EAST KENTUCKY POWER COOPERATIVE

RECEIVED

MAY 15 2008

PUBLIC SERVICE COMMISSION

May 15, 2008

HAND DELIVERED

Ms. Stephanie L. Stumbo
Executive Director
Public Service Commission
Post Office Box 615
211 Sower Boulevard
Frankfort, KY 40602

Re: Case No. 2008-00115

Dear Ms. Stumbo:

Please find enclosed for filing with the Commission in the above-referenced case an original and six copies of the responses of East Kentucky Power Cooperative, Inc., to the Commission Staff first data requests dated May 1, 2008, and the Kentucky Industrial Utility Customers, Inc. first data requests dated April 29, 2008.

Very truly yours,

Charles A. Lile
Corporate Counsel

Enclosures

Cc: Michael L. Kurtz, Esq.
Kurt J. Boehm, Esq.

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

THE APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC., FOR APPROVAL OF AN AMENDMENT TO ITS ENVIRONMENTAL COMPLIANCE PLAN AND ENVIRONMENTAL SURCHARGE	)))))	**CASE NO. 2008-00115**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

James C. Lamb, Jr., being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff First Data Request in the above-referenced case dated May 1, 2008, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

James C. Lamb, Jr.

Subscribed and sworn before me on this 14th day of May, 2008.

Peggy S. Griffin
Notary Public

My Commission expires: December 8, 2009

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC., FOR APPROVAL OF AN AMENDMENT TO ITS ENVIRONMENTAL COMPLIANCE PLAN AND ENVIRONMENTAL SURCHARGE	)))))	CASE NO. 2008-00115

RESPONSES TO COMMISSION STAFF'S FIRST DATA REQUEST TO EAST KENTUCKY POWER COOPERATIVE, INC. DATED MAY 1, 2008

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00115
FIRST DATA REQUEST RESPONSE

COMMISSION STAFF'S FIRST DATA REQUEST DATED 05/01/08
REQUEST 1
RESPONSIBLE PERSON: **Craig A. Johnson**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 1. Refer to page 4 of the Direct Testimony of David G. Eames ("Eames Testimony") Provide a signed copy of the Consent Decree agreed to by East Kentucky and the Environmental Protection Agency.

Response 1. Please see Attachment 1 for Civil Action No. 06-cv-00211-JMH and Attachment 2 for Civil Action No. 04-34-KSF on the enclosed CD.

Request 1a. Does the Consent Decree specifically identify or require the projects proposed in the application? If yes, provide the specific reference in the Consent Decree where each project is identified.

Response 1a.

Project No. 3	Addition: SCR Modifications for Spurlock 1	NO
Project No. 4	Addition: SCR Modifications for Spurlock 2	NO
Project No. 5:	Dale 1 and 2 Low NOx Burners	YES
	Civil Action No. 06-CV-00211, Paragraph 15	
Project No. 6:	Spurlock 1 Low NOx Burners	NO
Project No. 7:	Spurlock 2 – Wet FGD Scrubber	YES
	Civil Action No. 04-34-KSF, Paragraph 65	

Project No. 8: Spurlock 1 – Wet FGD Scrubber YES
Civil Action No. 04-34-KSF, Paragraph 65

Project No. 9: Spurlock 4 – Pollution Control Equipment NO

Project No. 10: Spurlock, Cooper, & Dale: Particulate Matter And Continuous Emission Monitoring Equipment

- Particulate Matter Monitors YES
  Spurlock 2 only,
  Civil Action No. 04-34-KSF,
  Paragraph 89
- Mercury CEMS YES
  Civil Action No. 04-34-KSF
  EKPC choice of either Spurlock 1 or 2,
  Paragraph 97, Spurlock 2 Chosen
- Please see attached information.

Request 1b. If the proposed projects were not specifically identified or required in the Consent Decree, provide all analyses and studies that East Kentucky performed to determine that the following projects were the most reasonable methods to comply with the applicable environmental federal, state, or local statutes and regulations:

1. Low nitrogen oxide ("NOx") burners at Dale Station.
2. Low NOx burners at Spurlock Unit. 1.
3. Spurlock Particulate CEMs and Mercury CEMs at the Dale, Spurlock, and Cooper units.

Response 1b.

1. Low nitrogen oxide ("NOx") burners at Dale Station
   - Required by Civil Action No. 06-CV-00211, Paragraph 15.
2. Low NOx Burners at Spurlock Unit 1.

