# **ORIGINAL**



Your Touchstone Energy® Cooperative

### COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF	)	
BIG RIVERS ELECTRIC CORPORATION	)	Case No.
FOR ENFORCEMENT OF	)	2019-00269
RATE AND SERVICE STANDARDS	)	

Response to Commission Staff's Information Requests from the October 22, 2020 Hearing

FILED: November 3, 2020

**ORIGINAL** 

#### BIG RIVERS ELECTRIC CORPORATION

#### **ELECTRONIC APPLICATION OF BIG RIVERS ELECTRIC CORPORATION** FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS CASE NO. 2019-00269

#### **VERIFICATION**

I, Michael T. ("Mike") Pullen, verify, state, and affirm that the data request

	which I am listed as a witness are true and ge, information, and belief formed after a
	Wichael T. John
	Michael T. ("Mike") Pullen
COMMONWEALTH OF KENTUCKY ) COUNTY OF HENDERSON )  SUBSCRIBED AND SWORN TO this the 2nd day of November, 2020	before me by Michael T. ("Mike") Pullen on
	Joy P. Paroley
	Notary Public, Kentucky State at Large
	My Commission Expires
	At Lord?

ary Public, Kentucky State-At-Large by Commission Expires: July 10, 2022 ID: 604480

#### **BIG RIVERS ELECTRIC CORPORATION**

#### ELECTRONIC APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS CASE NO. 2019-00269

#### **VERIFICATION**

I, Paul G. Smith, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry,

best of my knowledge, information, and ben	er formed after a reasonable inquiry,
	Parl Smith
Pa	ul G. Smith
COMMONWEALTH OF KENTUCKY ) COUNTY OF HENDERSON )  SUBSCRIBED AND SWORN TO be day of November, 2020.	efore me by Paul G. Smith on this the
	Joy P. Parsley
No	tary Public, Kentucky State at Large
My	Commission Expires

ary Public, Kentucky State-At-Large Commission Expires: July 10, 2022 ID: 604480

#### **BIG RIVERS ELECTRIC CORPORATION**

#### ELECTRONIC APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS CASE NO. 2019-00269

### Response to Commission Staff's Information Requests from the October 22, 2020 Hearing

#### November 3, 2020

1	Item 1)	Provide a copy of the current Title V Operating Permits for the
2	Green G	enerating Station and Station Two Generation Station.
3		
4	Respons	e) Please see the following documents attached to this response:
5	1.	Green Station Title V Permit and
6	2.	Reid-Henderson Title V Permit.
7		
8		
9	Witness)	Michael T. Pullen
10		



ANDY BESHEAR GOVERNOR REBECCA W. GOODMAN SECRETARY

ANTHONY R. HATTON
COMMISSIONER

### ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 SOWER BOULEVARD FRANKFORT, KENTUCKY 40601 TELEPHONE: 502-564-2150 TELEFAX: 502-564-4245 September 21, 2020

Mr. Keith Scott, Plant Manager Big Rivers Electric - R.D. Green Station 201 Third Street Henderson, Kentucky 42420

Re: Title V Administrative Amendment

Permittee Name: Big Rivers Electric Corporation

Source Name: R. D. Green Station

Source ID: 21-233-00052

Agency Interest: 44411

Activity: APE20200001 Permit: V-19-020 R1

Dear Mr. Scott:

This letter is in for an administrative amendment that was initiated by this office on September 16, 2020. This administrative amendment revises references to Henderson Station in the Statement of Basis, Permit Application Summary Form, and Executive Summary, no other changes are being made. Your new permit is enclosed with this letter.

Thank you for your assistance in maintaining accurate and up-to-date information regarding your source. If there are any questions regarding this matter, please contact Zachary Bittner at

Sincerely,

Preetha Ray undran

Preetha Rajendran Program Coordinator Permit Review Branch Division for Air Quality

PR/ZB Enclosures

#### Commonwealth of Kentucky Division for Air Quality

### STATEMENT OF BASIS

Title V, Operating
Permit: V-19-020 R1
Big Rivers Electric - R. D. Green Station
Sebree, Kentucky 42455
September 17, 2020
Zachary Bittner, Reviewer

SOURCE ID: 21-233-00052

AGENCY INTEREST: 44411

ACTIVITY: APE20200001

#### **SOURCE DESCRIPTION:**

Big Rivers Electric Corporation (BREC) owns and operates the R. D. Green Generating Station (Green Station) in Webster County, Kentucky. BREC Green Station is an electric power generating station consisting of two pulverized coal-fired boilers; Emissions Unit 01 (EU01) and Emissions Unit 02 (EU02). EU01 and EU02 each have an input capacity of 2,660 million British thermal units per hour (MMBtu/hr). Both of these units are wall-fired, equipped with an electrostatic precipitator (ESP), flue gas desulfurization (FGD), low nitrogen oxide burners, and coal reburn technology. The source added Dry Sorbent Injection (DSI) and Activated Carbon Injection (ACI) as additional controls for EU01 and EU02. In addition, ash, coal and limestone handling equipment is utilized. Numerous controls are used on these handling units to control particulate matter (PT, PM<sub>10</sub>, PM<sub>2.5</sub>).

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of particulate matter less than 10 microns ( $PM_{10}$ ), carbon monoxide (CO), nitrogen oxides ( $NO_x$ ), sulfur dioxide ( $SO_2$ ); and combined regulated hazardous air pollutants (HAPs) greater than 25 tpy. Also, to preclude applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 01, 02 and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive 12-month period in which any amount of petroleum coke is burned.

On February 1, 2019, the Henderson Station II ceased operation.

#### ADMINISTRATIVE AMENDMENT [APE20200001]

This administrative amendment revises references to Henderson Station II in the Statement of Basis, Permit Application Summary Form, and Executive Summary, no other changes are being made.

#### **RENEWAL [APE20110001]:**

BREC submitted an application to the Kentucky Division for Air Quality (Division) on December 27, 2011 to renew their Title V permit. The following changes were requested at that time:

- The addition of an emergency generator (757 HP) to Section B of permit. This will become *Emission Unit #10*.
- Removal of item #9, a diesel fire pump engine (215 HP) from the insignificant activity list to Section B of permit. This will become *Emission Unit #9*.

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- Removal of item #11, a #2 fuel oil furnace from the insignificant activity list and replacement with electric building heaters.

- The addition of a diesel fuel tank with capacity of 793 gallons to the insignificant activity list.

#### **OFF-PERMIT CHANGE [APE20120001]:**

April 18, 2012, BREC submitted an application to notify the Division of a temporary installation of Dilution Spraying Equipment. The purpose of the temporary installation was to allow BREC to perform an evaluation of the potential benefits of firing coal treated with CoalStar E<sup>2</sup> enzyme solution in Green Station Unit 1 (G1).

#### **OFF-PERMIT CHANGE [APE20120002]:**

December 12, 2012, BREC submitted off-permit change with the intent to begin trial testing of Activated Carbon Injection and Dry Sorbent Injection in regards to controlling their mercury emissions. Once the trial period was complete, BREC would submit an application for the installation of a Dry Sorbent Injection and Activated Carbon Injection control system for emission units EU1 and EU2 at the R.D. Green Generating Station.

#### OFF-PERMIT CHANGE [APE20130001]:

On August 15, 2013, BREC submitted an application for the construction and operation of a Dry Sorbent Injection and Activated Carbon Injection control system for emission units EU1 and EU2 at the R.D. Green Generating Station in order to comply with 40 CFR 40 CFR 63, Subpart UUUUU, National Emission Standers for Hazardous Air Pollutants for Coal- and Oil-fired Electric Utility Steam Generating Units also known as the Mercury and Air Toxics (MATS) rule.

#### MINOR REVISION [APE20130002]:

On October 4, 2013, BREC submitted an application for a minor revision to their Title V permit. During the process of preparing an application for the replacement of the dust collection systems associated with the coal and lime handling systems, BREC conducted an internal audit. At that time, BREC became aware that certain emission points for the coal/pet coke handling system, as well as the lime and ash handling systems were missing from the permit and the Kentucky Emissions Inventory System (KYEIS). The new information is being provided by the permittee to satisfy the regulatory requirements of 401 KAR 52:020, Section 7.

Based on the information provided, the Division has determined that application qualifies as a minor revision. Additionally, in accordance with 401 KAR 52:020, Section 14, the minor permit changes are combined with the drafted permit task (APE20110001), since both projects require U.S EPA review, as detailed in 401 KAR 52:100, Section 10. The suggested changes to the permit are the following:

The table below details the replacement of the dust collection system associated with the coal and lime handling system.

Transfer Point	EP ID	Make	Model	Existing Control Eff.%	Revised Control Eff.%
Coal and Pet Coke Conveyor & Transfer Point (54"x542') (B1	EU04(6)	Donaldson Torit	CPC-6 Power	99.0%	99.9%

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Conveyor) (From B1 to B2 Conveyor)			Core		
Coal Conveyor & Transfer Points (Crusher House) (From Crusher House to 2D Conveyor)	EU04(10)	Donaldson Torit	CPC-4 Power Core	99.0%	99.9%
Coal Conveyor & Transfer Points (Crusher House) (From Crusher House to 1D Conveyor)	EU04(11)	Donaldson Torit	CPC-4 Power Core	99.0%	99.9%
Coal Conveyor & Transfer Points (2 at 30"x1014")(1D & 2D Conveyors) (From 1D & 2D Conveyors to Tripper Room)	EU04(12)	Donaldson Torit	Flex Kleen 58/72- PXBC	99.0%	99.97%
Lime Conveyor & Transfer Points (30"x2450")(L1 Conveyor) (From L1 Conveyor to Lime Tower)	EU05(1) EU05(2)	Donaldson Torit	Flex Kleen 84- WSWC- 81	99.0%	99.5%

The table below shows a comparison of previous emissions to revised potential emissions reflecting the increase in control efficiency.

Big Rivers Electric RD Green	PTE (tons/year)	
	PTE	PTE
	Emission	Emissions
Pollutant	Prior to	W/
	Updated	Revised
	Controls	Efficiency
PT	1617.71	1163.69
PM-10	639.76	469.93
PM-2.5	301.09	219.56

The Division has determined that there is no significant emission increases due to these upgrades, as it relates to the definition of "significant" in 401 KAR 51:001, Section 1(218).

Furthermore, BREC has suggested edits to the Title V permit, which will update the KYEIS. The suggested edits will modify EU03, EU04, EU05, EU06 and EU07, and will streamline the facility compliance and data acquisition for the future.

#### Emission Unit 03: Coal and Pet Coke Hauling and Storage Operations

The emission units associated with EU03 are storage piles, paved and unpaved roads, which are subject to 401 KAR 63:010, fugitive emissions.

#### Emission Unit 04: Coal and Pet Coke Crushing and Processing Equipment

The emission units associated with EU04 are primarily associated with coal crushing and processing operations that are subject to 40 CFR 60, Subpart Y. Other material handling sources identified in EU04 are subject to 401 KAR 61:020, existing process operations, and 401 KAR 63:010, fugitive emissions.

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Units that were previously permitted under EU04 have been separated by applicable regulation: Emission Unit 04A, which is subject to 40 CFR 60, Subpart Y and 401 KAR 59:010; and Emission Unit 04B, which is subject to 401 KAR 63:010.

#### Emission Unit 05: Lime Conveying and Storage Operations

The emission units associated with EU05 now solely focus on those lime material handling and processing steps that are subject to 401 KAR 59:010.

#### **Emission Unit 06**: Lime Handling and Processing Operations

The emission units associated with EU06 now solely focus on those lime material handling and processing steps that are subject to 401 KAR 63:010.

#### **Emission Unit 07:** Ash and Sludge Handling Operations

The emission units associated with EU07 now focus on those ash and sludge material handling and processing operations that are either subject to 401 KAR 59:010 or 401 KAR 63:010.

This emission unit is now separated into Emission Unit 07A, which is subject to 401 KAR 63:010, and Emission Unit 07B, which is subject to 401 KAR 59:010.

The following revised list is a complete breakdown of the emission points dealing with Emission Units 03, 04, 05, 06 and 07.

- 1. EU03(1) Coal and Pet Coke Storage Piles
- 2. EU03(2) Haul Trucks on Unpaved Roads to Stockpiles
- 3. EU03(3) Haul Trucks on Paved Roads to Coal Pile or Receiving Hoppers
- 4. EU04(1) Receiving Hoppers (From Haul Trucks to Underground A1 Conveyor)
- 5. EU04(2) Coal Conveyor & Transfer Points (30" x 350')
- 6. EU04(3) Coal Conveyor & Transfer Points (30" x 646')
- 7. EU04(4) Coal & Pet Coke from Green Barge Unloading
- 8. EU04(5) Coal & Pet Coke from Green Barge Transfer onto B1 Conveyor
- 9. EU04(6) Coal & Pet Coke Conveyor (54" x 542') B1 Conveyor
- 10. EU04(7) Coal & Pet Coke Conveyor (54" x 1078') B2 Conveyor
- 11. EU04(8) Coal/Pet Coke Conveyors (2 at 30" x 1686') 1C & 2C Conveyors
- 12. EU04(9) Crusher House Feeders
- 13. EU04(10) Coal/Pet Coke Conveyor & Transfer Point (Crusher House 2D)
- 14. EU04(11) Coal/Pet Coke Conveyor & Transfer Points (Crusher House 1D)
- 15. EU04(12) Coal/Pet Coke Conveyor & Transfer Points (2 at 30" x 1014')
- 16. EU04(13) Coal from Reid Barge Unloader
- 17. EU04(14) Coal Conveyor & Transfer Points (Barge Unloader)
- 18. EU04(15) Coal Conveyor & Transfer Points (42" x 1318')
- 19. EU04(16) Coal Conveyor & Transfer Points (42" x 843')
- 20. EU04(17) Coal Conveyor & Transfer Points (36" x 400') Radial Stacker
- 21. EU05(1) Lime Conveyor & Transfer Points (30" x 2450') L1 Conveyor
- 22. EU05(2) Lime Silos (Four silos with East and West Screw Conveyors)
- 23. EU05(3) Lime from Green Barge Unloading
- 24. EU06(1) Lime Slurry Slaker System
- 25. EU07(1) Ash Truck Loadout Stations
- 26. EU07(2) Pug Mills
- 27. EU07(3) Fly Ash Silos

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- 28. EU07(4) Sludge Conveyor
- 29. EU07(5) Sludge Stockpile
- 30. EU07(6) Sludge Truck Loadout
- 31. EU07(7) Paved Haul Road
- 32. EU07(8) Unpaved Haul Road
- 33. EU07(9) Truck Dumping of Sludge to Landfill
- 34. EU07(10) Landfill

The Division has determined that these updates will not affect monitoring, recordkeeping and reporting of these units since the draft issuance.

#### **Previously Un-identified Emission Units:**

The Green Station Title V permit was modified in 2000 to utilize petroleum coke as secondary fuel. In order to keep the pet coke separated from the coal, two (2) conveyors were installed (EU04 (16) and EU04 (17)), thus adding three additional emission points including the pet coke stockpile (EU03 (1)).

With the addition of these previously unidentified points, the emission increase for PM<sub>10</sub> and PM<sub>2.5</sub> are 1.1 tons and 0.2 tons respectively. The respective yielded emissions increase for each regulated pollutant is below insignificant activities threshold and satisfies the requirement under 401 KAR 52:020, Section 6. In conclusion, emission from the minor revision to the permit, including the previously unidentified units do not trip significant emissions increase [401 KAR 51:001 Section 1(218)]. These revisions or updates do not cause any significant changes to the existing monitoring, reporting, or recordkeeping.

#### ADMINISTRATIVE AMENDMENT [APE20180001]:

On September 27, 2018 the Division received an application notifying BREC's intent to terminate the NO<sub>x</sub> averaging plan. Under 40 CFR 76.11(d)(3) the designated representative may submit a notification to terminate an approved averaging plan in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be withdrawn or terminated. Therefore the NO<sub>x</sub> averaging plan is officially terminated on January 1, 2019. The coal-fired electric generating units at R.D. Green can meet the 40 CFR 76.5(a)(2) NO<sub>x</sub> emission limit of 0.50 lb/MMBtu, thus the Phase II NO<sub>x</sub> Averaging plan is no longer necessary for compliance with the Acid Rain program.

#### MINOR REVISION [APE20180002]:

On November 19, 2018, BREC submitted an application to add emission transfer points to the permit that were not previously listed but have existed since. The new information is being provided by the permittee to satisfy the regulatory requirements of 401 KAR 52:020, Section 7. The following units have been corrected:

#### Emission Unit 04: Coal and Pet Coke Crushing and Processing Equipment:

The description for the Reid Barge Unloader (emission point 13) and the transfer point from the Reid Barge Unloader to #1 River Conveyor (emission point 14) were identified as possessing a shared dust collection system. The equipment, constructed in 1963, never possessed a dust collector control. Partial enclosure and wet material are the only controls present for these emission points. As, such, the control efficiencies have been updated to reflect the change.

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#### Emission Unit 05: Lime Conveying and Storage Operations:

The Green Station receives lime by barge. The Green Barge Unloader (emission point 3) transfers lime from barge to the lime silos by means of the L1 conveyor. The transfer from barge unloader to the L1 conveyor was not identified as an emission point in the submitted application. This point is now identified as Emission Unit 05, emission point 4 (EU05(4)).

#### **Insignificant Activities:**

A 502(b)(10) change notification was submitted in August 9, 2013 to notify the Division of the construction of air pollution control for MATS compliance. The DEP7007DD form received in the application shall supersede all previous versions. The following changes occurred:

Item#1) Removal of UST Kerosene (2000 gal) tank and Item #9) Propane Heater; The propane heater possessed a duel fuel system that could utilize kerosene supplied from the underground storage tank (UST). The propane heater and kerosene UST have been removed and replaced with electric heat.

Item #7) Removal of Kerosene tank

Item #18) Thermal Evaporation of Boiler Cleaning Wastes; Activity is no longer conducted.

Item #120) Cooling tower treatment operation, Item #13) Closed cooling water system, Item #14) Demineralizer process operation, Item #15) Freeze protection operation for coal conveyors, Item #16) Sewage treatment plant operations and Item #17) Wastewater treatment plant operations; these operations are activities which do not produce visible fugitive emissions. BREC has requested the generally applicable regulation of 401 KAR 63:010, *fugitive emissions*, be removed.

#### PRECLUDED REGULATIONS:

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD) (See Emission and Operating Caps Description)

#### **COMMENTS:**

### Emissions Unit 01-02: Coal-Fired Indirect Heat Exchangers, 2,660 MMBtu/hr Each, (Installed 1976)

Pollutant	Limit & Averaging Time	Regulatory Citation	Compliance
			Demonstration
PM	0.10 lb/MMBtu, 3-hour	40 CFR 60.42(a)(1) & 40	Shown through
	rolling average	CFR 52.21	complying with 40
	And	and	CFR UUUUU PM
	0.030 lb/MMBtu, 30-day	40 CFR 63.9991(a) and	limit.
	rolling average	Table 2 - Item 1.a.	Initial Testing and
			Quarterly Testing
Opacity	20%, except one 27% six-	40 CFR 60.42(a)(2)	COMS
	minute average per 60		
	consecutive minutes		
SO <sub>2</sub>	1.2 lb/MMBtu, 24-hour	40 CFR 60.43(a)(2)	SO <sub>2</sub> CEMS [40 CFR
	average		60.45(a)]

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	0.8 lb/MMBtu, 24-hour	40 CFR 52.21	SO <sub>2</sub> CEMS
	average		
NO <sub>x</sub>	0.70 lb/MMBtu, 3-hour	40 CFR 60.44(a)(3)	NO <sub>x</sub> CEMS [40 CFR
	average		60.45(a)]
HCl	2.0 x 10 <sup>-3</sup> lb/MMBtu, 30-	40 CFR 63.9991(a) and	Initial & Quarterly
	day rolling average	Table 2 - Item 1.b.	Testing
Hg	1.2 lb/TBtu, 30-day rolling	40 CFR 63.9991(a) and	Hg CEMS
	average	Table 2 - Item 1.c.	

Both units are pulverized coal, dry bottom, wall-fired boilers equipped with electrostatic precipitators, low NO<sub>x</sub> burners, flue gas desulfurization (FGD) coal reburn technology, dry sorbent injection (DSI), and Activated Carbon Injection (ACI). The primary fuel burned is coal, with petroleum coke as secondary fuel. Number two fuel oil is used for startup and stabilization.

The following regulations are applicable to the units 01 and 02:

- 401 KAR 51:160, NO<sub>x</sub> requirements for large utility and industrial boilers, incorporating by reference 40 CFR 96, NO<sub>x</sub> Budget Trading Program and CAIR NO<sub>x</sub> and SO<sub>x</sub> Trading Programs for State Implementation Plans
- 401 KAR 51:210, CAIR NO<sub>x</sub> annual trading program
- 401 KAR 51:220, CAIR NO<sub>x</sub> Ozone Season Group 2 trading program
- 401 KAR 51:230, CAIR SO<sub>2</sub> Trading Program
- 401 KAR 51:240, Cross-State Air Pollution Rule (CSAPR) NO<sub>x</sub> annual trading program
- 401~KAR~51:250, Cross-State Air Pollution Rule (CSAPR)  $NO_x$  ozone season group 2 trading program
- 401 KAR 52: 260, Cross-State Air Pollution Rule (CSAPR) SO<sub>2</sub> group 1 trading program 401 KAR 52:060, Acid rain permits, incorporating by reference the Federal Acid Rain provisions as codified in 40 CFRs 72 to 78
- 401 KAR 59:015, New indirect heat exchangers, for units greater than 250 MMBtu/hr commenced on or August 17, 1971; however Section 3 through 6 are exempt based on the compliance with 40 CFR 60, Subpart D according to 401 KAR 59:015, Section 2(2).
- 401 KAR 60:005, Section 2(2)(a), 40 C.F.R. 60.40 to 60.46, (Subpart D), Standards of Performance for Fossil-Fuel-Fired Steam Generators, applicable to an emission unit with a capacity of more than 250 MMBtu per hour and commenced on or after August 17, 1971. By complying with this regulation, the permittee is exempt form complying with 401 KAR 59:015, Section 3 to 6.
- 401 KAR 63:002, Section 2(4)(yyyy), 40 C.F.R. 63.9980 to 63.10042, (Subpart UUUUU), National Emission Standards for Hazardous Air Pollutants: Coal and Oil-fired Electric Utility Steam Generating Units
- 40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of significant deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979.
- 40 CFR 64, Compliance Assurance Monitoring (CAM)
- 40 CFR 75, Continuous Emissions Monitoring (CEM)

Emissions Unit 01 has a Phase II allowance allocations set at 5,303 tons by 40 CFR 73.10. Emissions Unit 02 has a Phase II allowance allocations set at 6,388 tons by 40 CFR 73.10.

The following operating conditions are applicable to this unit:

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Emissions for particulate matter shall not exceed 0.10 lb/MMBtu [40 CFR 60.42(a)(1) and 40 CFR 52.21].

Compliance with particulate matter shall by demonstrated by using COMS. Pursuant to 40 CFR 64.4(a)(1) opacity emission limit of 20% shall be used as an indicator of particulate matter emissions. The facility shall continuously record COM data collected during the required PM performance test. COM data recorded during each test run shall not exceed 20% based on a six-minute average. The 20% opacity indicator level shall provide reasonable assurance that particulate matter emissions are in compliance [40 CFR 60.42(a)(2)].

Emissions for sulfur dioxide shall not exceed 1.2 lbs/MMBtu [40 CFR 60.43(a)(2)].

Emissions for sulfur dioxide shall not exceed 0.8 lb/MMBtu [40 CFR 52.21].

Compliance with the sulfur dioxide emission limit shall be demonstrated by installing, calibrating, operating, and maintaining a SO<sub>2</sub> CEMS.

Emissions for nitrogen oxides shall not exceed 0.70 lb/MMBtu [40 CFR 60.44(a)(3)].

Compliance with nitrogen oxide limit shall be demonstrated by installing, calibrating, operating and maintaining a NO<sub>x</sub> CEMS [40 CFR 60.45(a)].

Pursuant to 40 CFR 60.42(a)(2), emissions shall not exceed 20% opacity based on a six-minute average except for a maximum of 27% opacity shall be allowed for one six-minute period in any 60 consecutive minutes.

Compliance with the opacity limitation shall be demonstrated by installing, calibrating, operating and maintaining a COMS [40 CFR 60.45(a)].

The permittee shall comply with all applicable provisions of 40 CFR 63.9991.

#### Mercury and Air Toxics Standards (MATS) Compliance Demonstration for Each Boiler:

The permittee shall comply with this subpart no later than April 16, 2016 per extension request approved on September 23, 2014 granting a one year extension [40 CFR 63.9984 (b)].

The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in subpart A of this part. Some of the notifications shall be submitted before you are required to comply with the emission limits and work practice standards in this subpart [40 CFR 63.9984(c)].

The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable date in 40 CFR 63.9984(b), or (c) [40 CFR 63.9984(f)].

The permittee shall demonstrate continuous compliance according to 40 CFR 63.10000 through 40 CFR 63.10023.

To meet the monitoring requirement for particulate matter, the permittee shall use a COM. Opacity shall be used as an indicator of particulate matter emissions [401 KAR 52:020, Section 10 and 40 CFR 64.4(a)(1)].

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Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or the control equipment and make any repairs or;

Within 30 minutes after the third consecutive COM indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using Reference Method 9 test. Also within 30 minutes after the third consecutive COM indicated exceedance, inspect the COM and/or the control equipment, and initiate any repairs. If a U.S. EPA Reference Method 9 cannot be performed, the reason for not performing the test shall be documented.

The permittee shall monitor the ESP primary/secondary current and voltage. Corrective action shall be initiated when an excursion occurs outside the indicator ranges established [401 KAR 52:020, Section 10].

Continuous emission monitoring systems shall be installed, calibrated, maintained, and operated for measuring the opacity, sulfur dioxide emissions, nitrogen oxides emissions and either oxygen or carbon dioxide emissions [401 KAR 59:015, Section 7 and 401 KAR 52:020, Section 10].

Continuous emission monitoring systems shall be used to satisfy CAM requirements for SO<sub>2</sub> and NO<sub>2</sub> [40 CFR 64.3(d)].

To meet the monitoring requirement for sulfur dioxide and nitrogen oxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shutdown periods, if any three hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the CEM system and make any necessary repairs as soon as practicable [401 KAR 52:020, Section 10].

For performance evaluations of the sulfur dioxide and nitrogen oxides continuous emission monitoring system as required under 401 KAR 59:005, Section 4(3) and calibration checks as required under 40 CFR 60.45(c), Reference Methods 6 or 7 shall be used as applicable as described by 401 KAR 50:015 [40 CFR 60.45(a) and 60.45(c)].

Sulfur dioxide or nitric oxides (nitrogen oxides), as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60, filed by reference in 401 KAR 50:015 [40 CFR 60.45(c)].

The span value for the continuous emission monitoring system measuring opacity shall be 80, 90, or 100 percent and the span value for the continuous emission monitoring system measuring sulfur dioxide and nitrogen oxides emissions shall be in accordance with 401 KAR 59:015, Appendix C or 40 CFR 75, Appendix A [40 CFR 60.45(c)(3)].

Continuous emission monitoring data shall be converted into the units of applicable standards using the conversion procedure described in 40 CFR 60.45(e).

During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in 401 KAR 59:015, Section 7. An affected facility subject to 40 C.F.R. 63.9991 shall meet the work practice standards established in 40 C.F.R. Part 63, Table 3 to Subpart UUUUU, as established in 401 KAR 63:002, Section 2(4)(yyyy). [401 KAR 59:015, Section 7 and Section 7(2)(b)]

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The permittee shall comply with all applicable continuous monitoring, recordkeeping, and reporting requirements of 40 CFR 63.10010, 40 CFR 63.10020, and 40 CFR 63.10021 [40 CFR 63.10030 through 40 CFR 63.10033].

**Emissions Unit 03: Coal Handling Operations, 1975** 

Emission Unit	Description	Maximum Rated Capacity	Controls	Commenced Construction
EU03(1)	Coal and Pet Coke Storage Piles	800 tons/hr	Wet Material, Compaction, Telescopic Chute	1975
EU03(2)	Haul Trucks on Unpaved Roads to Stockpiles	400 tons/hr	Wet Material, Water Suppression	1975
EU03(3)	Haul Trucks on Paved Road to Coal Pile or Receiving Hoppers (Coal)	400 tons/hr	Wet Material, Water Suppression	1975

The following regulations are applicable to the unit:

40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979.

401 KAR 63:010, Fugitive Emissions

The following operating conditions are applicable to this unit:

Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following: Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts; Open bodied trucks transporting materials likely to become airborne shall be covered at all times while in motion; The paved roadways shall be maintained and in a clean condition; The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water; and discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].

Open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered at all times when in motion [401 KAR 63:010, Section 4(1)].

The provisions of Section 3(1) and (2) of 401 KAR 63:010 shall not be applicable to temporary blasting or construction operations [401 KAR 63:010, Section 4(3)].

No one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway [401 KAR 63:010, Section 4(4)].

Observations and records shall be utilized to demonstrate compliance.

The permittee shall monitor and maintain records of the amount of coal received and processed on a weekly basis [401 KAR 63:010, Section 3].

The permittee shall monitor, record and maintain records on the visual observations made on a daily basis each day of operation, to ensure that the fugitive air emissions are not being generated in such a manner as to cause a nuisance or to cross the property line and if such a condition develops, water or another wetting agent shall be applied to suppress the fugitive air emissions so as to comply with applicable requirements of 401 KAR 63:010. [401 KAR 52:020, Section 10].

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#### Emission Unit 04A: Coal and Pet Coke Crushing and Processing Equipment, 1975

The following regulations are applicable to this unit:

401 KAR 60:005, Section 2(2)(gg), 40 C.F.R. 60.250 to 60.258 (Subpart Y), Standards of Performance for Coal Preparation Plants., applies to Green Station's coal processing and conveying equipment, coal storage system, or coal transfer and loading systems constructed, reconstructed, or modified after October 27, 1974, and on or before April 28, 2008.

40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of significant deterioration of air quality applicable to major construction or modification commenced before August 7, 1979.

401 KAR 59:010, New Process Operations.

The following operating conditions are applicable to this unit:

The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system, gases which exhibit 20% opacity or greater [40 CFR 60.254(a)].

Observations and records, if applicable, shall be utilized to determine compliance.

The permittee shall monitor and record the amount of coal and pet coke received and processed in tons on a weekly basis [401 KAR 52:020, Section 10].

The permittee shall perform a qualitative visible observation of the opacity from each stack on a daily basis and maintain a log of the observation. If visible emissions from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and the permittee shall initiate an inspection of the control equipment for any necessary repairs. The permittee shall record and maintain a log of any EPA Reference Method 9 opacity observations made recording the date, time, and opacity reading. The permittee shall also document inspections and any repairs made [401 KAR 52:020, Section 10].

Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].

The specific control equipment shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].

