x SIP Call program was codified in Ohio Administrative Code Chapter 3745-14. The Indiana State NO_x SIP Call program was codified in the Indiana Administrative Code as 326 IAC 10-4. The West Virginia State NO_x SIP Call program was codified in the West Virginia Code of State Regulations 45 CSR 26.

Q: Why is the Muskingum River Plant Unit 5 SCR being installed after the effective date of the NO_x SIP Call?

A: The compliance flexibility built into the NO_x SIP Call regulations allows for a progressive implementation of the control equipment. AEP's NO_x compliance plan currently calls for installation of SCR systems on 11 generating units, representing approximately 10,385 megawatts of electrical generating capacity. The enormity of such a construction program requires that the installation of these very large pollution control systems be sequenced over a number of years. AEP's compliance plan called for a number of SCR systems to be constructed prior to the initial compliance date of the NO_x SIP Call with additional installations taking place after the initial compliance date.

Q: How do the NO_x SIP Call regulations allow for a progressive implementation of the control equipment?

A: The NO_x SIP Call program utilizes a cap and trade system under which NO_x allowances can be transferred between sources to provide flexibility. Furthermore, sources that were controlled to an emission rate less than the program limits, earlier than the initial compliance date, were qualified to earn early reduction credits. These early reduction credits could be banked and used in future years to offset NO_x emissions from other sources. As noted above, AEP installed a number of SCR systems prior to the initial compliance date and has used the resulting banked NO_x allowances along with other improvements to low NOx burner systems to comply during the first compliance period of the NO_x SIP Call program. Sustained compliance with the NO_x SIP Call program depends upon a continued construction program that allows for phased-in construction of SCR controls at several power plants on the AEP system.

Q: Are there other SCR installations, beyond those installed at Cardinal, Gavin, Muskingum River, and Big Sandy Plants that AEP has undertaken to maintain compliance with the NO_x SIP Call?

A: Yes, similar SCR equipment has been installed at Appalachian Power Company's Mountaineer Plant Unit 1, and Amos Plant Units 1 and 2. Furthermore, SCR installation has been announced for Ohio Power Company's Mitchell Plant Units 1 and 2. The Mitchell Plant Units 1 and 2 SCR equipment installations will be completed and placed into service for the start of the 2007 Ozone Season.

Q: Why were SO_3 mitigation systems installed in conjunction with the Gavin Plant Units 1 and 2, and the Cardinal Plant Unit 1 SCRs?

A: AEP's experience to date with operation of SCR indicates that the use of this technology to control NO_x emissions can result in an increase in formation of SO_3, or sulfur trioxide. SO_3 can, in turn, result in a change in the visible appearance of the flue gas after it exits the stack. Use of an SO_3 mitigation system will minimize the possibility that the SCR will cause an unwanted change in the stack plume by reacting the SO_3 with ammonia, Trona or other suitable treatment chemicals to produce particulate that is then collected in the electrostatic precipitator (ESP).

Q: Are there environmental liabilities associated with increased formation of SO_3?

A: Yes, as previously noted, SO_3 increases result in unwanted impacts by making the flue gas more visible after it is discharged from the stack. Because visible emissions from our facilities are regulated by rules developed under the CAA, an increase in these emissions would subject our facilities to potential enforcement actions by U.S. EPA and/or the various State environmental agencies.

Q: What was the purpose of the ESP controls upgrade on Tanners Creek Unit 4?

A: The ESP controls upgrade on Tanners Creek Unit 4 allows for automated electronic collection of ESP operating parameters.

Q: Why was the Tanners Creek Unit 4 ESP control upgrade required?

A: The Tanners Creek Title V operating permit includes monitoring, recordkeeping, reporting and testing requirements determined to be necessary for tracking and reporting compliance for the affected equipment/systems. Specifically, the Tanners Creek permit includes a requirement to record ESP operating parameters once per work shift. Because plant staffing does not allow for manual monitoring of this magnitude, it became necessary for the ESP controls to be upgraded in order to allow for automated electronic monitoring/recordkeeping of the required operating parameters.

Q: What is the status of the Tanners Creek Title V operating permit?

A: The Tanners Creek Title V operating permit was issued as final on December 7, 2004. The permit number used by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to designate the Tanners Creek Title V operating permit is T029-6785-00002.

Q: What are the applicable Title V operating permit regulations that are associated with the Tanners Creek Plant?

A: The Federal Title V operating permit program is codified in 40 CFR 70. The federally enforceable Indiana State Title V operating permit program is codified in 326 IAC 2-7.

Q: Please describe the Title V air emissions fees that must be paid annually by the sources that are the subject of this filing.

A: Exhibit JMM-3 lists the 2004 cost of annual Title V air emission fees paid by the facilities that are the subject of this filing.

Q: How are the air emission fees related to the Title V operating permit program?

A: The Title V program requires that permitting authorities charge sources annual fees that are sufficient to cover the permit program costs. The fee portion of the program is generally structured such that the annual fees are based on the quantity of emissions from the source during the prior year.

Q: What are the applicable Title V operating permit regulations that are associated with the air emission fees?

A: As previously mentioned, the Federal Title V operating permit program is codified in 40 CFR 70 and the federally enforceable Indiana State Title V operating permit program is codified in 326 IAC 2-7. The federally enforceable Ohio and West Virginia State Title V operating permit programs are codified in Ohio Administrative Code Chapter 3745-35 and West Virginia State Regulation 45 CSR 30, respectively.

Q: What was the purpose of the Continuous Emission Monitoring System (CEMS) installations at the Amos, Cardinal, Kammer, Mitchell, Muskingum River, Sporn, and Tanners Creek Plants?

A: The CEMS installations were required for the purpose of monitoring stack emissions under the Title IV acid rain program.

Q: What emissions are required to be monitored under the Acid Rain Program?

A: "Affected Sources" are required to measure opacity as well as monitor SO_2 and NO_x emissions using continuous monitoring systems.

Q: How were Amos, Cardinal, Kammer, Mitchell, Muskingum River, Sporn, and Tanners Creek Plants established as "Affected Sources" defined under the Acid Rain Program?

A: Each of these facilities is defined as an "Affected Source" because each includes at least one affected unit specified under Table 1 (Phase I Allowance Allocations) or Table 2 (Phase II Allowance Allocations) of 40 CFR 73.10

Q: What are the applicable Title IV Acid Rain Program regulations that are associated with installation and operation of the CEMS at the Amos, Cardinal, Kammer, Mitchell, Muskingum River, Sporn, and Tanners Creek Plants?

A: The general federal monitoring requirements are codified in 40 CFR 72.9(b). 40 CFR 72 references the specific monitoring requirements that are codified in 40 CFR 75. The federally enforceable Acid Rain program monitoring requirements have been codified and adopted by reference by West Virginia and Indiana in 45 CSR 33 and 326 IAC 21, respectively. Likewise, the federally enforceable Acid Rain program monitoring requirements have been codified by Ohio in OAC 3745-103.

Q: What is the purpose of the SO_3 injection system installed on Sporn Plant Units 2, 4 and 5?

A: The SO_3 injection system is an environmental facility installed to aid with the reduction of particulate matter emissions from the Sporn Plant Units 2, 4 and 5.

Q: Please explain how the SO_3 injection system helps with the reduction of particulate matter emissions?

A: An electrostatic precipitator controls particulate emissions from Sporn Plant Units 2, 4, and 5. An electrostatic precipitator charges the ash particles (particulate matter) in the flue gas and then collects the charged particles on oppositely charged collecting surfaces. The collected ash can then be removed from the electrostatic precipitator via ash hoppers and properly disposed through an ash handling system. The ability of the ash particles to receive an electrical charge is dependent on the resistivity of the particle. When the Sporn Plant began burning a lower sulfur coal in order to reduce SO_2 emissions, the electrical resistivity of the resulting ash was increased, making it more difficult to collect the ash in the electrostatic precipitator. Injecting a dilute concentration of SO_3 into the flue gas before it enters the ESP has been proven to enhance the collection efficiency of ESP's by reducing the electrical resistivity of the fly ash particles, allowing the particles to be more readily captured by the electrostatic field generated within the ESP.

Q: What are the applicable particulate matter emission standards associated with Sporn Plant Units 2, 4, and 5?

A: Title I of the Clean Air Act of 1970 required that the U.S. EPA establish national ambient air quality standards. In response to the national ambient air quality standard for particulate matter, the State of West Virginia was required to develop a state plan for implementation to achieve the particulate standards. The state implementation plan for West Virginia includes limitations on particulate emissions from fuel burning equipment such as Sporn Plant Units 2, 4, and 5. The limit for particulate mass emissions from such units is 0.05 lb/mmBtu and the opacity limit is 10%. These standards are established in the federally approved 45 CSR 2, promulgated by the West Virginia Department of Environmental Protection. 45 CSR 2 was originally promulgated in March of 1972 with the most recent version of the rule being promulgated in August of 2000.

Q: Is KPCo seeking recovery for the aforementioned environmental facilities pursuant to KRS 278.183 in this proceeding?

A: Yes. These projects are necessary for the AEP Pool to be in compliance with state and federal statutory and regulatory requirements arising from the Clean Air Act as amended.

Q: Does this conclude your testimony?