- Please see attached information. The new Low NOx Burners ("LNB's") were taken into account when modeling the NOx emissions with the improved SCR described in Project No. 3. The SCR was assumed to have a reduction of 80% along with the assumed 20% reduction of the new LNB's giving a NOx emission rate of 0.08 lbs./mmBtus. The old LNB's were placed into service in 1993 and are in need of replacement. Please see further explanation in the response to Request 2(a).

3. Spurlock Particulate CEMs and Mercury CEMs at the Dale, Spurlock, and Cooper Units.
   - Please see the Attachment to the response to Request 1(a).

Environmental Surcharge Justification for CEMs

PM Monitor Justification

1. **Spurlock Unit 2 Stack** – PM Monitor to be installed because of NSR Consent Decree requirement. (NSR Consent Decree Paragraph 89)

2. **Spurlock Unit 1 Stack** - PM Monitor to be installed because the FGD will inhibit the opacity monitor operation because of high stack moisture. We will petition state to switch from an Opacity CEM to a PM CEM that is capable of measuring in the wet stack environment. This would waive opacity requirements, which are only an indicator of PM Emissions, and measure the PM Emissions directly with a PM CEMS. (We haven't petitioned the Kentucky Division for Air Quality yet but will do so in near future)

3. **Spurlock Unit 4** – PM Monitor is to be installed because of a Title V Permit requirement. (Page 28 of 95; Emission Unit 17; Specific Monitoring Requirements; a)

Mercury Monitor Justification

1. **Dale Unit's 1 & 2, Dale Unit's 3 & 4, Cooper Unit's 1 & 2, Spurlock Unit 1, and Spurlock Unit 3** – these Mercury CEMS were ordered because of the EPA Clean Air Mercury Rule. According to this rule all coal fired sources had to have Mercury CEMS certified by January 1, 2009. EKPC bought equipment early to ensure equipment could be procured and certified by the applicable deadline. EKPC awarded a contract for this equipment on December 19, 2007.

   On February 8, 2008, the D.C. Circuit vacated EPA's rule removing power plants from the Clean Air Act list of sources of hazardous air pollutants. At the same time, the Court vacated the Clean Air Mercury Rule. EPA is reviewing the Court's decisions and evaluating its impacts. (http://www.epa.gov/camr/)

   EKPC Consent Decree NSR requires Mercury Monitoring. This will assist EKPC in future Mercury Regulations under Maximum Achievable Control Technology (MACT).

2. **Spurlock Unit 2 Stack** – Mercury CEM to be installed because of NSR Consent Decree requirement. (NSR Consent Decree Paragraph 97)

3. **Spurlock Unit 4** - PM Monitor is to be installed because of a Title V Permit requirement. (Page 28 of 95; Emission Unit 17; Specific Monitoring Requirements; a)

Spurlock CEM Equipment Justification

1. **Spurlock Unit 1 Stack CEM** – This is a new stack that is associated with the new Unit 1 FGD System. This CEM System is needed because of EPA 40 CFR Part 75 requirements, EPA 40 CFR Part 60 requirements, Title V Permit requirements, and NSR Consent Decree requirements, Paragraph 80 and Paragraphs 86-95.

2. **Spurlock Unit 1 Scrubber Inlet CEM** – This CEM is needed because of NSR Consent Decree requirements, Paragraph 80.

3. **Spurlock Unit 2 Stack CEM** – This is a new stack that is associated with the new Unit 2 FGD System. This CEM System is needed because of EPA 40 CFR Part 75 requirements, EPA 40 CFR Part 60 requirements, Title V Permit requirements, and NSR Consent Decree requirements, Paragraph 80 and Paragraphs 86-95.

4. **Spurlock Unit 2 Scrubber Inlet CEM** - This CEM is needed because of NSR Consent Decree requirements, Paragraph 80.

5. **Spurlock Unit 4 Stack CEM** – This is a new source. Monitoring is needed because of EPA 40 CFR Part 75 requirements, EPA 40 CFR Part 60 requirements, and Title V Permit requirements.

Modeling for Consent Decree using 2004, 2005 and 2006 as test years.
Scrubber, new Low NOx Burners and SCR on Spurlock 1.
Scrubber Low Nox Burners and SCR on Spurlock 2.