Emission Unit 04B: Coal and Pet Coke Crushing and Processing Equipment, 1975, 2000 The following regulations are applicable to this unit:

401 KAR 63:010, Fugitive emissions.

40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of significant deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979.

The following operating conditions are applicable to this unit:

The permittee will take reasonable precautions to prevent particulate matter from becoming airborne.

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Such reasonable precautions shall include, when applicable, but not limited to the following:

Installation and use of hoods, fans, and enclosures to vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling [401 KAR 63:010, Section 3].

Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces, which can create airborne dusts [401 KAR 63:010, Section 3].

Discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate is prohibited [401 KAR 63:010, Section 3].

When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the Secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gasborne material leaving the building or equipment are treated by removal or destruction of air containments before discharge to the open air [401 KAR 63:010, Section 3].

Observations and records, if applicable, shall be utilized to demonstrate compliance.

The permittee shall monitor and maintain records of the amount of coal and pet coke received and processed, in tons, on a weekly basis [401 KAR 52:020, Section 10].

#### Emission Unit 05: Lime Conveying and Storage Operations, 1975

The following regulations are applicable to the unit:

40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979.

401 KAR 59:010, New process operations, applicable to emission units commenced on or after July 2, 1975.

The following operating conditions are applicable to this unit:

Particulate matter emissions shall not exceed, [E (lbs/hr) = 17.31(P)\*0.16] where P is the processing rate in tons per hour [401 KAR 59:010, Section 3(2)].

Visible emissions shall not exceed greater than 20% opacity based on a six-minute average [401 KAR 59:010, Section 3(1)].

Compliance is demonstrated by observations and records.

The permittee shall perform a qualitative visual observation of the opacity from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity by Reference Method 9 and initiate an inspection of the control equipment for any necessary repairs. The permittee shall record and maintain a log of any EPA Reference Method 9 opacity observations made recording the date, time, and opacity reading. The permittee shall also document inspections and any repairs made [401 KAR 52:020, Section 10].

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The permittee shall monitor and maintain records of the amount of lime received and conveyed on a weekly basis [401 KAR 52:020, Section 10].

#### **Emissions Unit 06: Lime Handling Operations, 1975**

The following regulations are applicable to the unit:

401 KAR 63:010 Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of significant deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979.

The following operating conditions are applicable to this unit:

Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following: Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts; Installation and use of hoods, fans, and enclosure and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling; and discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].

Compliance is demonstrated by observations and records.

The permittee shall monitor the amount of lime received and conveyed on a weekly basis [401 KAR 52:020, Section 10].

#### Emissions Unit 07A: Ash & Sludge Handling Operations, 1975

The following regulations are applicable to the unit:

401 KAR 63:010 Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979.

Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following: application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts; installation and use of hoods, fans, and enclosure to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling; and discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].

The permittee shall monitor and maintain records of the amount of flyash and sludge processed on a weekly basis [401 KAR 52:020, Section 10].

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Testing shall be conducted at such times as may be requested by the Cabinet in accordance with 401 KAR 50:045, Section (4).

The enclosures at flyash truck loadout shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specifications and/or standard operating practices [401 KAR 50:055].

Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020 Section 10].

#### Emissions Unit 07B: Ash & Sludge Handling Operations, 1975

The following regulations are applicable to the unit:

401 KAR 59:010, New process operations, applicable to emission units commenced on or after July 2, 1975, which are not subject to another particulate standard within the administrative regulations of Division for Air Quality.

40 CFR 52.21, (a) through (i) and (s) through (w), Prevention of significant deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979.

The following operating conditions are applicable to the unit:

Particulate matter emissions into the open air from EU07(2) and EU07(3) shall not exceed [17.31(P)<sup>0.16</sup>] lbs/hr, where P is the processing rate in tons per hour and visible emissions shell not exceed 20% opacity based on a six-minute average [401 KAR 59:010, Section 3].

The permittee shall perform on a daily basis a qualitative visual observation for opacity emissions on units EU07(2) and EU07(3). The permittee shall maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity by U.S. EPA Reference Method 9 and the permittee shall initiate an inspection of the control equipment for any necessary repairs. The permittee shall record and maintain a log of any U.S. EPA Reference Method 9 opacity observations made recording the date, time, and opacity reading. The permittee shall also document inspections and any repairs made [401 KAR 52:020, Section 10].

The permittee shall monitor and maintain records of the amount of flyash and sludge processed on a weekly basis [401 KAR 52:020, Section 10].

Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].

The enclosures at the loadout stations, baghouse on the pug mills and baghouse on fly ash silos shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specifications and/or standard operating practices [401 KAR 50:055].

#### **Emissions Unit 08: Cooling Towers, 1975**

The following regulations are applicable to the unit:

401 KAR 59:010, New Process Operations

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Particulate matter emissions into the open air from shall not exceed: [3.59(P)0.62] lbs/hr, where P is the processing rate in tons per hour, for P<30 tons/hr [401 KAR 59:010, Section 3(2)]; or [17.31(P)0.16] lbs/hr, where P is the processing rate in tons per hour, for P>30 tons/hr [401 KAR 59:010, Section 3(2)].

Visible emissions shall not equal or exceed twenty 20% based on a six-minute average [401 KAR 59:010, Section 3(1)(a)]. Compliance is demonstrated by observations and records.

The permittee shall monitor and maintain records of the total dissolved solids content of the circulating water on a monthly basis. [401 KAR 52:020, Section 10]

#### Emission Unit 09: One Emergency Fire Pump, Rated at 215 HP, 1978

The following regulations are applicable to the unit:

401 KAR 63:002, Section 2(4)(eeee) *implementing*, 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

The permittee shall install a non-resettable hour meter if one is not already installed [40 CFR 63.6595 (a), 40 CFR 63.6625 (f)].

Other requirements address the maintenance of the engine and associated air pollution control equipment and maintenance and operation of the engine in a good air pollution control practice for minimizing emissions [40 CFR 63.6625(e)] and the definition of emergency operation and non-emergency operation [40 CFR 63.6640(f)(1)(ii) and 40 CFR 63.6640 (f)(1)(iii)].

As an alternative, there are specific maintenance instructions about changing oil and oil filters, air cleaners, and belts and hoses [40 CFR 63.6625(i)].

The permittee shall monitor the amount of fuel usage on a monthly basis [401 KAR 52:020, Section 10].

The permittee shall keep records of each notification and report that is submitted, the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment, records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii), records of all required maintenance performed on the air pollution control and monitoring equipment, and records of action taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.6655(a)].

The permittee shall maintain records of the maintenance conducted on the engine in order to demonstrate that the engine was operated and maintained, including any after-treatment control device, according to the maintenance plan for the engine [40 CFR 63.6655(e)].

The permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation [40 CFR 63.6655(f)(1)].

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The permittee shall report each instance in which the operating limitations in the permit have not been met. These instances are deviations from the emission and operating limitation in 40 CFR 63 Subpart ZZZZ and shall be reported according to 40 CFR 63.6650 [40 CFR 63.6640(b)].

The permittee shall report each instance in which the requirements of Table 8 to 40 CFR 63 Subpart ZZZZ, that apply, have not been met. The notifications listed 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (f)(6), 40 CFR 63.9(b) through (e) and (g) are not required. [40 CFR 63.6645(a)(5)].

#### Emission Unit 10: One Emergency Generator, Rate at 757 HP, 2011

The following regulations are applicable to the unit:

401 KAR 63:002, Section 2(4)(eeee) *implementing*,40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

401 KAR 60:005, Section 2(2)(dddd) *implementing*, 40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, applicable to units that commence construction after July 11, 2005 and are manufactured after April 1, 2006.

Beginning October 1, 2010, the permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel [40 CFR 60.4207(b)].

The permittee shall demonstrate compliance by using fuel supplier certification.

The permittee shall install a non-resettable hour meter prior to startup of the engine [40 CFR 60.4209(a)].

Other requirements address the maintenance testing of the engine which is limited to 100 hours. There is no limit on the use of this engine in emergency situations. Any operation other than emergency operation and maintenance testing as permitted in this section is prohibited [40 CFR 60.4211(e)].

The permittee shall comply with emission limit from 40 CFR 60.4202(e)(1) and 40 CFR 60.4205.

The compliance demonstrated by maintaining the engine and control device according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer.

The permittee shall monitor the fuel usage (gallons) and hours of operation on a monthly basis [401 KAR 52:020, Section 10].

The permittee shall maintain records of fuel usage (gallons) and hours of operation on a monthly basis and fuel supplier certification according to the fuel requirements in the permit. Records of performance tests shall report emission limits and actual emissions in the unit of the applicable standard [401 KAR 52:020, Section 10].

If the emergency engine does not meet the emission standards specified in Subsection 2, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of

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operation of the engine and the reason the engine was in operation during that time [40 CFR 60.4214(b)].

If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the permittee shall keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)].

The permittee shall maintain records necessary to demonstrate compliance with the emission limits in the permit, according to the method specified [401 KAR 52:020, Section 10].

Pursuant to 40 CFR 63.6645(f), the permittee is required to submit an initial notification as required in 40 CFR 63.9(b)(1)(i).

#### **EMISSION AND OPERATING CAPS DESCRIPTION:**

In order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of Air Quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 01, 02 and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive twelve (12) month period in which any amount of petroleum coke is burned.

#### **OPERATIONAL FLEXIBILITY:**

N/A

# Commonwealth of Kentucky Division for Air Quality AMENDED PERMIT APPLICATION SUMMARY FORM

Completed by: Zachary Bittner

GENERAL INFORMATION:		
Name:	Big Rivers Electric -	R.D. Green Station
Address:		
Date application received:	12/27/2011; 10/3/201	13; 11/20/2018
SIC Code/SIC description:	4911, Electric Services (fossil fuel power generation)	
Source ID:	21-233-00052	,
Agency Interest:	44411	
Activity:	APE20200001	
Permit:	V-19-020 R1	
APPLICATION TYPE/PERMIT ACTIVITY	TY:	
[ ] Initial issuance	[ ] General permit	
[x] Permit modification	[ ] Conditional major	r
x_Administrative	[x] Title V	
Minor	[ ] Synthetic minor	
Significant	[x] Operating	
[x] Permit renewal	[ ] Construction/open	rating
COMPLIANCE SUMMARY:		
[ ] Source is out of compliance	[ ] Complian	ce schedule included
[x] Compliance certification signed		
APPLICABLE REQUIREMENTS LIST:		
[ ] NSR	[x] NSPS	[x] SIP
Non-Attainment	[x] NESHAPS	Other
— PSD	[x] CAM	. ,
Netted out of PSD/NSR		
Not major modification p	per 401 KAR 51:001, 1	(116)(b)
MISCELLANEOUS:		
[x] Acid rain source		
Source subject to 112(r)		
Source applied for federally enfo	orceable emissions cap	
[ ] Source provided terms for altern	-	os
[x] Source subject to a MACT stand		
[ ] Source requested case-by-case 1		ion
[ ] Application proposes new control		
[x] Certified by responsible official		
[ ] Diagrams or drawings included		
[ ] Confidential business information	on (CBI) submitted in a	pplication
[ ] Pollution Prevention Measures		
[ ] Area is non-attainment (list polls	utants):	

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#### **EMISSIONS SUMMARY:**

Pollutant	Actual <sup>1</sup>	Potential <sup>2</sup>	Controlled
	(tpy)	(tpy)	PTE (tpy)
PT	726.35	110,534.56	1,286.08
$\mathrm{PM}_{10}$	323.84	26,755.40	530.50
PM <sub>2.5</sub>	180.61	7,611.40	253.29
$\mathrm{SO}_2$	4,114.50	161,363.69	4,566.70
$NO_2$	3,421.28	6,398.57	6,398.57
CO	448.15	608.11	608.11
VOC	52.28	85.52	85.53
Lead	0.07	0.50	0.004
Haza	ardous Air Pollutant	s (HAPs)	
Antimony	-	0.022	0.022
Arsenic	-	0.50	0.50
Chromium	-	0.32	0.16
Cobalt	-	0.06	0.06
Manganese	-	0.59	0.59
HC1	13.48	41.18	41.18
HF	1.69	5.15	5.15
Mercury	0.007	0.10	0.10
Benzene	-	1.58	1.58
Toluene	-	0.29	0.29
Xylene	-	0.05	0.004
Formaldehyde	-	0.29	0.29
Source wide HAPs	15.17	1665.07	72.69
	Greenhouse Gase	es	
$CO_2$	3,605,891	7,583,155	7,583,155
Methane	29.88	48.53	48.53
Nitrous Oxide	22.41	36.39	36.39
CO <sub>2</sub> e	3,613,314	7,595,457	7,595,457

<sup>&</sup>lt;sup>1</sup> Actual Emissions listed from 2018 Emissions Inventory, lead is based on a higher emission factor determined from emission factors utilized by the KYEIS. Mercury emissions are estimated based on the actual heat input and the MATS Mercury emission limit, which BREC R.D. Green Units 1 and 2 have not exceeded.

<sup>&</sup>lt;sup>2</sup> Potential Emissions determined from AP-42 emission factors issued by the U.S. EPA

Permit Application Summary Form

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#### **SOURCE DESCRIPTION:**

Big Rivers Electric Corporation (BREC) owns and operates the R. D. Green Generating Station (Green Station) in Webster County, Kentucky. BREC Green Station is an electric power generating station consisting of two pulverized coal-fired boilers; Emissions Unit 01 (EU01) and Emissions Unit 02 (EU02). EU01 and EU02 each have an input capacity of 2,660 million British thermal units per hour (MMBtu/hr). Both of these units are wall-fired, equipped with an electrostatic precipitator (ESP), flue gas desulfurization (FGD), low nitrogen oxide burners, and coal reburn technology. The source added Dry Sorbent Injection (DSI) and Activated Carbon Injection (ACI) as additional controls for EU01 and EU02. In addition, ash, coal and limestone handling equipment is utilized. Numerous controls are used on these handling units to control particulate matter (PT, PM10, PM2.5).

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of particulate matter less than 10 microns ( $PM_{10}$ ), carbon monoxide (CO), nitrogen oxides ( $NO_x$ ), sulfur dioxide ( $SO_2$ ); and combined regulated hazardous air pollutants (HAPs) greater than 25 tpy. Also, to preclude applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 01, 02 and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive 12-month period in which any amount of petroleum coke is burned.

On February 1, 2019, the Henderson Station II ceased operation.

#### ADMINISTRATIVE AMENDMENT [APE20200001]

This administrative amendment revises references to Henderson Station II in the Statement of Basis, Permit Application Summary Form, and Executive Summary, no other changes are being made.

#### **RENEWAL [APE20110001]:**

BREC submitted an application to the Kentucky Division for Air Quality (Division) on December 27, 2011 to renew their Title V permit.

#### OFF-PERMIT CHANGE [APE20120001]:

April 18, 2012, BREC submitted an application to notify the Division of a temporary installation of Dilution Spraying Equipment. The purpose of the temporary installation was to allow BREC to perform an evaluation of the potential benefits of firing coal treated with CoalStar E<sup>2</sup> enzyme solution in Green Station Unit 1 (G1).

#### OFF-PERMIT CHANGE [APE20120002]:

December 12, 2012, BREC submitted off-permit change with the intent to begin trial testing of Activated Carbon Injection and Dry Sorbent Injection in regards to controlling their mercury emissions. Once the trial period was complete, BREC would submit an application for the installation of a Dry Sorbent Injection and Activated Carbon Injection control system for emission units EU1 and EU2 at the R.D. Green Generating Station.

#### OFF-PERMIT CHANGE [APE20130001]:

On August 15, 2013, BREC submitted an application for the construction and operation of a Dry Sorbent Injection and Activated Carbon Injection control system for emission units EU1 and EU2 at the R.D. Green Generating Station in order to comply with 40 CFR 40 CFR 63, Subpart UUUUU,

Permit: V-19-020 R1

National Emission Standers for Hazardous Air Pollutants for Coal- and Oil-fired Electric Utility Steam Generating Units also known as the Mercury and Air Toxics (MATS) rule.

#### MINOR REVISION [APE20130002]:

On October 4, 2013, BREC submitted an application for a minor revision to their Title V permit. During the process of preparing an application for the replacement of the dust collection systems associated with the coal and lime handling systems, BREC conducted an internal audit. At that time, BREC became aware that certain emission points for the coal/pet coke handling system, as well as the lime and ash handling systems were missing from the permit and the Kentucky Emissions Inventory System (KYEIS). The new information is being provided by the permittee to satisfy the regulatory requirements of 401 KAR 52:020, Section 7.

Based on the information provided, the Division has determined that application qualifies as a minor revision. Additionally, in accordance with 401 KAR 52:020, Section 14, the minor permit changes are combined with the renewal permit (APE20110001), since both projects require U.S EPA review, as detailed in 401 KAR 52:100, Section 10.

#### **ADMINISTRATIVE AMENDMENT [APE20180001]:**

On September 27, 2018 the Division received an application notifying BREC's intent to terminate the NO<sub>x</sub> averaging plan. Under 40 CFR 76.11(d)(3) the designated representative may submit a notification to terminate an approved averaging plan in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be withdrawn or terminated. Therefore the NO<sub>x</sub> averaging plan is officially terminated on January 1, 2019. The coal-fired electric generating units at R.D. Green can meet the 40 CFR 76.5(a)(2) NO<sub>x</sub> emission limit of 0.50 lb/MMBtu, thus the Phase II NO<sub>x</sub> Averaging plan is no longer necessary for compliance with the Acid Rain program.

#### MINOR REVISION [APE20180002]:

On November 19, 2018, BREC submitted an application to add emission transfer points to the permit that were not previously listed but have existed since. The new information is being provided by the permittee to satisfy the regulatory requirements of 401 KAR 52:020, Section 7.

#### **EMISSIONS AND OPERATING CAPS DESCRIPTIONS:**

In order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 01, 02, and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive 12-month period in which any amount of petroleum coke is burned.

#### **OPERATIONAL FLEXIBILITY:**

N/A

#### Commonwealth of Kentucky Division for Air Quality

### AMENDED EXECUTIVE SUMMARY

FINAL
Title V, Operating
Permit: V-19-020 R1
Big Rivers Electric - R. D. Green Station

September 17, 2020 Zachary Bittner, Reviewer

SOURCE ID: 21-233-00052

AGENCY INTEREST: 44411

ACTIVITY: APE20200001

#### **SOURCE DESCRIPTION:**

Big Rivers Electric Corporation (BREC) owns and operates the R. D. Green Generating Station (Green Station) in Webster County, Kentucky. BREC Green Station is an electric power generating station consisting of two pulverized coal-fired boilers; Emissions Unit 01 (EU01) and Emissions Unit 02 (EU02). EU01 and EU02 each have an input capacity of 2,660 million British thermal units per hour (MMBtu/hr). Both of these units are wall-fired, equipped with an electrostatic precipitator (ESP), flue gas desulfurization (FGD), low nitrogen oxide burners, and coal reburn technology. The source added Dry Sorbent Injection (DSI) and Activated Carbon Injection (ACI) as additional controls for EU01 and EU02. In addition, ash, coal and limestone handling equipment is utilized. Numerous controls are used on these handling units to control particulate matter (PT, PM<sub>10</sub>, PM<sub>2.5</sub>).

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of particulate matter less than 10 microns ( $PM_{10}$ ), carbon monoxide (CO), nitrogen oxides ( $NO_x$ ), sulfur dioxide ( $SO_2$ ); and combined regulated hazardous air pollutants (HAPs) greater than 25 tpy. Also, to preclude applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 01, 02 and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive 12-month period in which any amount of petroleum coke is burned.

On February 1, 2019, the Henderson Station II ceased operation.

#### U.S. EPA REVIEW:

The United States Environmental Protection Agency (U.S. EPA) was notified of the issuance of the proposed permit on May 1, 2020 via e-mail. The comment period expired 45 days from the date of e-mail. No comments were received during this period. The permit is now being issued final.

#### Commonwealth of Kentucky

Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
300 Sower Boulevard, 2<sup>nd</sup> Floor
Frankfort, Kentucky 40601
(502) 564-3999

**Final** 

### AIR QUALITY PERMIT Issued under 401 KAR 52:020

Permittee Name: Big Rivers Electric Corporation
Mailing Address: 201 Third Street, Henderson, KY

**Source Name:** R. D. Green Station

Mailing Address: 201 Third Street, Henderson, KY

Source Location: State Hwy. Jct. 2096/2097

**Permit:** V-19-020 R1

**Agency Interest:** 44411

Activity: APE20200001
Review Type: Title V, Operating
Source ID: 21-233-00052

Regional Office: Owensboro Regional Office

3032 Alvey Park Dr. W., Suite 700

Owensboro, KY 42303

(270) 687-7304

**County:** Webster

**Application** 

Complete Date:
Issuance Date:
Revision Date:
Expiration Date:

February 23, 2012
July 12, 2020
September 18, 2020
July 12, 2025

For Melissa Duff, Director Division for Air Quality

Rick S. Shewekah

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Permit type	Activity #	Complete Date	Issuance Date	Summary of Action	
V-19-020 R1	APE20200001	09/17/2020	9/18/2020	Administrative Amendment	
V-19-020 Permit Renewal	APE20110001	02/23/2012		Title V, Acid Rain, CAIR Renewal	
	APE20130002	12/13/2013	7/12/2020	Title V, Previously Unidentified Emission Points Added	
	APE20180002	6/10/2019		Addition of Transfer Point not previously identified. Cooling tower update.	

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#### **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

The Division for Air Quality has determined that the Big Rivers Electric Corporation - Green Station and the Big Rivers Electric Corporation Reid Station are one source as defined in 401 KAR 52:001 and Regulation 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality. This permit contains requirements for the Green Station. Requirements for the Reid Station are contained in permit V-11-003 R1.

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# SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

#### Emissions Units 1 and 2: Identical Pulverized Coal-fired, Dry Bottom, Wall-fired Boilers

#### **Description:**

Controls: Low NO<sub>x</sub> burner (LNB), dry electrostatic precipitator (ESP), wet (scrubber) flue gas desulfurization (FGD) (dolomitic lime), coal re-burn technology, dry sorbent injection (DSI) (hydrated lime), activated carbon injection (ACI)

Monitoring Equipment: Continuous Opacity Monitoring System (COMS), Continuous Emissions Monitoring (CEMS) Mercury (Hg), Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxides (NO<sub>x</sub>), Carbon Dioxide (CO<sub>2</sub>)

No. 2 fuel oil used for startup and stabilization

Secondary Fuel: Petroleum Coke

Maximum Continuous Rating: 2,660 MMBtu/hour, each

Construction Commenced: June 1976

Commercial Operation: December 1979 (EU 1) January 1981 (EU 2)

#### **APPLICABLE REGULATIONS:**

**401 KAR 51:160**, NO<sub>x</sub> Requirements for Large Utility and Industrial Boilers

401 KAR 51:210, CAIR NOx annual trading program

**401 KAR 51:220**, CAIR NO<sub>x</sub> Ozone Season Group 2 trading program

401 KAR 51:230, CAIR SO<sub>2</sub> Trading Program

**401 KAR 51:240**, Cross-State Air Pollution Rule (CSAPR) NO<sub>x</sub> annual trading program

**401 KAR 51:250**, Cross-State Air Pollution Rule (CSAPR) NO<sub>x</sub> ozone season group 2 trading program

**401 KAR 52: 260**, Cross-State Air Pollution Rule (CSAPR) SO<sub>2</sub> group 1 trading program

401 KAR 52:060, Acid Rain Permits

**401 KAR 59:015**, New Indirect Heat Exchangers

**401 KAR 60:005, Section 2(2)(a)**, 40 C.F.R. 60.40 to 60.46, (**Subpart D**), Standards of Performance for Fossil-Fuel-Fired Steam Generators

**401 KAR 63:002, Section 2(4)(yyyy)**, 40 C.F.R. 63.9980 to 63.10042, (**Subpart UUUUU**), National Emission Standards for Hazardous Air Pollutants: Coal and Oil-fired Electric Utility Steam Generating Units

**40 CFR 52.21, (a) through (i) and (s) through (w)**, Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

**40 CFR Part 64,** Compliance Assurance Monitoring (CAM)

**40 CFR Part 75,** Continuous Emissions Monitoring (CEM)

#### 1. **Operating Limitations:**

- a) The permittee is required to meet work practice requirements specified in 40 CFR 63, Subpart UUUUU, Table 3, Items 3 and 4 at all times except during periods of startup per paragraph 1. Operating Limitations: (a)(i) and (ii) and shutdown requirements per 1. Operating Limitations: (a)(iii) [40 CFR 63.9991(a) and 40 CFR 63.10000(a)]
  - i) The permittee shall comply with the following because they have chosen to comply using paragraph (1) of the definition of "startup" in 40 CFR 63.10042: [Startup means the first-ever firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use). Any fraction of any hour in which startup occurs constitutes a full hour of startup] [40 CFR 63.10000(a)

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### SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

and 40 CFR 63, Subpart UUUUU, Table 3, Item 3a].

- A) The Permittee shall operate all Continuous Monitoring System(s) (CMS) during startup [40 CFR 63, Subpart UUUUU, Table 3, Item 3a].
- B) For startup of a unit, the permittee shall use clean fuels as defined in 40 CFR 63.10042 for ignition [40 CFR 63, Subpart UUUUU, Table 3, Item 3a].
- C) Once the permittee converts to firing coal the permittee shall engage all of the applicable control technologies except dry scrubber and SCR. The permittee shall start the dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation [40 CFR 63, Subpart UUUUU, Table 3, Item 3a].
- D) The permittee shall comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in 40 CFR 63, Subpart UUUUU [40 CFR 63, Subpart UUUUU, Table 3, Item 3a].
- E) The permittee shall collect monitoring data during startups as specified in 40 CFR 63.10020(a) and (e) and maintain records during startup periods, as specified in 40 CFR 63.10032 and 63.10021(h). The permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g), 63.10021(i), and 63.10031 [40 CFR 63, Subpart UUUUU, Table 3, Item 3a and 3d].
- F) The permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g) and 40 CFR 63.10021(h) and (i) and 40 CFR 63.10031 [40 CFR 63, Subpart UUUUU, Table 3 Item 3(1)(a) and Item 3(2)(d)].
- G) To satisfy the initial and continuous compliance requirements of 40 CFR 63.10011(g) and 63.10021(h), respectively, the permittee may use diluent cap and default gross output values, as described in 40 CFR 63.10007(f), during startup periods.
- H) The permittee shall provide reports concerning activates and startup periods, as specified in 40 CFR 63.10011(g) and 40 CFR 63.10021(h) and (i), and 40 CFR 63.10031.
- ii) The permittee has the option of using either definition of startup defined in 40 CFR 63, Subpart UUUUU, Table 3 Item 3(a)(1) or Item 3(a)(2) for demonstrating initial compliance. The permittee may switch from Item 3(a)(1) to Item 3(a)(2) of 40 CFR 63, Subpart UUUUU, Table 3 (or vice-versa) provided that all the Notification, Reporting and Recordkeeping requirements of 40 CFR 63.10030(e)(8)(iii)(A) through (E) are fulfilled [40 CFR 63.10030(e)(8)].
- iii) The permittee shall comply with the following during a shutdown [shutdown means the period in which cessation of operation of an EGU is initiated for any purpose. Shutdown begins when the EGU no longer generates electricity or makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes or when no coal, liquid gas, syngas, or solid oil-derived fuel is being fired in the EGU, whichever is earlier. Shutdown ends when the EGU no longer generates electricity or makes useful thermal energy (such as steam or heat) for industrial commercial, heating, or cooling purposes, and no fuel is being fired in the EGU. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.] [40 CFR 63.10000(a) and 40 CFR 63, Subpart UUUUU, Table 3, Item 4.]
  - A) The permittee shall operate all CMS during shutdown [40 CFR 63, Subpart

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

UUUUU, Table 3, Item 4, 1st Paragraph].

- B) The permittee shall also collect appropriate data, and the permittee shall calculate the pollutant emission rate for each hour of shutdown for these pollutants for which a CMS is used [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 1st Paragraph].
- C) While firing coal during shutdown, the permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 2<sup>nd</sup> Paragraph].
- D) In any case, the permittee shall operate the controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than 40 CFR 63, Subpart UUUUU and that require operation of the control devices [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 2<sup>nd</sup> Paragraph].
- E) If, in addition to the fuel used prior to initiation of shutdown, another fuel shall be used to support the shutdown process, that additional fuel shall be one or a combination of the clean fuels defined in 40 CFR 63.10042 and shall be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 3<sup>rd</sup> Paragraph].
- F) The permittee shall comply with all applicable emission limits at all times except during shutdown periods at which time the permittee shall meet this work practice [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 5<sup>th</sup> Paragraph].
- G) The permittee shall collect monitoring data during shutdown periods, as specified in 40 CFR 63.10020(a) [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 5<sup>th</sup> Paragraph].
- H) The permittee shall maintain records during shutdown periods as provided in 40 CFR 63.10032 and 40 CFR 63.10021(h) [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 5<sup>th</sup> Paragraph].
- I) To satisfy the initial and continuous compliance requirements of 40 CFR 63.10011(g) and 63.10021(h), respectively, the permittee may use diluent cap and default gross output values, as described in 40 CFR 63.10007(f), during shutdown periods.
- J) The permittee shall provide reports concerning shutdown periods, as specified in 40 CFR 63.10011(g), 40 CFR 63.10021(h), 40 CFR 63.10021(i), and 40 CFR 63.10031 [40 CFR 63, Subpart UUUUU, Table 3, Item 4, 5<sup>th</sup> Paragraph].

Compliance Demonstration: See 1. Operating Limitations: (c) and (g), 5. Specific Recordkeeping Requirements: (b), (h), and (k) through (m).

- b) The permittee shall conduct periodic performance tune-ups for each EGU, as specified in 40 CFR 63.10021(e)(1) through (9). Subsequently the permittee shall perform an inspection of the burner at least once every 36 calendar months. If an EGU is offline when a deadline to perform the tune-up passes, the permittee shall perform the tune-up work practice requirements within 30 days after the re-start of the affected unit [40 CFR 63.10021(e)].
  - i) Inspect the burner and combustion controls, and clean or replace any components of

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### SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows [40 CFR 63.10021(e)(1)]:

- A) Burner or combustion control component parts needing replacement that affect the ability to optimize NO<sub>x</sub> and CO shall be installed within three calendar months after the burner inspection [40 CFR 63.10021(e)(1)(i)];
- B) Burner or combustion control component parts that do not affect the ability to optimize  $NO_x$  and CO may be installed on a schedule determined by the operator [40 CFR 63.10021(e)(1)(ii)];
- ii) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type [40 CFR 63.10021(e)(2)];
- iii) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors [40 CFR 63.10021(e)(3)];
- iv) As applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors [40 CFR 63.10021(e)(4)];
- v) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O2 probes and/or sensor, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary [40 CFR 63.10021(e)(5)];
- vi) Optimize combustion to minimize generation of CO and NO<sub>x</sub>. The optimization should be consistent with the manufacturer's specification, if available, or best combustion engineering practice for the applicable burner type. NO<sub>x</sub> optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burner, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles [40 CFR 63.10021(e)(6)];
- vii) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO<sub>x</sub> in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). The permittee may use portable CO, NO<sub>x</sub> and O<sub>2</sub> monitors for this measurement. EGU's employing neural network optimization systems need only

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system [40 CFR 63.10021(e)(7)];

- viii) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information specified here-in including [40 CFR 63.10021(e)(8)];
  - A) The concentrations of CO and NO<sub>x</sub> in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems [40 CFR 63.10021(e)(8)(i)];
  - B) A description of any corrective actions taken as a part of the combustion adjustment [40 CFR 63.10021(e)(8)(ii)]; and
  - C) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period [40 CFR 63.10021(e)(8)(iii)]; and
- ix) Report the dates of the initial and subsequent tune-ups in hard copy, as specified in 40 CFR 63.10031(f)(5), through June 30, 2020. On or after July 1, 2020, report the date of all tune-ups electronically, in accordance with 40 CFR 63.10031(f). The tune-up report date is the date when tune-up requirements in 40 CFR 63.10021(e)(6) and (e)(7) are completed [40 CFR 63.10021(e)(9)].