A: Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

STATE OF OHIO

CASE NO. 2005-00068

COUNTY OF FRANKLIN

AFFIDAVIT

John M. McManus, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.

John M. McManus

John M. McManus

Subscribed and sworn to before me by John M. McManus this 28 day of February, 2005.

Patrick R. Ott

Notary Public

My Commission Expires December 31, 2009

Patrick R. Ott
Notary Public, State of Ohio
My Commission Expires December 31, 2009

EXHIBIT JMM-1

Kentucky Power Company
AEP Pool Surplus Companies
Investment in Environmental Facilities

Generating Unit	Project Description	In-Service Date	New Facilities Cost ($1000s)	Applicable CAA Program
Amos Unit 3	Continuous Emissions Monitoring System	1995	$635	Title IV Acid Rain Progam
Amos Unit 3	Low NOx Burners	1998	$6,681	Title IV Acid Rain Progam
Amos Unit 3	SCR	2002	$83,916	NOx SIP Call
Cardinal Unit 1	Continuous Emissions Monitoring System	1994	$1,005	Title IV Acid Rain Progam
Cardinal Unit 1	Low NOx Burners	1998	$5,912	Title IV Acid Rain Progam
Cardinal Unit 1	SCR and associated SO3 Mitigation System	2003 (SCR); 2004 (SO3 Mitigation)	$92,978	NOx SIP Call
Gavin Plant Unit 1	Low NOx Burners	1999	$14,431	Title IV Acid Rain Progam
Gavin Plant Unit 1	SCR Catalyst Replacement	2005	$12,962	NOx SIP Call
Gavin Plant Unit 2	Low NOx Burners	1999	$13,472	Title IV Acid Rain Progam
Gavin Plant Common	SCR and associated SO3 Mitigation	2001 (SCR); 2003, 2004 (SO3 Mitigation)	$228,921	NOx SIP Call
Kammer Plant Unit 1	Over Fire Air and Duct Modification	1999 (OFA) 2003 (Duct Mod.)	$1,895	Title IV Acid Rain Program
Kammer Plant Unit 2	Over Fire Air and Duct Modification	1999 (OFA) 2004 (Duct Mod.)	$2,295	Title IV Acid Rain Program
Kammer Plant Unit 3	Over Fire Air and Duct Modification	1999 (OFA) 2003 (Duct Mod.)	$2,293	Title IV Acid Rain Program
Kammer Plant Common	Continuous Emissions Monitoring System	1993	$1,289	Title IV Acid Rain Program
Mitchell Plant Unit 1	Low NOx Burners	1993	$10,413	Title IV Acid Rain Program
Mitchell Plant Unit 1	Water Injection and Low NOx Burner Modifications	2002	$1,597	NOx SIP Call
Mitchell Plant Unit 2	Low NOx Burners	1994	$9,922	Title IV Acid Rain Program
Mitchell Plant Unit 2	Low NOx Burner Modifications	2004	$619	NOx SIP Call
Mitchell Plant Common	Continuous Emissions Monitoring System	1993	$1,419	Title IV Acid Rain Program
Mitchell Plant Common	Replace Burner Barrier Valves	2004	$326	NOx SIP Call
Muskingum River Unit 1	Low NOx Ductwork and Over Fire Air	2000	$1,215	Title IV Acid Rain Program
Muskingum River Unit 1	Over Fire Air Modifications and Water Injection	2003	$1,528	NOx SIP Call

Kentucky Power Company
AEP Pool Surplus Companies
Investment in Environmental Facilities

Generating Unit	Project Description	In-Service Date	New Facilities Cost ($1000s)	Applicable CAA Program
Muskingum River Unit 1	Water Injection Modifications	2004	$106	NOx SIP Call
Muskingum River Unit 2	Low NOx Ductwork and Over Fire Air	2000	$1,004	Title IV Acid Rain Program
Muskingum River Unit 2	Over Fire Air Modifications and Water Injection	2004	$1,254	NOx SIP Call
Muskingum River Unit 3	Over Fire Air	2000	$984	Title IV Acid Rain Program
Muskingum River Unit 3	Over Fire Air Modifications	2003	$868	NOx SIP Call
Muskingum River Unit 3	NOx Instrumentation	2004	$276	NOx SIP Call
Muskingum River Unit 4	Over Fire Air	2000	$838	Title IV Acid Rain Program
Muskingum River Unit 4	Over Fire Air Modifications	2004	$819	NOx SIP Call
Muskingum River Unit 5	Low NOx Burners	1994	$5,572	Title IV Acid Rain Program
Muskingum River Unit 5	Low NOx Burner Modifications and Weld Overlays	2004	$2,144	NOx SIP Call
Muskingum River Unit 5	SCR	2005	$98,297	NOx SIP Call
Muskingum River Plant Common	Continuous Emissions Monitoring System	1993	$2,516	Title IV Acid Rain Program
Philip Sporn Unit 2	Low NOx Burners	1997	$2,684	Title IV Acid Rain Program
Philip Sporn Unit 2	Low NOx Burner Modifications	2003	$617	NOx SIP Call
Philip Sporn Unit 4	Low NOx Burners and Modulating Inject. Air	1998	$2,249	Title IV Acid Rain Program
Philip Sporn Unit 4	Low NOx Burner Modifications	2004	$728	NOx SIP Call
Philip Sporn Unit 5	Low NOx Burners and Modulating Inject. Air	1999	$4,597	Title IV Acid Rain Program
Philip Sporn Plant Common	SO_3 Injection System	2003	$3,330	Title I National Ambient Air Quality Standards
Philip Sporn Plant Common	Continuous Emissions Monitoring System	1994	$2,016	Title IV Acid Rain Program

EXHIBIT JMM-1

Kentucky Power Company
AEP Pool Surplus Companies
Investment in Environmental Facilities

Generating Unit	Project Description	In-Service Date	New Facilities Cost ($1000s)	Applicable CAA Program
Rockport Unit 1	Low NOx Burners	2003	$16,753	NOx SIP Call
Rockport Unit 2	Low NOx Burners	2004	$16,712	NOx SIP Call
Tanners Creek Unit 1	Low NOx Burners	1995	$1,459	Title IV Acid Rain Program
Tanners Creek Unit 1	Low NOx Burner Modifications	2004	$1,300	NOx SIP Call
Tanners Creek Unit 1	Low NOx Burner Leg Replacement	2004	$605	NOx SIP Call
Tanners Creek Unit 2	Low NOx Burners	1998	$2,673	Title IV Acid Rain Program
Tanners Creek Unit 2	Low NOx Burner Modifications	2003	$1,284	NOx SIP Call
Tanners Creek Unit 3	Low NOx Burners	1999	$3,823	Title IV Acid Rain Program
Tanners Creek Unit 3	Low NOx Burner Modifications	2004	$858	NOx SIP Call
Tanners Creek Unit 4	Over Fire Air/Low NOx Burners	2002	$3,419	NOx SIP Call
Tanners Creek Unit 4	ESP Controls Upgrade	2004	$443	Title V Operating Permit Program
Tanners Creek Plant Common	Continuous Emissions Monitoring System	1995 (Unit 4) and 1996 (Units 1-3)	$2,628	Title IV Acid Rain Program

EXHIBIT JMM-2

Kentucky Power Company
AEP Pool Surplus Companies
NO_x Control Effectiveness of Environmental Facilities

Generating Unit	Project Description	In-Service Date	Pre-Project NOx Emission Rate (lb/mmBtu)[2]	Post-Project NOx Emission Rate (lb/mmBtu)[1,2]
Amos Unit 3	Low NOx Burners	1998	1.245	0.737
Amos Unit 3	SCR	2002	0.737	0.094
Cardinal Unit 1	Low NOx Burners	1998	0.912	0.55
Cardinal Unit 1	SCR and associated SO3 Mitigation System	2003 (SCR); 2004 (SO3 Mitigation)	0.55	0.062
Gavin Plant Unit 1	Low NOx Burners	1999	0.984	0.448
Gavin Plant Unit 2	Low NOx Burners	1999	1.097	0.491
Gavin Plant Common	SCR and associated SO3 Mitigation	2001 (SCR); 2003, 2004 (SO3 Mitigation)	0.448 (Unit 1), 0.491 (Unit 2)	0.069 (Unit 1), 0.064 (Unit 2)
Kammer Plant Unit 1	Over Fire Air and Duct Modification	1999 (OFA) 2003 (Duct Mod.)	1.203 (1998 data) 0.761 (2000 data)	0.761 (2000 data) 0.662 (2004 data)
Kammer Plant Unit 2	Over Fire Air and Duct Modification	1999 (OFA) 2004 (Duct Mod.)	1.203 (1998 data) 0.761 (2000 data)	0.761 (2000 data) 0.662 (2004 data)
Kammer Plant Unit 3	Over Fire Air and Duct Modification	1999 (OFA) 2003 (Duct Mod.)	1.203 (1998 data) 0.761 (2000 data)	0.761 (2000 data) 0.662 (2004 data)
Mitchell Plant Unit 1	Low NOx Burners	1993	1.05	0.547
Mitchell Plant Unit 1	Water Injection and Low NOx Burner Modifications	2002	0.547	0.53
Mitchell Plant Unit 2	Low NOx Burners	1994	1.05	0.547
Mitchell Plant Unit 2	Low NOx Burner Modifications	2004	0.547	0.53
Muskingum River Unit 1	Low NOx Ductwork and Over Fire Air	2000	0.859	0.778
Muskingum River Unit 1	Over Fire Air Modifications and Water Injection	2003	0.778	0.635
Muskingum River Unit 1	Water Injection Modifications	2004	0.635	0.575
Muskingum River Unit 2	Low NOx Ductwork and Over Fire Air	2000	0.859	0.778
Muskingum River Unit 2	Over Fire Air Modifications and Water Injection	2004	0.778	0.575
Muskingum River Unit 3	Over Fire Air	2000	0.859	0.778
Muskingum River Unit 3	Over Fire Air Modifications	2003	0.778	0.575
Muskingum River Unit 4	Over Fire Air	2000	0.859	0.778
Muskingum River Unit 4	Over Fire Air Modifications	2004	0.778	0.575