Unit Name	Year	Capacity Factor	Net Generation Mwhours	NOx Emission Rate, lbs./mmBtu	Max Rolling Avg, NOx	Total NOx Tons	NOx Tons Startup & Shutdown	SO2 Emission Rate, lbs./mmBtu	SO2 Tons
Spurlock 1	2004	70**	1421932	0.08	0.098	824	25.8	0.1	1004
Spurlock 2	2004	86	3938195	0.05	0.056	974	15.4	0.1	1922

** 2005 data was substituted
for the forced outage.

Unit Name	Year	Capacity Factor	Net Generation Mwhours	NOx Emission Rate, lbs./mmBtu	Max Rolling Avg, NOx	NOx Tons	NOx Tons Startup & Shutdown	SO2 Emission Rate, lbs./mmBtu	SO2 Tons
Spurlock 1	2005	81	2298148	0.08	0.087	848	9.9	0.1	1058
Spurlock 2	2005	82	3787189	0.05	0.054	938	8.4	0.1	1855

Unit Name	Year	Capacity Factor	Net Generation Mwhours	NOx Emission Rate, lbs./mmBtu	Max Rolling Avg, NOx	NOx Tons	NOx Tons Startup & Shutdown	SO2 Emission Rate, lbs./mmBtu	SO2 Tons
Spurlock 1	2006	78	2208082	0.08	0.089	866	5.6	0.1	1068
Spurlock 2	2006	88.5	4070244	0.05	0.055	1036	8.3	0.1	2055

PSC Request 1 (b)
Attachment

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00115
FIRST DATA REQUEST RESPONSE

COMMISSION STAFF'S FIRST DATA REQUEST DATED 05/01/08
REQUEST 2
RESPONSIBLE PERSON: **Craig A. Johnson**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 2. Refer to page 6 of the Direct Testimony of Craig A. Johnson.

Request 2a. East Kentucky has already installed Selective Catalytic Reduction Equipment ("SCR") at Spurlock Unit 1 to control NOx emissions. Explain why it is necessary to replace the existing low NOx burners with new low NOx burners.

Response 2a. The existing low NOx burners are now 16 years old and are in need of replacement. The existing low NOx burners are an early vintage of this technology. The new low NOx burners will allow a greater control of the fuel combustion process resulting in lower NOx production. The lower NOx out of the furnace will optimize the SCR operation allowing for an extended catalyst life and should lower SCR operating cost through the use of less anhydrous ammonia. The combination of the new low NOx burners and improved SCR will help ensure compliance with the consent decree (please see the response to Request 1, Attachment 2). To aid in the decision concerning the replacement of existing low NOx burners and improvements to the existing SCR, modeling was performed using 2004, 2005 and 2006 as test years (please see Attachment to the response to Request 1(b)). The SCR improvements as described in the Project No. 3 addition were estimated to reduce NOx emissions over the

life of the catalyst by 80%. The new LNBs were estimated to be capable of reducing NOx emissions out of the boiler by 20%. The combined removal efficiency of the new LNBs along with the improved SCR will help achieve the requirement for a 30-day rolling average NOx emission rate which must include startup and shutdown emissions. During startups and shutdowns, the SCR cannot be operated until the manufacturer's recommendations are satisfied. The new LNBs will reduce the NOx emissions at all times while firing coal.

Request 2b. East Kentucky has also installed an SCR at Spurlock Unit 2 to control NOx emissions. Does East Kentucky anticipate that a similar change-out of low NOx burners will be necessary in the future for Spurlock Unit 2? Explain the response.

Response 2b. No, new LNBs are not planned for Spurlock 2. Spurlock 2 is equipped with a tangentially fired boiler with existing LNBs. Spurlock 2 has an out of the boiler NOx emission rate of 0.25 lbs./mmBtus. Modeling showed that with the improved SCR, as described in Project No. 4 Addition, new LNBs are not required to meet the stringent emission limits set forth in the Consent Decree (please see the response to Request 1, Attachment 2).

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00115
FIRST DATA REQUEST RESPONSE

COMMISSION STAFF'S FIRST DATA REQUEST DATED 05/01/08
REQUEST 3
RESPONSIBLE PERSON: **Ann F. Wood**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 3. Refer to Exhibit AFW-1 of the Direct Testimony of Ann F. Wood.

Request 3a. Provide the same information shown in Exhibit AFW-1 as of September 30, 2006.