Compliance Demonstration: See 5. Specific Recordkeeping Requirements: (d) and (h).

- c) If the permittee elects to (or is required to) use CEMS to continuously monitor Hg, HCl, HF, SO<sub>2</sub>, or PM emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the following default values are available for use in the emission rate calculations during startup periods or shutdown periods (as defined in 40 CFR 63.10042). For the purposes of 40 CFR 63, Subpart UUUUU, these default values are not considered to be substitute data.
  - i) Diluent cap values. If the permittee uses CEMS (or, if applicable, sorbent trap monitoring systems) to comply with a heat input-based emission rate limit, the permittee may use the following diluent cap values for a startup or shutdown hour in which the measured CO<sub>2</sub> concentration is below the cap value or the measured O<sub>2</sub> concentration is above the cap value. The permittee may use 5% for CO<sub>2</sub> or 14% for O<sub>2</sub> [40 CFR 63.10007(f)].
  - ii) Default gross output. If the permittee uses CEMS to continuously monitor Hg, HCl, HF, SO<sub>2</sub>, or PM emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the following default value is available for use in the emission rate calculations during startup periods or shutdown periods (as defined in 40 CFR 63.10042). For the purposes of 40 CFR 63, Subpart UUUUU, this default value is not considered to be substitute data. For a startup or shutdown hour in which there is heat input to an affected EGU but zero gross output, the permittee shall calculate the pollutant emission rate using a value equivalent to 5% of the maximum sustainable gross output, expressed in megawatts, as defined in 40 CFR 75, Appendix A, section 6.5.2.1(a)(1). This default gross output is either the nameplate capacity of the EGU or the highest gross output observed in at least four representative quarters of EGU operation. For a monitored common stack, the default gross output is used only when all EGUs are operating (i.e., combusting fuel) are in startup or shutdown mode, and have zero electrical generation. Under those conditions, a default gross

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

output equal to 5% of the combined maximum sustainable gross output of the EGUs that are operating but have a total of zero gross output must be used to calculate the hourly gross output-based pollutant emissions rate [40 CFR 63.10007(f)(2)].

- d) The permittee shall either install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere [40 CFR 63.10010(a)(1)].
- e) The permittee shall comply with the applicable General Provisions in 40 CFR 63.1 through 40 CFR 63.15 that are provided in Table 9 of 40 CFR 63, Subpart UUUUU [40 CFR 63.10040].
- f) The permittee shall comply with all applicable notification and recording requirements in 40 CFR 60.10030 through 40 CFR 63.10033 according to the schedule in 40 CFR 63.10030 and Subpart A of 40 CFR 63, Subpart UUUUU, no later than April 16, 2016. The permittee shall demonstrate compliance no later than one-hundred-eighty (180) days after April 16, 2016 (October 13, 2016).
- g) During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in 40 CFR 63, Subpart UUUUU. An affected facility subject to 40 C.F.R. 63.9991 shall meet the work practice standards established in 40 C.F.R. Part 63, Table 3 to Subpart UUUUU, as established in 401 KAR 63:002, Section 2(4)(yyyy). [401 KAR 59:015, Section 7 and Section 7(2)(b)]

#### 2. Emission Limitations:

- a) Particulate matter (PM) emissions from each stack shall not exceed 0.10 lb/MMBtu, based on a 3-hour average [40 CFR 60.42(a)(1) and 40 CFR 52.21].
  - *Compliance Demonstration:* Compliance with **2.** <u>Emission Limitations</u>: (b) substantiates compliance with this PM emission limitation.
- b) Visible emissions shall not exceed twenty 20% opacity based on a six-minute average, except that a maximum of 27% opacity shall be allowed for one six-minute period in any 60 consecutive minutes [40 CFR 60.42(a)(2)].
  - Compliance Demonstration: See 3. <u>Testing Requirements</u>: (a) and 4. <u>Specific Monitoring Requirements</u>: (a) and 6. <u>Specific Reporting Requirements</u>: (a).
- c) SO<sub>2</sub> emissions from each stack shall not exceed 1.2 lb/MMBtu based on a three-hour average [40 CFR 60.43(a)(2)].
  - *Compliance Demonstration:* Compliance with **2.** <u>Emission Limitations</u>: (d) substantiates compliance with this emission limitation.
- d) SO<sub>2</sub> emissions from each stack shall not exceed 0.8 lb/MMBtu based on a three-hour average [40 CFR 52.21].
  - Compliance Demonstration: See 4. Specific Monitoring Requirements: (c) through (f).

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e) NO<sub>x</sub> emissions from each stack shall not exceed 0.70 lb/MMBtu based on a three-hour average [40 CFR 60.44(a)(3)].

Compliance Demonstration: See 4. Specific Monitoring Requirements: (c) through (f).

- f) For filterable PM, emissions shall not exceed 3.0E-2 lb/MMBtu based on the appropriate requirements in Table 2 of 40 CFR 63, Subpart UUUUU and shall apply at all times except during periods of startup or shutdown [40 CFR 63.9991(a), 40 CFR 63, Subpart UUUUU Table 2, Item 1.a, and 40 CFR 63.10000(a)].
  - Compliance Demonstration: See 3. Testing Requirements: (b), (e) though (h), and (j) and 6. Specific Reporting Requirements: (c).
- g) For hydrogen chloride (HCl), emissions shall not exceed 2.0E-3 lb/MMBtu based on the appropriate requirements in Table 2 of 40 CFR 63, Subpart UUUUU and shall apply at all times except during periods of startup or shutdown [40 CFR 63.9991(a), 40 CFR 63, Subpart UUUUU Table 2, Item 1.b., and 40 CFR 63.10000(a)].

  Compliance Demonstration: See 3. Testing Requirements: (c), (e) through (j), and 6. Specific Reporting Requirements: (c).
- h) For mercury (Hg), emissions shall not exceed 1.2 lb/TBtu based on calculating the 30-boiler operating day rolling arithmetic average emissions rate in units of the applicable emissions standard basis at the end of each boiler operating day using all of the quality assured hourly average CEMS data for the previous 30-boiler operating days, excluding data recorded during periods of startup or shut down [40 CFR 63.9991(a), 40 CFR 63. Subpart UUUUU, Table 2, Item 1.c.].

Compliance Demonstration: See 3. <u>Testing Requirements</u>: (d) and (e) through (j), 4. <u>Specific Monitoring Requirements</u>: (g) through (l), and 5. <u>Specific Recordkeeping</u> Requirements: (f) and (g).

#### 3. Testing Requirements:

- a) If no U.S. EPA Reference Method 9 tests are performed pursuant to paragraph <u>4. Specific Monitoring Requirements</u>: (a), then the permittee shall determine the opacity from the stack by U.S. EPA Reference Method 9 at least once every 14 boiler operating days, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no U.S. EPA Reference Method 9 test is completed during the time period, the reason for not completing a test shall be documented and the permittee may use the COM system for assuring compliance with the visible emission limitation during that period.
- b) Since the coal-fired EGU's have not qualified as LEEs for filterable particulate matter (PM), the permittee shall demonstrate compliance through initial and periodic quarterly performance stack test for PM according to Table 5 and 40 CFR 63.10007, except as otherwise provided in 40 CFR 63.10021(d)(1) [40 CFR 63.10000(c)(1)(iv), 40 CFR 63.10006(c) and 40 CFR 63.10011(a)].
- c) Since the coal-fired EGUs have not qualified as LEEs for hydrogen chloride (HCl), the permittee shall demonstrate initial and continuous compliance by conducting initial and periodic quarterly performance stack test for HCl according to Table 5 and 40 CFR

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

63.10007, except as otherwise provided in 40 CFR 63.10021(d)(1) [40 CFR 63.10000(c)(1)(v), 40 CFR 63.10006(d), and 40 CFR 63.10011(a)].

- d) Since the coal-fired EGUs have not qualified as LEEs for Hg, the permittee shall demonstrate initial and continuous compliance through use of a Hg CEMS, in accordance with appendix A of 40 CFR 63, Subpart UUUUU. The initial performance test shall consist of a 30-boiler operating day rolling average emissions rate obtained with a certified CEMS, expressed in units of the standard. If the monitoring system is certified prior to the applicable compliance date, the initial averaging period shall either begin with: The first boiler operating day on or after the compliance date; or 30 boiler operating days prior to that date, as described in 40 CFR 63.10005(b). In all cases, the initial 30-operating day averaging period shall be completed on or before the date that compliance shall be demonstrated, in accordance with 40 CFR 63.9984(f). Initial compliance is demonstrated if the results of the performance test meet the applicable emission limit in Table 2 of 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(c)(1)(vi) and 40 CFR 63.10011(c)(1)].
- e) For complying with emission standards under 40 CFR 63, Subpart UUUUU, the permittee may skip performance testing in those quarters during which less than 168 boiler operating hours occur, except that a performance test shall be conducted at least once every calendar year [40 CFR 63.10021(d)(1)].
- f) The permittee shall conduct all required performance tests according to 40 CFR 63.7(d), (e), (f), and (h). The permittee shall also develop a site-specific test plan according to the requirements in 40 CFR 63.7(c) [40 CFR 63.10007(a)].
  - i) For Hg CEMS, to determine compliance with a 30-boiler operating day rolling average emission limit, the permittee shall collect data for all nonexempt unit operating conditions (see 40 CFR 63.10011(g) and Table 3 of 40 CFR 63, Subpart UUUUU) [40 CFR 63.10007(a)(1)].
  - ii) For PM and HCl performance testing, maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run [40 CFR 63.10007(a)(2)].
- g) The permittee shall conduct each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data) according to the requirements in Table 5 of 40 CFR 63, Subpart UUUUU [40 CFR 63.10007(b)].
- h) The permittee shall conduct a minimum of three separate test runs for each performance tests, as specified in 40 CFR 63.7(e)(3). Each test run shall comply with the minimum applicable sampling time or volume specified in Table 2 of 40 CFR 63, Subpart UUUUU [40 CFR 63.10007(d)].
- i) The permittee is required to (or elects to) demonstrate initial compliance using a CMS, for a particular emission or operating limit, the CMS shall pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified under another state or federal program and is continuing to meet the on-going quality-assurance (QA) requirements of that program, then, provided that the certification and

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QA provisions of that program meet the applicable requirement of 40 CFR 63.10010(b) through (h), an additional performance evaluation of the CMS is not required under 40 CFR 63, Subpart UUUUU. To demonstrate compliance with the applicable Hg emission limit specified in 2. Emission Limitations: (h), using Hg CEMS, initial compliance shall be demonstrated no later than the applicable date specified in 40 CFR 63.9984(f). Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS data, expressed in units of the standard (see section 6.2 of appendix A of 40 CFR 63, Subpart UUUUU), meets the applicable Hg emission limit in Table 2 of 40 CFR 63, Subpart UUUUU [40 CFR 63.10005(d)].

- j) The permittee shall complete performance tests for the EGU at least 45 calendar days, measured from the test's end date, shall separate performance tests conducted every quarter. For units demonstrating compliance through quarterly emission testing, the permittee shall conduct a performance test in the 4<sup>th</sup> quarter of a calendar year if the EGU has skipped performance tests in the first 3 quarters of the calendar year. If the EGU misses a performance test deadline due to being inoperative and if 168 or more boiler operating hours occur in the next test period, the permittee shall complete an additional performance test in that period as follows[40 CFR 63.10006(f)]:
  - i) At least 15 calendar days shall separate two performance tests conducted in the same quarter [40 CFR 63.10006(f)(1)];
  - ii) At least 107 calendar days shall separate two performance tests conducted in the same calendar year [40 CFR 63.10006(f)(2)]; and
  - iii) At least 350 calendar days shall separate two performance tests conducted in the same 3 year period [40 CFR 63.10006(f)(3)].

### 4. Specific Monitoring Requirements:

- a) A continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three consecutive six-minute average opacity values exceed the applicable opacity standard, the permittee shall, as appropriate [40 CFR 60.45(a), 401 KAR 59:005, Section 4(3)(a)(1), 40 CFR 64.5(c)(1), and 401 KAR 52:020, Section 10]:
  - Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or the control equipment and make any repairs or;
  - 2) Within 30 minutes after the third consecutive COM indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using U.S. EPA Reference Method 9 test. Also within 30 minutes after the third consecutive COM indicated exceedance, inspect the COM and/or the control equipment, and initiate any repairs. If a U.S. EPA Reference Method 9 cannot be performed, the reason for not performing the test shall be documented.
- b) The permittee shall monitor the voltage and amperage readings of the ESP transformer/rectifier sets once per shift. Corrective action shall be initiated when an excursion occurs outside the indicator ranges established in the approved CAM plan for those parameters [401 KAR 52:020, Section 10].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) Continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for SO<sub>2</sub> emissions, NO<sub>x</sub> emissions, and either oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) emissions [40 CFR 60.45(a), 401 KAR 52:020, Section 10]. The continuous emission monitoring systems shall be used to satisfy CAM requirements for SO<sub>2</sub> and NO<sub>x</sub> [40 CFR 64.3(d)].
  - 1)  $NO_x$  and  $SO_2$  CEMS shall comply with Performance Specification 2 of Appendix B to 40 CFR Part 60 and 40 CFR Part 75 [40 CFR 64.3(d)(2)(ii) and (d)(2)(iv)].
  - 2) O<sub>2</sub> or CO<sub>2</sub> CEMS shall comply with Performance Specification 3 of Appendix B to 40 CFR Part 60 and 40 CFR Part 75 [40 CFR 64.3(d)(2)(ii) and (d)(2)(iv)].
  - 3) The continuous emission monitoring systems shall be used to satisfy CAM requirements for SO<sub>2</sub> and NO<sub>x</sub> [40 CFR 64.3(d)].
- d) To meet the monitoring requirement for SO<sub>2</sub> and NO<sub>x</sub>, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shutdown periods, if any three-hour average nitrogen oxide or sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable [401 KAR 52:020, Section 10].
- e) Performance evaluations of CEMS required under 40 CFR 60.13(c) and calibration checks required under 40 CFR 60.13(d), shall be completed based on the procedures in 40 CFR 60.45(c) and listed below [40 CFR 60.45(c)]:
  - 1) Methods 6, 7, and 3B of appendix A of this part, as applicable, shall be used for the performance evaluations of SO<sub>2</sub> and NO<sub>x</sub> continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B in Appendix A of 40 CFR 60 are given in 40 CFR 60.46(d). [40 CFR 60.45(c)(1)]
  - 2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60 [40 CFR 60.45(c)(2)].
  - 3) The span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent. The span value for a continuous monitoring system measuring sulfur oxides or NO<sub>x</sub> shall be determined based on the table in 40 CFR 60.45(c)(3)(i) or the permittee may elect to use the span values for SO<sub>2</sub> and NO<sub>x</sub> according to section 2.1.1 and 2.1.2 in Appendix A of 40 CFR 75 [40 CFR 60.45(c)(3)].
- f) Continuous emission monitoring data shall be converted into the units of applicable standards using the conversion procedure described 40 CFR 60.45(e) and 40 CFR 60.45(f) [40 CFR 60.45(e)].
- g) The permittee shall install, certify, maintain, and operate a Hg CEMS for Emission Unit 01 and 02, in accordance with Appendix A of 40 CFR 63, Subpart UUUUU [40 CFR 63, Subpart UUUUU, Table 5, Item 4].
- h) If the permittee demonstrates compliance with any applicable emissions limit through use of a continuous monitoring system (CMS) where a CMS includes a continuous parameter monitoring system (CPMS) as well as a continuous emissions monitoring system

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(CEMS), the permittee shall develop a site-specific monitoring plan and submit this site-specific monitoring plan, if requested, at least 60 days before the initial performance evaluation (where applicable) of the CMS. This requirement also applies to the permittee if the permittee petitions the Administrator for alternative monitoring parameters under 40 CFR 63.8(f). This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS and CPMS prepared under Appendix B to 40 CFR part 60 or 40 CFR part 75, and meet the requirements of 40 CFR 63.10010. Using the process described in 40 CFR 63.8(f)(4), the permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified, if approved, include those in the site-specific monitoring plan [40 CFR 63.10000(d)(1)].

- i) The site-specific monitoring plan shall include the information specified in 40 CFR 63.10000 (d)(5)(i) through (d)(5)(vii). Alternatively, the requirements of 40 CFR 63.10000 (d)(5)(i) through (d)(5)(vii) are considered to be met for a particular CMS [40 CFR 63.10000(d)(2)]:
  - A) The CMS is installed, certified, maintained, operated, and quality-assured either according to 40 CFR 75, or appendix A or B of 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(d)(2)(i)]; and
  - B) The recordkeeping and reporting requirements of 40 CFR 75, or appendix A or B of 40 CFR 63, Subpart UUUUU, that pertain to CMS are met [40 CFR 63.10000(d)(2)(ii)].
- ii) If requested by the Administrator, the permittee shall submit the monitoring plan (or relevant portion of the plan) at least 60 days before the initial performance evaluation of a particular CMS, except where the CMS has already undergone a performance evaluation that meets the requirements of 40 CFR 63.10010 (e.g., if the CMS was previously certified under another program) [40 CFR 63.10000(d)(3)].
- iii) The permittee shall operate and maintain the CMS according to the site-specific monitoring plan [40 CFR 63.10000(d)(4)].
- iv) The provisions of the site-specific monitoring plan shall address the following items [40 CFR 63.10000(d)(5)]:
  - A) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See 40 CFR 63.10010(a) for further details [40 CFR 63.10000(d)(5)(i)];
  - B) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems [40 CFR 63.10000(d)(5)(ii)];
  - C) Schedule for conducting initial and periodic performance evaluations [40 CFR 63.10000(d)(5)(iii)];
  - D) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of 40 CFR 63.8(d) [40 CFR 63.10000(d)(5)(iv)];
  - E) On-going operation and maintenance procedures, in accordance with the general requirements of 40 CFR 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii) [40 CFR 63.10000(d)(5)(v)];

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F) Conditions that define a CMS that is out of control consistent with 40 CFR 63.8(c)(7)(i) and for responding to out of control periods consistent with 40 CFR 63.8(c)(7)(ii) and (c)(8) [40 CFR 63.10000(d)(5)(vi)];

- G) On-going recordkeeping and reporting procedures, in accordance with the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i), or as specifically required under 40 CFR 63, Subpart UUUUU [40 CFR 63.10000(d)(4)(vii)].
- i) The permittee shall operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable [40 CFR 63.10020(b)].
- j) The permittee shall not use data recorded during EGU startup or shutdown in calculations used to report emissions. In addition, data recorded during monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. The permittee shall use all of the quality-assured data collected during all other periods in assessing the operation of the control device and associated control system [40 CFR 63.10020(c)].
- k) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activates including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation from the monitoring requirements [40 CFR 63.10020(d)].
- l) Since the permittee use a CEMS to measure Hg emissions, the permittee shall demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS and the other required monitoring systems (e.g., flow rate, CO<sub>2</sub>, O<sub>2</sub>, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day rolling average basis, updated at the end of each new boiler operating day [40 CFR 63.10021(b)].
- m) See **Section F Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

## 5. Specific Recordkeeping Requirements:

a) The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

systems and devices; and all other information required by 40 CFR 60. All information shall be recorded in a permanent form suitable for inspection [40 CFR 60.7(f)].

- b) The permittee shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emission unit; any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative [40 CFR 60.7(b)].
- c) Records of primary/secondary voltage and current shall be maintained with long-term operational records for a period of five years [40 CFR 64 and 401 KAR 52:020, Section 10].
- d) The permittee shall maintain adequate records of the accounts of each tune-up and provide documentation that all tune-up meet all rule requirements [40 CFR 63.10005(f)].
- e) Upon request, the permittee shall make available to the EPA Administrator such records as may be necessary to determine whether the performance tests have been done according to the requirements in 40 CFR 63, Subpart UUUUU [40 CFR 63.10007(g)].
- f) For Hg, the permittee shall maintain records according to Appendix A of 40 CFR 63, Subpart UUUUU and the following [40 CFR 63.10032(a)]:
  - i) A copy of each notification and report that the permittee submitted to comply with 40 CFR 63, Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv) [40 CFR 63.10032(a)(1)];
  - ii) Records of performance stack tests, fuel analysis, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii) [40 CFR 63.10032(a)(2)].
- g) For each CEMS, the permittee shall maintain the following [40 CFR 63.10032(b)]:
  - i) Records described in 40 CFR 63.10(b)(2)(vi) through (xi) [40 CFR 63.10032(b)(1)];
  - ii) Previous versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3) [40 CFR 63.10032(b)(2)];
  - iii) Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i) [40 CFR 63.10032(b)(3)];
  - iv) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during the period of startup, shutdown, or malfunction or during another period [40 CFR 63.10032(b)(4)].
- h) The permittee shall maintain the records required in Table 7 of 40 CFR 63, Subpart UUUUU to show continuous compliance with each emission limit and operating limit that applies to the permittee [40 CFR 63.10032(c)].
- i) The permittee shall maintain the following:
  - i) Records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used [40 CFR 63.10032(d)(1)];

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- ii) If the permittee combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the permittee shall maintain a record which documents how the secondary material meets each of the legitimacy criteria. If the permittee combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2), the permittee shall maintain records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the permittee shall maintain a record which documents how the fuel satisfies the requirements of the petition [40 CFR 63.10032(d)(2)].
- j) The permittee shall maintain records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment [40 CFR 63.10032(g)].
- k) The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.10032(h)].
- 1) The records shall be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1) [40 CFR 63.10033(a)].
- m) As specified in 40 CFR 63.10(b)(1), the permittee shall maintain each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record [40 CFR 63.10033(b)].
- n) The permittee shall maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years [40 CFR 63.10033(c)].
- o) The permittee shall keep visible observation records and U.S. EPA Reference Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five years [KAR 52:020, Section 10].

### 6. Specific Reporting Requirements:

- a) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in 40 CFR 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows [40 CFR 60.45(g)]:
  - 1) Excess emissions for opacity are defined as any six-minute period during which the average opacity exceeds twenty percent, except that one six-minute average per hour of up to 27% opacity need not be reported [40 CFR 60.45(g)(1)].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 2) Excess emissions of sulfur dioxide are defined as any three hour period during which the average emissions (arithmetic average of three contiguous one hour periods) as measure by CEMS exceed the applicable sulfur dioxide emissions standards [40 CFR 60.45(g)(2)].
- 3) Excess emissions for emissions units using a continuous monitoring system for measuring nitrogen oxides are defined as any three hour period during which the average emissions (arithmetic average of three contiguous one hour periods) exceed the applicable nitrogen oxides emissions standards [40 CFR 60.45(g)(3)].
- b) The permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6) and 40 CFR 63.9(b) through (h) that apply to the permittee [40 CFR 63.10030(a)].
- c) The permittee shall submit Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin [40 CFR 63.10030(d)].
- d) The permittee may switch from paragraph (1) of the definition of "startup" in 40 CFR 63.10042 to paragraph (2) of the definition of "startup" (or vice-versa), provided that [40 CFR 63.10021(i) and 40 CFR 63.10030(e)(8)(iii)]:
  - i) The permittee submits a request that identifies for each EGU or EGU emissions averaging group involved in the proposed switch both the current definition of "startup" relied on and the proposed definition you plan to rely on;
  - ii) The request arrives to the Administrator at least 30 calendar days prior to the date that the switch is proposed to occur;
  - iii) The permittee revises and submits all other applicable plans, e.g., monitoring and emissions averaging, with your submission;
  - iv) The permittee maintains records of all information regarding your choice of the definition of "startup"; and
  - v) The permittee begins to use the revised definition of "startup" in the next reporting period after receipt of written acknowledgement from the Administrator of the switch.
- e) The permittee shall submit each report according to Table 8 of 40 CFR 63, Subpart UUUUU that applies. For continuously monitoring Hg emissions, the permittee shall also submit the electronic reports required under appendix A, at the specified frequency [40 CFR 63.10031(a)].
- f) Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee shall submit each report by the date in Table 8 of 40 CFR 63, Subpart UUUUU and according to the requirements specified [40 CFR 63.10031(b)]:
  - i) The first compliance report shall cover the initial period (April 16, 2016) and end on December 31, 2017 (at least 180 days after the applicable start date) [40 CFR 63.10031(b)(1)];
  - ii) The first compliance report shall be postmarked or submitted electronically no later than January 31, 2017 [40 CFR 63.10031(b)(2)];
  - iii) Each subsequent compliance report shall cover the semiannual reporting period from January 1 to June 30 or July 1 through December 31 [40 CFR 63.10031(b)(3)];

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iv) Each subsequent compliance report shall be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period [40 CFR 63.10031(b)(4)];

- v) For each affected source that is subject to permitting regulations pursuant 40 CFR 70 or 71 and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates specified in 40 CFR 63.10031(b)(1) through (4) [40 CFR 63.10031(b)(5)].
- g) The semiannual compliance report shall contain the following [40 CFR 63.10011(g), Table 3, 40 CFR 63.10021(f) through (i) 40 CFR 63.10031(c) and 40 CFR 63, Subpart UUUUU, Table 8, Item 1]:
  - i) The information required by the summary report located in 40 CFR 63.10(e)(3)(vi) [40 CFR 63.10031(c)(1)];
  - ii) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited, to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure [40 CFR 63.10031(c)(2)];
  - iii) Indicate whether the permittee burned new types of fuel during the reporting period. If new type of fuel was burned, the permittee shall include the date of the performance test where that fuel was in use[40 CFR 63.10031(c)(3)];
  - iv) Include the date of the most recent tune-up for each EGU. The date of the tune-up is the date the tune-up provisions specified in 40 CFR 63.10021(e)(6) and (7) where completed [40 CFR 63.10031(c)(4)];
  - v) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test[40 CFR 63.10031(c)(7)];
  - vi) A certification [40 CFR 63.10031(c)(8)];
  - vii) For deviations from any emission limit, work practice standard, or operating limit, the permittee shall also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation [40 CFR 63.10031(c)(9)];
  - viii) If there are no deviations from any emission limitations (emission limit and operating limit) that apply and there are no deviations from the requirements for work practice standards, the permittee shall provide a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMS were out-of-control as specified in 40 CFR 63.8(c)(7), the permittee shall provide a statement that there were no periods during which the CMS were out-of-control during the reporting period [40 CFR 63, Subpart UUUUU, Table 8 Item 1(b)];
  - ix) If the permittee has a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report shall contain the information in 40 CFR 63.10031(d). If there were periods during which the CMS were out-of-control, as specified in 40 CFR 63.8(c)(7), the report shall

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control the information in 40 CFR 63.10031(e). [40 CFR 63, Subpart UUUUU, Table 8 Item 1(c)].

- h) For each excess emissions occurring where the permittee is using a CMS to comply with that emission limit or operating limit, the permittee shall include the information required in 40 CFR 63.10(e)(3)(v) in the compliance report specified in 40 CFR 63.10031(c) [40 CFR 63.10031(d)].
- i) The permittee shall report all deviations as defined in 40 CFR 63, Subpart UUUUU, in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority [40 CFR 63.10031(e)].
- j) If the permittee has a malfunction during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have cause any applicable emission limitation to be exceeded [40 CFR 63.10031(g)].
- k) On or after July 1, 2020, within 60 days after the date of completing each performance test, you must submit the performance test reports required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) https://www.epa.gov/ttn/chief/ert/index.html). Only data collected using those test methods on the ERT website are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority [40 CFR 63.10031(f)].
  - i) On or after July 1, 2020, within 60 days after the date of completing each CEMS (SO<sub>2</sub>, PM, HCl, HF, and Hg) performance evaluation test, as defined in §63.2 and required by this subpart, you must submit the relative accuracy test audit (RATA)

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

data (or, for PM CEMS, RCA and RRA data) required by this subpart to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX (https://cdx.epa.gov). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (https://www.epa.gov/ttn/chief/ert/index.html). Only RATA data compounds listed on the ERT website are subject to this requirement. Owners or operators who claim that some of the information being submitted for RATAs is confidential business information (CBI) shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX as described earlier in this paragraph. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. At the discretion of the delegated authority, owners or operators shall also submit these RATAs to the delegated authority in the format specified by the delegated authority. Owners or operators shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in \\$63.2 and as required in this chapter [40 CFR 63.10031(f)(1)].