EXHIBIT JMM-2

Kentucky Power Company
AEP Pool Surplus Companies
NO_x Control Effectiveness of Environmental Facilities

Generating Unit	Project Description	In-Service Date	New Facilities Cost ($1000s)	Applicable CAA Program
Muskingum River Unit 5	Low NOx Burners	1994	1.098	0.65
Muskingum River Unit 5	Low NOx Burner Modifications and Weld Overlays	2004	0.65	0.512
Muskingum River Unit 5	SCR	2005	0.512	N/A
Philip Sporn Unit 2	Low NOx Burners	1997	1.175	0.631
Philip Sporn Unit 2	Low NOx Burner Modifications	2003	0.631	0.367
Philip Sporn Unit 4	Low NOx Burners and Modulating Inject. Air	1998	1.175	0.631
Philip Sporn Unit 4	Low NOx Burner Modifications	2004	0.631	0.367
Philip Sporn Unit 5	Low NOx Burners and Modulating Inject. Air	1999	0.943	0.47
Rockport Unit 1	Low NOx Burners	2003	0.389	0.219
Rockport Unit 2	Low NOx Burners	2004	0.389	0.219
Tanners Creek Unit 1	Low NOx Burners	1995	1.093	0.987
Tanners Creek Unit 1	Low NOx Burner Modifications	2004	0.701	0.411
Tanners Creek Unit 2	Low NOx Burners	1998	0.987	0.701
Tanners Creek Unit 2	Low NOx Burner Modifications	2003	0.701	0.411
Tanners Creek Unit 3	Low NOx Burners	1999	0.987	0.701
Tanners Creek Unit 3	Low NOx Burner Modifications	2004	0.701	0.411
Tanners Creek Unit 4	Over Fire Air/Low NOx Burners	2002	1.298	0.413

1. The May 31, 2004 through September 30, 2004 time period was used to calculate the post-SCR installation NOx emission rate.
2. Data for Kammer Plant Units 1 - 3, Mitchell Plant Units 1 and 2, Muskingum River Plant Units 1- 4, Philip Sporn Units 1 – 4, Rockport Plant Units 1 and 2, and Tanners Creek Units 1 – 3 is from stack continuous emissions monitors that are common to 2 or more Units. As such, the data represents a composite gas sample from all Units discharging through the common stack.

EXHIBIT JMM-3

Kentucky Power Company
AEP Pool Surplus Companies
2004 Costs Associated with Annual Title V Air Emission Fees

Generating Plant	2004 Air Emission Fees Paid
Amos Plant	$265,909
Cardinal Plant	$335,551
Gavin Plant	$333,092
Kammer Plant	$202,873
Mitchell Plant	$255,250
Muskingum River Plant	$327,201
Philip Sporn Plant	$229,990
Rockport Plant	$150,000
Tanners Creek Plant	$150,000

COMMONWEALTH OF KENTUCKY

BEFORE THE

PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF

KENTUCKY POWER COMPANY'S SECOND AMENDED ENVIRONMENTAL COMPLIANCE PLAN AND SECOND REVISED TARIFF	)))	**Case No. 2005-00068**

DIRECT TESTIMONY

OF

ERROL K WAGNER

March 8, 2005

DIRECT TESTIMONY OF
ERROL K. WAGNER, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Q: Please state your name, position and business address.

A: My name is Errol K. Wagner. My position is Director of Regulatory Services for Kentucky Power Company (KPCo or Company). My business address is 101 A Enterprise Drive, Frankfort, Kentucky 40602.

Q: Please summarize your educational background and business experience.

A: I received a Bachelor of Science degree with a major in accounting from Elizabethtown College, Elizabethtown, Pennsylvania in December 1973. I am a Certified Public Accountant. I worked for two certified public accounting firms prior to joining the Pennsylvania Public Utility Commission Staff in 1976. In 1982, I joined the American Electric Power Service Corporation (AEPSC) as a Rate Case Coordinator. In 1986, I transferred from AEPSC to Kentucky as the Assistant Rates, Tariffs and Special Contracts Director for KPCo. In July 1987, I assumed my current position.

Q: What are your responsibilities as Director of Regulatory Services?

A: I supervise and direct the Regulatory Services of the Company, which has the responsibility for rate and regulatory matters affecting KPCo's Kentucky jurisdiction. This would include the preparation of and coordination of the

Company's exhibits and testimony in rate cases and any other formal filings before state and federal regulatory bodies. Another responsibility is assuring the proper application of the Company's rates in all classifications of business.

Q: To whom do you report?

A: I report to Kentucky Power President, Timothy C. Mosher also located in Frankfort, Kentucky.

Q: Have you previously testified before this Commission?

A: Yes. I have testified before this Commission in numerous regulatory proceedings involving the application of the general adjustment in electric base rates, the fuel adjustment clause, the operation of the environmental cost recovery mechanism, approval of certificates of public convenience and necessity and other regulatory matters including two prior environmental surcharge proceedings.

Q: What is the purpose of your testimony in this proceeding?

A: The purpose of my testimony in this proceeding is to present to the Commission the Company's annual cost expected to be incurred by KPCo as a result of placing in-service the environmental facilities being added to the Company's amended environmental compliance plan to comply with the Federal Clean Air Act Amendments (CAAA).

Q: Can you describe the type of environmental facilities we are talking about?

A: Yes. The types of environmental facilities we are discussing are Selective Catalytic Reduction (SCR), Low NOx Burners, Over Fire Air, Water Injection NOx control systems, upgrade to electrostatic precipitator control system, additional NOx reduction related instrumentation, stack flue gas continuous emissions monitoring systems (CEMS) and SO_3 flue gas conditioning system (See Exhibit EKW-1) along with the cost of the Title V Air Emission fees (See Exhibit EKW-10).

Q: How will the costs of these environmental facilities and the cost of the Title V Air Emission fees flow to KPCo?

A: The costs of these environmental facilities along with the cost of the Title V Air Emission fees will flow to KPCo pursuant to two agreements. There are some costs of the environmental facilities that flow to KPCo by way of the AEP Interconnection Agreement and there are some costs of the environmental facilities that flow to KPCo by way of the AEP Generating Company (AEGCo) and KPCo Unit Power Agreement (UPA).

Q. Has the Federal Energy Regulatory Commission (FERC) approved these agreements?

A. Yes. The AEP Interconnection Agreement was last approved by FERC on November 1, 1980 and the UPA was last approved by FERC on December 29, 2004.

Q: Are you sponsoring any exhibits in connection with your testimony in this proceeding?

A: Yes. I am sponsoring Exhibits EKW-1 through EKW-14.

The AEP Interconnection Agreement

Q: As background, please briefly describe the AEP Interconnection Agreement.

A: KPCo, Appalachian Power Company (APCo), Columbus Southern Power Company (CSP), Indiana Michigan Power Company (I&M) and Ohio Power

Company (OPCo) are the five AEP System operating companies which are members of the AEP Pool established pursuant to the Federal Energy Regulatory Commission (FERC) approved AEP Interconnection Agreement. Although each operating company owns specific generating facilities, the AEP System is designed, built and operated on an integrated system basis. The AEP Interconnection Agreement defines the obligations of the members and methodology for allocating the cost of generation among the operating companies. Significant aspects of the AEP Interconnection Agreement are as follows:

- Requires each operating company to provide adequate generating facilities (or resources) to meet its firm load requirement.
- Allocates capacity on the basis of each company's highest non-coincident peak in the preceding twelve months (i.e., Member Load Ratio, or MLR).
- Provides a Capacity Settlement that equalizes responsibility for installed capacity. Effectively the capacity settlement equalizes reserve margins by assigning responsibility to each operating company for its MLR share of system capacity. To the extent that a company's capacity is less than its system responsibility, such deficit company is required to make up its shortfall by paying a carrying charge to the surplus companies, based on the embedded cost of capacity of the surplus companies.

Q: Please describe the calculation of the capacity settlement.

A: Exhibit EKW-2 demonstrates the AEP Pool monthly capacity equalization settlement calculation. First, the total members' primary capacity installed is multiplied by each company's MLR to arrive at the Member's primary capacity reservation (See Exhibit EKW-2 columns 1, 2 and 3). This reservation is then compared with the installed capacity contributed by each member (See Exhibit EKW-2 Columns 1 and 3). If a Member's capacity reservation exceeds its capacity contribution, the difference is a capacity deficit to be met by the member(s) having the surplus capacity. If a Member's installed capacity exceeds its reservation, the difference is a capacity surplus, which is supplied to the AEP System by its Members. The total capacity surplus in any given month for surplus Members always equals the total capacity deficit for the deficit Members (i.e., producing a zero surplus/deficit balance for the AEP System) (See Exhibit EKW-2 column 4).