Response 3a. The information shown on Exhibit AFW-1 as of September 30, 2006 is included on page 3 of this response.

Request 3b. If the three projects as of September 30, 2006 had Construction Work in Progress ("CWIP") project balances net of Allowance for Funds Used During Construction ("AFUDC"), explain why East Kentucky did not propose any adjustments to the environmental surcharge mechanism to reflect the CWIP net of AFUDC already included in base rates.

Response 3b. Although the three referenced projects had CWIP net of AFUDC balances as of September 30, 2006, no adjustment to the environmental surcharge mechanism is necessary. First, EKPC has not sought recovery of CWIP net of AFUDC on any projects included in the original environmental surcharge application. Second,

EKPC's base rate case (Case No. 2006-00472) was a TIER-based case. Case No. 2006-00472 was not balance sheet (return) driven.

Request 3c. Indicate when construction started on the Dale Station low NOx burners. If construction commenced prior to September 30, 2006, provide the CWIP balance as of September 30, 2006 and any associated AFUDC on that CWIP.

Response 3c. Construction on the Dale Station low NOx burners began in June 2007. Therefore, there was no CWIP balance at September 30, 2006.

EKPC CWIP BALANCES AT 9/30/06

Acct	Project Description	CWIP project balance net of AFUDC @ 9/30/06	AFUDC charged to project through 9/30/06	CWIP total project balance @ 9/30/06
*10720	Spurlock Unit 4	$ 179,771,312	$ 6,183,347	$ 185,954,659
10720	Spurlock 1 Scrubber	$ 1,372,495	$ 19,721	$ 1,392,216
10720	Spurlock 2 Scrubber	$ 20,567,539	$ 436,263	$ 21,003,802

*These amounts represent the entire Spurlock 4 project costs at 9/30/06, without considering the pollution control facilities in isolation.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00115
FIRST DATA REQUEST RESPONSE

COMMISSION STAFF'S FIRST DATA REQUEST DATED 05/01/08
REQUEST 4
RESPONSIBLE PERSON: **James C. Lamb, Jr./Ann F. Wood**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 4. Refer to pages 2 and 3 of the Direct Testimony of William A. Bosta. While Mr. Bosta describes proposed changes to East Kentucky's environmental surcharge tariff to reflect the additional projects to be included in the environmental compliance plan, the application does not address any changes that may be necessary to the monthly surcharge reporting formats. Provide sample copies of the monthly surcharge reporting formats which reflect the inclusion of the additional projects.

Response 4. Attached are sample copies of the monthly surcharge reporting formats, which reflect the inclusion of the additional projects. Only the pages with changes are included; changes are in "***bold***" and "*italicized.*"

East Kentucky Power Cooperative, Inc.
Environmental Surcharge Report

Form 2.0

Revenue Requirements of *Environmental Compliance Costs*
For the Expense Month Ending _____

Determination of Environmental Compliance Rate Base

Eligible Pollution Control Plant (Gross Plant)
Eligible Pollution CWIP net of AFUDC
Subtotal
Additions:
Inventory - Spare Parts
Inventory - Limestone
Inventory - Emission Allowances
Cash Working Capital Allowance
Subtotal
Deductions
Accumulated Depreciation on Eligible Pollution Control Plant
Subtotal
Environmental Compliance Rate Base

Determination of Pollution Control Operating Expenses

Monthly O&M Expense
Monthly Depreciation and Amortization Expense
Monthly Taxes Other Than Income Taxes
Monthly Insurance Expense
Monthly Emission Allowance Expense
Monthly Surcharge Consultant Fee
Total Pollution Control Operating Expense

Gross Proceeds from By-Product and Emission Allowance Sales

Total Proceeds from By-Product and Allowance Sales

(Over)/Under Recovery of Monthly
Surcharge Due to Timing Differences

1	E(m) Revenue Requirement for Six Month Period Ending _____	$
2	Revenue Collected for Six-Month Period Ending _____	$
3	Net (Over)/Under Recovery (Row 1 - Row 2)	$
4	Amortization of Net (Over)/Under Recovery Line (3) / 6	$

East Kentucky Power Cooperative, Inc.
Environmental Surcharge Report
Plant, CWIP, Depreciation, & Taxes and Insurance Expenses
For the Expense Month Ending _____