- ii) On or after July 1, 2020, for a PM CEMS, PM CPMS, or approved alternative monitoring using a HAP metals CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, you must submit quarterly reports to the EPA's WebFIRE database by using the CEDRI that is accessed through the EPA's CDX (https://cdx.epa.gov). You must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. For each reporting period, the quarterly reports must include all of the calculated 30-boiler operating day rolling average values derived from the CEMS and PM CPMS. [40 CFR 63.10031(f)(2)].
- iii) Reports for an SO<sub>2</sub> CEMS, a Hg CEMS or sorbent trap monitoring system, an HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to this subpart and 40 CFR 63.10021(f) [40 CFR 63.10031(f)(3)].
- iv) On or after July 1, 2020, submit the compliance reports required under paragraphs (c) and (d) of this section and the notification of compliance status required under 40 CFR 63.10030(e) to the EPA's WebFIRE database by using the CEDRI that is accessed through the EPA's CDX (https://cdx.epa.gov). You must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format [40 CFR 63.10031(f)(4)].
- v) All reports required by this subpart not subject to the requirements in paragraphs (f) introductory text and (f)(1) through (4) of this section must be sent to the Administrator at the appropriate address listed in §63.13. If acceptable to both the Administrator and the owner or operator of an EGU, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs (f) introductory text and (f)(1) through (4) of this section in paper format [40 CFR 63.10031(f)(5)].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- vi) Prior to July 1, 2020, all reports subject to electronic submittal in paragraphs (f) introductory text, (f)(1), (2), and (4) of this section shall be submitted to the EPA at the frequency specified in those paragraphs in electronic portable document format (PDF) using the ECMPS Client Tool. Each PDF version of a submitted report must include sufficient information to assess compliance and to demonstrate that the testing was done properly. The following data elements must be entered into the ECMPS Client Tool at the time of submission of each PDF file [40 CFR 63.10031(f)(6)]:
  - A) The facility name, physical address, mailing address (if different from the physical address), and county [40 CFR 63.10031(f)(6)(i)];
  - B) The ORIS code (or equivalent ID number assigned by EPA's Clean Air Markets Division (CAMD)) and the Facility Registry System (FRS) ID [40 CFR 63.10031(f)(6)(ii)];
  - C) The EGU (or EGUs) to which the report applies. Report the EGU IDs as they appear in the CAMD Business System [40 CFR 63.10031(f)(6)(iii)];
  - D) If any of the EGUs in paragraph (f)(6)(iii) of this section share a common stack, indicate which EGUs share the stack. If emissions data are monitored and reported at the common stack according to part 75 of this chapter, report the ID number of the common stack as it is represented in the electronic monitoring plan required under §75.53 of this chapter [40 CFR 63.10031(f)(6)(iv)];
  - E) If any of the EGUs described in paragraph (f)(6)(iii) of this section are in an averaging plan under §63.10009, indicate which EGUs are in the plan and whether it is a 30- or 90-day averaging plan [40 CFR 63.10031(f)(6)(v)];
  - F) The identification of each emission point to which the report applies. An "emission point" is a point at which source effluent is released to the atmosphere, and is either a dedicated stack that serves one of the EGUs identified in paragraph (f)(6)(iii) of this section or a common stack that serves two or more of those EGUs. To identify an emission point, associate it with the EGU or stack ID in the CAMD Business system or the electronic monitoring plan (e.g., "Unit 2 stack," "common stack CS001," or "multiple stack MS001") [40 CFR 63.10031(f)(6)(vi)];
  - G) The rule citation (e.g., 40 CFR 63.10031(f)(1), 40 CFR 63.10031(f)(2), etc.) for which the report is showing compliance [40 CFR 63.10031(f)(6)(vii)];
  - H) The pollutant(s) being addressed in the report [40 CFR 63.10031(f)(6)(viii)];
  - I) The reporting period being covered by the report (if applicable) [40 CFR 63.10031(f)(6)(ix)];
  - J) The relevant test method that was performed for a performance test (if applicable) [40 CFR 63.10031(f)(6)(x)];
  - K) The date the performance test was conducted (if applicable) [40 CFR 63.10031(f)(6)(xi)]; and
  - L) The responsible official's name, title, and phone number [40 CFR 63.10031(f)(6)(xii)].

## 7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator (ESP), wet flue gas desulfurization unit (FGD), and low NO<sub>x</sub> burner system shall be operated to maintain compliance with permitted emission

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

limitations, consistent with manufacturer's specifications and good operating practices [401 KAR 50:055].

- b) Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020 Section 10 and 40 CFR 63.10032].
- c) See Section E-Source Control Equipment Requirements for further requirements.
- d) At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source [40 CFR 63.10000(b)].

Compliance Demonstration: See 4. Specific Monitoring Requirements: (b) and (i) through (k); 5. Specific Recordkeeping Requirements: (a) through (c), and (j) through (n).

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 03:** Coal and Pet Coke Hauling and Storage Operations

## **Description:**

Emission Unit	Description	Maximum Rated Capacity	Controls	Commenced Construction
EU03(1)	Coal and Pet Coke Storage Piles	800 tons/hr	Wet Material, Compaction, Telescopic Chute	1975
EU03(2)	Haul Trucks on Unpaved Roads to Stockpiles	400 tons/hr	Wet Material, Water Suppression	1975
EU03(3)	Haul Trucks on Paved Road to Coal Pile or Receiving Hoppers (Coal)	400 tons/hr	Wet Material, Water Suppression	1975

### **APPLICABLE REGULATIONS:**

401 KAR 63:010, Fugitive Emissions

**40 CFR 52.21, (a) through (i) and (s) through (w)**, Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

## 1. **Operating Limitations:**

- a) Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3]:
  - i) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land [401 KAR 63:010, Section 3(a)];
  - ii) Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts [401 KAR 63:010, Section 3(1)(b)];
  - iii) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne [401 KAR 63:010, Section 3(1)(d)];
  - iv) The maintenance of paved roadways in a clean condition [401 KAR 63:010, Section 3(1)(e)]; and
  - v) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water [401 KAR 63:010, Section 3(1)(f)].
- b) Additional Requirements, in addition to the requirements of Section 3 of this regulation, the following shall apply [401 KAR 63:010, Section 4]:
  - i) Open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered at all times when in motion [401 KAR 63:010, Section 4(1)];
  - ii) The provisions of 401 KAR 63:010, Section 3(1) and (2) shall not be applicable to temporary blasting or construction operations [401 KAR 63:010, Section 4(3)]; and
  - iii) No one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway [401 KAR 63:010, Section 4(4)].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## 2. Emission Limitations:

Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3(2)].

Compliance Demonstration: See 4. Specific Monitoring Requirements: (b).

## 3. <u>Testing Requirements</u>:

N/A

### 4. Specific Monitoring Requirements:

- a) The permittee shall monitor the amount of coal and pet coke received and processed in tons on a weekly basis [401 KAR 52:020, Section 10].
- b) Visual observations shall be made on a daily basis during operation, to ensure that the fugitive air emissions are not being generated in such a manner as to cause a nuisance or to cross the property line. If such a condition develops, water or another wetting agent shall be applied to suppress the fugitive air emissions so as to comply with applicable requirements of 401 KAR 63:010 [401 KAR 52:020, Section 10].

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall maintain the records of amount of coal and pet coke received and processed in tons on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall maintain records of the daily visual observations performed and, if applicable, records of when water or other wetting agents were used to suppress fugitive emissions as noted in **4.** Specific Monitoring Requirements: (b) [401 KAR 52:020, Section 10].

## 6. Specific Reporting Requirements:

See Section F - Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

### 7. Specific Control Equipment Operating Conditions:

- a) Water suppression and compaction shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b) See Section E Source Control Equipment Requirements for additional requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## Emission Unit 04A: Coal and Pet Coke Crushing and Processing Equipment

## **Description:**

Emission Unit	Description	Maximum Rated Capacity	Controls	Commenced Construction
EU04(1)	Receiving Hoppers (Coal) from Haul Trucks to Underground A1Conveyor	400 tons/hr	Wet Material, Partial Enclosure	1975
EU04(2)	Coal Conveyor & Transfer Points (30" x350')(A1 Conveyor)(From A1 to A Conveyors)	400 tons/hr	Partial Enclosure	1975
EU04(4)	Coal and Pet Coke from Green Barge Unloading	1,500 tons/hr	Baghouse	1975
EU04(5)	Coal and Pet Coke from Green Barge Transfer onto B1 Conveyors	1,500 tons/hr	Baghouse (Share with EU04 (4))	1975
EU04(6)	Coal and Pet Coke Conveyor & Transfer Points (54" x 542') (B1 Conveyor)	1,500 tons/hr	Bin Vent Filters	1975
EU04(8)	Coal/Pet Coke Conveyor & Transfer Points (2 at 30" x 1686')(1C & 2C Conveyors) (From 1C & 2C to Crusher)	800 tons/hr	Wet Material, Partial Enclosure	1975
EU04(9)	Crusher House Feeders (400 tons/hr per Crusher)	800 tons/hr	Wet Material, Complete Enclosure	1975
EU04(10)	Coal/Pet Coke Conveyor & Transfer Points (Crusher House)(From Crusher House to 2D Conveyor)	400 tons/hr	Bin Vent Filters	1975
EU04(11)	Coal/Pet Coke Conveyor & Transfer Points (Crusher House)(From Crusher House to 1D Conveyor)	400 tons/hr	Bin Vent Filters	1975
EU04(12)	Coal/Pet Coke Conveyor & Transfer Points (2 at 30" x 1014')(1D & 2D Conveyors)(From 1D & 2D Conveyors to Tripper Room)	800 tons/hr	Baghouse	1975
EU04(16)	Coal Conveyor & Transfer Points (42" x 843')(Stack-Out Conveyor)(From Stack-Out Conveyor to Radial Stacker)	400 tons/hr	Wet Material, Partial Enclosures	2000

### **Applicable Regulations:**

401 KAR 59:010, New Process Operations

**401 KAR 60:005**, Section 2(2)(gg), 40 C.F.R. 60.250 to 60.258, (**Subpart Y**), Standards of Performance for Coal Preparation Plants.

**40 CFR 52.21, (a) through (i) and (s) through (w),** Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

### 1. Operating Limitations:

N/A

#### 2. Emission Limitations:

- a) Particulate matter emissions into the open air from shall not exceed:
  - i)  $[3.59(P)^{0.62}]$  lbs/hr, where P is the processing rate in tons per hour, for P<30 tons/hr [401 KAR 59:010, Section 3(2)].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii)  $[17.31(P)^{0.16}]$  lbs/hr, where P is the processing rate in tons per hour, for P>30 tons/hr [401 KAR 59:010, Section 3(2)].

*Compliance Demonstration:* These units are assumed to be in compliance with the particulate emission limit based on the AP-42 particulate matter emission factor.

- b) Visible emissions shall not equal or exceed twenty 20% based on a six-minute average [401 KAR 59:010, Section 3(1)(a)].
  - Compliance Demonstration: See 4. Specific Monitoring Requirements: (b).
- c) On and after the date on which the performance test is conducted or required to be completed under 40 CFR 60.8, whichever date comes first, the permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20% opacity or greater [40 CFR 60.254(a)].

Compliance Demonstration: See 3. <u>Testing Requirements</u>: (b) and 4. <u>Specific</u> Monitoring Requirements: (b).

### 3. Testing Requirements:

- a) Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.
- b) The permittee shall conduct opacity testing according to 40 CFR 60.257(a) by performing a U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR part 60, and shall follow the procedures as described in 40 CFR 60.11 when visible emissions are observed [40 CFR 60.257(a)].

#### 4. Specific Monitoring Requirements:

- a) The permittee shall monitor the amount of coal and pet coke received and processed in tons on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall perform a qualitative visible observation of the opacity from stacks on a daily basis and maintain a log of the observation. If visible emission from a stack are seen, then the opacity shall be determined by U.S. EPA Reference Method 9 and the permittee shall initiate an inspection of the control equipment for any necessary repairs. [401 KAR 52:020, Section 10]

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall monitor the amount of coal and pet coke received and processed in tons on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall record and maintain a log of any U.S. EPA Reference Method 9 opacity observations made recording the date, time, and opacity reading. The permittee shall also document inspections and any repairs made [401 KAR 52:020, Section 10].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## **6.** Specific Reporting Requirements:

See Section F - Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

## 7. Specific Control Equipment Operating Conditions:

- a) The enclosure and baghouse at Green Station barge unloading, bin vent filters on the B1 Conveyor transfer point, enclosure on the Crusher House, bin vent filters on the crusher house to 2D conveyor transfer point, bin vent filters on the crusher house to 1D conveyor transfer point, baghouse on the tripper room and conveyor transfer points shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b) Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020 Section 10].
- c) See Section E Source Control Equipment Requirement

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 04B: Coal and Pet Coke Crushing and Processing Equipment

## **Description:**

Emission Unit	Description	Maximum Rated Capacity	Controls	Commenced Construction
EU04(3)	Coal Conveyor & Transfer Points (30" x 350')(A Conveyor)(From A Conveyor to Coal Stockpile)	400 tons/hr	Wet Material, Telescopic Chute	1975
EU04(7)	Coal / Pet Coke Conveyor & Transfer Point (54" x 1078')(B2 Conveyor)(From B2 Conveyor to Coal/Pet Coke Pile)	1,500 tons/hr	Wet Material, Telescopic Chute	1975
EU04(13)	Coal from Reid Barge Unloader	800 tons/hr	Partial Enclosure & Wet Material	1963
EU04(14)	Coal Conveyor & Transfer Points (Barge Unloader)(From Unloader to #1 River Conveyor)	800 tons/hr	Partial Enclosure & Wet Material	1963
EU04(15)	Coal Conveyor & Transfer Points (42" x 1318')(Transfer House)(From #1 River to Stack-Out Conveyors)	800 tons/hr	Wet Material, Partial Enclosure	1963
EU04(17)	Coal Conveyor & Transfer Points (36" x 400') (Radial Stacker)(From Radial Stacker to Coal Pile)	400 tons/hr	Wet Material	2000

## **Applicable Regulations:**

401 KAR 63:010, Fugitive Emissions

**40 CFR 52.21**, (a) through (i) and (s) through (w), Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

#### 1. Operating Limitations:

Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following [401 KAR 63:010, Section 3(1)]:

- a) Installation and use of hoods, fans, and enclosures to vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling; and/or
- b) Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces, which can create airborne dusts.

## 2. Emission Limitations:

No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate [401 KAR 63:010, Section 3(2)]. *Compliance Demonstration:* See **4. Specific Monitoring Requirements:** (b).

## 3. <u>Testing Requirements</u>:

N/A

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 4. Specific Monitoring Requirements:

- a) The permittee shall monitor the amount of coal and pet coke received and processed in tons on a weekly basis [401 KAR 52:020, Section 10].
- b) Visual observations shall be made on a daily basis during operation, to ensure that the fugitive air emissions are not being generated in such a manner as to cause a nuisance or to cross the property line. If such a condition develops, water or another wetting agent shall be applied to suppress the fugitive air emissions so as to comply with applicable requirements of 401 KAR 63:010. [401 KAR 52:020, Section 10]

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall keep records of the amount of coal and pet coke received and processed in tons on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall maintain records of the daily visual observations and, if applicable, records of when water or other wetting agents were used to suppress fugitive emissions as noted in **4.** Specific Monitoring Requirements: (b) [401 KAR 52:020, Section 10].

## 6. Specific Reporting Requirements:

See Section F – Monitoring Recordkeeping and Reporting Requirements.

## 7. Specific Control Equipment Operating Conditions:

- a) The partial enclosures on the conveyor transfer points, wetting, and telescopic chutes shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b) See Section E-Source Control Equipment Requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 05:** Lime Conveying and Storage Operations

## **Description**:

Emission Unit	Description	Maximum Rated Capacity	Controls	Commenced Construction
EU05(1)	Lime Conveyor & Transfer Points (30" x 2450')(L1 Conveyor)(From L1 Conveyor to Lime Tower)	400 tons/hr	Baghouse	1975
EU05(2)	Lime Silos (Four (4) Silos with East & West Screw Conveyors)	400 tons/hr	Baghouse	1975
EU05(3)	Lime From Green Barge Unloading	400 tons/hr	Baghouse	1975
EU05(4)	Lime from Green Barge Unloading Transfer onto L1 Conveyor	400 tons/hr	Baghouse	1975

### **APPLICABLE REGULATIONS:**

401 KAR 59:010, New Process Operations

**40 CFR 52.21**, (a) **through** (i) **and** (s) **through** (w), Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

### 1. **Operating Limitations**:

N/A

#### 2. Emission Limitations:

- a) Particulate matter emissions into the open air from shall not exceed:
  - i)  $[3.59(P)^{0.62}]$  lbs/hr, where P is the processing rate in tons per hour, for P<30 tons/hr [401 KAR 59:010, Section 3(2)].
  - ii) [17.31(P)<sup>0.16</sup>] lbs/hr, where P is the processing rate in tons per hour, for P>30 tons/hr [401 KAR 59:010, Section 3(2)].

**Compliance Demonstration:** These units are assumed to be in compliance with the particulate emission limit based on the AP-42 particulate matter emission factor and the proper operation of the baghouse and dust collectors.

b) Visible emissions shall not equal or exceed twenty 20% based on a six-minute average [401 KAR 59:010, Section 3(1)(a)].

Compliance Demonstration: See 4. Specific Monitoring Requirements: (a).

### 3. Testing Requirements:

N/A

### 4. Specific Monitoring Requirements:

- a) The permittee shall perform a qualitative visual observation of the opacity from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity by U.S. EPA Reference Method 9 and the permittee shall initiate an inspection of the control equipment for any necessary repairs. [401 KAR 52:020, Section 10]
- b) The permittee shall monitor the amount of lime received and conveyed on a weekly basis [401 KAR 52:020, Section 10].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall keep records of the amount of lime received and conveyed on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall record and maintain a log of U.S. EPA Reference Method 9 opacity observations made recording the date, time, and opacity reading. The permittee shall also document inspections and any repairs made. [401 KAR 52:020, Section 10]

### **6.** Specific Reporting Requirements:

See Section F - Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

## 7. Specific Control Equipment Operating Conditions:

- a) The baghouses and dust collectors at storage silos and conveyor transfer points shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b) Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020 Section 10].
- c) See Section E Source Control Equipment Requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 06:** Lime Handling and Processing Operations

## **Description:**

Emission Unit	Description	Maximum Rated Capacity	Controls	Commenced Construction
EU06	Lime Slurry Slaker System	400 tons/hr	Enclosed	1975

#### **APPLICABLE REGULATIONS:**

**401 KAR 63:010,** Fugitive Emissions

**40 CFR 52.21**, (a) **through** (i) **and** (s) **through** (w), Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

## 1. **Operating Limitations:**

Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the installation and use of hoods, fans, and enclosure to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling [401 KAR 63:010, Section 3(1)(c)].

### 2. Emission Limitations:

- a) No person shall cause or permit the discharge of visible fugitive dust emissions beyond the property line on which the emissions originate [401 KAR 63:010, Section 3(2)].
- b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the Secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gasborne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air [401 KAR 63:010, Section 3(3)].

**Compliance Demonstration:** See 4. Specific Monitoring Requirements.

## 3. <u>Testing Requirements:</u>

N/A

## 4. **Specific Monitoring Requirements:**

Visual observations shall be made on a daily basis each day of operation, to ensure the control equipment is functioning while the associated equipment is in operation and to determine if any fugitive air emissions are being generated in such a manner as to cause a nuisance or to cross the property line. If such a condition develops, water or another wetting agent shall be applied to suppress the fugitive air emissions so as to comply with applicable requirements of 401 KAR 63:010 [401 KAR 52:020, Section 10].

## 5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the daily visual observations and, if applicable, records of when water or other wetting agents were used to suppress fugitive emissions as noted in **4. Specific Monitoring Requirements:** (b) [401 KAR 52:020, Section 10].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## 6. Specific Reporting Requirements:

See Sections F – Monitoring Recordkeeping and Reporting Requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## **Emission Unit 07A: Ash and Sludge Handling Operations**

## **Description:**

Emission	Description	Maximum Rated	Controls	Commenced
Unit	Description	Capacity	Controls	Construction
EU07(1)	Ash Truck Loadout Stations	200 tons/hr	N/A	1975
EU07(4)	Sludge Conveyor	250 tons/hr	Inherent Moisture	1975
EU07(5)	Sludge Stockpile	250 tons/hr	Inherent Moisture	1975
EU07(6)	Sludge Truck Loadout	250 tons/hr	Inherent Moisture	1975
EU07(7)	Paved Haul Road	250 tons/hr	Chemical/Water	1975
L007(7)			Suppression	
EU07(8)	Unpaved Haul Road	250 tons/hr	Chemical/Water	1975
E007(8)	Onpaved Hauf Road	250 tolls/111	Water Suppression	1973
EU07(9)	Truck Dumping of Sludge to Landfill	250 tons/hr	Inherent Moisture	1975
EU07(10)	Landfill	250 tons/hr	Inherent Moisture	1975

## **APPLICABLE REGULATIONS:**

**401 KAR 63:010**, Fugitive Emissions

**40 CFR 52.21**, (a) **through** (i) **and** (s) **through** (w), Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

## 1. Operating Limitations:

Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

- a) Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts 401 KAR 63:010, Section 3(1)(b)];
- b) The maintenance of paved roadways in a clean condition [401 KAR 63:010, Section 3(1)(e)]; and
- c) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water [401 KAR 63:010, Section 3(1)(f)]

## 2. <u>Emission Limitations</u>:

Discharge of visible fugitive dust emissions beyond the property line is prohibited [401 KAR 63:010, Section 3].

Compliance Demonstration: See 4. Specific Monitoring Requirements: (b).

### 3. Testing Requirements:

N/A

### 4. Specific Monitoring Requirements:

- a) The permittee shall monitor the amount of fly ash and sludge processed on a weekly basis [401 KAR 52:020, Section 10].
- b) Visual observations shall be made on a daily basis during operations, to ensure that the fugitive air emissions are not being generated in such a manner as to cause a nuisance or

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

to cross the property line. If such a condition develops, water or another wetting agent shall be applied to suppress the fugitive air emissions so as to comply with applicable requirements of 401 KAR 63:010. [401 KAR 52:020, Section 10]

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall maintain the records of the amount of flyash and sludge on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall maintain records of the daily visual observations and, if applicable, records of when water or other wetting agents were used to suppress fugitive emissions as noted in **4.** Specific Monitoring Requirements: (b) [401 KAR 52:020, Section 10].

## 6. Specific Reporting Requirements:

See Section F - Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 07B: Ash and Sludge Handling Operations** 

## **Description:**

Emission Unit	Description	Maximum Rated Capacity	Controls	Commenced Construction
EU07(2)	Pug Mills	200 tons/hr	Baghouse	1975
EU07(3)	Fly Ash Silos	200 tons/hr	Baghouse	1975

### **APPLICABLE REGULATIONS:**

401 KAR 59:010, New Process Operations

**40 CFR 52.21, (a) through (i) and (s) through (w)**, Prevention of Significant Deterioration of Air Quality applicable to major construction or modification commenced before August 7, 1979

### 1. **Operating Limitations:**

N/A

## 2. Emission Limitations:

- a) Particulate matter emissions into the open air from shall not exceed:
  - i) [3.59(P)0.62] lbs/hr, where P is the processing rate in tons per hour, for P<30 tons/hr [401 KAR 59:010, Section 3(2)].
  - ii) [17.31(P)0.16] lbs/hr, where P is the processing rate in tons per hour, for P>30 tons/hr [401 KAR 59:010, Section 3(2)].

**Compliance Demonstration:** These units are assumed to be in compliance with the particulate emission limit based on the AP-42 particulate matter emission factor and the proper operation of the baghouse and dust collectors.

b) Visible emissions shall not equal or exceed 20% opacity based on a six minute average [401 KAR 59:010, Section 3(1)(a)].

Compliance Demonstration: See 4. Specific Monitoring Requirements: (b).

### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

## 4. Specific Monitoring Requirements:

- a) The permittee shall monitor the amount of fly ash and sludge processed on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall perform a qualitative visual observation of the opacity from the pug mill stack and slurry storage silo stacks on a daily basis and maintain a log of the observations. If visible emissions from any stack are seen, the permittee shall determine the opacity by U.S. EPA Reference Method 9 and the permittee shall initiate an inspection of the control equipment for any necessary repairs [401 KAR 52:020, Section 10].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall maintain the records of amount of fly ash and sludge processed on a weekly basis [401 KAR 52:020, Section 10].
- b) The permittee shall record and maintain a log of any U.S. EPA Reference Method 9 opacity observations made recording the date, time, and opacity reading. The permittee shall also document inspections and any repairs made [401 KAR 52:020, Section 10].

### **6.** Specific Reporting Requirements:

See Section F - Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

## 7. Specific Control Equipment Operating Conditions:

- a) The baghouse on the pug mills and fly ash silos shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b) Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].
- c) See Section E-Source Control Equipment Requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 08:** Two Cooling Towers

## **Description:**

Emission Unit	Description	Operating Rate	Commenced Construction
EU08(1)	Cooling Tower	6.3 MMgal/hr	1975
EU08(2)	Cooling Tower	6.3 MMgal/hr	1975

## **APPLICABLE REGULATIONS:**

401 KAR 59:010, New Process Operations

### 1. Operating Limitations:

- a) Particulate matter emissions into the open air from shall not exceed:
  - i) [3.59(P)0.62] lbs/hr, where P is the processing rate in tons per hour, for P<30 tons/hr [401 KAR 59:010, Section 3(2)].
  - ii) [17.31(P)0.16] lbs/hr, where P is the processing rate in tons per hour, for P>30 tons/hr [401 KAR 59:010, Section 3(2)].
- b) Visible emissions shall not equal or exceed twenty 20% based on a six-minute average [401 KAR 59:010, Section 3(1)(a)].

## Compliance Demonstration Method:

The permittee is assumed to be in compliance with the applicable opacity and particulate matter emission standard. [401 KAR 50:045, Section 4(3)(c)1.]

### 2. <u>Emission Limitations</u>:

NΔ

### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

### 4. Specific Monitoring Requirements:

The permittee shall monitor total dissolved solids content of the circulating water on a monthly basis. [401 KAR 52:020, Section 10]

## 5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the maximum pumping capacity and monthly records of the total dissolved solids content. [401 KAR 52:020, Section 10]

#### 6. Specific Reporting Requirements:

See Section F - Monitoring, Recordkeeping, and Reporting Requirements for further requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 09: Diesel Emergency Fire Pump Engine** 

## **Description:**

	nission Unit	Description	Model Year	Maximum Engine Rating	Fuel	Control Equipment
E	EU09	Cummins Model N-855-F, Serial # 10770141	1978	215 HP	Diesel	N/A

## **APPLICABLE REGULATIONS:**

**401 KAR 63:002, Section 2(4)(eeee**), 40 CFR 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (**Subpart ZZZZ**), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Note: DC Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (DC Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii). The DC Circuit Court issued the mandate for the vacatur on May 4, 2016.

## 1. **Operating Limitations**:

- a) For the existing emergency fire pump unit the permittee shall [40 CFR 63.6602, 40 CFR 63.6625(e), 40 CFR 63.6595(a), and 40 CFR 63.6625(h), and 40 CFR 63, Subpart ZZZZ, Table 2c, Item 1]:
  - i) Change oil and filter every 500 hours of operation or annually, whichever comes first, or change oil utilizing an oil analysis program according to the methods and requirements in order to extend the specified oil change requirements [40 CFR 63, Subpart ZZZZ, Table 2c, Item 1.a.];
  - ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first [40 CFR 63, Subpart ZZZZ, Table 2c, Item 1.b.]; and
  - iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary [40 CFR 63, Subpart ZZZZ, Table 2c, Item 1.c.].
  - iv) Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply [40 CFR 63, Subpart ZZZZ, Table 2c, Item 1.d.].
- b) The permittee shall install a non-resettable hour meter if one is not already installed [40 CFR 63.6625(f)].
- c) The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement of Table 2c, Item 1 to 40 CFR 63 Subpart ZZZZ, as provided for in 40 CFR 63.6625(i). The oil analysis shall be performed at the same frequency as specified for changing the oil [40 CFR 63.6625(i)].
- d) The permittee shall operate and maintain the engine according to the manufacturer's emission-related operating and maintenance instructions, or develop and follow own maintenance plan which shall provide, to the extent practicable, for the maintenance and

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions [40 CFR 63.6625(e)].

- e) The permittee shall operate the emergency engine according to the requirements in 1. Operating Limitations: (e)(i) through (iii). In order for the engine to be considered an emergency engine under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the engine is not operated according to the requirements in 40 CFR 63.6640(f)(1) through (iii), the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and shall meet all requirements for nonemergency [40 CFR 63.6640(f)].
  - i) There is no time limit on the use of emergency engine in emergency situations [40 CFR 63.6640(f)(1)].
  - ii) The permittee may operate the emergency engine for any combination of the purposes specified in 40 CFR 63.6640(f)(2) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). The emergency engine may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year [40 CFR 63.6640(f)(2)].
  - iii) The emergency engine located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity [40 CFR 63.6640(f)(3)].
- f) The permittee shall be in compliance with the emission limitations and operating limitations in 40 CFR 63, Subpart ZZZZ that apply at all times [40 CFR 63.6605(a)].

## 2. Emission Limitations:

N/A

## 3. Testing Requirements:

Testing shall be conducted at such time as may be requested by the cabinet in accordance with 401 KAR 50:045, Section 4.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

## 4. **Specific Monitoring Requirements:**

The permittee shall monitor the amount of fuel usage and hours of operation on a monthly basis [401 KAR 52:020, Section 10].

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall keep records of each notification and report that is submitted, the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment, records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii), records of all required maintenance performed on the air pollution control and monitoring equipment, and records of action taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)]
- b) The permittee shall maintain records of the maintenance conducted on the engine in order to demonstrate that the engine was operated and maintained, including any after-treatment control device, according to the maintenance plan for the engine[40 CFR 63.6655(e)].
- c) The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation [40 CFR 63.6655(f)(1)].
- d) The permittee shall maintain records for fuel usage on a monthly basis [401 KAR 52:020, Section 10].

### 6. Specific Reporting Requirements:

- a) The permittee shall report each instance in which the operating limitations in **1. Operating Limitations:** (a) have not been met. These instances are deviations from the emission and operating limitation in 40 CFR 63 Subpart ZZZZ and shall be reported according to 40 CFR 63.6650. [40 CFR 63.6640(b)]
- b) The permittee shall report each instance in which the requirements of Table 8 to 40 CFR 63 Subpart ZZZZ, that apply, have not been met. The notifications listed 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (f)(6), 40 CFR 63.9(b) through (e) and (g) are not required. [40 CFR 63.6645(a)(5)]
- c) See **Section F Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 10: Diesel Fired Emergency Generator (new stationary RICE)** 

## **Description:**

Emission Unit	Description	Model Year	Maximum Engine Rating	Fuel
EU10	Generac Model SD500 Engine Model TAD1641GE, Serial # 56815	2011	757 HP	Diesel

### **Applicable Regulations:**

**401 KAR 60:005, Section 2(2)(dddd)**, 40 C.F.R. 60.4200 to 60.4219, Tables 1 to 8 (**Subpart IIII**), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

**401 KAR 63:002, Section 2(4)(eeee)** 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (**Subpart ZZZZ**), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

<u>Note</u>: DC Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (DC Cir. 2015)] has vacated the provisions in 40 CFR 63, Subpart ZZZZ and 40 CFR 60 Subpart IIII that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 63.6640(f)(2)(ii)-(iii) and 60.4211(f)(2)(ii)-(iii). The DC Circuit Court issued the mandate for the vacatur on May 4, 2016.

## 1. **Operating Limitations:**

- a) The permittee shall submit an initial notification requirement and include the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that the emergency engine has no additional requirements and explain the basis for the exclusion [40 CFR 63.6645(f)].
- b) The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel [40 CFR 60.4207(b)].
   Compliance Demonstration: The permittee shall demonstrate compliance by using fuel supplier certification.
- c) The permittee must operate the emergency engine according to the requirements in 40 CFR 60.6640(f)(1) through (4). In order for the engine to be considered an emergency engine under 40 CFR 60, Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.6640(f)(1) through (4), is prohibited. If the permittee do not operate the engine according to the requirements in 40 CFR 60.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and shall meet all requirements for non-emergency engines [40 CFR 60.4211(f)]:
  - i) There is no time limit on the use of emergency engine in emergency situations [40 CFR 60.4211(f)(1)].
  - ii) The permittee may operate the emergency engine for any combination of the purposes specified in 40 CFR 60.6640(f)(2) for a maximum of 100 hours per calendar year.