Q: On what basis are the surplus companies reimbursed by the deficit companies?

A: Exhibit EKW-3 demonstrates the AEP Pool capacity rate calculations. The capacity rate is made up of two components: the primary capacity investment rate and the fixed operating rate. The primary capacity investment rate reflects the surplus company's embedded cost of capacity times the carrying charge rate approved by FERC. The fixed operating rate reflects the surplus company's steam plant operations and one-half maintenance expense divided by its installed capacity. An example of the capacity rate calculations for the surplus companies (I&M and OPCo) is provided in Exhibit EKW-3. Also provided on Exhibit EKW-3 is the Pool's weighted average rate, which is paid by the deficit members.

Q: How are the deficit companies' capacity settlement charges calculated?

A: A deficit company, such as KPCo, computes its capacity settlement charge by multiplying its capacity deficit by the Pool's weighted average capacity rate of the surplus companies (See Exhibit EKW-2 columns 5, 6 and 7).

Q: Would you please walk us through the AEP System Pool capacity equalization settlement calculations for KPCo?

A: Yes. KPCo's monthly MLR is calculated by dividing KPCo's highest non-coincident peak in the preceding twelve months by the total of all of the members' highest non-coincident peaks (1478 MW/20,509 MW) resulting in an MLR of 0.07207 (See Exhibit EKW-2 Ln 2 Column 2). KPCo's primary capacity reservation is determined by multiplying its MLR for the month (0.07207) times the members' total generating capacity (23,173,000 kw). This equals a primary capacity reservation for KPCo of 1,670,100 kw (See Exhibit EKW-2 Ln 2 Column 3). By comparing KPCo's reservation with its installed capacity, it is determined that KPCo has a capacity deficit of 220,100 kw (1,450,000 kw – 1,670,100 kw) for the month (See Exhibit EKW-2 Ln 2 Column 4). Multiplying the Pool's weighted average capacity rate of the surplus companies (I&M and OPCo) of $8.15 / kw times KPCo's capacity deficit of 220,100 kw produces a capacity settlement charge for KPCo of $1,793,310 for the month (See Exhibit EKW-2 Ln 8, Column 7).

Q: Please explain how the fixed operating costs of the environmental facilities of the surplus companies affect KPCo's capacity settlement charges.

A: The fixed operating cost consists of the operation and one half of the maintenance expense associated with the installed environmental facilities of the surplus companies (for example, the urea and trona cost associated with the Gavin SCRs and the Gavin Plant's Title V Air Emission fee) are included in the surplus companies' fixed operating rate along with one half of the maintenance expense associated with the SCR. As such, these costs are charged to KPCo, through the Pool's weighted average capacity rate, based on KPCo's capacity deficit. Exhibit EKW-4 provides a summary of these environmental costs, and their effect on the monthly Pool's weighted average capacity rate, for November 2004.

Q. How soon after the environmental facilities are placed in service do the costs associated with the environmental facilities appear in the monthly capacity rate?

A. The Steam Plant Operation Expense and one half of Maintenance Expense will appear in the fixed operating rate the month following the date on which the environmental facilities' operation and maintenance expenses are incurred by the surplus companies. The primary capacity investment rate reflects the level of Steam Production Plant in service as of December 31 of the prior year. For example, Rockport Unit No. 2's Low NOx Burners were placed into service April 2004. The fixed operating rate KPCo paid in May 2004 reflected the Steam Operation Expense plus one half of the Maintenance Expense associated with Rockport Unit No. 2's Low NOx Burners. However, the primary capacity investment rate will not reflect the investment in Rockport Unit No. 2's Low NOx Burners until January 2005.

Q: What was the annual charge associated with the environmental facilities of the surplus companies, incurred by KPCo through the AEP Interconnection Agreement?

A: Based on November 2004, the annualized charges associated with the surplus companies environmental facilities including the cost of the Title V Air Emission fees at the different surplus companies' generating facilities incurred by KPCo through the AEP Interconnection Agreement was $2,165,784 (Please see Exhibit EKW-4).

Rockport Unit Power Agreement

Q: What type of generating units is installed at the Rockport Generating Plant?

A: The units installed at the Rockport Generating Plant are two 1300 MW coal fired generating units.

Q. Who owns the Rockport Generating units located at Rockport, Indiana?

A. Rockport Unit No. 1 is owned by I&M and AEGCo, each owning a 50% interest in the unit. Wilmington Trust Company owns Rockport Unit No. 2 and 100% undivided interest is leased back to I&M and AEGCo, each is responsible for 50% of the unit.

Q. What is KPCo's interest in the Rockport Generating units?

A. KPCo is responsible for 30% of AEGCo's 50% share of each unit pursuant to the UPA. This equates to 195 MW of each unit or 390 MW of the total Rockport Generating Plant. In return, KPCo receives 30% of AEGCo's 50% share of the generation output from the two units.

Q. How is KPCo's share of the Rockport generating capacity accounted for in the Interconnection Agreement?

A. KPCo's 390 MW share of the Rockport generating capacity is included in the Company's Member Primary Capacity (See Exhibit EKW-2 Ln 2 Column 1), which is used in calculating KPCo's Pool capacity deficiency (See Exhibit EKW-2 Ln 2 Column 4).

Q: What new environmental facilities at the Rockport Generating Plant are being included in the Company's Environmental Compliance Plan?

A: The Low NOx Burners that were placed in-service at both Rockport Unit Nos. 1 and 2. Exhibit EKW-12 line 1 shows that AEGCo's portion of Low NOx Burners at the Rockport Generating Plant was $8,234,000 for Unit No. 1 and $8,304,000 for Rockport Unit No. 2.

Q: What was the cost of the original Rockport burners that were replaced by the Low NOx Burners?

A: AEGCo's portion of the cost of the original burners that were replaced at Unit No. 1 was $3,104,670. The Company does not have any records indicating the cost of the original burners at Rockport Unit No. 2 because Unit No. 2 is a leased asset. As previously stated above, Rockport Unit No. 2 was built by I&M and AEGCo and the asset was sold and leased back.

Q. Will the new Low NOx Burners at Rockport Unit No. 2 be a leased asset?

A. No. The new burners will not be a leased asset, therefore, the cost of the Low NOx Burners will be an investment on both I&M and AEGCo's books and will flow through the monthly UPA as such for both Units 1 and 2.

Q: Will the monthly lease payment be reduced by the removal of the original burners at Rockport Unit No. 2?

A: No. KPCo is still responsible to AEGCo for its share of the lease cost and AEGCo is still responsible to Wilmington Trust Company for the total amount of the lease cost. That obligation will not end until December 7, 2022, the end of the lease.

Q: How are the costs associated with the Rockport Low NOx Burners calculated?

A: Exhibit EKW-12 demonstrates the costs or revenue requirement associated with the Rockport Low NOx Burners. Start with the installed cost of the Low NOx Burners and deduct the accumulated depreciation and accumulated deferred income taxes to arrive at the net total rate base (See Lines 1 through 4 on Exhibit EKW-12). Next, take the weighted average cost of capital from the UPA and divide that amount by 12 to arrive at a monthly weighted cost of capital (See Lines 5 and 6 Exhibit EKW-12). The cost or revenue requirement associated with the investment in Low NOx Burners at the Rockport Generating Plant is calculated by taking the net total rate base times the monthly weighted average cost of capital (See Line 7 Exhibit EKW-12).

Q: How was the monthly depreciation expense calculated on line 8 of Exhibit EKW-12?

A: The Company used the actual annual Rockport Plant depreciation rates of 3.52% for Unit No. 1 and 4.96% for Unit No. 2, multiplied by the total installed cost of each of the Rockport burners ($8,234,000 for Unit No. 1 and $8,304,000 for Unit No. 2), which resulted in an annual deprecation expense of $289,837 for Unit No. 1 and $411,878 for Unit No. 2. The monthly depreciation expense was calculated by dividing the annual expense by 12, resulting in a monthly depreciation expense of $24,153 for Unit No. 1 and $34,323 for Unit No. 2. The total monthly revenue requirement associated with KPCo's 30% of AEGCo's portion of the Low NOx Burners at the Rockport Generating Plant are $58,097 or $697,166 annualized (See Exhibit EKW-12).

Q: Did the Company calculate the revenue requirement associated with the original Rockport Unit No. 1 Burners, which was included in the Company's last rate case?

A: Yes. Exhibit EKW-13 demonstrates the calculation of the December 1990 revenue requirement associated with the original burners at Rockport Unit No. 1.

Q: Did the Company calculate the revenue requirement associated with the original Rockport Unit No. 2 Burners, which was included in the Company's last rate case?

A: No, as stated earlier in the testimony, Rockport Unit No. 2 is a leased facility; therefore, the Company has no records of the installed cost of the burners. Also, KPCo is obligated to continue paying its share of the lease payment until December 7, 2022 and AEGCo is required to continue paying the entire lease payment until December 7, 2022, the end of the lease.

Q: What did the Company calculate as to the cost or revenue requirement that was included in the Company's December 1990 test year for Rockport Unit No. 1?