Form 2.1

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Project No.	Description	Eligible Gross Plant in Service	Eligible Accumulated Depreciation	*CWIP Amount net of AFUDC*	Eligible Net Plant in Service	Monthly Depreciation Expense	Monthly Tax Expense	Monthly Insurance Expense
					(2)-(3)-(4)=(5)			
1	Gilbert							
2	Spurlock 1: Precipitator							
3	Spurlock 1: SCR							
4	Spurlock 2: SCR							
5	*Dale 1 & 2: Low NOx Burners*							
6	*Spurlock 1: Low NOx Burners*							
7	*Spurlock 2: Scrubber*							
8	*Spurlock 1: Scrubber*							
9	*Spurlock 4*							
10	*Spurlock, Cooper & Dale: Continuous Emission Monitoring Equipment*							
	Total							

Form 2.4

East Kentucky Power Cooperative, Inc.
Environmental Surcharge Report
O&M Expenses and Determination of Cash Working Capital Allowance

For the Expense Month Ending _____

Eligible O&M Expenses	*Projects 1-6*	*Projects 7-10*	Total
11th previous month			$0
10th previous month			$0
9th previous month			$0
8th previous month			$0
7th previous month			$0
6th previous month			$0
5th previous month			$0
4rd previous month			$0
3nd previous month			$0
2nd previous month			$0
Previous month			$0
Current Month			$0
Total 12 Month O&M	$0	$0	$0
Average Monthly O&M	$0	$0	$0

Determination of Working Capital Allowance			
12 Months O&M Expense	$0	$0	$0
One-Eighth (1/8) of 12 Month O&M Expenses	$0	$0	$0

Form 2.5

East Kentucky Power Cooperative, Inc.
Environmental Surcharge
Operating and Maintenance Expenses
For the Expense Month Ending _____

	Expense Type	Account Description	Amount
I	Maintenance		
	50144	Fuel Coal Gilbert	
	51241	Maintenance of Boiler Plant Spurlock 1	
	51242	Maintenance of Boiler Plant Spurlock 2	
	51244	Maintenance of Boiler Plant Gilbert	
	501445	***Fuel Coal Spurlock 4***	
	512431	***Maintenance of Boiler Plant Scrubber 1***	
	512432	***Maintenance of Boiler Plant Scrubber 2***	
	51245	***Maintenance of Boiler Plant Spurlock 4***	
II	Air Permit Fees		
	50621	Misc Steam Power Environmental Dale	
	50631	Misc Steam Power Environmental Cooper	
	506445	Misc Steam Power Environmental Spurlock	
III	Operating Expense - Ammonia and Limestone		
	50641	Misc Steam Power Expense - Spurlock 1	
	50642	Misc Steam Power Expense - Spurlock 2	
	50644	Misc Steam Power Expense - Gilbert	
	50620	***Misc Steam Power Expense - Dale***	
	50630	***Misc Steam Power Expense - Cooper***	
	506431	***Misc Steam Power Expense - Spurlock 1***	
	506432	***Misc Steam Power Expense - Spurlock 2***	
	506445	***Misc Steam Power Expense - Spurlock 4***	
	Summary:		
		Projects 7-10	
	501445	***Fuel Coal Spurlock 4***	
	512431	***Maintenance of Boiler Plant Scrubber 1***	
	512432	***Maintenance of Boiler Plant Scrubber 2***	
	51245	***Maintenance of Boiler Plant Spurlock 4***	
	50620	***Misc Steam Power Expense - Dale***	
	50630	***Misc Steam Power Expense - Cooper***	
	506431	***Misc Steam Power Expense - Spurlock 1***	
	506432	***Misc Steam Power Expense - Spurlock 2***	
	506445	***Misc Steam Power Expense - Spurlock 4***	
		Projects 1-6	
	50144	Fuel Coal Gilbert	
	51241	Maintenance of Boiler Plant Spurlock 1	
	51242	Maintenance of Boiler Plant Spurlock 2	
	51244	Maintenance of Boiler Plant Gilbert	
	50621	Misc Steam Power Environmental Dale	
	50631	Misc Steam Power Environmental Cooper	
	506445	Misc Steam Power Environmental Spurlock	
	50641	Misc Steam Power Expense - Spurlock 1	
	50642	Misc Steam Power Expense - Spurlock 2	
	50644	Misc Steam Power Expense - Gilbert	
		Total Monthly Total	