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Any operation for non-emergency situations as allowed by paragraph 40 CFR 60.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.6640(f)(2). The emergency engine may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency engine beyond 100 hours per calendar year.

- iii) Emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.6640(f)(2). Except as provided in 40 CFR 60.6640(f)(ii), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
  - A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
  - B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region;
  - C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines;
  - D) The power is provided only to the facility itself or to support the local transmission and distribution system;
  - E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- d) The permittee shall operate and maintain each of the stationary CI internal combustion engines according to the manufacturer's emission-related settings that are permitted by the manufacturer [40 CFR 60.4211(a)].
- e) The permittee shall meet the requirements of 40 CFR parts 89, 94, and/or 1068, as they apply [40 CFR 60.4211(a)(3)].

### 2. Emission Limitations:

The engines shall meet the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

all pollutants [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b)]. Each engine shall meet the emission standards over the life of the engine [40 CFR 60.4206].

### 3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 50:045, Section 4.

### 4. Specific Monitoring Requirements:

- a) The permittee shall monitor the fuel usage (gallons) and hours of operation on a monthly basis [401 KAR 52:020, Section 10].
- b) If an engine does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter prior to startup of the engine [40 CFR 60.4209(a)].
- c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the diesel particulate filter shall be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached [40 CFR 60.4209(b)].

## 5. Specific Recordkeeping Requirements:

- a) The permittee shall maintain records necessary to demonstrate compliance with the applicable emission limits, according to the method specified [401 KAR 52:020, Section 10].
- b) The permittee shall maintain records of fuel usage (gallons) and hours of operation on a monthly basis and fuel supplier certification according to the fuel requirements in subsection 1(b) [401 KAR 52:020, Section 10].
- c) Records of performance tests shall report emission limits and actual emissions in the unit of the applicable standard [401 KAR 52:020, Section 10].
- d) If the emergency engine does not meet the emission standards specified in 2. Operating Limitations: (c), the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]
- e) If the engine is equipped with a diesel particulate filter, the permittee shall keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)].

### 6. Specific Reporting Requirements:

- a) The permittee is required to submit an initial notification as required in 40 CFR 63.9(b)(1)(i) [40 CFR 63.6645(f)].
- b) See **Section F Monitoring, Recordkeeping, and Reporting Requirements** for further requirements.

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#### **SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee shall comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

<u>Description</u>	Generally Applicable Regulation
1. Kerosene tanks (500 gallons)	N/A
2. Kerosene tanks (340 gallons)	N/A
3. Unleaded gasoline tank (500 gallons)	N/A
4. Gasoline tank (300 gallons)	N/A
5. Diesel fuel oil storage tank (500 gallons)	N/A
6. No. 2 fuel storage tank (50,000 gallons)	N/A
7. Diesel fuel tank for emergency fire pump (500 gal)	N/A
8. Diesel fuel tank for emergency generator (797 gal)	N/A
9. Diesel fuel storage tank (500 gallons)	N/A
10. Closed cooling water system	N/A
11. Demineralizer process operation	N/A
12. Freeze protection operation for coal conveyors	N/A
13. Wastewater treatment plant operations	N/A
14. Pneumatic flyash conveyors and storage silos	401 KAR 63:010
15. PAC Storage Silos (2)	401 KAR 59:010
16. Hydrated Lime Storage Silos (2)	401 KAR 59:010

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# SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

**1.** As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate matter, sulfur dioxide, nitrogen oxides, and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

#### **3.** Electrical Generating Units 01 and 02 at the R. D. Green Station:

a) To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of air quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R.
 D. Green Station shall not exceed 20,846 tons during any consecutive 12 month period in which any amount of petroleum coke is burned.

#### Compliance Demonstration:

- i) The permittee shall use the sulfur dioxide continuous emission monitoring system (CEMS) to determine the monthly and twelve consecutive rolling month emissions from the electrical generating units.
- ii) The permittee shall calculate and record the total sulfur dioxide emissions from all the electrical generating units referenced above on a monthly and 12 consecutive month basis.
- iii) The permittee shall maintain records of the dates on which any petcoke is burned and the monthly and annual quantities.
- iv) The permittee shall submit a report of sulfur dioxide emissions for the previous twelve consecutive month period every six months in accordance with Section F.5. Exceedances of the emission limitation specified above shall be reported within 30 days following the date when the exceedance is determined.

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### **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

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# SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:

- a. Date, place as defined in this permit, and time of sampling or measurements;
- b. Analyses performance dates;
- c. Company or entity that performed analyses;
- d. Analytical techniques or methods used;
- e. Analyses results; and
- f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit:
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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# SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

- 7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- 8. The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, shall be defined as follows:
  - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
  - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
  - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
- 9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.

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# SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

Division for Air Quality Owensboro Regional Office 3032 Alvey Park Dr. W STE 700 Owensboro, KY 42303-2191 U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. SW Atlanta, GA 30303-8960

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

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#### **SECTION G - GENERAL PROVISIONS**

#### 1. General Compliance Requirements

a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12:
  - (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit shall be revised or revoked to assure compliance with the applicable requirements;
  - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
  - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

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### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements [Section 1a-15 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) 2].
- 1. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) 4.].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) 1.].
- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and

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### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

incorporates all requirements of those existing permits into one single permit for this source.

- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - (1) Applicable requirements that are included and specifically identified in this permit; and
  - (2) Non-applicable requirements expressly identified in this permit.

#### 2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

#### 3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

#### 4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction is authorized by this permit V-19-020.

#### 5. Testing Requirements

a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test

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#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of 60 days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least 30 days prior to the test.

- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within 45 days or sooner if required by an applicable standard, after the completion of the fieldwork.

### 6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NO<sub>x</sub> compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

#### 7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - (1) An emergency occurred and the permittee can identify the cause of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an

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# **SECTION G - GENERAL PROVISIONS (CONTINUED)**

emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

- (5) This requirement does not relieve the source of other local, state or federal notification requirements.
- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

#### 8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156 and 82.157.
  - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
  - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 82.157.
  - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

#### 9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to U.S. EPA using the RMP\* eSubmit software.
- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

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# **SECTION H - ALTERNATE OPERATING SCENARIOS**

NA.

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# **SECTION I - COMPLIANCE SCHEDULE**

NA

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#### **SECTION J - ACID RAIN PERMIT**

#### 1. Statutory and Regulatory Authority:

In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and 40 CFR Part 52:060, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

#### 2. Permit Requirements:

This Acid Rain Permit covers Acid Rain Units 1-2 (Emission Units 01-02) at the R.D. Green Generating Station (ORIS Code: 6639). Units 1-2 are coal-fired based load electric generating units. The Acid Rain Permit Application and NO<sub>x</sub> Compliance Plan received on December 27, 2011, for Phase II are hereby incorporated into and made part of this permit and the permittee shall comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

#### 3. Acid Rain Program Emission and Operating Limitations:

The applicable Acid Rain emission limitations for the permittee are set in 40 CFR 73.10, Table 2, 40 CFR 76.5, and 40 CFR 76.11 and they are tabulated in the table below:

Affected Unit: Green River Generation Station (Emissions Unit 01)					
Year for SO <sub>2</sub> Allowances	2019	2020	2021	2022	2023
40 CFR Part 73.10	5,303*	5,303*	5,303*	5,303*	5,303*

### NO<sub>x</sub> Limits and Requirements

Big Rivers Electric Corporation terminated the  $NO_x$  averaging plan in accordance with 40 CFR 72.40 via a letter dated September 25, 2018, reverting to the  $NO_x$  emission rate specified under 40 CFR 76.5(a)(2) of 0.50 lb/MMBtu for dry bottom wall-fired boilers.

This unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.

<sup>\*</sup> The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (See 40 CFR 72.84).

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### **SECTION J - ACID RAIN (CONTINUED)**

Affected Unit: Green River Generation Station (Emissions Unit 02)					
Year for SO <sub>2</sub> Allowances	2019	2020	2021	2022	2023
40 CFR Part 73.10	6,389*	6,389*	6,389*	6,389*	6,389*

#### NO<sub>x</sub> Limit and Requirements

Big Rivers Electric Corporation terminated the NOx averaging plan in accordance with 40 CFR 72.40 via a letter dated September 25, 2018, reverting to the NO<sub>x</sub> emission rate specified under 40 CFR 76.5(a)(2), of 0.50 lb/MMBtu for dry bottom wall-fired boilers.

This unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.

<sup>\*</sup> The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (See 40 CFR 72.84).

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### **SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)**

#### 1. Statutory and Regulatory Authority:

In accordance with KRS 224.10-100, the Kentucky Energy and Environmental Cabinet issues this permit pursuant to 401 KAR 52:020, Title V permits, 401 KAR 51:210, CAIR  $NO_x$  Annual Trading Program, 401 KAR 51:220, CAIR  $NO_x$  ozone season trading program, and 401 KAR 51:230, CAIR  $SO_2$  Trading Program.

#### 2. Application and Requirements:

The CAIR application for two (2) electrical generating units was submitted to the Division and received on September 10, 2007. The standard requirements and special provisions set forth in the application are hereby incorporated into and made part of this CAIR Permit. [401 KAR 51:210, 401 KAR 51:220, and 401 KAR 51:230]. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

#### 3. <u>Unit Description</u>:

The affected units are two dry bottom wall fired boiler each rated at 2,660 MMBtu/hour (EU 01-02). Each unit has a capacity to generate 25 megawatts or more of electricity, which is offered for sale. The units use coal and pet coke as a fuel source, and are used as base load electric generating units.

#### 4. **Summary of Actions:**

The CAIR Permit is being issued as part of the Title V permit for this source. Public, affected state and U.S. EPA review will follow procedures specified in 401 KAR 52:100.

A December 2008 court decision kept the requirements of CAIR in place temporarily but directed EPA to issue a new rule to implement Clean Air Act requirements concerning the transport of air pollution across state boundaries. On July 6, 2011, the U.S. EPA finalized the Cross-State Air Pollution Rule (CSAPR). On December 30, 2011, CSAPR was stayed prior to implementation. On April 29, 2014, the U.S. Supreme Court issued an opinion reversing an August 21, 2012 D.C. Circuit decision that had vacated CSAPR. Following the remand of the case to the D.C. Circuit, EPA requested that the court lift the CSAPR stay and toll the CSAPR compliance deadlines by three years. On October 23, 2014, the D.C. Circuit granted EPA's request. CSAPR Phase I implementation is now in place and replaces requirements under EPA's 2005 Clean Air Interstate Rule.

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### **SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)**

The CSAPR subject units, and the unit-specific monitoring provisions at this source, are identified in the following tables. These units are subject to the requirements for the CSAPR NO<sub>x</sub> Annual Trading Program, CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program, and CSAPR SO<sub>2</sub> Group 1 Trading Program

Unit ID: 1 and 2, Pulverized Coal Fired Boilers						
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, Subpart B (for SO <sub>2</sub> monitoring) and 40 CFR part 75, Subpart H (for NO <sub>x</sub> monitoring)	Excepted monitoring system requirements for gas- and oil- fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil- fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, Subpart E	
SO <sub>2</sub>	X					
Heat input	X					

- 1. The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 401 KAR 51:240, Section 3(25) through 401 KAR 51:250, Section 3(30) (CSAPR NO<sub>x</sub> Annual Trading Program), 401 KAR 51:250 Section 3(25) through 401 KAR 51:250, Section 3(30) (CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program), and 401 KAR 51:260 Section 3(25) through 401 KAR 51:260, Section 3(30) (CSAPR SO<sub>2</sub> Group 1 Trading Program). The monitoring, recordkeeping, and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR trading programs.
- 2. Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website: <a href="https://www.epa.gov/airmarkets/monitoring-plans-part-75-sources#">https://www.epa.gov/airmarkets/monitoring-plans-part-75-sources#</a>
- 3. Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in

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# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

accordance with 40 CFR 75, Subpart E and 40 CFR 75.66 and 401 KAR 51:240, Section 3(30) (CSAPR NO<sub>x</sub> Annual Trading Program), 401 KAR 51:250, Section 3(30) (CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program), and/or 401 KAR 51:260, Section 3(30) (CSAPR SO<sub>2</sub> Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at: https://www.epa.gov/airmarkets/petition-preparation-help

- 4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirements under 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(29) (CSAPR NO<sub>x</sub> Annual Trading Program), 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(29) (CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program), and/or 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(29) (CSAPR SO<sub>2</sub> Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 401 KAR 51:240, Section 3(30) (CSAPR NO<sub>x</sub> Annual Trading Program), 401 KAR 51:250, Section 3(30) (CSAPR SO<sub>2</sub> Group 1 Trading Program), and 401 KAR 51:260, Section 3(30) (CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at: <a href="https://www.epa.gov/airmarkets/petition-preparation-help">https://www.epa.gov/airmarkets/petition-preparation-help</a>
- 5. The descriptions of monitoring applicable to the unit included above meet the requirement of 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(29) (CSAPR NO<sub>x</sub> Annual Trading Program), 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(29) (CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program), and 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(29) (CSAPR SO<sub>2</sub> Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B), may be used to add or change this unit's monitoring system description.

#### CSAPR NO<sub>x</sub> Annual Trading Program requirements (401 KAR 51:240, Section 3(4))

#### a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 401 KAR 51:240, Section 3(10) through 401 KAR 51:240, Section 3(15).

#### b) Emissions monitoring, reporting, and recordkeeping requirements.

1) The owners and operators, and the designated representative, of each CSAPR NO<sub>x</sub> Annual source and each CSAPR NO<sub>x</sub> Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 401 KAR 51:240, Section 3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:240, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:240, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:240, Section 3(28) (notifications concerning monitoring), 401 KAR 51:240, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:240, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

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# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

2) The emissions data determined in accordance with 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) shall be used to calculate allocations of CSAPR NO<sub>x</sub> Annual allowances under 401 KAR 51:240, Section 3(8) (40 CFR 97.411(a)(2) and (b)) and 401 KAR 51:240, Section 3(9) and to determine compliance with the CSAPR NO<sub>x</sub> Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30) and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

## c) NO<sub>x</sub> emissions requirements.

- 1) CSAPR NO<sub>x</sub> Annual emissions limitation.
  - i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO<sub>x</sub> Annual source and each CSAPR NO<sub>x</sub> Annual unit at the source shall hold, in the source's compliance account, CSAPR NO<sub>x</sub> Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(a)) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all CSAPR NO<sub>x</sub> Annual units at the source.
  - ii) If total  $NO_x$  emissions during a control period in a given year from the CSAPR  $NO_x$  Annual units at a CSAPR  $NO_x$  Annual source are in excess of the CSAPR  $NO_x$  Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
    - A) The owners and operators of the source and each CSAPR NO<sub>x</sub> Annual unit at the source shall hold the CSAPR NO<sub>x</sub> Annual allowances required for deduction under 401 KAR 51:240, Section 3(20) (40 CFR 97.424(d)); and
    - B) The owners and operators of the source and each CSAPR NO<sub>x</sub> Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 401 KAR 51:240 (40 CFR 97, Subpart AAAAA) and the Clean Air Act.
- 2) CSAPR NO<sub>x</sub> Annual assurance provisions.
  - i) If total NO<sub>x</sub> emissions during a control period in a given year from all CSAPR NO<sub>x</sub> Annual units at CSAPR NO<sub>x</sub> Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO<sub>x</sub> Annual allowances available for deduction for such control period under 401 KAR 51:240, Section 3(21) (40 CFR 97.425(a)) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 401 KAR 51:240, Section 3(21) (40 CFR 97.425(b)), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> emissions exceeds the common designated

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# SECTION L - CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such  $NO_x$  emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total  $NO_x$  emissions from all CSAPR  $NO_x$  Annual units at CSAPR  $NO_x$  Annual sources in the state for such control period exceed the state assurance level.

- ii) The owners and operators shall hold the CSAPR NO<sub>x</sub> Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- iii) Total NO<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Annual units at CSAPR NO<sub>x</sub> Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the state NO<sub>x</sub> Annual trading budget under 401 KAR 51:240, Section 3(7)(a)(1) and the state's variability limit under 401 KAR 51:240, Section 3(7)(a)(3).
- iv) It shall not be a violation of 401 KAR 51:240, 40 CFR 97, Subpart AAAAA, or of the Clean Air Act if total NO<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Annual units at CSAPR NO<sub>x</sub> Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the CSAPR NO<sub>x</sub> Annual units at CSAPR NO<sub>x</sub> Annual sources in the state during a control period exceeds the common designated representative's assurance level.
- v) To the extent the owners and operators fail to hold CSAPR NO<sub>x</sub> Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
  - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
  - B) Each CSAPR NO<sub>x</sub> Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 401 KAR 51:240, 40 CFR 97, Subpart AAAAA, and the Clean Air Act.
- 3) Compliance periods.
  - i) A CSAPR NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.
  - ii) A CSAPR NO<sub>x</sub> Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:240, Section 3(25) (40 CFR 97.430(b)) and for each control period thereafter.
- 4) Vintage of allowances held for compliance.
  - i) A CSAPR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year shall be a CSAPR NO<sub>x</sub> Annual allowance that was allocated for such control period or a control period in a prior year.

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# SECTION L - CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

- ii) A CSAPR NO<sub>x</sub> Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year shall be a CSAPR NO<sub>x</sub> Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- 5) Allowance Management System requirements. Each CSAPR NO<sub>x</sub> Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 401 KAR 51:240.
- 6) Limited authorization. A CSAPR NO<sub>x</sub> Annual allowance is a limited authorization to emit one ton of NO<sub>x</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
  - i) Such authorization shall only be used in accordance with the CSAPR  $NO_x$  Annual Trading Program; and
  - ii) Notwithstanding any other provision of 40 CFR 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- 7) Property right. A CSAPR NO<sub>x</sub> Annual allowance does not constitute a property right.

### d) Title V permit revision requirements.

- 1) No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO<sub>x</sub> Annual allowances in accordance with 401 KAR 51:240.
- 2) This permit incorporates the CSAPR emissions monitoring, recordkeeping, and reporting requirements pursuant to 401 KAR 51:240, Section 3(25) through 401 KAR 51:240, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using minor permit modification procedures in accordance with 401 KAR 51:240, Section 3(4) (40 CFR 97.406(d)(2)) and 70.7(e)(2)(i)(B).

#### e) Additional recordkeeping and reporting requirements.

- 1) Unless otherwise provided, the owners and operators of each CSAPR NO<sub>x</sub> Annual source and each CSAPR NO<sub>x</sub> Annual unit at the source shall maintain on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
  - The certificate of representation under 401 KAR 51:240, Section 3(13) for the designated representative for the source and each CSAPR NO<sub>x</sub> Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 401 KAR 51:240, Section 3(13) changing the designated representative.
  - ii) All emissions monitoring information, in accordance with 401 KAR 51:240.

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# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO<sub>x</sub> Annual Trading Program.

2) The designated representative of a CSAPR NO<sub>x</sub> Annual source and each CSAPR NO<sub>x</sub> Annual unit at the source shall make all submissions required under the CSAPR NO<sub>x</sub> Annual Trading Program, except as provided in 401 KAR 51:240, Section 3(15). This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR 70.

### f) Liability.

- 1) Any provision of the CSAPR NO<sub>x</sub> Annual Trading Program that applies to a CSAPR NO<sub>x</sub> Annual source or the designated representative of a CSAPR NO<sub>x</sub> Annual source shall also apply to the owners and operators of such source and of the CSAPR NO<sub>x</sub> Annual units at the source.
- 2) Any provision of the CSAPR  $NO_x$  Annual Trading Program that applies to a CSAPR  $NO_x$  Annual unit or the designated representative of a CSAPR  $NO_x$  Annual unit shall also apply to the owners and operators of such unit.

#### g) Effect on other authorities.

No provision of the CSAPR NO<sub>x</sub> Annual Trading Program or exemption under 401 KAR 51:240, Section 3(3) shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO<sub>x</sub> Annual source or CSAPR NO<sub>x</sub> Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

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### a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 401 KAR 51:250, Section 3(10) through 401 KAR 51:250, Section 3(15).

#### b) Emissions monitoring, reporting, and recordkeeping requirements.

- a) The owners and operators, and the designated representative, of each CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 401 KAR 51:250, Section 3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:250, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:250, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:250, Section 3(28) (notifications concerning monitoring), 401 KAR 51:250, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:250, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- b) The emissions data determined in accordance with 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(30) shall be used to calculate allocations of CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances under 401 KAR 51:250, Section 3(8) (40 CFR

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# SECTION L - CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

97.811(a)(2) and (b)) and 401 KAR 51:250, Section 3(9) (40 CFR 97.812) and to determine compliance with the CSAPR  $NO_x$  Ozone Season Group 2 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(30) and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

#### c) $NO_x$ emissions requirements.

- 1) CSAPR NO<sub>x</sub> Ozone Season Group 2 emissions limitation.
  - i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances available for deduction for such control period under 401 KAR 51:250, Section 3(20) (40 CFR 97.824(a)) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at the source.
  - ii) If total  $NO_x$  emissions during a control period in a given year from the CSAPR  $NO_x$  Ozone Season Group 2 units at a CSAPR  $NO_x$  Ozone Season Group 2 source are in excess of the CSAPR  $NO_x$  Ozone Season Group 2 emissions limitation set forth in paragraph (c)(1)(i) above, then:
    - A) The owners and operators of the source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall hold the CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances required for deduction under 401 KAR 51:250, Section 3(20) (40 CFR 97.824(d)); and
    - B) The owners and operators of the source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 401 KAR 51:250, 40 CFR 97, Subpart EEEEE, and the Clean Air Act.
- 2) CSAPR NO<sub>x</sub> Ozone Season Group 2 assurance provisions.
  - i) If total NO<sub>x</sub> emissions during a control period in a given year from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances available for deduction for such control period under 401 KAR 51:250, Section 3(21) (40 CFR 97.825(a)) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 401 KAR 51:250, Section 3(21) (40 CFR 97.825(b)), of multiplying—

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# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

- A) The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and
- B) The amount by which total NO<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 sources in the state for such control period exceed the state assurance level.
- ii) The owners and operators shall hold the CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- iii) Total NO<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 sources in the state during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the State NO<sub>x</sub> Ozone Season Group 2 trading budget under 401 KAR 51:250, Section 3(7)(a)(1) (40 CFR 97.810(a)) and the state's variability limit under 401 KAR 51:250, Section 3(7)(a)(3) (40 CFR 97.810(b)).
- iv) It shall not be a violation of 401 KAR 51:250, 40 CFR 97, Subpart EEEEE, or of the Clean Air Act if total NO<sub>x</sub> emissions from all CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the CSAPR NO<sub>x</sub> Ozone Season Group 2 units at CSAPR NO<sub>x</sub> Ozone Season Group 2 sources in the state during a control period exceeds the common designated representative's assurance level.
- v) To the extent the owners and operators fail to hold CSAPR  $NO_x$  Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
  - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
  - B) Each CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 401 KAR 51:250, 40 CFR 97, Subpart EEEEE and the Clean Air Act.

### 3) Compliance periods.

- i) A CSAPR NO<sub>x</sub> Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:250, Section 3(25) (40 CFR 97.830(b)) and for each control period thereafter.
- ii) A CSAPR NO<sub>x</sub> Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or

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# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:250, Section 3(25) (40 CFR 97.830(b)) and for each control period thereafter.

- 4) Vintage of allowances held for compliance.
  - i) A CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year shall be a CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.
  - ii) A CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year shall be a CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- 5) Allowance Management System requirements. Each CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR 97, Subpart EEEEE.
- 6) Limited authorization. A CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO<sub>x</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
  - i) Such authorization shall only be used in accordance with the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program; and
  - ii) Notwithstanding any other provision of 401 KAR 51:250, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- 7) Property right. A CSAPR NO<sub>x</sub> Ozone Season Group 2 allowance does not constitute a property right.

#### d) Title V permit revision requirements.

- 1) No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO<sub>x</sub> Ozone Season Group 2 allowances in accordance with 401 KAR 51:250.
- 2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 401 KAR 51:250, Section 3(25) through 401 KAR 51:250, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR 75, Subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using minor permit modification procedures in accordance with401 KAR 51:250, Section 3(4) (40 CFR 97.806(d)(2)) and 70.7(e)(2)(i)(B).

### e) Additional recordkeeping and reporting requirements.

1) Unless otherwise provided, the owners and operators of each CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall maintain on site at the source each of the following documents (in hardcopy or electronic

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# SECTION L - CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

- i) The certificate of representation under 401 KAR 51:250, Section 3(13) for the designated representative for the source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 401 KAR 51:250, Section 3(13) changing the designated representative.
- ii) All emissions monitoring information, in accordance with 401 KAR 51:250.
- iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program.
- 2) The designated representative of a CSAPR NO<sub>x</sub> Ozone Season Group 2 source and each CSAPR NO<sub>x</sub> Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program, except as provided in 401 KAR 51:250, Section 3(15). This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFRs 70.

### f) Liability.

- 1) Any provision of the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program that applies to a CSAPR NO<sub>x</sub> Ozone Season Group 2 source or the designated representative of a CSAPR NO<sub>x</sub> Ozone Season Group 2 source shall also apply to the owners and operators of such source and of the CSAPR NO<sub>x</sub> Ozone Season Group 2 units at the source.
- 2) Any provision of the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program that applies to a CSAPR NO<sub>x</sub> Ozone Season Group 2 unit or the designated representative of a CSAPR NO<sub>x</sub> Ozone Season Group 2 unit shall also apply to the owners and operators of such unit.

#### g) Effect on other authorities.

No provision of the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program or exemption under 401 KAR 51:250, Section 3(3) shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO<sub>x</sub> Ozone Season Group 2 source or CSAPR NO<sub>x</sub> Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

#### CSAPR SO<sub>2</sub> Group 1 Trading Program requirements (401 KAR 51:260, Section 3(4))

### a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 401 KAR 51:260, Section 3(10) through 401 KAR 51:260, Section 3(15).

#### b) Emissions monitoring, reporting, and recordkeeping requirements.

1) The owners and operators, and the designated representative, of each CSAPR SO<sub>2</sub> Group 1 source and each CSAPR SO<sub>2</sub> Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 401 KAR 51:260, Section

Permit Number: V-19-020 R1 Page: 70 of 73

# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

3(25) (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 401 KAR 51:260, Section 3(26) (initial monitoring system certification and recertification procedures), 401 KAR 51:260, Section 3(27) (monitoring system out-of-control periods), 401 KAR 51:260, Section 3(28) (notifications concerning monitoring), 401 KAR 51:260, Section 3(29) (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 401 KAR 51:260, Section 3(30) (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

2) The emissions data determined in accordance with 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30) shall be used to calculate allocations of CSAPR SO<sub>2</sub> Group 1 allowances under 401 KAR 51:260, Section 3(8) (40 CFR 97.611(a)(2)) and (b)) and 401 KAR 51:260, Section 3(9) and to determine compliance with the CSAPR SO<sub>2</sub> Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30) and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

### c) SO<sub>2</sub> emissions requirements.

- 1) CSAPR SO<sub>2</sub> Group 1 emissions limitation.
  - i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO<sub>2</sub> Group 1 source and each CSAPR SO<sub>2</sub> Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO<sub>2</sub> Group 1 allowances available for deduction for such control period under 401 KAR 51:260, Section 3(20) (40 CFR 97.624(a)) in an amount not less than the tons of total SO<sub>2</sub> emissions for such control period from all CSAPR SO<sub>2</sub> Group 1 units at the source.
  - ii) If total SO<sub>2</sub> emissions during a control period in a given year from the CSAPR SO<sub>2</sub> Group 1 units at a CSAPR SO<sub>2</sub> Group 1 source are in excess of the CSAPR SO<sub>2</sub> Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
    - A) The owners and operators of the source and each CSAPR SO<sub>2</sub> Group 1 unit at the source shall hold the CSAPR SO<sub>2</sub> Group 1 allowances required for deduction under 401 KAR 51:260, Section 3(20) (40 CFR 97.624(d)); and
    - B) The owners and operators of the source and each CSAPR SO<sub>2</sub> Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 401 KAR 51:260, 40 CFR 97, Subpart CCCCC, and the Clean Air Act.
- 2) CSAPR SO<sub>2</sub> Group 1 assurance provisions.
  - i) If total SO<sub>2</sub> emissions during a control period in a given year from all CSAPR SO<sub>2</sub> Group 1 units at CSAPR SO<sub>2</sub> Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO<sub>2</sub> emissions

**Permit Number:** <u>V-19-020 R1</u> **Page:** 71 **of** 73

# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO<sub>2</sub> Group 1 allowances available for deduction for such control period under 401 KAR 51:260, Section 3(21) (40 CFR 97.625(a)) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 401 KAR 51:260, Section 3(21) (40 CFR 97.625(b)), of multiplying—

- A) The quotient of the amount by which the common designated representative's share of such SO<sub>2</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO<sub>2</sub> emissions exceeds the respective common designated representative's assurance level; and
- B) The amount by which total SO<sub>2</sub> emissions from all CSAPR SO<sub>2</sub> Group 1 units at CSAPR SO<sub>2</sub> Group 1 sources in the state for such control period exceed the state assurance level.
- ii) The owners and operators shall hold the CSAPR SO<sub>2</sub> Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
- iii) Total SO<sub>2</sub> emissions from all CSAPR SO<sub>2</sub> Group 1 units at CSAPR SO<sub>2</sub> Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO<sub>2</sub> emissions exceed the sum, for such control period, of the state SO<sub>2</sub> Group 1 trading budget under 401 KAR 51:260, Section 3(7)(a)(1) and the state's variability limit under 401 KAR 51:260, Section 3(7)(a)(3).
- iv) It shall not be a violation of 401 KAR 51:260, 40 CFR 97, Subpart CCCCC, or of the Clean Air Act if total SO<sub>2</sub> emissions from all CSAPR SO<sub>2</sub> Group 1 units at CSAPR SO<sub>2</sub> Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO<sub>2</sub> emissions from the CSAPR SO<sub>2</sub> Group 1 units at CSAPR SO<sub>2</sub> Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.
- v) To the extent the owners and operators fail to hold CSAPR SO<sub>2</sub> Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
  - A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
  - B) Each CSAPR SO<sub>2</sub> Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 401 KAR 51:260, 40 CFR 97, Subpart CCCCC and the Clean Air Act.
- 3) Compliance periods.
  - i) A CSAPR SO<sub>2</sub> Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the

**Permit Number:** <u>V-19-020 R1</u> **Page:** 72 **of** 73

# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

deadline for meeting the unit's monitor certification requirements under 401 KAR 51:260, Section 3(25) (40 CFR 97.630(b)) and for each control period thereafter.