A: The cost or revenue requirement that was calculated in the Company's December 1990 test year associated with the Rockport burners was $8,490 on a monthly basis or $101,877 on an annual basis (See Exhibit EKW-13).

Q: Are you recovering the same environmental costs associated with the Rockport Generating Plant twice in the environmental surcharge?

A: No. Exhibit EKW-1 demonstrates that only 85% of environmental costs associated with Rockport Unit No. 1 and 65.08% of Rockport Unit No. 2 is included in the AEP Interconnection Agreement and 30% of AEGCo's 50% portion or 15% of both Rockport Unit Nos. 1 and 2 are included in the UPA.

Rate of Return

Q. Is KPCo seeking a rate of return on equity on the compliance related capital expenditures set forth in the Second Amended Environmental Compliance Plan?

A. No. KPCo is merely seeking the recovery of environmental costs it incurs to comply with the Federal Clean Air Act as a result of both the federally approved AEP Interconnection Agreement and the Rockport Unit Power Agreement.

Q. What is the estimated annual effect of the proposed changes to the environmental surcharge tariff?

A. The estimated annual retail effect of the proposed changes to the environmental surcharge tariff is approximately $1,885,813 (See Exhibit EKW-14 Ln 6). The effect on a residential customer using an average 1,000 kWh per month would be an increase to the retail customer's monthly bill by approximately $0.32 or $3.84 annually. This equates to an increase of less then 1% (approximately 0.61% increase).

Q. Does this conclude you testimony?

A: Yes it does.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

COMMONWEALTH OF KENTUCKY

CASE NO. 2005-00068

COUNTY OF FRANKLIN

AFFIDAVIT

Errol K. Wagner, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.

Errol K. Wagner

Errol K. Wagner

Subscribed and sworn to before me by Errol K. Wagner this 3rd day of March, 2005.

Judy K Tackett

Notary Public

My Commission Expires January 14, 2009

Kentucky Power Company
AEP Pool Surplus Companies
Net Investment in Environmental Facilities
In Thousand Dollars

Ln. No. (1)	Generating Unit (2)	Project Description (3)	In-Service Date (4)	New Environ. Facilities Cost ($000) (5)	Less Original Facility Cost in Base Rates ($000) (6)	Net Environment Investment ($000) (7)	OPCo or I&M Percentage (8)	I&M's Enviro. Invest. (9)	OPCo's Enviro. Invest. (10)
1	Amos Unit 3	Continuous Emission Monitoring System	1995	$635	$0	$635	100%		$635
2	Amos Unit 3	Low NOx Burners	1998	$6,681	$617	$6,064	100%		$6,064
3	Amos Unit 3	SCR	2002	$83,916	$6	$83,910	100%		$83,910
4	Cardinal Unit 1	Continuous Emission Monitoring System	1994	$1,005	$0	$1,005	100%		$1,005
5	Cardinal Unit 1	Low NOx Burners	1998	$5,912	$1,622	$4,290	100%		$4,290
6	Cardinal Unit 1	SCR and Associated SO3 Mitigation System	2003 (SCR);2004 (SO3 Mitigation)	$92,978	$0	$92,978	100%		$92,978
7	Gavin Plant Unit 1	Low NOx Burners	1999	$14,431	$1,171	$13,260	100%		$13,260
8	Gavin Plant Unit 1	SCR Catalyst Replacement	2005	$12,962	$12,714	$248	100%		$248
9	Gavin Plant Unit 2	Low NOx Burners	1999	$13,472	$6,975	$6,497	100%		$6,497
10	Gavin Plant Unit Common	SCR Associated SO3 Mitigation System	2001 (SCR);2003,2004 (SO3 Mitigation)	$228,921	$783	$228,138	100%		$228,138
11	Kammer Plant Unit 1	Over Fire Air and Duct Modification	1999 (OFA) 2003 (Duct Mod.)	$1,895	$177	$1,718	100%		$1,718
12	Kammer Plant Unit 2	Over Fire Air and Duct Modification	1999 (OFA) 2004 (Duct Mod.)	$2,295	$22	$2,273	100%		$2,273
13	Kammer Plant Unit 3	Over Fire Air and Duct Modification	1999 (OFA) 2003 (Duct Mod.)	$2,293	$173	$2,120	100%		$2,120
14	Kammer Plant Common	Continuous Emission Monitoring System	1993	$1,289	$212	$1,077	100%		$1,077
15	Mitchell Plant Unit 1	Low NOx Burners	1993	$10,413	$2,280	$8,133	100%		$8,133
16	Mitchell Plant Unit 1	Water Injection and Low NOx Burners Modification	2002	$1,597	$0	$1,597	100%		$1,597
17	Mitchell Plant Unit 2	Low NOx Burners	1994	$9,922	$2,280	$7,642	100%		$7,642

Kentucky Power Company
AEP Pool Surplus Companies
Net Investment in Environmental Facilities
In Thousand Dollars

Ln. No. (1)	Generating Unit (2)	Project Description (3)	In-Service Date (4)	New Environ. Facilities Cost ($000) (5)	Less Original Facility Cost in Base Rates ($000) (6)	Net Environment Investment ($000) (7)	OPCo or I&M Percentage (8)	I&M's Enviro. Invest. (9)	OPCo's Enviro. Invest. (10)
18	Mitchell Plant Unit 2	Low NOx Burners Modifications	2004	$619	$0	$619	100%		$619
19	Mitchell Plant Common	Continuous Emission Monitoring System	1993	$1,419	$141	$1,278	100%		$1,278
20	Mitchell Plant Common	Replace Burner Barrier Valves	2004	$326	$150	$176	100%		$176
21	Muskingum River Unit 1	Low NOx Ductwork and Over Fire Air	2000	$1,215	$233	$982	100%		$982
22	Muskingum River Unit 1	Over Fire Air Modification and Water Injection	2003	$1,528	$287	$1,241	100%		$1,241
23	Muskingum River Unit 1	Water Injection Modification	2004	$106	$0	$106	100%		$106
24	Muskingum River Unit 2	Low NOx Ductwork and Over Fire Air	2000	$1,004	$243	$761	100%		$761
25	Muskingum River Unit 2	Over Fire Air Modification and Water Injection	2004	$1,254	$123	$1,131	100%		$1,131
26	Muskingum River Unit 3	Over Fire Air	2000	$984	$135	$849	100%		$849
27	Muskingum River Unit 3	Over Fire Air Modification	2003	$868	$168	$700	100%		$700
28	Muskingum River Unit 3	NOx Instrumentation	2004	$276	$0	$276	100%		$276
29	Muskingum River Unit 4	Over Fire Air	2000	$838	$140	$698	100%		$698
30	Muskingum River Unit 4	Over Fire Air Modification	2004	$819	$43	$776	100%		$776
31	Muskingum River Unit 5	Low NOx Burners	1994	$5,572	$1,441	$4,131	100%		$4,131

Kentucky Power Company
AEP Pool Surplus Companies
Net Investment in Environmental Facilities
In Thousand Dollars

Ln. No. (1)	Generating Unit (2)	Project Description (3)	In-Service Date (4)	New Environ. Facilities Cost ($000) (5)	Less Original Facility Cost in Base Rates ($000) (6)	Net Environment Investment ($000) (7)	OPCo or I&M Percentage (8)	I&M's Enviro. Invest. (9)	OPCo's Enviro. Invest. (10)
32	Muskingum River Unit 5	Low NOx Burner Modification and Weld Overlays	2004	$2,144	$0	$2,144	100%		$2,144
33	Muskingum River Unit 5	SCR	2005	$98,297	$0	$98,297	100%		$98,297
34	Muskingum River Plant Common	Continuous Emissions Monitoring System	1993	$2,516	$0	$2,516	100%		$2,516
35	Phillip Sporn Unit 2	Low NOx Burners	1997	$2,684	$140	$2,544	100%		$2,544
36	Phillip Sporn Unit 2	Low NOx Burners Modifications	2003	$617	$0	$617	100%		$617
37	Phillip Sporn Unit 4	Low NOx Burners and Modulating Inject. Air	1998	$2,249	$570	$1,679	100%		$1,679
38	Phillip Sporn Unit 4	Low NOx Burner Modifications	2004	$728	$0	$728	100%		$728
39	Phillip Sporn Unit 5	Low NOx Burners and Modulating Inject. Air	1999	$4,597	$0	$4,597	100%		$4,597
40	Phillip Sporn Plant Common	SO3 Injection System	2003	$3,330	$0	$3,330	100%		$3,330
41	Phillip Sporn Plant Common	Continous Emission Monitoring System	1994	$2,016	$269	$1,747	100%		$1,747

Kentucky Power Company
AEP Pool Surplus Companies
Net Investment in Environmental Facilities
In Thousand Dollars

Ln. No. (1)	Generating Unit (2)	Project Description (3)	In-Service Date (4)	New Environ. Facilities Cost ($000) (5)	Less Original Facility Cost in Base Rates ($000) (6)	Net Environment Investment ($000) (7)	OPCo or I&M Percentage (8)		I&M's Enviro. Invest. (9)	OPCo's Enviro. Invest. (10)
42	Rockport Unit 1	Low NOx Burners	2003	$16,753	$6,210	$10,543	85%	*	$8,962	
43	Rockport Unit 2	Low NOx Burners	2004	$16,712	$0	$16,712	65%	*	$10,876	
44	Tanners Creek Unit 1	Low NOx Burners	1995	$1,459	$125	$1,334	100%		$1,334	
45	Tanners Creek Unit 1	Low NOx Burners Modifications	2004	$1,300	$0	$1,300	100%		$1,300	
46	Tanners Creek Unit 1	Low NOx Burner Leg Replacement	2004	$605	$484	$121	100%		$121	
47	Tanners Creek Unit 2	Low NOx Burners	1998	$2,673	$578	$2,095	100%		$2,095	
48	Tanners Creek Unit 2	Water Injection	2003	$1,284	$0	$1,284	100%		$1,284	
49	Tanners Creek Unit 3	Low NOx Burners	1999	$3,823	$854	$2,969	100%		$2,969	
50	Tanners Creek Unit 3	Low NOx Burner Modification	2004	$858	$1	$857	100%		$857	
51	Tanners Creek Unit 4	Over Fire Air/Low NOx Burners	2002	$3,419	$6	$3,413	100%		$3,413	
52	Tanners Creek Unit 4	ESP Controls Upgrade	2004	$443	$64	$379	100%		$379	
53	Tanners Creek Plant Common	Continuous Emissions Monitoring System	1995 (Unit 4) and 1996 (Units 1-3)	$2,628	$614	$2,014	100%		$2,014	
54				$678,580	$42,051	$636,529			$35,604	$593,508

* I&M's Share of Rockport Plant in the AEP Pool

Rockport Unit No. 1	I&M 's 650 MW + AEGCo's 455MW (1105 MW / 1300MW)
Rockport Unit No. 2	I&M 's 650 MW + AEGCo's 196MW (846 MW / 1300 MW)

Exhibit EKW-2

Kentucky Power Company
AEP System Pool
Capacity Equalization Settlement
November 2004 Actual

Calculation of Member Capacity Surplus / (Deficit) (kw)

Ln No.	Company	Member Primary Capacity (kw)	Member Load Ratio	Primary Capacity Reservation (kw)	Capacity Surplus (Deficit) (kw)
		(1)	(2)	(3)=Total kw*(2)	(4)=(1)-(3)
1	APCo	5,899,000	30.709%	7,116,200	(1,217,200)
2	KPCo	1,450,000	7.207%	1,670,100	(220,100)
3	I&M	5,100,000	19.752%	4,577,100	522,900
4	OPCo	8,129,000	24.667%	5,716,100	2,412,900
5	CSP	2,595,000	17.665%	4,093,500	(1,498,500)
6	Total	23,173,000	100.000%	23,173,000	0

Calculation of Member Capacity Settlement ($)

		Capacity Surplus (Deficit) (kw)	Capacity Rate ($/kw)	Credit (Charge) ($)
		(5)	(6)	(7)
7	APCo	(1,217,200)	$8.15	($9,917,385)
8	KPCo	(220,100)	$8.15	($1,793,310)
9	I&M	522,900	$12.89	$6,740,181
10	OPCo	2,412,900	$7.12	$17,179,848
11	CSP	(1,498,500)	$8.15	($12,209,334)
12	Total	0		$0

Exhibit EKW-3

Kentucky Power Company
AEP Pool
Capacity Rate Calculations
I & M and OPCo Surplus Members
November 2004 Actual

Ln No.				I&M	OPCo	
		Primary Capacity Investment Rate:				
1		Steam Production Plant as of 12/31/03	($)	$3,250,415,272	$3,204,423,264	
2		Steam Capability as of 12/31/03	(kw)	5,089,000	8,472,000	
3	= (1)/(2)	Average Cost of Investment	($/kw)	$638.71	$378.24	
4		Times Carrying Charge (16.44% / 12 Months)	($/kw/Month)	0.0137	0.0137	
5	= (3)*(4)	Primary Capacity Investment Rate		$8.75	$5.18	
		(Monthly) Fixed Operating Rate:				
6		Steam Plant Operation Expense	($)	$15,399,452	$12,902,849	
7		1/2 Maintenance Expense	($)	$5,660,791	$3,499,863	
8	= (6)+(7)	Subtotal - Fixed Operating Expense	($)	$21,060,243	$16,402,712	
9		Steam Capability	(kw)	5,089,000	8,472,000	
10	= (8)/(9)	Fixed Operating Rate	($/kw)	4.14	1.94	
11	= (5)+(10)	**Capacity Rate**	($/kw)	$12.89	$7.12	
		Calculate AEP Pool Average Capacity Rate ($/kw)				
12		Surplus Capacity	(kw)	522,900	2,412,900	
13		Member's Percent of Pool's Total Surplus	(%)	17.81%	82.19%	
14		Surplus Member's Capacity Rate	($/kw)	$12.89	$7.12	
15		Surp. Memb. CAP Rate Recv. From Deficit Memb.	($/kw)	2.3	5.85	
16		AEP Pool's Average Capacity Rate	($/kw)			$8.15

Exhibit EKW-4

Kentucky Power Company
AEP Pool Monthly
Environmental Capacity Costs
for November 2004

Ln. No.	Description	I&M	OPCo	KPCo
1	Net Cost of Envir. Facilities Investment Installed ($ Thousands) (See Exhibit EKW-1)	$35,604	$593,508	
2	Installed Capacity (kw) (See Exhibit EKW-3)	5,089,000	8,472,000	
3	Wgt. Ave. Installed Cost (Ln1/Ln2) ($/kw)	$7.00	$70.06	
4	Monthly Return on Investment (See Exhibit EKW-3)	0.0137	0.0137	
5	Envir. Member Cap. Invest. Rate ($/kw/month)	$0.10	$0.96	
	Plus: Operations & 1/2 Maintenance			
6	Amos Unit No. 3 SCR (Exhibit EKW-5 L 11)		$0.00	
7	Cardinal Unit No. 1 SCR (Exhibit EKW-6 L.9)		$0.00	
8	Gavin Unit No. 1 SCR (Exhibit EKW-7 L 10)		$0.00	
9	Gavin Unit No. 2 SCR (Exhibit EKW-8 L10)		$0.00	
10	Muskingum River Unit No. 5 SCR (Exhibit EKW-9 L 9)		$0.00	
11	Title V Air Emission Fees (Exhibit EKW-10 L 12)	$0.00	$0.01	
12	Sub-Total	$0.10	$0.97	
13	Surplus Company Weighting (See Exhibit EKW-10)	17.81%	82.19%	
14	Effect on Wgt. Ave. Rate (Ln11 * 12)	0.02	0.8	0.82
15	KPCo's Pool Capacity Deficit (See Exhibit EKW-2)			220,100
16	KPCo's Monthly Envir. Pool Cap. Charge			$180,482
17	Number of months			12
18	Annual Effect of Envir. Pool Cap. Charge			$2,165,784

Exhibit EKW - 5

Ohio Power Company
Amos Unit No. 3
Selective Catalytic Reduction (SCR)
12 Month Ending November 30, 2004

Ln. No.	Description	Dec 03	Jan 04	Feb 04	Mar 04	Apr 04	May 04	Jun 04	Jul 04	Aug 04	Sept 04	Oct 04	Nov 04	Total
	Operations													
1	UREA (Acct. No. 5020002)	$2,097.69	$0.00	$0.00	$0.00	$427.56	$33,493.56	$111,850.94	$150,777.47	$179,647.77	$76,938.84	$92,540.67	$0.00	
2	Total Operations (Ln1)	$2,097.69	$0.00	$0.00	$0.00	$427.56	$33,493.56	$111,850.94	$150,777.47	$179,647.77	$76,938.84	$92,540.67	$0.00	
	Maintenance													
3	SCR (Acct. No. 512)	$5,113.32	$20,465.90	$134,790.49	$79,109.56	$399,508.80	$462,916.62	($179,108.49)	($31,106.86)	$10,269.34	$32,013.39	$15,579.53	$21,209.41	
4	1/2 Maintenance (Ln4/2)	$2,556.66	$10,232.95	$67,395.25	$39,554.78	$199,754.40	$231,458.31	($89,554.25)	($15,553.43)	$5,134.67	$16,006.70	$7,789.77	$10,604.71	
5	Total Fixed O&M (Ln3 + Ln5)	$4,654.35	$10,232.95	$67,395.25	$39,554.78	$200,181.96	$264,951.87	$22,296.69	$135,224.04	$184,782.44	$92,945.54	$100,330.44	$10,604.71	
6	OPCo's Percentage Ownership	66.67%	66.67%	66.67%	66.67%	66.67%	66.67%	66.67%	66.67%	66.67%	66.67%	66.67%	66.67%	
7	OPCo's Share of Fixed O&M (L6 * L7)	$3,103.06	$6,822.31	$44,932.41	$26,371.17	$133,461.31	$176,643.41	$14,865.20	$90,153.87	$123,194.45	$61,966.79	$66,890.30	$7,070.16	
8	OPCo Steam Capacity (kw)	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	
9	Amos Unit No 3 SCR Rate ($/kw)	$0.00	$0.00	$0.01	$0.00	$0.02	$0.02	$0.00	$0.01	$0.01	$0.01	$0.01	$0.00	
10	OPCo Surplus Weighting (%)	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	
11	Effect on Wt. Ave. Rate ($/kw)	$0.00	$0.00	$0.01	$0.00	$0.02	$0.02	$0.00	$0.01	$0.01	$0.01	$0.01	$0.00	
	Kentucky Power's Share:													
12	Portion of Wgt. Av. Cap. Rate Attributed to Amos No. 3 SCR	$0.00	$0.00	$0.01	$0.00	$0.02	$0.02	$0.00	$0.01	$0.01	$0.01	$0.01	$0.00	
13	KPCo's Pool Cap. Deficit	222,400	222,400	180,000	180,000	180,000	180,000	180,000	180,000	180,000	218,900	220,100	220,100	
14	KPCo's Share of Amos No. 3 SCR	$0.00	$0.00	$1,800.00	$0.00	$3,600.00	$3,600.00	$0.00	$1,800.00	$1,800.00	$2,189.00	$2,201.00	$0.00	$16,990.00