- ii) A CSAPR SO<sub>2</sub> Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 401 KAR 51:260, Section 3(25) (40 CFR 97.630(b)) and for each control period thereafter.
- 4) Vintage of allowances held for compliance.
  - i) A CSAPR SO<sub>2</sub> Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year shall be a CSAPR SO<sub>2</sub> Group 1 allowance that was allocated for such control period or a control period in a prior year.
  - ii) A CSAPR SO<sub>2</sub> Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year shall be a CSAPR SO<sub>2</sub> Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- 5) Allowance Management System requirements. Each CSAPR SO<sub>2</sub> Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 401 KAR 51:260.
- 6) Limited authorization. CSAPR SO<sub>2</sub> Group 1 allowance is a limited authorization to emit one ton of SO<sub>2</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
  - i) Such authorization shall only be used in accordance with the CSAPR SO<sub>2</sub> Group 1 Trading Program; and
  - ii) Notwithstanding any other provision of 401 KAR 51:260, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- 7) Property right. CSAPR SO<sub>2</sub> Group 1 allowance does not constitute a property right.

#### d) Title V permit revision requirements.

- 1) No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO<sub>2</sub> Group 1 allowances in accordance with 401 KAR 51:260.
- 2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 401 KAR 51:260, Section 3(25) through 401 KAR 51:260, Section 3(30), and the requirements for a continuous emission monitoring system (pursuant to 40 CFR 75, Subparts B and H), an excepted monitoring system (pursuant to 40 CFR 75, Appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR 75, Subpart E), Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using minor permit modification procedures in accordance with 401 KAR 51:260, Section 3(4) (40 CFR 97.606(d)(2)) and 70.7(e)(2)(i)(B).

#### e) Additional recordkeeping and reporting requirements.

1) Unless otherwise provided, the owners and operators of each CSAPR SO<sub>2</sub> Group 1 source and each CSAPR SO<sub>2</sub> Group 1 unit at the source shall maintain on site at the source each of the following documents (in hardcopy or electronic format) for a period of

Permit Number: V-19-020 R1 Page: 73 of 73

# SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

- i). The certificate of representation under 401 KAR 51:260, Section 3(13) for the designated representative for the source and each CSAPR SO<sub>2</sub> Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.
- ii). All emissions monitoring information, in accordance with 401 KAR 51:260.
- iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO<sub>2</sub> Group 1 Trading Program.
- 2) The designated representative of a CSAPR SO<sub>2</sub> Group 1 source and each CSAPR SO<sub>2</sub> Group 1 unit at the source shall make all submissions required under the CSAPR SO<sub>2</sub> Group 1 Trading Program, except as provided in 401 KAR 51:260, Section 3(15). This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V operating permit program in 40 CFR 70.

#### f) Liability.

- 1) Any provision of the CSAPR SO<sub>2</sub> Group 1 Trading Program that applies to a CSAPR SO<sub>2</sub> Group 1 source or the designated representative of a CSAPR SO<sub>2</sub> Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO<sub>2</sub> Group 1 units at the source.
- 2) Any provision of the CSAPR SO<sub>2</sub> Group 1 Trading Program that applies to a CSAPR SO<sub>2</sub> Group 1 unit or the designated representative of a CSAPR SO<sub>2</sub> Group 1 unit shall also apply to the owners and operators of such unit.

#### g) Effect on other authorities.

No provision of the CSAPR SO<sub>2</sub> Group 1 Trading Program or exemption under 401 KAR 51:260, Section 3(3) shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO<sub>2</sub> Group 1 source or CSAPR SO<sub>2</sub> Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.



Steven L. Beshear Governor

# Energy and Environment Cabinet Department for Environmental Protection

Leonard K. Peters Secretary

Division for Air Quality 200 Fair Oaks Lane, 1<sup>st</sup> Floor Frankfort, Kentucky 40601 http://air.ky.gov

June 15, 2015

Certified Mail [7014 2120 0000 7298 3149] Return Receipt Requested

Mr. James Garrett, Plant Manager Big Rivers Electric Corporation 201 Third Street, P.O. Box 24 Henderson, KY 42420

RE: Final Title V / Title IV, Construction, Operating Permit for a Fossil Fuel Electric Power

Generation Facility

Permittee Name:

Reid/Henderson Station II Generating Station

Source ID:

21-233-00001

Agency Interest:

4196

Activity:

APE20130002

Permit:

V-11-003 R1

Dear Mr. Garrett:

Big River Electric Corporation applied for a significant revision to their Title V permit for the construction of a Fossil Fuel Electric Power Generation facility at Henderson, Kentucky. The Division's final determination was the issuance of the proposed permit on March 20, 2015. The United States Environmental Protection Agency (U.S. EPA) was given 45 days to comment on the proposed permit. No comments were received from the U.S. EPA during the 45-day comment period, which ended May 4, 2015.

Included with this cover letter is the signed final permit for this facility, with the effective dates shown on the title page. This final permit carries with it the authority to operate any newly permitted emission units in accordance with the terms and conditions in this permit. If you have any questions regarding this matter, you may contact Mr. Derek Picklesimer at extension.

Sincerely,

Preetha Rajendran

Administrative Specialist III Permit Review Branch

DP/eh Enclosure

Printed on Recycled Paper



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### Commonwealth of Kentucky Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, KY 40601

#### FINAL PERMIT DETERMINATION

Title V / Title IV, Operating Permit: V-11-003 R1

On the Application Submitted By: Big Rivers Electric Corporation

for Fossil Fuel Electric Power Generation

Henderson, KY 42420

Review and Analysis By: Esmail Hassanpour

May 26, 2015

Source ID:

21-233-00001

Activity:

APE20130002

Agency Interest:

4196

Application Received:

9/10/2013

County:

Webster

**Application Complete:** 

11/7/2013

Regional Office:

Owensboro

SIC Code:

4911

#### **ATTACHMENTS:**

ATTACHMENT A - EXECUTIVE SUMMARY

ATTACHMENT B - FINAL PERMIT

Commonwealth of Kentucky Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, KY 40601

# FINAL PERMIT DETERMINATION

Title V / Title IV, Operating Permit: V-11-003 R1

ATTACHMENT A - FINAL EXECUTIVE SUMMARY

# Commonwealth of Kentucky Division for Air Quality EXECUTIVE SUMMARY

**FINAL** 

Title V / Title IV, Construction, Operating
Permit: V-11-003 R1
Reid/Henderson Station II Generating Station
Henderson, KY 42420
May 26, 2015

Esmail Hassanpour, Reviewer

SOURCE ID:

21-233-00001

**AGENCY INTEREST:** 

4196

**ACTIVITY:** 

APE20130002

#### **SOURCE DESCRIPTION:**

On September 10, 2013, Big Rivers Electric Corporation (BREC) of Henderson, Kentucky applied to the Kentucky Division for Air Quality (Division) for a significant revision to their current Reid/Henderson Station II Title V Permit. This permitting action will change the fuel from coal/petroleum coke to natural gas for Reid Unit 01 (Emission Unit 01). The change will replace the existing coal-fired burners with four (4) new natural gas-fired low NOx burners or equivalent. BREC is seeking to obtain a synthetic minor emission limitation or an operational restriction whereby the project's emissions increase of carbon monoxide (CO), nitrogen oxide (NOx) and Greenhouse Gas (GHG) as carbon dioxide equivalent (CO<sub>2</sub>e) will be less than the significant emission rate, thereby, precluding the permitting requirements under 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD).

Emission Unit 01 has a maximum continuous rating of 1008 MMBtu/hr. The Unit is wall-fired and currently equipped with electrostatic precipitator (ESP). The ESP will cease operations after the burner replacement because it will no longer be required to meet the opacity and particulate matter (PM) limits contained in 401 KAR 61:015. Compliance Assurance Monitoring (CAM) will no longer be required for PM emissions from EU 01 because a control device will not be necessary in order for the unit to meet applicable PM emission limits. The source shall utilize existing NO<sub>x</sub> and carbon dioxide (CO<sub>2</sub>) continuous emissions monitoring systems (CEMS) that are operated in accordance with 401 KAR 61:005. CO emissions shall be monitored through fuel usage and by the limitation of total megawatts of power production (199, 825 gross MW/year) on a twelve-month rolling basis to assure CO emissions do not exceed the significant emission rate threshold of 401 KAR 51:001, Section 1(218).

With this project, the maximum continuous rating (MCR) is expected to be 907 MMBtu/hour (i.e. 907 MMBtu/hour = 8 burners \*113.4 MMBtu/hour / burner), which will generate 690, 000 lb/hour steam flow rate. During high loads, the burner can reach 110% MCR or 1,008 MMBtu/hour (i.e. 8 burner\*126MMBtu/hour /burner) to generate 760,000 lb/hour of steam.

Executive Summary Permit: V-11-003 R1

### U.S. EPA REVIEW:

The United States Environmental Protection Agency (U.S. EPA) was notified of the issuance of the proposed permit on March 20, 2015 via e-mail. The comment period expired 45 days from the date of e-mail. No comments were received during this period. The permit is now being issued final.

Commonwealth of Kentucky Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, KY 40601

# FINAL PERMIT DETERMINATION

Title V / Title IV, Operating Permit: V-11-003 R1

ATTACHMENT B - FINAL PERMIT

### Commonwealth of Kentucky

Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
(502) 564-3999

### Final

### AIR QUALITY PERMIT Issued under 401 KAR 52:020

Permittee Name: Big Rivers Electric Corporation

Mailing Address: 201 Third Street, P.O. Box 24, Henderson, KY

42420

Source Name: Reid/Henderson Station II Generating Station

Mailing Address:
Henderson, KY 42420

Permit: V-11-003 R1

**Source Location:** 

Agency Interest: 4196

Activity: APE20130002

Review Type: Title V / Title IV, Operating

Source ID: 21-233-00001

**Regional Office:** Owensboro Regional Office

3032 Alvey Park Dr. W., Suite 700

Owensboro, KY 42303

(270) 687-7304

County: Webster

Application

Complete Date: February 23, 2011 Issuance Date: September 28, 2011

Revision Date: May 27, 2015

**Expiration Date:** September 28, 2016

Sean Alteri, Director Division for Air Quality

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Permit Number	Activity #	Complete Date	Issuance Date	Summary of Action
V-11-003	APE20100002	2/23/2011	9/28/2011	Title V, Acid Rain Renewal
V-11-003 R1	APE20130002	11/7/2013	5/27/2015	Modification to Natural Gas for EU 01

Permit Number: <u>V-11-003 R1</u> Page 1 of 56

### **SECTION A- PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality (Division) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Energy and Environment Cabinet (Cabinet) or any other federal, state, or local agency.

The Division for Air Quality has determined that the Big Rivers Electric Corporation-Reid/Henderson electrical generating station and the Big Rivers Electric Corporation-R.D. Green electrical generating station are one source as defined in 401 KAR 50:020, Permits, and 401 KAR 51:017, Prevention of significant deterioration of air quality. This permit contains requirements for the Reid/Henderson station. Requirements for the R. D. Green station are contained in permit V-05-031 R1.

Permit Number: <u>V-11-003 R1</u> Page 2 of 56

## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 01: Indirect Heat Exchanger

### **Description:**

Reid Station Unit 1 (R1)

Dry-bottom, wall-fired, pulverized coal-fired unit equipped with electrostatic precipitator and with over fired air (OFA)

No. 2 fuel-oil used for startup and stabilization

Secondary Fuel: pelletized coal fines or petroleum coke

Maximum Continuous Rating:

834 MMBtu/hr

Construction commenced:

1963

### **APPLICABLE REGULATIONS:**

401 KAR 61:015, Existing indirect heat exchangers

401 KAR 51:160, NO<sub>x</sub> requirements for large utility

401 KAR 52:060, Acid rain permits

40 CFR 63 Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units [Referenced to in short as the Mercury and Air Toxics Standards (MATS)]

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

40 CFR Part 75, Continuous Emissions Monitoring (CEM)

401 KAR 51:210, CAIR NO<sub>x</sub> Annual trading program (See Section K)

401 KAR 51:220, CAIR NO<sub>x</sub> ozone season trading program (See Section K)

401 KAR 51:230, CAIR SO<sub>2</sub> Trading program (See Section K)

### 1. Operating Limitations:

- a. The permittee shall comply with all applicable provisions of 40 CFR 63.9991 no later than April 16, 2015. However, the Division has granted an extension until April 16, 2016, in the letter dated January 6, 2015.
  - i) The permittee must meet the work practice standard and operating limits of 40 CFR 63.9991.
  - ii) The permittee must be in compliance with the operating limits at all times except during periods of startup or shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, the permittee is required to meet the work practice requirements in Table 3 of MATS during periods of startup or shutdown [40 CFR 63.10000(a)].

Permit Number: V-11-003 R1 Page 3 of 56

### SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- iii) At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source [40 CFR 63.10000(b)].
- iv) The permittee shall meet the general requirements for complying with 40 CFR 63 Subpart UUUUU according to the applicable provisions of 40 CFR 63.10000(c) through 63.10000(k).
  - v) In response to an action to enforce the standards set forth in 40 CFR 63.9991 the permittee may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed if the permittee fails to meet the burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief [40 CFR 63.10001].

### **Compliance Demonstration Method:**

Compliance shall be determined by 3. <u>Testing Requirements</u>, 4. <u>Specific Monitoring Requirements</u>, 5. <u>Specific Recordkeeping Requirements</u> and 6. <u>Specific Reporting Requirements</u>.

b. The permittee shall comply with the requirements in Section B for emission unit 01 until completeness of the natural gas burners. Upon completion of the natural gas burners, the permittee shall comply with requirements specified in Section H for emission unit 01.

### 2. Emission Limitations:

a. Pursuant to 401 KAR 61:015, Section 4(4), particulate matter emissions shall not exceed 0.28 lbs/MMBtu based on a three (3)-hour average.

### Compliance Demonstration Method:

Compliance shall be demonstrated by 3.a. Testing Requirements.

- b. Pursuant to 401 KAR 61:015, Section 4(4), emissions shall not exceed 40 percent opacity based on a six (6)-minute average except:
  - i. That, a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
  - ii. Emissions from an indirect heat exchanger shall not exceed forty (40) percent opacity based on a six (6) minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

Permit Number: <u>V-11-003 R1</u> Page 4 of 56

### SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### **Compliance Demonstration Method:**

Compliance shall be determined by 4.b. Specific Monitoring Requirements.

c. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emission shall not exceed 5.2 lbs/MMBtu based on a twenty-four (24) hour average.

### **Compliance Demonstration Method:**

Compliance shall be determined by 4.d. Specific Monitoring Requirements..

- d. See Section D.
- e. The permittee shall comply with all applicable provisions of 40 CFR 63.9991 no later than April 16, 2015. However, the Division has granted an extension until April 16, 2016, in the letter dated June 9, 2014.
  - (i) The permittee must meet the emission limits of 40 CFR 63.9991.
  - (ii) The permittee must be in compliance with the emission limits at all times except during periods of startup or shutdown. [40 CFR 63.10000(a)]
  - (iii)The permittee shall demonstrate initial compliance according to the applicable provisions of 40 CFR 63.10005 and 63.10011.
  - (iv) The permittee shall demonstrate continuous compliance according to the applicable provisions of 40 CFR 63.10006 through 63.10010 and 63.10020 through 63.10023.

### **Compliance Demonstration Method:**

Compliance shall be determined by 3. <u>Testing Requirements</u>, 4. <u>Specific Monitoring Requirements</u>, 5. <u>Specific Recordkeeping Requirements</u> and 6. <u>Specific Reporting Requirements</u>.

### 3. Testing Requirements:

- a. Pursuant to 401 KAR 50:045, the permittee shall submit within six (6) months of the issuance date of permit #V-11-003, a schedule, to conduct a performance test for particulate matter compliance within one (1) year of issuance of permit V-11-003.
- b. Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. In accordance with sub-Section <u>4.b Specific Monitoring Requirements</u>, the permittee shall submit a schedule within six (6) months from the date of issuance of permit #V-11-003 to conduct testing within one (1) year following the issuance of this permit to establish or reestablish the correlation between opacity and particulate emissions.
- d. If no additional stack tests are performed pursuant to sub-Section 4.b (ii) Specific Monitoring Requirements; the permittee shall conduct a performance test for particulate matter emissions by the start of the fourth (4<sup>th</sup>) year of this permit to demonstrate continued compliance with the applicable standard.
- e. If no EPA Reference Method 9 tests are performed pursuant to sub-Section <u>4.a(ii)</u> <u>Specific Monitoring Requirements</u>, then the permittee shall determine the opacity of emissions from the stack by Method 9 at least once every fourteen (14) boiler operating days, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no Method 9 test is completed during the time period, the reason for not completing a test shall be documented and the permittee may use the COM system for assuring compliance with the visible emission limitation during that period.
- f. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable extension date (April 16, 2016) [40 CFR 63.9984(f)].
- g. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011.

### 4 Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, 40 CFR part 64.4 (c) (1), and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three (3) consecutive six-minute (6) average opacity values exceed the applicable opacity standard, the permittee shall, as appropriate:
  - i. Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or the control equipment and make any repairs or;
  - ii. Within thirty (30) minutes after the third consecutive COM indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using Reference Method 9 test. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and/or the control equipment, and initiate any repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

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### SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 61:005, Section 3(6), to meet the monitoring requirement for particulate matter, the permittee shall use a COM.

Pursuant to 40 CFR 64.4(a)(1), opacity shall be used as an indicator of particulate matter emissions and testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. There may be short-term exceedances during the testing period required to establish the opacity indicator level. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level. Excluding exempted time periods:

- i. If any three (3) hour opacity value exceeds opacity indicator level, the permittee shall, initiate an inspection of the control equipment and the COM system and make any necessary repairs.
- ii. If five (5) percent or greater of the COM data (three (3) hour average of opacity values) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate matter standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G (5)(a) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.
- c. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor ESP primary/secondary voltages and currents on a daily basis.
- d. Pursuant to 401 KAR 61:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A, and 401 KAR 52:020, Section 10, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring sulfur dioxide emissions and either oxygen or carbon dioxide emissions. Pursuant to 40 CFR 64.3(d), the CEMS shall be used to satisfy CAM requirements for sulfur dioxide.
- e. Pursuant to 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the cabinet.
- f. Pursuant to 401 KAR 61:015, Section 6 (3) the rate of fuel burned shall be measured daily or at shorter intervals and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. Where the indirect heat exchanger is used to generate electricity, the average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.
- g. Pursuant to 401 KAR 61:005, Section 3(4), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

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### SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- h. Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). If any 24-hour average sulfur dioxide emission rate exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.
- i. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor and record the date, time, and duration for each startup and shutdown event.
- i. See Section D condition 3.
- k. The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020 and 40 CFR 63.10021.

### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain files of all information reported in the quarterly summaries, pursuant to 401 KAR 61:005, Section 3(15)(g) and 61:015, Section 6, with the exception that records shall be maintained for a period of five (5) years.
- b. Pursuant to KAR 52:020, Section 10, the permittee shall maintain records of:
  - i. Each fuel analysis;
  - ii. The rate of fuel burned for each fuel type, on a daily basis;
  - iii. The heating value and ash content on a weekly basis;
  - iv. The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
  - v. When no excess emissions have occurred and when the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
  - vi. Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
  - vii. Results of all compliance tests; and
  - viii.Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level.
- c. Pursuant to KAR 52:020, Section 10, records of primary/secondary voltage and current shall be maintained with long-term operational records for a period of five (5) years.
- d. Pursuant to KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five (5) years.

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### SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- e. Pursuant to KAR 52:020, Section 10, the permittee shall record the duration of start up.
- f. See Section D, condition 3.
- g. The permittee shall comply with all applicable recording provisions of 40 CFR 63.10030 through 40 CFR 63.10033.

### 6. Specific Reporting Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3 (15), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.
  - i. Owners or operators of facilities required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.
  - ii. Owner-operators of facilities required to install continuous monitoring systems for opacity shall submit for every calendar quarter a written report of excess emission and the nature and cause of emissions. The summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format acceptable to the Division.
  - iii. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic format only.
  - iv. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
- b. The permittee shall report the number of excursions (excluding exempted time periods) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter.
- c. For exceedances that occur as a result of startup, the permittee shall report:

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### SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. The type of start-up (cold, warm, or hot);
- ii. Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations [401 KAR 52:020, Section 10].
- d. See Section D.
- e. The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in 40 CFR 63 subpart A. Some of the notifications must be submitted before complying with the emission limits and work practice standards in MATS. [40 CFR 63.9984 (c)]
- f. The permittee shall comply with all applicable reporting provisions of 40 CFR Part 63.10030 through 40 CFR 63.10033.

### 7. Specific Control Equipment Operating Conditions:

- a. The electrostatic precipitator (ESP) shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or good operating practices [401 KAR 52:055].
- b. Records regarding the maintenance of the control equipment shall be maintained. [401 KAR 52:020, Section 10].
- c. See Section E Control Equipment Conditions for further requirements.

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 02: Indirect Heat Exchanger

### **Description:**

Henderson Station Unit 1 (H1)

Dry-bottom, wall-fired, pulverized coal-fired unit equipped with electrostatic precipitator (ESP), Low NO<sub>x</sub> burners (LNB), flue gas desulfurization (FGD) & selective catalytic reduction (SCR).

No. 2 fuel-oil used for startup and stabilization

Secondary Fuels: pelletized coal fines or petroleum coke Maximum Continuous Rating: 1,568 MMBtu/hour

Construction commenced: 1970

### **APPLICABLE REGULATIONS:**

401 KAR 61:015, Existing indirect heat exchangers

401 KAR 51:160, NO<sub>x</sub> requirements for large utility

401 KAR 52:060, Acid rain permits

40 CFR 63 Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

40 CFR Part 75, Continuous Emissions Monitoring (CEM)

401 KAR 51:210, CAIR NO<sub>x</sub> Annual trading program (See Section K)

401 KAR 51:220, CAIR NO<sub>x</sub> ozone season trading program (See Section K)

401 KAR 51:230, CAIR SO<sub>2</sub> Trading program (See Section K)

### 1. Operating Limitations:

- a. The permittee shall comply with the applicable work practice and operating limitations of 40 CFR 63 Subpart UUUUU no later than April 16, 2015 [40 CFR 63.9984(b)]. However, the Division has granted an extension until April 16, 2016, in the letter dated January 6, 2015.
  - i) The permittee must meet the work practice standard and operating limits of 40 CFR 63.9991.
  - ii) The permittee must be in compliance with the operating limits at all times except during periods of startup or shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, the permittee is required to meet the work practice requirements in Table 3 of 40 CFR Subpart UUUUUU during periods of startup or shutdown [40 CFR 63.10000(a)].

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- iii) At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source [40 CFR 63.10000(b)].
- iv) The permittee shall meet the general requirements for complying with 40 CFR 63 Subpart UUUUU according to the applicable provisions of 40 CFR 63.10000(c) through 63.10000(k).
- v) In response to an action to enforce the standards set forth in 40 CFR 63.9991 the permittee may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed if the permittee fails to meet the burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief [40 CFR 63.10001].

### **Compliance Demonstration Method:**

Compliance shall be determined by 3. <u>Testing Requirements</u>, 4. <u>Specific Monitoring Requirements</u>, 5. <u>Specific Recordkeeping Requirements</u> and and 6. <u>Specific Reporting Requirements</u>.

### 2. Emission Limitations:

a. Pursuant to 401 KAR 61:015, Section 4(4), particulate matter emissions shall not exceed 0.21 lbs/MMBtu based on a three (3)-hour average.

### **Compliance Demonstration Method:**

Compliance shall be demonstrated by 3.a. Testing Requirements.

- b. Pursuant to 401 KAR 61:015, Section 4(4), emissions shall not exceed 40 percent opacity based on a six-minute average except:
  - i. That, a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
  - ii. Emissions shall not exceed 40 percent opacity based on a six (6) minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

### **Compliance Demonstration Method:**

Compliance shall be demonstrated by 4.b. Specific Monitoring Requirement.

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emission shall not exceed 5.2 lbs/MMBtu.

### **Compliance Demonstration Method:**

Compliance shall be demonstrated by 4.e. **Specific Monitoring Requirement.** 

- d. See Section D-Source Emission Limitation and Testing Requirements.
- e. The permittee shall comply with the applicable emission limits of 40 CFR 63 Subpart UUUUU no later than April 16, 2015 [40 CFR 63.9984(b)]. However, the Division has granted an extension until April 16, 2016, in the letter dated January 6, 2015.
  - i) The permittee must meet the emission limits of 40 CFR 63.9991.
  - ii) The permittee must be in compliance with the emission limits at all times except during periods of startup or shutdown [40 CFR 63.10000(a)].
  - iii) The permittee shall demonstrate initial compliance according to the applicable provisions of 40 CFR 63.10005 and 63.10011.
  - iv) The permittee shall demonstrate continuous compliance according to the applicable provisions of 40 CFR 63.10006 through 63.10010 and 63.10020 through 63.10023.

### **Compliance Demonstration Method:**

Compliance shall be determined by 3. <u>Testing Requirements</u>, 4. <u>Specific Monitoring Requirements</u>, 5. <u>Specific Recordkeeping Requirements</u> and 6. <u>Specific Reporting Requirements</u>.

### 3. Testing Requirements:

- a. Pursuant to 401 KAR 50:045, the permittee shall submit and schedule within six (6) months of the issuance date of permit #V-11-003, a schedule, to conduct a performance test for particulate matter compliance within one (1) year of issuance of permit # V-11-003.
- b. Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.
- c. In accordance with sub-Section <u>4.b Specific Monitoring Requirements</u>, the permittee shall submit a schedule within six (6) months from the date of issuance of permit #V-11-003 to conduct testing within one year (1) following the issuance of permit # V-11-003 to establish or re-establish the correlation between opacity and particulate matter emissions.
- d. If no additional stack tests are performed pursuant to sub-Section 4.b (ii) Specific Monitoring Requirements, the permittee shall conduct a performance test for particulate matter emissions

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## SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

by the start of the fourth (4<sup>th</sup>) year of this permit to demonstrate compliance with the applicable standard.

- e. If no EPA Reference Method 9 tests are performed pursuant to sub-Section <u>4.a(ii)</u> <u>Specific Monitoring Requirements</u>, then the permittee shall determine the opacity of emissions from the stack by Method 9 at least once every fourteen (14) boiler operating days, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no Method 9 test is completed during the time period, the reason for not completing a test shall be documented and the permittee may use the COM system for assuring compliance with the visible emission limitation during that period.
- f. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable extension date (April 16, 2016) [40 CFR 63.9984(f)].
- g. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011.

### 4. **Specific Monitoring Requirements:**

- a. Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10 a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three consecutive six-minute average opacity values exceed the opacity standard, the permittee shall, as appropriate:
  - i. Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or the control equipment and make any repairs or;
  - ii. Within thirty (30) minutes after the third consecutive COM indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using Reference Method 9. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and the control equipment, and initiate any repairs. If a Method9 cannot be performed, the reason for not performing the test shall be documented.
- b. Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 61:005, Section 3(6), to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1), opacity shall be used as an indicator of particulate matter emissions and testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. There may be short-term exceedances during the testing period required to establish the opacity indicator level. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level. Excluding exempted time periods:

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### SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. If any three (3) hour opacity value exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.
- ii. If five (5) percent or greater of the COM data (three (3) hour average of values) recorded in a calendar quarter show excursions above the applicable limit, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G (5)(a) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.
- c. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor ESP primary/secondary voltages and currents on a daily basis.
- d. Pursuant to 401 KAR 52:020, Section 10, as an alternative to monitoring strategies (a) and (b), above, and 3. Testing Requirement, paragraph c to meet the compliance assurance monitoring requirement of 40 CFR 64.4(a)(1) and demonstrate continuing compliance with the particulate matter standard, the permittee shall use a particulate matter continuous emissions monitor (PM CEM). The PM CEM shall comply with Performance Specification 11 of Appendix B to 40 CFR 60 and ongoing quality assurance requirements per 40 CFR 60 Appendix F, Procedure 2. Opacity monitoring required in subsection (a) above excluding subparagraphs (i) and (ii) shall only be used to indicate proper operation of the ESP. Compliance with the opacity standard shall be by Reference Method 9 performed at least once every fourteen (14) boiler operating days. If a Method 9 cannot be performed the reason for not performing the test shall be documented.
- e. Pursuant to 401 KAR 61:005, Section 3 and material incorporated by reference in 401 KAR 52:020, Section 10, continuous emission monitoring (CEM) systems shall be installed, calibrated, maintained, and operated for measuring sulfur dioxide emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with 401 KAR 61:005, Section 3, particularly, Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A. Pursuant to 40 CFR 64.3(d), the CEMS shall be used to satisfy CAM requirements for sulfur dioxide.
- f. Pursuant to 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the cabinet.
- g. Pursuant to 401 KAR 61:015, Section 6 (3) the rate of fuel burned shall be measured daily or at shorter intervals and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output and the minimum and maximum hourly generation rate shall be measured and recorded daily.
- h. Pursuant to 401 KAR 61:005, Section 3(4), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

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## SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). If any twenty-four (24) hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.
- j. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor and record the date, time, and duration for each startup and shutdown event.
- k. See Section D condition 3.
- 1. The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020 and 40 CFR 63.10021.

### 5. Specific Recordkeeping Requirements:

- a. In accordance with 401 KAR 61:005, Section 3(15)(f) and 61:015, Section 6, the owner or operator shall maintain a file of all information reported in the quarterly summaries, with the exception that records shall be maintained for a period of five (5) years.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of:
  - i. Each fuel analysis;
  - ii. The rate of fuel burned for each fuel type, on a daily basis;
  - iii. The heating value and ash content on a weekly basis;
  - iv. The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
  - v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
  - vi. Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
  - vii. Results of all compliance tests; and
  - viii. Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level.
- c. Pursuant to KAR 52:020, Section 10, records of ESP primary/secondary voltage and current shall be maintained with long-term operational records for a period of five (5) years.

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### SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five (5) years.
- e. Pursuant to 401 KAR 52:020, Section 10, the permittee shall record the date, time, and duration for each startup and shutdown event.
- f. See Section D, condition 3.
- g. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain a daily operations check sheet to verify proper operation of the ESP. During periods when the opacity monitor is out of service, the check sheet shall be completed on an hourly basis.

### For particulate and opacity by alternate operating scenario using PM CEMS,

- h. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the PM CEMs data and the number of excursions above the particulate emission standard, time and date of the excursions, and particulate matter emission value (lbs/MMBtu) of the excursions in each calendar quarter.
- i. The permittee shall comply with all applicable recording provisions of 40 CFR 63.10030 through 40 CFR 63.10033.

### 6. Specific Reporting Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3 (15), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.
  - i. The permittee required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30<sup>th</sup>) day following the end of each calendar quarter.
  - The permittee required to install continuous monitoring systems for opacity shall submit for every calendar quarter a written report of excess emission and the nature and cause of emissions. The summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format acceptable to the Division.

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- iii. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic format only.
- iv. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
- b. The permittee shall report the number of excursions (excluding exempted time periods) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter if the PM CEMS is not utilized as the particulate compliance monitoring method.
- c. For exceedances that occur as a result of startup, the permittee shall report:
  - i. The type of start-up (cold, warm, or hot);
  - ii. Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations [401 KAR 52:020, Section 10].
- d. See Section D.
- e. The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in 40 CFR 63 subpart A. Some of the notifications must be submitted before complying with the emission limits and work practice standards in 40 CFR 63 Subpart UUUUUU. [40 CFR 63.9984 (c)]
- f. The permittee shall comply with all applicable reporting provisions of 40 CFR Part 63.10030 through 40 CFR 63.10033.

### 7. Specific Control Equipment Operating Conditions:

- a. The electrostatic precipitator (ESP), flue gas desulfurization unit (FGD), low NOx burner and selective catalytic reduction (SCR) system shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and good operating practices [401 KAR 50:055].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020 Section 10 and 40 CFR 63.10032].
- c. See Section E Control Equipment Conditions for further requirements.

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 03: Indirect Heat Exchanger

### **Description:**

Henderson Station Unit 2 (H2)

Dry-bottom, wall-fired, pulverized coal-fired unit equipped with electrostatic precipitator (ESP), Low NOx burners (LNB), flue gas desulfurization (FGD) & selective catalytic reduction (SCR).

Number two fuel-oil used for startup and stabilization

Secondary Fuel: pelletized coal fines or petroleum coke

Maximum Continuous Rating:

1,568 MMBtu/hour

Construction commenced:

1970

### **APPLICABLE REGULATIONS:**

401 KAR 61:015, Existing indirect heat exchangers

401 KAR 51:160, NO<sub>x</sub> requirements for large utility and industrial boilers

401 KAR 52:060, Acid rain permits

40 CFR 63 Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

40 CFR Part 75, Continuous Emissions Monitoring (CEM)

401 KAR 51:210; CAIR NO<sub>x</sub> Annual trading program (See Section K)

401 KAR 51:220, CAIR NO<sub>x</sub> ozone season trading program (See Section K)

401 KAR 51:230, CAIR SO<sub>2</sub> Trading program (See Section K)

### 1. Operating Limitations:

- a. The permittee shall comply with the applicable work practice and operating limitations of 40 CFR 63 Subpart UUUUU no later than April 16, 2015 [40 CFR 63.9984(b)]. However, the Division has granted an extension until April 16, 2016, in the letter dated January 6, 2015.
  - (i) The permittee must meet the work practice standard and operating limits of 40 CFR 63.9991.
  - (ii) The permittee must be in compliance with the operating limits at all times except during periods of startup or shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, the permittee is required to meet the work practice requirements in Table 3 of MATS during periods of startup or shutdown. [40 CFR 63.10000(a)]

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (iii)At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source [40 CFR 63.10000(b)].
- (iv) The permittee shall meet the general requirements for complying with MATS according to the applicable provisions of 40 CFR 63.10000(c) through 63.10000(k).
- (v) In response to an action to enforce the standards set forth in 40 CFR 63.9991 the permittee may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed if the permittee fails to meet the burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief [40 CFR 63.10001].

### **Compliance Demonstration Method:**

Compliance shall be determined by 3. <u>Testing Requirements</u>, 4. <u>Specific Monitoring Requirements</u>, 5. <u>Specific Recordkeeping Requirements</u> and and 6. <u>Specific Reporting Requirements</u>.

### 2. Emission Limitations:

a. Pursuant to 401 KAR 61:015, Section 4(4), particulate matter emissions shall not exceed 0.21 lbs/MMBtu based on a three (3)-hour average.

### **Compliance Demonstration Method:**

Compliance shall be demonstrated by **3.a.** Testing Requirements.

- b. Pursuant to 401 KAR 61:015, Section 4(4), emissions shall not exceed 40 percent opacity based on a six-minute average except:
  - i. That, a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
  - ii. Emissions shall not exceed 40 percent opacity based on a six (6) minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

#### **Compliance Demonstration Method:**

Compliance shall be demonstrated by 4.b. Specific Monitoring Requirement.

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emission shall not exceed 5.2 lbs/MMBtu.

### **Compliance Demonstration Method:**

Compliance shall be demonstrated by 4.e. Specific Monitoring Requirements.

- d. See Section D-Source Emission Limitation and Testing Requirements
- e. The permittee shall comply with the applicable emission limits of 40 CFR 63 Subpart UUUUU no later than April 16, 2015 [40 CFR 63.9984(b)]. However, the Division has granted an extension until April 16, 2016, in the letter dated January 6, 2015.
  - (i) The permittee must meet the emission limits of 40 CFR 63.9991.
  - (ii) The permittee must be in compliance with the emission limits at all times except during periods of startup or shutdown. [40 CFR 63.10000(a)]
  - (iii)The permittee shall demonstrate initial compliance according to the applicable provisions of 40 CFR 63.10005 and 63.10011.
  - (iv) The permittee shall demonstrate continuous compliance according to the applicable provisions of 40 CFR 63.10006 through 63.10010 and 63.10020 through 63.10023.

### **Compliance Demonstration Method:**

Compliance shall be determined by 3. <u>Testing Requirements</u>, 4. <u>Specific Monitoring Requirements</u>, 5. <u>Specific Recordkeeping Requirements</u> and 6. <u>Specific Reporting Requirements</u>.

### 3. Testing Requirements:

- a. Pursuant to 401 KAR 50:045, the permittee shall submit and schedule within six (6) months of the issuance date of permit #V-11-003, a schedule, to conduct a performance test for particulate matter compliance within one (1) year of issuance of V-11-003 permit.
- b. Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.
- c. In accordance with sub-Section <u>4.b Specific Monitoring Requirements</u>, the permittee shall submit a schedule within six (6) months from the date of issuance of permit #V-11-003 to conduct testing within one year (1) following the issuance of this permit to establish or reestablish the correlation between opacity and particulate matter emissions.
- d. If no additional stack tests are performed pursuant to sub-Section 4.b (ii) Specific Monitoring Requirements, the permittee shall conduct a performance test for particulate matter emissions

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

by the start of the fourth (4<sup>th</sup>) year of this permit to demonstrate compliance with the applicable standard.

- e. If no EPA Reference Method 9 tests are performed pursuant to sub-Section <u>4.a(ii) Specific</u> <u>Monitoring Requirements</u>, then the permittee shall determine the opacity of emissions from the stack by Method 9 at least once every fourteen (14) boiler operating days, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no Method 9 test is completed during the time period, the reason for not completing a test shall be documented and the permittee may use the COM system for assuring compliance with the visible emission limitation during that period.
- f. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable extension date (April 16, 2016) [40 CFR 63.9984(f)].
- g. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011.

### 4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10 a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three consecutive six-minute average opacity values exceed the opacity standard, the permittee shall, as appropriate:
  - i. Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or the control equipment and make any repairs or;
  - ii. Within thirty (30) minutes after the third consecutive COM indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using Reference Method 9. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and/or the control equipment, and initiate any repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 61:005, Section 3(6), to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1), opacity shall be used as an indicator of particulate matter emissions and testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. There may be short-term exceedances during the testing period required to establish the opacity indicator level. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level. Excluding exempted time periods:
  - i. If any three (3) hour opacity value exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and the COM system and make any necessary repairs.
  - ii. If five (5) percent or greater of the COM data (three (3) hour average of values) recorded in a calendar quarter show excursions above the applicable limit, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G (5)(a) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.
- c. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor ESP primary/secondary voltages and currents on a daily basis.
- d. Pursuant to 401 KAR 52:020, Section 10, as an alternative to monitoring strategies (a) and (b), above, and 3. Testing Requirement, paragraph c to meet the compliance assurance monitoring requirement of 40 CFR 64.4(a)(1) and demonstrate continuing compliance with the particulate matter standard, the permittee shall use a particulate matter continuous emissions monitor (PM CEM). The PM CEM shall comply with Performance Specification 11 of Appendix B to 40 CFR 60 and ongoing quality assurance requirements per 40 CFR 60 Appendix F, Procedure 2. Opacity monitoring required in subsection (a) above excluding subparagraphs (i) and (ii) shall only be used to indicate proper operation of the ESP. Compliance with the opacity standard shall be by Reference Method 9 performed at least once every fourteen (14) boiler operating days. If a Method 9 cannot be performed the reason for not performing the test shall be documented.
- e. Pursuant to 401 KAR 61:005, Section 3 and material incorporated by reference in 401 KAR 52:020, Section 10, continuous emission monitoring (CEM) systems shall be installed, calibrated, maintained, and operated for measuring sulfur dioxide emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with 401 KAR 61:005, Section 3, particularly, Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A. Pursuant to 40 CFR 64.3(d), the CEMS shall be used to satisfy CAM requirements for sulfur dioxide.

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### SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- f. Pursuant to 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the cabinet.
- g. Pursuant to 401 KAR 61:015, Section 6 (3) the rate of fuel burned shall be measured daily or at shorter intervals and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output and the minimum and maximum hourly generation rate shall be measured and recorded daily.
- h. Pursuant to 401 KAR 61:005, Section 3(4), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.
- i. Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). If any twenty-four (24) hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.
- j. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor and record the date, time, and duration for each startup and shutdown event.
- k. See Section D condition 3.
- 1. The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020 and 40 CFR 63.10021.

#### 5. Specific Recordkeeping Requirements:

- a. In accordance with 401 KAR 61:005, Section 3(15)(f) and 61:015, Section 6, the owner or operator shall maintain a file of all information reported in the quarterly summaries, with the exception that records shall be maintained for a period of five (5) years.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of:
  - i. Each fuel analysis;
  - ii. The rate of fuel burned for each fuel type, on a daily basis;
  - iii. The heating value and ash content on a weekly basis;
  - iv. The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
  - v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;

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## SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- vi. Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
- vii. Results of all compliance tests; and
- viii. Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level.
- c. Pursuant to 401 KAR 52:020, Section 10, records of primary/secondary voltages and currents shall be maintained with long-term operational records for a period of five (5) years.
- d. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five (5) years.
- e. Pursuant to 401 KAR 52:020, Section 10, the permittee shall record the date, time, and duration for each startup and shutdown event.
- f. See Section D, condition 3.
- g. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain a daily operations check sheet to verify proper operation of the ESP. During periods when the opacity monitor is out of service, the check sheet shall be completed on an hourly basis.

### For particulate and opacity by alternate operating scenario using PM CEMS,

- h. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the PM CEMs data and the number of excursions above the particulate emission standard, time and date of the excursions, and particulate matter emission value (lbs/MMBtu) of the excursions in each calendar quarter.
- i. The permittee shall comply with all applicable recording provisions of 40 CFR 63.10030 through 40 CFR 63.10033.

### 6. Specific Reporting Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3 (15), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.
  - i. The permittee required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- ii. The permittee required to install continuous monitoring systems for opacity shall submit for every calendar quarter a written report of excess emission and the nature and cause of emissions. The summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity. Opacity data shall be reported in electronic format acceptable to the Division.
- iii. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic format only.
- iv. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
- b. The permittee shall report the number of excursions (excluding exempted time periods) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter if the PM CEMS is not utilized as the particulate compliance monitoring method.
- c. For exceedances that occur as a result of startup, the permittee shall report:
  - i. The type of start-up (cold, warm, or hot);
  - ii. Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations [401 KAR 52:020, Section 10].
- d. See Section D.
- e. The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in subpart A of this part. Some of the notifications must be submitted before complying with the emission limits and work practice standards in 40 CFR 63 Subpart UUUUU [40 CFR 63.9984 (c)].
- f. The permittee shall comply with all applicable reporting provisions of 40 CFR Part 63.10030 through 40 CFR 63.10033.

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 7. Specific Control Equipment Operating Conditions:

- a. The electrostatic precipitator (ESP), flue gas desulfurization unit (FGD), low NOx burner and selective catalytic reduction (SCR) system shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and good operating practices [401 KAR 50:055].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020 Section 10 and 40 CFR 63.10032].
- c. See Section E Control Equipment Conditions for further requirements.

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emission Unit 04:** Coal Handling Operation

### Description:

Equipment Includes: Receiving hopper, barge unloading, feeders, magnetic separator, conveyors,

secondary crusher, coal stockpiles, and haul roads

Control equipment:

Enclosures, telescopic chutes, water spray

Operating Rate:

800 tons/hour

Construction:

Commenced: 1963

### **APPLICABLE REGULATIONS:**

401 KAR 63:010, Fugitive emissions.

### 1. Operating Limitations:

N/A

### 2. Emission Limitations:

- a. Pursuant to 401 KAR 63:010, Section 3(1), no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
  - i. Application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
  - ii. Installation and use of enclosed chutes, hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays, fog mists, or other measures to suppress the dust emissions during handling.
  - iii. Traveling at a rate of speed adequate to prevent transported material from becoming airborne.
  - iv. The maintenance of paved roadways in a clean condition.

### **Compliance Demonstration Method:**

The permittee shall demonstrate compliance with this operating limitation by speed controls, and good operating practices during material handling.

- b. Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.
- c. Pursuant to 401 KAR 63:010, Section 3, the following shall apply to vehicles operating outside company property:

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## SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. Open bodied trucks, operating outside company property, transporting materials likely to become airborne, shall be covered at all times when in motion.
- ii. No one shall allow ash or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway.

### 3. Testing Requirements:

N/A

### 4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of coal received and processed on a weekly basis.

### 5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep records amount of coal received and processed on a weekly basis.

### 6. Specific Reporting Requirements:

See Section F.

### 7. Specific Control Equipment Operating Conditions:

- a. The enclosures, water spray, compaction, and telescopic chutes shall be operated to maintain compliance with permitted emission limitations in accordance with manufacturer's specifications and standard operating practices [401 KAR 50:055].
- b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 50:055].

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### SECTION B- EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 05: H12 & H13 Cooling Towers (Two identical units)

### **Description:**

Operating rate: 5.1 million gallons of cooling water per hour per unit

Construction commenced: 1970

### **APPLICABLE REGULATIONS:**

401 KAR 63:010, Fugitive emissions

### 1. Operating Limitations:

N/A

### 2. Emission Limitations:

- a. Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.
- b. Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

### 3. Testing Requirements:

N/A

### 4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the cooling water usage rate on monthly basis.

### 5. Specific Record Keeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of cooling water usage on monthly basis.

### 6. Specific Reporting Requirements:

See Section F.

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**Emissions Unit 06: Combustion Turbine** 

### **Description:**

Natural-gas/Number two fuel-oil fired unit Rated Capacity: 803 MMBtu /hour Construction commenced: 1970

### **Applicable Regulations:**

There are no applicable requirements to this unit other than the general applicable requirements. [401 KAR 52:020] Unit is exempted from New Source Performance Standard due to the date of construction.

### 1. Operating Limitations:

N/A

### 2. Emission Limitations:

N/A

### 3. Testing Requirements:

N/A

### 4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor fuel usage and hours of operation on quarterly basis.

### 5. Specific Record Keeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain the record of fuel usage and hours of operation on a quarterly basis.

### 6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

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## SECTION B- EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units 07-08: Existing CI Emergency RICE <500 HP

Emission Unit	Description	Manufacture Date	Maximum Continuous Rating (HP)	Fuel	Control Equipment
	Cummins Model	1972	310.00	Diesel	None
07	5SJ4447P23C1,				}
	Serial JG375077				
	(Emergency				
	Generator)				
08	General Motors	1981	100.00	Diesel	None
	Model PTA-1SD-50,				
	Serial 378910,				
	Detroit Diesel #				
	5171519 (Emergency				
	Fire- Pump)				

### **APPLICABLE REGULATIONS:**

40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

### 1. Operating Limitations:

- a. The permittee must comply with the operating limitations no later than May 3, 2013 [40 CFR 63.6602].
- b. Pursuant to 40 CFR 63.6602, the permittee must comply with the following operating limitations:
  - i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
  - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- c. To extend the specified oil change requirement in Operating Limitation (b)(i), the permittee has the option of utilizing an oil analysis program according to the methods in 40 CFR 6625(i). The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine [40 CFR 63.6625(i)].

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## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee must minimize the emergency stationary RICE time spent at idle during startup and minimize the emergency stationary RICE startup time to a period needed for appropriate and safe loading of the emergency stationary RICE, not to exceed 30 minutes [40 CFR 63.6625(h)].

- e. The permittee must install a non-resettable hour meter if one is not already installed [40 CFR 63.6625(f)]
- f. The permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of 40 CFR 63.6640. In order for the emergency stationary RICE to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of 40 CFR 63.6640, is prohibited. If the permittee do not operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of 40 CFR 63.6640, the emergency stationary RICE will not be considered an emergency stationary RICE under 40 CFR Subpart ZZZZ and must meet all requirements for non-emergency engines [40 CFR 63.6640 (f)].
- g. Beginning January 1, 2015, the permittee an existing emergency CI stationary RICE with a site rating of more than 100 hp and displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purpose specified in 40 CFR 63.6640 (f)(2)(ii) and (iii) or that operates for the purpose specified in 40 CFR 63.6640 (f)(4)(ii), the permittee must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted [40 CFR 63.6604(b)].
- h. The permittee must operate and maintain the emergency stationary RICE according to the manufacturer's emission-related written instructions, or develop your own maintenance plan which must provide, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions [40 CFR 63.6625(e)].
- i. There is no limit on the use of emergency stationary RICE in emergency situations [40 CFR 63.6640 (f) (1).
- j. Maintenance checks and readiness testing of this unit is limited to 100 hours per year. Operation of the unit in non-emergency situations is counted towards the 100 hours per year provided for maintenance and testing, including, as provided in 40 CFR 63.6640(f)(2)(i), 40 CFR 63.6640(f)(2)(ii), for demand response 40 CFR 6640(f)(2)(iii) [40 CFR 63.6640 (f) (1)].
- k. The permittee must be in compliance with the emission limitations and operating limitations in this that apply at all times [40 CFR 63.6605(a)].

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# SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### 2. Emission Limitations:

The permittee must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d of 40 CFR 63 Subpart ZZZZ that apply according to methods specified in Table 6 of 40 CFR 63 Subpart ZZZZ [40 CFR 63.6640(a)].

### 3. Testing Requirements:

NA

### 4. **Specific Monitoring Requirements:**

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the hours of operation on a monthly basis.

### 5. Specific Record Keeping Requirements:

- a. The permittee must keep records of each notification and report that is submitted, the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment, records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii), records of all required maintenance performed on the air pollution control and monitoring equipment, and records of action taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning processes and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.6655(a)].
- b. The permittee shall maintain records of the maintenance conducted on the emergency stationary RICE in order to demonstrate that the engine was operated and maintained, including any after-treatment control device, according to the maintenance plan for the engine [40 CFR 63.6655(e)].
- c. If the engine is not certified to the standards applicable to non-emergency engines (see Table 2c to 40 CFR 63 Subpart ZZZZ), then the permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for demand response, records must be kept of the notification of the emergency situation, and the time the emergency stationary rice was operated as part of demand response [40 CFR 63.6655(f)(1)].
- d. The permittee must keep the records required in Table 6 of 40 CFR 63 Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies to you [40 CFR 63.6655(d)].

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## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e. The permittee must keep records of the maintenance conducted on the engine in order to demonstrate, operated and maintained the engine and after-treatment control device (if any) according to your own maintenance plan [40 CFR 63.6655(e)].

f. Pursuant to 401 KAR 52:020, Section 10, the permittee shall record the fuel usage on a monthly basis.

### 6. Specific Reporting Requirements:

- a. The permittee must submit, if applicable, the annual report according to 40 CFR 63:6650 (h).
- b. The permittee must report each instance in which the engine did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d of 40 CFR 63 Subpart ZZZZ that apply. These instances are deviations from the emission and operating limitations in 40 CFR 63 Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR 63.6650. If catalyst is changed, the permittee must reestablish the values of the operating parameters measured during the initial performance test. When the permittee reestablish the values of the operating parameters, the permittee must also conduct a performance test to demonstrate that the required emission limitations applicable to engine are meet [40 CFR 63.6640(b)].
- c. The permittee must also report each instance that did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE [40 CFR 63.6640(e)].
- d. See Section F.

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#### **SECTION C- INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

#### Description

#### Generally Applicable Regulation

1.	Diesel fuel-oil tank (capacity 120 gallons)	N/A ,
2.	Kerosene tank (capacity 295 gallons)	N/A
3.	Kerosene tank	N/A
4.	Ignition fuel-oil No. 2 tank (capacity 23,000 gall.)	N/A
5.	Fuel-oil No. 2 tank (throughput 114,000 gall.), So.	N/A
6.	Fuel-oil No. 2 tank (throughput 114,000 gall.), No.	N/A
7.	Fly-ash silo	401 KAR 63:010
8.	Ignition fuel-oil No. 2 tank (capacity 23,000 gall.)	N/A
9.	Cooling tower water treatment operations	N/A .
10.	Closed cooling water system	N/A
11.	Demineralizer process operation	N/A
12.	Freeze protection operation for coal conveyors	N/A
13.	Portable water treatment operations	N/A
14.	Lime slaking operations	N/A
15.	Thermal evaporation of boiler cleaning wastes	N/A
16.	Fly ash pneumatic conveying and storage	401 KAR 63:010

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# SECTION D- SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

- 2. Particulate, sulfur dioxide and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
- 3. <u>Electrical Generating Units 01 and 02 at the R. D. Green Station and Units 02 and 03 at the Reid/Henderson Station.</u>
  - a. To preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 02 and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive twelve (12) month period in which any amount of petroleum coke is burned. Upon completion of natural gas burner for emission unit 01 it will no longer be subject to this limitation for petroleum coke and it will burn only natural gas.
  - b. The permittee shall use the sulfur dioxide continuous emission monitoring system (CEMs) to determine the monthly and twelve consecutive month emissions from the electrical generating units.
  - c. The permittee shall calculate and record the total sulfur dioxide emissions from all the electrical generating units referenced above on a monthly and twelve consecutive month basis.
  - d. The permittee shall maintain records of the dates on which any petcoke is burned and the monthly and annual quantities.
  - e. The permittee shall submit a report of sulfur dioxide emissions for the previous twelve consecutive month period every six months in accordance with Section F.5. Exceedances of the emission limitation specified above shall be reported within 30 days following the date when the exceedance is determined.

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### SECTION E-SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

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# SECTION F- MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b-IV-1 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place as defined in this permit, and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit:
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

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# SECTION F- MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

- 7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- 8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 9. Pursuant to 401 KAR 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

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# SECTION F- MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality Owensboro Regional Office 3032 Alvey Park Dr W. STE 700 Owensboro, KY 42303-2191 U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth St Atlanta, GA 30303-8960

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

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#### **SECTION G-GENERAL PROVISIONS**

#### 1. General Compliance Requirements

a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
  - (2) The Cabinet or the United States Environmental Protection Agency (U. S. EPA) determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
  - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, Section 3(1)(c)].

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#### **SECTION G- GENERAL PROVISIONS (CONTINUED)**

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) 2.].
- 1. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) 4.].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) 1.].

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### SECTION'G- GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - (1) Applicable requirements that are included and specifically identified in this permit; and
  - (2) Non-applicable requirements expressly identified in this permit.

#### 2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six (6) months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

#### 3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

#### 4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission unit 01 (only the burners) in accordance with the terms and conditions of this permit.

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

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#### **SECTION G- GENERAL PROVISIONS (CONTINUED)**

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:

- (1) The date when construction commenced.
- (2) The date of start-up of the affected facilities listed in this permit.
- (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.
- f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

#### 5. Testing Requirements, Where applicable

- a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under

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#### SECTION G- GENERAL PROVISIONS (CONTINUED)

normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

#### 6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

#### 7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - (1) An emergency occurred and the permittee can identify the cause of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
  - (5) This requirement does not relieve the source of other local, state or federal notification requirements.

Permit Number: <u>V-11-003 R1</u> Page 46 of 56

#### SECTION G- GENERAL PROVISIONS (CONTINUED)

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

#### 8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
  - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

Permit Number: <u>V-11-003 R1</u> Page 47 of 56

## **SECTION G- GENERAL PROVISIONS (CONTINUED)**

#### 9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

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#### SECTION H- ALTERNATE OPERATING SCENARIOS

**Emissions Unit 01: Indirect Heat Exchanger** 

#### **Description:**

Reid Station Unit 1 (R1)

Maximum Continuous Rating: 1008 MMBtu/hr Primary Fuel: Natural Gas

Construction commenced (Boiler): 1963 Modified (Low NOx Burners): 2015

#### **APPLICABLE REGULATIONS:**

401 KAR 61:015, Existing indirect heat exchangers

401 KAR 51:160, NO<sub>x</sub> requirements for large utility and industrial boilers

401 KAR 52:060, Acid rain permits (See Section J)

40 CFR Part 75, Continuous Emissions Monitoring (CEM)

401 KAR 51:210, CAIR NO<sub>x</sub> Annual Trading Program (See Section K)

401 KAR 51:220, CAIR NO<sub>x</sub> Ozone season Trading Program (See Section K)

401 KAR 51:230, CAIR SO<sub>2</sub> Trading Program (See Section K)

#### 1. **Operating Limitations:**

a. To preclude the applicability of 401 KAR 51:017, the gross megawatt hours output for the unit shall not exceed 199,825 MW-hrs/yr on rolling twelve (12) month average.

#### **Compliance Demonstration Method:**

Compliance shall be demonstrated by 4.f. <u>Specific Monitoring Requirements</u> and 5.d. <u>Specific Recordkeeping Requirements</u>.

- b. To preclude the applicability of 401 KAR 51:017, Emission Unit 01 at the Reid/Henderson Station will no longer utilize coal/petroleum coke and burn only natural gas as a fuel.
- c. The permittee shall comply with the requirements in Section B for emission unit 01 until completeness of the natural gas burners. Upon completion of the natural gas burners, the permittee shall comply with requirements specified in Section H for emission unit 01.

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#### SECTION H- ALTERNATE OPERATING SCENARIOS (CONTINUED)

#### 2. Emission Limitations:

a. Pursuant to 401 KAR 61:015, Section 4(4) particulate matter emissions shall not exceed 0.28 lb/MMBtu based on a three (3)-hour average.

- b. Pursuant to 401 KAR 61:015, Section 4(4) emissions shall not exceed 40 percent opacity based on a six (6)-minute average, except for the emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- c. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 3.5 lbs/MMBtu based on twenty four (24) hour average.

#### **Compliance Demonstration Method:**

The unit is considered to be in compliance with the allowable PM, opacity, and SO<sub>2</sub> limitations while burning natural gas.

#### 3. Testing Requirements:

Testing shall be conducted at such time as may be requested by the Cabinet in accordance with 401 KAR 50:045, Section (4).

#### 4. Specific Monitoring Requirements:

- a. The permittee of an affected unit that uses a certified flow monitor and a certified diluent gas (O<sub>2</sub> or CO<sub>2</sub>) monitor to measure the unit heat input rate shall determine SO<sub>2</sub> emissions in accordance with 40 CFR 75.11(e)(1) [ 40 CFR 75.11(e)].
- b. The permittee who, in accordance with 40 CFR 75.11(e)(1), uses a certified flow monitor and a certified diluent monitor and Equation F-23 in appendix F to this part to calculate SO<sub>2</sub> emissions during hours in which a unit combusts only natural gas or pipeline natural gas (as defined in 40 CFR 72.2 of this chapter) shall meet all quality control and quality assurance requirements in appendix B to this part for the flow monitor and the diluent monitor [40 CFR 75.21 (a) (10)].
- c. Continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring nitrogen oxides (NO<sub>x</sub>), and carbon dioxide (CO<sub>2</sub>) emissions [401 KAR 61:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A].
- d. The permittee shall operate, calibrate and maintain the continuous emission monitoring system according to the quality assurance and quality control procedures in appendix B of 40 CFR 75 [40CFR 75.21 (a)(1)].
- e. Pursuant to 401 KAR 61:015, Section 6 (3), the rate of fuel burned shall be measured daily or at shorter intervals and recorded. Where the indirect heat exchanger is used to generate electricity, the average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

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#### SECTION H- ALTERNATE OPERATING SCENARIOS (CONTINUED)

f. The permittee shall monitor the monthly and the twelve (12) month rolling total gross megawatt hours for the indirect heat exchanger [401 KAR 52:020, Section 10].

#### 5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain all information reported in the quarterly summaries, Pursuant to 401 KAR 61:005, Section 3(15)(g) and 61:015, Section 6, with the exception that records shall be maintained for a period of two (2) years.
- b. Pursuant to KAR 52:020, Section 10, the permittee shall maintain records of:
  - i. The rate of fuel burned, on a daily basis;
  - ii. The monthly and twelve month (12) consecutive usage of natural gas;
  - iii. The average electrical output and the minimum and maximum hourly generation rate on a daily basis;
  - iv. Results of all compliance tests;
  - v. Documentation that the fuel combusted is actually pipeline natural gas or natural gas using the procedures in section 2.3.1.4 of appendix D to 40 CFR Part 75; and
  - vi. Calculated SO<sub>2</sub> emissions using Equation F-23 in appendix F to 40 CFR Part 75.
- c. Pursuant to KAR 52:020, Section 10, the permittee shall record the duration of each start up.
- d. The permittee shall record the monthly and twelve (12) month rolling total gross megawatt hours for the indirect heat exchanger [401 KAR 52:020, Section 10].
- e. The permittee of an affected unit shall prepare and maintain a monitoring plan. Except as provided in paragraphs (f) or (h) of 40 CFR 75 (as applicable), a monitoring plan shall contain sufficient information on the continuous emission or opacity monitoring systems, excepted methodology under 40 CFR 75.19, or excepted monitoring systems under appendix D or E to 40 CFR 75 and the use of data derived from these systems to demonstrate that all unit SO<sub>2</sub> emissions, NO<sub>X</sub> emissions, CO<sub>2</sub> emissions, and opacity are monitored and reported [40 CFR 75.53 (a)(2)].
- f. The permittee of any affected source subject to the requirements of this part shall maintain for each affected unit a file of all measurements, data, reports, and other information required by this part at the source in a form suitable for inspection for at least three (3) years from the date of each record [40 CFR 75.57 (a)].

#### 6. Specific Reporting Requirements:

See Section F.

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# SECTION I - COMPLIANCE SCHEDULE

N/A

Permit Number: <u>V-11-003 R1</u> Page 52 of 56

#### **SECTION J- ACID RAIN PERMIT**

#### 1. Statutory and Regulatory Authority

In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and 40 CFR Part 76.

#### 2. Permit Requirements:

This Acid Rain Permit covers Acid Rain Units 01-03 (Emission Units 01-03) at the Robert Reid Station, and two HMP&L Stations (ORIS Code: 001382 and 001383). Currently, Unit 01 is a base electric generating unit that utilizes coal/petroleum as a fuel. In 2015-2016, Unit 01 will be changed to fire natural gas only. Units 2-3 are coal-fired base load electric generating units. The Acid Rain Permit Application and NO<sub>X</sub> Compliance Plan received on May 3, 2013, for Phase II are hereby incorporated into and made part of this permit and the permittee must comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

#### 3. Acid Rain Program Emission and Operating Limitations:

The applicable Acid Rain emission limitations for the permittee are set in 40 CFR 73.10, Table 2, 40 CFR 76.5, and 40 CFR 76.11 and they are tabulated in the table below:

Affected Unit: Robert Reid Station,R1 (Emissions Unit 01)					
Year for SO <sub>2</sub> Allowances	2015	2016	2017	2018	2019
40 CFR Part 73.10	944*	944*	944*	944*	944*

#### NO<sub>x</sub> Limits and Requirements

Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO<sub>X</sub> emissions averaging plan for this unit. This plan is effective for calendar year 2015 through 2019. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO<sub>X</sub> emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.90 lb/MMBtu. In addition, this unit shall not have an annual heat input greater than 7,305,840 MMBtu. As an alternative means of compliance demonstration, this emission unit shall not cause the system weighted average to exceed the applicable emission rate in accordance with 40 CFR 76.11(d)(B)(ii).