Exhibit EKW - 6

Ohio Power Company
Cardinal Unit No. 1
Selective Catalytic Reduction (SCR)
12 Month Ending November 30, 2004

Ln. No.	Description	Dec 03	Jan 04	Feb 04	Mar 04	Apr 04	May 04	Jun 04	Jul 04	Aug 04	Sept 04	Oct 04	Nov 04	Total
	Operations													
1	UREA (Acct. No. 5020002)	$0.00	$0.00	$0.00	$0.00	$0.00	$4,485.44	$34,160.47	$41,736.36	$36,133.30	$31,837.74	$21,639.00	$0.00	
2	Total Operations (Ln1)	$0.00	$0.00	$0.00	$0.00	$0.00	$4,485.44	$34,160.47	$41,736.36	$36,133.30	$31,837.74	$21,639.00	$0.00	
	Maintenance													
3	SCR (Acct. No. 512)	$1,032.37	$1,217.25	$1,915.29	$2,227.71	$16,625.08	$6,958.53	$2,238.25	$9,193.22	$10,908.99	$5,599.24	$0.00	$0.00	
4	1/2 Maintenance (Ln4/2)	$516.19	$608.63	$957.65	$1,113.86	$8,312.54	$3,479.27	$1,119.13	$4,596.61	$5,454.50	$2,799.62	$0.00	$0.00	
5	Total Fixed O&M (Ln3 + Ln5)	$516.19	$608.63	$957.65	$1,113.86	$8,312.54	$7,964.71	$35,279.60	$46,332.97	$41,587.80	$34,637.36	$21,639.00	$0.00	
6	OPCo Steam Capacity (kw)	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	
7	Card. Unit No. 1 SCR Rate ($/kw)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.01	$0.00	$0.00	$0.00	$0.00	
8	OPCo Surplus Weighting (%)	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	
9	Effect on Wt. Ave. Rate ($/kw)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.01	$0.00	$0.00	$0.00	$0.00	
	Kentucky Power's Share:													
10	Portion of Wgt. Av. Cap. Rate Attributed to Card. No. 1 SCR	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.01	$0.00	$0.00	$0.00	$0.00	
11	KPCo's Pool Cap. Deficit	222,400	222,400	180,000	180,000	180,000	180,000	180,000	180,000	180,000	218,900	220,100	220,100	
12	KPCo's Share of Card. No. 1 SCR	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,800.00	$0.00	$0.00	$0.00	$0.00	$1,800.00

Exhibit EKW - 7

Ohio Power Company
Gavin Unit No. 1
Selective Catalytic Reduction (SCR)
12 Month Ending November 30, 2004

Ln. No.	Description	Dec 03	Jan 04	Feb 04	Mar 04	Apr 04	May 04	Jun 04	Jul 04	Aug 04	Sept 04	Oct 04	Nov 04	Total
	Operations													
1	UREA (Acct. No. 5020002)	($74,542.87)	$0.00	$0.00	$442.17	$8,722.96	$140,283.01	$360,379.69	$295,533.65	$328,056.56	$329,715.90	$0.00	826	
2	TRONA (Acct. No. 5020003)	$0.00	$49,921.59	$30,927.82	$46,245.93	$56,637.47	$160,678.30	$217,659.37	$285,076.99	$84,589.15	$226,236.40	$67,019.50	($5,887.50)	
3	Total Operations (Lines 1 + 2)	($74,542.87)	$49,921.59	$30,927.82	$46,688.10	$65,360.43	$300,961.31	$578,039.06	$580,610.64	$412,645.71	$555,952.30	$67,019.50	($5,061.50)	
	Maintenance													
4	SCR (Acct. No. 512)	$0.00	$0.00	$3,521.70	$0.00	$38,069.20	$10,452.20	$29,988.00	$40,237.40	$13,246.80	$28,135.80	$9,500.00	$8,000.00	
5	1/2 Maintenance (Ln5/2)	$0.00	$0.00	$1,760.85	$0.00	$19,034.60	$5,226.10	$14,994.00	$20,118.70	$6,623.40	$14,067.90	$4,750.00	$4,000.00	
6	Total Fixed O&M (Ln4 + Ln6)	($74,542.87)	$49,921.59	$32,688.67	$46,688.10	$84,395.03	$306,187.41	$593,033.06	$600,729.34	$419,269.11	$570,020.20	$71,769.50	($1,061.50)	
7	OPCo Steam Capacity (kw)	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	
8	Gavin Unit No. 1 SCR Rate ($/kw)	($0.01)	$0.01	$0.00	$0.01	$0.01	$0.04	$0.07	$0.07	$0.05	$0.07	$0.01	$0.00	
9	OPCo Surplus Weighting (%)	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	
10	Effect on Wt. Ave. Rate ($/kw)	($0.01)	$0.01	$0.00	$0.01	$0.01	$0.03	$0.06	$0.06	$0.04	$0.06	$0.01	$0.00	
	Kentucky Power's Share:													
11	Portion of Wgt. Ave. Cap. Rate Attributed to Gavin No.1 SCR	($0.01)	$0.01	$0.00	$0.01	$0.01	$0.03	$0.06	$0.06	$0.04	$0.06	$0.01	$0.00	
12	KPCo's Pool Cap. Deficit	222,400	222,400	180,000	180,000	180,000	180,000	180,000	180,000	180,000	218,900	220,100	220,100	
13	KPCo's Share of Gavin No. 1 SCR	($2,224.00)	$2,224.00	$0.00	$1,800.00	$1,800.00	$5,400.00	$10,800.00	$10,800.00	$7,200.00	$13,134.00	$2,201.00	$0.00	$53,135.00

Ohio Power Company
Gavin Unit No. 2
Selective Catalytic Reduction (SCR)
12 Month Ending November 30, 2004

Ln. No.	Description	Dec 03	Jan 04	Feb 04	Mar 04	Apr 04	May 04	Jun 04	Jul 04	Aug 04	Sept 04	Oct 04	Nov 04	Total
	Operations													
1	UREA (Acct. No. 5020002)	($72,812.77)	$0.00	$0.00	$381.29	$3,191.66	$154,971.65	$360,710.47	$306,777.11	$365,347.83	$408,548.76	$0.00	$826.00	
2	TRONA (Acct. No. 5020003)	$0.00	$49,078.41	$30,543.18	$39,878.25	$20,723.15	$177,502.46	$217,859.16	$295,922.62	$94,204.67	$280,328.01	$67,019.50	($5,887.50)	
3	Total Operations (Lines 1 + 2)	($72,812.77)	$49,078.41	$30,543.18	$40,259.54	$23,914.81	$332,474.11	$578,569.63	$602,699.73	$459,552.50	$688,876.77	$67,019.50	($5,061.50)	
	Maintenance													
4	SCR (Acct. No. 512)	$0.00	$0.00	$3,478.30	$0.00	$13,930.80	$11,547.80	$30,012.00	$41,762.60	$14,753.20	$34,864.20	$9,500.00	$8,000.00	
5	1/2 Maintenance (Ln5/2)	$0.00	$0.00	$1,739.15	$0.00	$6,965.40	$5,773.90	$15,006.00	$20,881.30	$7,376.60	$17,432.10	$4,750.00	$4,000.00	
6	Total Fixed O&M (Ln4 + Ln6)	($72,812.77)	$49,078.41	$32,282.33	$40,259.54	$30,880.21	$338,248.01	$593,575.63	$623,581.03	$466,929.10	$706,308.87	$71,769.50	-$1,061.50	
7	OPCo Steam Capacity (kw)	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	
8	Gavin Unit No. 2 SCR Rate ($/kw)	($0.01)	$0.01	$0.00	$0.00	$0.00	$0.04	$0.07	$0.07	$0.06	$0.08	$0.01	$0.00	
9	OPCo Surplus Weighting (%)	$0.86	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	
10	Effect on Wt. Ave. Rate ($/kw)	($0.01)	$0.01	$0.00	$0.00	$0.00	$0.03	$0.06	$0.06	$0.05	$0.07	$0.01	$0.00	
	Kentucky Power's Share:													
11	Portion of Wgt. Av. Cap Rate Attributed to Gavin No. 2 SCR	($0.01)	$0.01	$0.00	$0.00	$0.00	$0.03	$0.06	$0.06	$0.05	$0.07	$0.01	$0.00	
12	KPCo's Pool Cap. Deficit	222,400	222,400	180,000	180,000	180,000	180,000	180,000	180,000	180,000	218,900	220,100	220,100	
13	KPCo's Share of Gavin No. 2 SCR	($2,224.00)	$2,224.00	$0.00	$0.00	$0.00	$5,400.00	$10,800.00	$10,800.00	$9,000.00	$15,323.00	$2,201.00	$0.00	$53,524.00

Exhibit EKW - 9

Ohio Power Company
Muskingum River No. 5
Selective Catalytic Reduction (SCR)
12 Month Estimate November 30, 2005

Ln. No.	Description	Dec 04	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Sept 05	Oct 05	Nov 05	Total
	Operations													
1	UREA (Acct. No. 5020002)	$0	$0	$0	$0	$0	$5,000	$31,000	$42,000	$36,000	$32,000	$22,000	$0	
2	Total Operations (Line 1)	$0	$0	$0	$0	$0	$5,000	$31,000	$42,000	$36,000	$32,000	$22,000	$0	
	Maintenance													
3	SCR (Acct. No. 512)	$0	$0	$0	$0	$0	$7,000	$2,000	$9,000	$11,000	$6,000	$16,000	$0	
4	1/2 Maintenance (Ln5/2)	$0	$0	$0	$3,500	$1,000	$4,500	$5,500	$3,000	$8,000	$0	$0	$0	
5	Total Fixed O&M (Ln4 + Ln6)	$0	$0	$0	$3,500	$1,000	$9,500	$36,500	$45,000	$44,000	$32,000	$22,000	$0	
6	OPCo Steam Capacity (kw)	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	8,472,000	
7	Muskingum River Rate ($/kw)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.01	$0.01	$0.00	$0.00	$0.00	
8	OPCo Surplus Weighting (%)	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	
9	Effect on Wt. Ave. Rate ($/kw)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.01	$0.01	$0.00	$0.00	$0.00	
	Kentucky Power's Share:													
10	Portion of Wgt. Av. Cap Rate Attributed to Muskingum River	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.01	$0.01	$0.00	$0.00	$0.00	
11	KPCo's Pool Cap. Deficit	222,400	222,400	180,000	180,000	180,000	180,000	180,000	180,000	180,000	218,900	220,100	220,100	
12	KPCo's Share of Muskingum River	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,800.00	$1,800.00	$0.00	$0.00	$0.00	$3,600.00

Kentucky Power Company
AEP Pool Surplus Companies
Title V Air Emission Fees
for 2004

Exhibit EKW-10

Ln No	Generating Facility	2004 Payment	I&M & OPCo Cap. %	I&M Pool Amt	OPCo Pool Amt	I&M Montly Amt	OPCo Montly Amt
1	Amos	$265,909	29.90%		$79,507		$6,626
2	Cardinal	$335,551	32.79%		$110,027		$9,169
3	Gavin	$333,092	100.00%		$333,092		$27,758
4	Kammer	$202,873	100.00%		$202,873		$16,906
5	Mitchell	$255,250	100.00%		$255,250		$21,271
6	Muskingum River	$327,201	100.00%		$327,201		$27,267
7	Phillip Sporn	$229,990	71.43%		$164,282		$13,690
8	Rockport	$150,000	75.04%	$112,560		$9,380	
9	Tanners Creek	$150,000	100.00%	$150,000		$12,500	
10	Total	$2,249,866		$262,560	$1,472,232	$21,880	$122,687
11	Member Primary Cap.					5,089,000	8,472,000
	Pool Fixed Rate /kw					$0.00	$0.01

Ln No	Generating Facility	OPCo Generating Cap. KW	Total Generating Cap. KW	OPCo Percentage	I&M Generating Cap KW	Total Generating Cap KW	I&M Percentage
13	Amos	867,000	2,900,000	29.90%			
14	Cardinal	600,000	1,830,000	32.79%			
15	Phillip Sporn	750,000	1,050,000	71.43%			
16	Rockport				1,951,000	2,600,000	75.04%

Exhibit EKW - 11

Kentucky Power Company
AEP System Pool
Surplus Percentage Calculations
Twelve months ending November 2004

Ln No.	Company	Dec 03 Member Surplus Capacity (kw) (1)	Jan 04 Member Surplus Capacity (kw) (2)	Feb 04 Member Surplus Capacity (kw) (3)	Mar 04 Member Surplus Capacity (kw) (4)	Apr 04 Member Surplus Capacity (kw) (5)	May 04 Member Surplus Capacity (kw) (6)	Jun 04 Member Surplus Capacity (kw) (7)	July 04 Member Surplus Capacity (kw) (8)	Aug 04 Member Surplus Capacity (kw) (9)	Sept 04 Member Surplus Capacity (kw) (10)	Oct 04 Member Surplus Capacity (kw) (11)	Nov 04 Member Surplus Capacity (kw) (12)
1	I&M	563,200	563,200	420,400	420,400	420,400	420,400	420,400	420,400	420,400	420,400	522,900	522,900
2	OPCo	2,653,500	2,653,500	2,481,100	2,481,100	2,481,100	2,481,100	2,481,100	2,481,100	2,481,100	2,481,100	2,412,900	2,412,900
3	Total	3,216,700	3,216,700	2,901,500	2,901,500	2,901,500	2,901,500	2,901,500	2,901,500	2,901,500	2,901,500	2,935,800	2,935,800

Ln No.	Company	Dec 03 Surplus %	Jan 04 Surplus %	Feb 04 Surplus %	Mar 04 Surplus %	Apr 04 Surplus %	May 04 Surplus %	Jun 04 Surplus %	July 04 Surplus %	Aug 04 Surplus %	Sept 04 Surplus %	Oct 04 Surplus %	Nov 04 Surplus %
4	I&M	17.51%	17.51%	14.49%	14.49%	14.49%	14.49%	14.49%	14.49%	14.49%	14.49%	17.81%	17.81%
5	OPCo	82.49%	82.49%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	85.51%	82.19%	82.19%
6	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Exhibit EKW-12

Kentucky Power Company
Rockport Low Nox Burners
Environmental Surcharge Calculations
Revenue Requirement

Ln. No.	Cost Component	Unit No. 1	Unit No. 2		Total
	Return on Rate Base:				
1	AEGCo Low Nox Burners Installed Cost	$8,234,000	$8,304,000		
2	Less Accumulated Depreciation	$289,836	$240,261		
3	Less Accum. Def. Income Taxes	$1,262,907	$1,437,158		
4	Total Rate Base	$6,681,257	$6,626,581		$13,307,838
5	Nov. Weighted Average Cost of Capital			12.1900%	
6	Monthly Weighted Avg, Cost of Capital				1.0158%
7	Monthly Return on Rate Base (Lns. 4 * 6)				$135,181
	Operating Expenses:				
8	Monthly Depreciation Expense	$24,153	$34,323		$58,476
9	Total Operating Expense				$58,476
10	Total Revenue Requirement Associated with Rockport Low Nox Burners (Lns 7 + 9)				$193,657
11	KPCo's Portion of Rockport's Low Nox Burners (Ln 10 * 30%)				$58,097
12	Annualize				12
13	Annualized Revenue Requirement				$697,166 *

* Any difference is due to rounding

Exhibit EKW-13

Kentucky Power Company
Rockport Burner Retirements
Environmental Surcharge Calculations
Base Period
Revenue Requirement

For the Month of December 1990

Ln. No	**Cost Component**	Unit No. 1		Total
	Return on Rate Base:			
1	AEGCo Low Nox Burners Installed Cost	$3,104,670		
2	Less Accumulated Depreciation	$699,793		
3	Less Accum. Def. Income Taxes	$301,045		
4	Total Rate Base	$2,103,832		$2,103,832
5	Weighted Average Cost of Capital		12.6216%	
6	Monthly Weighted Avg, Cost of Capital			1.0518%
7	Monthly Return on Rate Base (Lns. 4 * 6)			$22,128
	Operating Expenses:			
8	Monthly Depreciation Expense	$6,171		$6,171
9	Total Operating Expense			$6,171
10	Total Revenue Requirement Associated with Rockport Low Nox Burners (Lns 7 + 9)			$28,299
11	KPCo's Portion of Rockport's Low Nox Burners (Ln 10 * 30%)			$8,490
12	Annualize			12
13	Annualized Revenue Requirement			$101,877 *

* Any difference is due to rounding

Exhibit EKW-14

Kentucky Power Company
Environmental Costs Associated
with AEP Pool Charges and
KPCo's Share of Rockport Plant

Ln No	Description		Annual Amount
1	Annual Effect of Environmental Pool Capacity Charges	(EKW-4 Ln.17)	$2,165,784
2	KPCo's Share of Rockport Environmental Costs	(EKW-12 Ln. 13)	$697,166
3	Less: Rockport Environmental Costs in Base Rates	(EKW-13 Ln. 13)	$101,877
4	Net KPCo's Share of Environmental Costs Associated with the AEP Pool and Rockport Agreements	(Lns. 1 + 2 - 3)	$2,761,073
5	KPCo's Twelve Months November 2004 Average Retail Allocation		68.30%
6	Net Annual Impact on the Kentucky Retail Customers		$1,885,813
7	November 2004 Billed Revenue		$306,939,108
	Percent Increase		0.6144%
9	Monthly Effect on a Residential Customer using 1,000 kWh		$0.32
10	Annual Effect for a Residential Customer		$3.84