In addition to the described  $NO_X$  compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a  $NO_X$  compliance plan and requirements covering excess emissions.

<sup>\*</sup> The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (See 40 CFR 72.84).

Permit Number: <u>V-11-003 R1</u> Page 53 of 56

#### **SECTION J - ACID RAIN (CONTINUED)**

Affected Unit: HMP&L Station 2,H1 (Emissions Unit 02)					
Year for SO <sub>2</sub> Allowances	2015	2016	2017	2018	2019
40 CFR Part 73.10	5,769*	5,769*	5,769*	5,769*	5,769*

#### NO<sub>x</sub> Limit and Requirements

Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the  $NO_X$  emissions averaging plan for this unit. This plan is effective for calendar year 2015 through 2019. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NOx emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.40 lb/MMBtu. As an alternative means of compliance demonstration, this emission unit shall not cause the system weighted average to exceed the applicable emission rate in accordance with 40 CFR 76.11(d)(B)(ii).

In addition to the described  $NO_X$  compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a  $NO_X$  compliance plan and requirements covering excess emissions.

<sup>\*</sup> The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (See 40 CFR 72.84).

Affected Unit: HMP&L Station 2, H2 (Emissions Unit 03)					
Year for SO <sub>2</sub> Allowances	2015	2016	2017	2018	2019
40 CFR Part 73.10	5,946*	5,946*	5,946*	5,946*	5,946*

#### NO<sub>x</sub> Limits and Requirements

Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO<sub>X</sub> emissions averaging plan for this unit. This plan is effective for calendar year 2015 through 2019. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO<sub>X</sub> emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.40 lb/MMBtu. As an alternative means of compliance demonstration, this emission unit shall not cause the system weighted average to exceed the applicable emission rate in accordance with 40 CFR 76.11(d)(B)(ii).

In addition to the described  $NO_X$  compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a  $NO_X$  compliance plan and requirements covering excess emissions.

<sup>\*</sup> The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (See 40 CFR 72.84).

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#### SECTION J - ACID RAIN (CONTINUED)

#### 4. Compliance Plan:

a. The permittee shall operate in compliance with the requirements contained in the Acid Rain application and incorporated into this permit [40 CFR 72.9].

- b. The Division approves the  $NO_X$  Average Plan submitted for these units for the  $NO_X$  Emissions Compliance Plan, effective for the duration of this permit. Under this plan, a unit's  $NO_X$  emissions shall not exceed the applicable annual average alternative contemporaneous emissions limitation (ACEL) listed in Subsection 3(a). [40 CFR 76]
  - (1) The actual Btu-weighted annual average NO<sub>X</sub> emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO<sub>X</sub> emission rate for the same units had they been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7 and listed in Subsection 3(a).
  - (2) For each unit, if the designated representative demonstrates that the requirement of Subsection 4(b)(1) is met for the plan year, then the unit shall be deemed to be in compliance for the year with its ACEL and associated heat input limit in Subsection 3.
  - (3) If the designated representative cannot make the demonstration in Subsection 4(b)(1), according to 40 CFR 76.11(d)(1)(ii), for the plan year and if a unit fails to meet the annual average ACEL or has a heat input greater than the applicable value listed in Subsection 3, then excess emissions of NO<sub>X</sub> have occurred during the year for that unit.
  - (4) As an alternative means of compliance demonstration, this emission unit shall not cause the system weighted average to exceed the applicable emission rate in accordance with 40 CFR 76.11(d)(B)(ii).

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#### SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

#### 1. Statutory and Regulatory Authority:

In accordance with KRS 224.10-100, the Kentucky Energy and Environmental Cabinet issues this permit pursuant to 401 KAR 52:020, Title V permits, 401 KAR 51:210, CAIR  $NO_X$  Annual Trading Program, 401 KAR 51:220, CAIR  $NO_X$  ozone season trading program, and 401 KAR 51:230, CAIR  $SO_2$  Trading Program.

#### 2. Application and Requirements:

The CAIR application for three electrical generating units was submitted to the Division and received on October 22, 2007. The standard requirements and special provisions set forth in the application are hereby incorporated into and made part of this CAIR Permit. [401 KAR 51:210, 401 KAR 51:220, and 401 KAR 51:230]. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

#### 3. Unit Description

The affected units are one (1) dry bottom wall fired boiler rated at 834 MMBtu/hour (EU 01) and, two (2) dry bottom wall-fired boilers each rated 1568 MMBtu/hour (EU 02 and 03). Each unit has a capacity to generate 25 megawatts or more of electricity, which is offered for sale. Unit 01 utilizes natural gas while units 02 and 03 use coal and pet coke as a fuel source. Units 01, 02 and 03 are used as base load electric generating units.

#### 4. Summary of Actions

The CAIR Permit is being issued as part of the Title V permit for this source. Public, affected state and U.S. EPA review will follow procedures specified in 401 KAR 52:100.

A December 2008 court decision kept the requirements of CAIR in place temporarily but directed EPA to issue a new rule to implement Clean Air Act requirements concerning the transport of air pollution across state boundaries. On July 6, 2011, the U.S. EPA finalized the Cross-State Air Pollution Rule (CSAPR). On December 30, 2011, CSAPR was stayed prior to implementation. On April 29, 2014, the U.S. Supreme Court issued an opinion reversing an August 21, 2012 D.C. Circuit decision that had vacated CSAPR. Following the remand of the case to the D.C. Circuit, EPA requested that the court lift the CSAPR stay and toll the CSAPR compliance deadlines by three years. On October 23, 2014, the D.C. Circuit granted EPA's request. CSAPR Phase I implementation is now in place and replaces requirements under EPA's 2005 Clean Air Interstate Rule.

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### SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)

Pursuant to 40 CFR 97.404(a), the permittee shall be subject to and shall comply with all applicable requirements of 40 CFR 97, Subpart AAAAA, TR NO<sub>x</sub> Annual Trading Program.

Pursuant to 40 CFR 97.504(a), the permittee shall be subject to and shall comply with all applicable requirements of 40 CFR 97, Subpart BBBBB, TR NO<sub>x</sub> Ozone Season Trading Program.

Pursuant to 40 CFR 97.604(a), the permittee shall be subject to and shall comply with all applicable requirements of 40 CFR 97, Subpart CCCCC, TR SO<sub>2</sub> Group 1 Trading Program.

#### BIG RIVERS ELECTRIC CORPORATION

### ELECTRONIC APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS CASE NO. 2019-00269

# Response to Commission Staff's Information Requests from the October 22, 2020 Hearing

#### November 3, 2020

		,
1	Item 2)	Refer to the Rebuttal Testimony of Michael T. Pullen at page 6 of
2	13, lines	8-11, regarding the Webster Circuit Court action initiated by
3	Henderson	n over the cost of decommissioning the Station Two ash pond.
4	Provide a	copy of this complaint.
5		
6	Response	The complaint filed in the Webster Circuit Court Civil Action No. 20-CI-
7	00073, City	of Henderson, Kentucky, and City of Henderson Utility Commission d/b/a
8	Henderson	Municipal Power & Light, is attached and includes:
9	1. C	domplaint;
10	2. E	xhibit A to Complaint – Joint Facilities Agreement;
11	3. E	xhibit B to Complaint – Power Plant Construction and Operation;
12	4. E	xhibit C to Complaint – Power Sales Agreement;
13	5. E	xhibit D to Complaint – Henderson Letter dated May 2018; and
14	6. E	xhibit E to Complaint – Henderson Calculations.
15		
16		
17	Witness)	Michael T. Pullen

AOC-E-105 Rev. 9-14 Sum Code: CI

Commonwealth of Kentucky
Court of Justice Courts.ky.gov

CR 4.02; Cr Official Form 1



Case #: 20-CI-00073
Court: CIRCUIT

County: WEBSTER

Plantiff, CITY OF HENDERSON, KY, ET AL VS. BIG RIVERS ELECTRIC CORP., Defendant

TO: BIG RIVERS ELECTRIC CORP.
ROBERT W. BERRY, PRESIDENT CEO
201 THIRD STREET
HENDERSON, KY 42420

The Commonwealth of Kentucky to Defendant: BIG RIVERS ELECTRIC CORP.

You are hereby notified that a **legal action has been filed against you** in this Court demanding relief as shown on the document delivered to you with this Summons. **Unless a written defense is made by you or by an attorney on your behalf within twenty (20) days** following the day this paper is delivered to you, judgment by default may be taken against you for the relief demanded in the attached complaint.

The name(s) and address(es) of the party or parties demanding relief against you or his/her (their) attorney(s) are shown on the document delivered to you with this Summons.

/s/ Janet Cole, Webster Circuit Clerk Date: 5/12/2020

	Proof of S	ervice
This Summons w	as:	
Served by deliver	ing a true copy and the Complaint (or other i	nitiating document)
То:		
Not Served becau	use:	
Date:	, 20	Served By
		Title

Summons ID: @00000040384 CIRCUIT: 20-CI-00073 Return to Filer for Service CITY OF HENDERSON, KY, ET AL VS. BIG RIVERS ELECTRIC CORP.



Page 1 of 1



Presiding Judge: HON, C. RENE' WILLIAMS (605230)

: 000001 of 000001

## COMMONWEALTH OF KENTUCKY WEBSTER CIRCUIT COURT CIVIL ACTION NO. 20-CI-

#### Electronically Filed

CITY OF HENDERSON, KENTUCKY, and CITY OF HENDERSON UTILITY COMMISSION, d/b/a HENDERSON MUNICIPAL POWER & LIGHT PLAINTIFFS

V.

#### BIG RIVERS ELECTRIC CORP.

DEFENDANT

Serve: Amanda Jackson Registered Agent Big Rivers Electric Corp. 201 Third Street Henderson, Kentucky 42420

> Robert W. Berry President & CEO Big Rivers Electric Corp. 201 Third Street Henderson, Kentucky 42420

#### COMPLAINT FOR DECLARATORY RELIEF

Plaintiffs, City of Henderson, Kentucky, and City of Henderson Utility Commission, d/b/a Henderson Municipal Power & Light (jointly "Henderson"), by and through counsel, and pursuant to KRS 418.040 and Kentucky Civil Rule 57, state as follows for their cause of action seeking declaratory relief and enforcement against Defendant Big Rivers Electric Corp. ("Big Rivers"):

#### THE PARTIES

The City of Henderson, Kentucky, is a Kentucky city of the Home Rule class, 1. with all of the authority and powers specified in and enumerated by the Kentucky Constitution,

Page 1 of 7

Filed

and state statutes enacted by the Kentucky General Assembly, said authority and powers including but not being limited to the capacity to enter into legal contracts, and to sue and be sued in its own name.

- 2. The Henderson Utility Commission, d/b/a Henderson Municipal Power & Light, is a utility commission established by Ordinance of the City of Henderson, Kentucky, pursuant to KRS 96.530 et. seq., and is a public body politic and corporate, with perpetual succession, which has absolute control of the municipally owned electric system of the City of Henderson, Kentucky, which body may contract and be contracted with, sue and be sued, in and by its corporate name. The Henderson Utility Commission, d/b/a Henderson Municipal Power & Light, is headquartered at 100 Fifth Street, Henderson, Kentucky, 42420.
- Big Rivers Electric Corporation ("Big Rivers") is an electric generation and transmission cooperative corporation headquartered at 201 Third Street, P.O. Box 24, Henderson, Kentucky, 42419-0024, organized pursuant to KRS Chapter 279, and having the capacity to contract, to sue, and to be sued in its own name.

#### JURISDICTION & VENUE

- 4. Jurisdiction in this Court is proper pursuant to KRS 418.040, et. seq., and KRS Chapter 23A.
- Venue in this Court is proper pursuant to KRS 452.400, as a substantial portion of the real property which is the subject matter giving rise to this dispute is located in Webster County, Kentucky.

#### FACTUAL BACKGROUND AND STATEMENT OF CLAIM

- 6. Henderson and Big Rivers are parties to a contract providing for, among other things, the allocation of costs between them for the operation and maintenance of certain "joint use facilities" associated with the City's now-retired Station Two power plant.
- 7. The "joint-use facilities" defined and identified in the parties' Joint Facilities Agreement, as amended, (attached hereto as Exhibit A), include an ash pond located on Big Rivers' property (see Joint Facilities Agreement, as amended, Exhibit A, Page 1, Part B).
- 8. The ash pond for the duration of its useful life served as a repository for coal combustion residuals both from the Station Two generating plant (capacity 312 MW) and from Big Rivers' Reid generating plant (capacity 65 MW).
- 9. Both the City's Station Two plant and Big Rivers' Reid plant have ceased to operate, triggering requirements to close the ash pond in accordance with applicable state and federal environmental regulations, including 40 CFR Part 257 (the "CCR Rule").
- 10. Henderson has agreed to pay its proportionate share of reasonable expenses incurred by Big Rivers in closing and maintaining post-closure care of the Reid-HMPL Ash Pond in accordance with the contractual formula historically used to calculate the parties' respective shares of ash-pond operating and maintenance expenses.
- 11. Pursuant to Section 5.1 of the Joint Facilities Agreement, as amended, the costs of operating, maintaining, repairing, renewing, replacing, and adding to joint-use facilities were allocated to the parties' respective generating stations in accordance with Section 13 of the parties' now-terminated Power Plant Construction and Operation Agreement (attached hereto as Exhibit B).

- 12. Pursuant to Section 13.8(b) of the Power Plant Construction and Operation Agreement, as amended, costs associated with joint-use facilities, including the ash pond, were allocated between Reid and Station Two on the basis of each station's capacity as related to the combined capacity of both generating stations.
- 13. Pursuant to Section 3.3 of the parties' now-terminated Power Sales Contract, as amended, (attached hereto as Exhibit C), Reid-HMPL Ash Pond expenses attributable to Station Two were allocated between Henderson and Big Rivers on the basis of Henderson's annual capacity reservation and the amount of capacity allocated to Big Rivers.
- Henderson's share of Station Two ash-pond expenses was then reduced by the proportion attributable to Big Rivers' Reid station in accordance with Section 13.8(b) of the above-referenced Construction and Operation Agreement.
- Throughout the life of Station Two, Henderson provided the requisite annual written notice to Big Rivers concerning the amount of Station Two capacity Henderson intended to reserve for the next fiscal year. On May 10, 2018, Henderson notified Big Rivers that Henderson's capacity reservation for fiscal 2018-2019 would be 115 MW (a copy of Henderson's capacity reservation notice for fiscal 2018-2019 is attached hereto as Exhibit D).
- Calculated in accordance with the contractual formula applicable to operating and maintenance expenses and using the average capacity split over the life of the ash pond, Henderson's share of reasonable expenses associated with the compliance, closure, and postclosure care of the Reid-HMPL Ash Pond is 18.87 percent (a copy of Henderson's calculations based upon each party's share of capacity from Reid and Station Two over the life of Station Two is attached hereto as Exhibit E).

Filed

- 17. In December 2019, Big Rivers submitted invoices to Henderson purporting to show \$15,760.67 due from Henderson for ash-pond closure expenses incurred between June 17, 2019, and October 31, 2019. This figure inexplicably assigns 22.76 percent of expenses to Henderson and does not take into account the percentage attributable to Big Rivers' Reid generating plant.
- Henderson recalculated the sum due at the appropriate 18.87 percent and, on March 9, 2020, tendered a check to Big Rivers in the appropriate sum of \$10,711.14. On March 17, 2020, Big Rivers returned the check to Henderson and requested payment of the invoiced amount.
- 19. On April 28, 2020, Big Rivers sent to Henderson a letter indicating that Big Rivers would not fulfill its obligation to complete those activities associated with closing the ash pond. The letter further stated that Henderson is responsible for completing closure activities and that Big Rivers would share in the expense only if Henderson agreed to share in unrelated decommissioning costs associated with Station Two.
- 20. Henderson now seeks a declaratory order confirming the accuracy of its calculations and limiting the amount of Henderson's responsibility for ash-pond compliance, closure, and post-closure care at 18.87 percent of reasonably incurred expenses.

#### ACTUAL CONTROVERSY

21. A dispute has arisen between the parties concerning the interpretation of the parties' Joint Facilities Agreement and the appropriate methodology for calculating the percentage of each party's responsibility for operating and maintenance expenses associated with the Reid-HMPL Ash Pond and, by extension, each party's appropriate share of expenses incurred in closing and maintaining post-closure care of the ash-pond in compliance with state and federal environmental regulations.

- Pursuant to KRS 418.040, this Court possesses authority to declare the rights of 22. the parties where there exists an actual controversy. Specifically, under KRS 418.045, any person interested under a contract is entitled to a determination of his rights or duties arising under the instrument, provided there is an actual controversy.
- Henderson is entitled to a declaration that it has appropriately calculated its share 23. expenses associated with regulatory compliance, including closure and post-closure care, of the Reid-HMPL Ash Pond.

WHEREFORE, Henderson respectfully requests that the Court advance this case on its calendar and docket for early hearing and decision on motion as provided in KRS 418.050 and CR 57, enter a Declaratory Judgment finding that Henderson has accurately calculated its share of reasonable expenses associated with regulatory compliance, including closure and postclosure care, with respect to the Reid-HMPL Ash Pond and finding that Henderson's responsibility for said expenses is limited to 18.87 percent of reasonably incurred expenses.

Respectfully submitted,

KING, DEEP & BRANAMAN

/s/H. Randall Redding

H. Randall Redding Sharon W. Farmer 127 North Main Street P.O. Box 43 Henderson, Kentucky 42419-0043 Telephone: (270) 827-1852 rredding@kdblaw.com sfarmer@kdblaw.com

Page 6 of 7

Attorneys for Henderson Utility Commission, d/b/a Henderson Municipal Power & Light

/s/Dawn Kelsey

Dawn Kelsey
City Attorney
City of Henderson
222 First Street
Henderson, Kentucky 42420
Attorney for City of Henderson

# JOINT FACILITIES AGREEMENT BETWEEN

CITY OF HENDERSON, KENTUCKY

and

RURAL ELECTRIC CO-OPERATIVE CORPORATION

1, 1970

## (See Amendments)

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# JOINT FACILITIES AGREEMENT

THIS AGREEMENT made and entered into as of August 1, 1970
by and between CITY OF HENDERSON, KENTUCKY, a Municipal Corporation
of the third class, hereinafter referred to as CITY, and BIG
RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION, a Kentucky
Corporation with principal offices in Henderson, Kentucky,
hereinafter referred to as BIG RIVERS.

WITNESSETH THAT:

# SECTION 1 - STIPULATIONS

- 1.1 City and Big Rivers have entered into an Agreement of even date herewith providing for City's construction of an electric generating station (referred to as Station Two) at a site on the Green River in Henderson County, Kentucky, adjacent to the Reid Station of Big Rivers, and so arranged as to provide for the joint utilization by City and Big Rivers of certain auxiliary facilities and operating personnel, and providing for the operation of such Station Two by Big Rivers on an independent contractor basis.
- 1.2 A nationally recognized engineering firm has been employed by City to develop plans and specifications for the construction of City's Station Two and its related facilities, including such facilities as are to be used jointly by City and Big Rivers in the operation of their respective generating stations, which plans and specifications shall be subject to approval by Big Rivers insofar as its Reid Station will be

affected thereby.

- 1.3 It is recognized by the parties that material economies in construction and operation can be achieved through the joint use by both parties of certain operating facilities which serve as auziliaries of their respective generating stations.
- 1.4 The costs of the joint use facilities to be provided by each of the parties under the terms of this Agreement and
  in accordance with City's plans and specifications are proportionately equal to the relative benefits to be derived therefrom
  by each.
- 1.5 It is the intention of the parties, by this Agreement, each to devote to the joint use of both parties, as long as they or either of them, or their respective successors or assigns, shall continue to operate a generating station or stations in connection therewith, those joint use facilities to be provided by each, and to provide for the continuous operation and maintenance thereof for the parties' joint and separate benefits.

#### SECTION 2 - DEFINITIONS

- 2.1 The words, phrases, and terms used in this Agreement shall have the same definitions as recited in the parties' Power Plant Construction and Operation Agreement of even date herewith.
- SECTION 3 ALLOCATION OF FACILITIES (See 1993 Amendments)
  See 1993 (See 1998 Amendments)
  Amend. 3.1 Big Rivers will allocate for the continuing joint use
  of the parties in the operation of their respective generating

plants those of its existing auxiliary facilities as are determined by City's employed engineering firm (and approved by Big Rivers) to be allocated for such joint use, and will permit City to make such modifications thereof as are provided by

the plans and specifications for City's Station II.

See 1993 3.2 City will acquire and allocate for the continuing Amend. joint use of the parties in the operation of their respective generating plants those additional auxiliary facilities (not provided by Big Rivers) designated on City's plans and speci-

fications for such joint use. (Added new subsections 3.3 and 3.4) See 1998 ( Amended Section 3.3)

SECTION 4 - TITLE TO JOINT USE FACILITIES (See 1993 Amendments) Amend.4.1 Title to those joint use facilities or portions thereof provided by City will remain in City, and all such facilities will be clearly and permanently marked as the property of City. Title to those joint use facilities or portions thereof provided by Big Rivers will remain in Big Rivers, and all such facilities will be clearly and permanently marked as the property of Big Rivers. All such joint use facilities shall be, and with the execution and approval of this Contract are irrevocably allocated and devoted to the continued use thereof by each of the parties, their respective successors or assigns, as long as either of them shall continue to operate and/or maintain a generating station in connection therewith.

SECTION 5 - COSTS (See 1993 Amendments)

Amend-5.1 The costs of providing City's joint use facilities and of modifying Big Rivers' joint use facilities as provided herein will be paid out of the proceeds of the Station Two Bonds. The costs of operating, maintaining, repairing, renewing, replacing and adding to such joint use facilities shall be allotted to the parties' respective generating stations as provided in Section 13 of the parties' Power Plant Construction and Operation Agreement.

# SECTION 6 - OPERATION AND MAINTENANCE

6.1 Except as otherwise provided in the parties' Power Plant Construction and Operation Agreement, the parties will be severally and jointly responsible for the continued operation, maintenance, repair, renewal and replacements of such joint use facilities so as to assure the continuous operation of the parties' respective generating station or stations served thereby.

# SECTION 7 - ACCESS

7.1 Each party hereby grants to the other the free and uninterrupted access to, and right of ingress and egress to and from such joint use facilities and any portions thereof as may be necessary or convenient so as to provide for the continuous operation and maintenance thereof.

# SECTION 8 - TERM

8.1 Unless otherwise terminated by mutual agreement of the parties, the terms and provisions of this Agreement shall

continue in full force and effect as to each joint use facility as long as either party, or its successors or assigns, shall continue to operate or maintain a generating station which is served by any such joint use facility, and will not be terminated by reason of the termination of any other agreement or contract between the parties.

# SECTION 9 - OPERATING STANDARDS.

9.1 The joint use facilities which are the subject of this Agreement shall be constructed, operated and maintained in accordance with standards and specifications equal to those provided by the National Electric Safety Code of the United States Bureau of Standards, and as required by any regulatory authority having jurisdiction thereof.

# SECTION 10 - UNCONTROLLABLE FORCES

- 10.1 Neither party hereto shall be considered in default or breach with respect to any obligation under this Agreement if prevented from fulfilling such obligation by reason of an Uncontrollable Force. Any party unable to fulfill any obligation by reason of Uncontrollable Forces shall exercise due diligence to remove such disability as soon as reasonably possible.
- 10.2 The term "Uncontrollable Force" shall mean any force which is not within the control of any party to this Agreement, and which by exercise of due diligence and foresight could not reasonably have been avoided, including, but not limited to, an act of God, fire, flood, earthquake, explosion, strike, sabotage, an act of the public enemy, civil or military authority,

including court orders, injunctions, and orders of government agencies having proper jurisdiction, insurrection or riot, an act of the elements, failure of equipment, or inability to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers.

# SECTION 11 - OBLIGATIONS OF CITY

11.1 The obligations of City under the terms and provisions of this Agreement shall be the sole obligation of the City's electric utility system, including its Existing System, its Station Two generating plant and such other additions, extensions, or related facilities that it may from time to time own and/or operate. No obligation of City under this Agreement shall constitute a general obligation of the City.

# SECTION 12 - CITY INCLUDES UTILITY COMMISSION

12.1 It is recognized by the parties that the City operates, manages and controls its electric utility system through its City of Henderson Utility Commission, appointed pursuant to KRS 96.530. All references to City under the terms and provisions of this Agreement shall include its City of Henderson Utility Commission to the extent applicable.

12.2 The parties agree that all rights and obligations of City under the terms and provisions of this Agreement shall also constitute rights and obligations of the City of Henderson Utility Commission. By its execution of this Agreement the City of Henderson Utility Commission covenants and agrees that all references to City under the terms and provisions of this

Agreement shall include the City of Henderson Utility Commission, and that it shall be obligated under this Agreement accordingly.

#### SECTION 13 - AMENDMENTS

- 13.1 No amendments of this Agreement shall be effective unless reduced to writing and executed by all parties hereto.
- 13.2 It is understood that Big Rivers may not agree to any amendment, modification or alteration of this Agreement without first obtaining approval of the Administrator of the Rural Electrification Administration.
- SECTION 14 SUBJECT TO POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT
- 14.1 This Agreement is subject to any and all provisions of the parties' Power Plant Construction and Operation Agreement which relate to joint use facilities.

SECTION 15 - ASSIGNMENT (See 2005 Amendments)

Amend. 15.1 This Agreement shall be binding upon the parties hereto, their respective successors and assigns. Provided however, that this Agreement shall not be assigned by either party (except for an assignment by Big Rivers to the United States of America) without the written consent of the other party.

SECTION 16 - CONDITIONS PRECEDENT

16.1 This Agreement is entered into subject to the

following express conditions precedent:

(a) That all conditions precedent recited in the parties' Power Plant Construction and Operation Agreement shall have occurred.

SECTION 17 - AUTHORITY TO EXECUTE

17.1 This Agreement is executed by the duly authorized officers or representatives of the parties pursuant to authority granted to each of them by the lawful action of their respective official commissions or boards.

Executed at Henderson, Kentucky this 19

CITY OF HENDERSON, KENTUCKY

ATTEST:

(City Seal)

CITY OF HENDERSON UTILITY COMMISSION

Hatchett,

ATTEST:

NOT ORIGINAL DOCUMENT 05/20/2020 03:33:57 PM gregory.mayes@bigrivers.com

BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

ATTEST:

This instrument prepared by:

of WEST MARKWELL & BRYANT Suite 320 - Imperial Building 110 Third Street Henderson, Kentucky 42420

NOT ORIGINAL DOCUMENT 05/20/2020 03:33:57 PM gregory.mayes@bigrivers.com

EXCERPT FROM MINUTES OF REGULAR MEETING OF BOARD OF DIRECTORS OF BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION HELD IN HENDERSON, KENTUCKY, ON AUGUST 21, 1970

After thorough discussion it was moved by Robert D. Green seconded by D. B. Wilson that Big Rivers execute the Power Sales Contract, the Power Plant Construction and Operation Agreement and the Joint Facilities Agreement and to approve the Electric Light and Power Revenue Bond Ordinance to be adopted August 27, 1970. Motion carried.

I, Robert D. Green, Vice President of Board of Directors of Big Rivers Rural Electric Cooperative Corporation hereby certify that the above is a true and correct excerpt from the minutes of the regular meeting of said corporation held on August 21, 1970.

Robert D. Green, Vice President

2020 Janet Cole, Webster Circuit Clerk Presiding Judge: HON. C. RENE' WILLIAMS (605230)

05/12/2020

led 20-CI-00073 EXH: 000012 of 000091 Henderson, Keniucky, City of Henderson Utility Commission and Big Rivers

Electric Corporation

SUBMITTED BY THE ABOVE DESIGNATED BORROWER PURSUANT TO THE TERMS OF THE LOAN CONTRACT, IS HEREBY APPROVED SOLELY FOR THE PURPOSES OF SUCH CONTRACT.

FOR THE ADMINISTRATOR

DATED

9/7/23

DEA FORM 20 PRV 5-73

0 the

EX

account in the Ronewals and Replacement Fund, out of which City shall timely pay all costs due on the Station Two FGD System.

#### JOINT FACILITIES AGREEMENT

- THE JOINT FACILITIES AGREEMENT IS AMENDED AS FOLLOWS:
  - IS AMENDED BY ADDING THE FOLLOWING: 7.1 SECTION 3.1
  - Big Rivers has heretofore allocated for 3.1(a) continuing joint use of the parties the facilities listed on Exhibit 1, Page 2, Part C hereto.
- SECTION 3.2 IS AMENDED BY ADDING THE FOLLOWING AT

#### THE END THEREOF:

The auxiliary facilities which City has previously allocated for the joint use of the parties are listed in Exhibit 1, Pages 1 and 2, Part B.

NEW SUBPARAGRAPHS SHALL BE ADDED TO SECTION 3

#### FOLLOWS:

3.3 Big Rivers will allocate for the continuing joint use of the parties in the operation of respective generating stations (Big Rivers Green Station and City's Station Two) those Green Station FGD System Facilities described in Exhibit 1, Page For such use, Big Rivers shall 3, Part C hereto. be paid by City a prorated share of the annual carrying costs, calculated as:

Station Two net capacity Station Two plus Green Station net capacities

#### Currently 315 MW 755 MW

times the net book value of those facilities as of December 31, 1994, i.e. \$21,625,601,326, further multiplized by capital carrying charge rate of 11:3 percent.

City's payment to Big Rivers shall be included as a cost under Paragraph (g) of Section 6.3 of the Power Sales Contract between the partier.

The costs of operating and maintaining the FGD

Joint Facilities described in Exhibit 1, Page 2, Parts B and C hereto, and the cost of sludge stackout and disposal (including haulage and deposit in appropriate landfills) therefrom, shall be allocated to the Green Station and Station Two (except for the cost of coal and lime which shall be provided by each party for its own use) in the proportions in which the stations put sulfur through the Green and Station Two FGD systems, based upon the tonnage of lime and coal and the sulfur and BTU content of the coal, and calculated as shown in the following example:

#### REAGENT PREPARATION1

- Assume lime, power, maintenance and labor costs = \$10,000,000/yr.
- 2) From additive feed flowmeters 70,000 Tons Per Year (TPY) of lime went to Green absorbers and 45,000 TPY went to Station Two absorbers.
  - The Station Two portion of the "reagent prep" 0&M costs: \$10,000,000 x [ 45,000 ] = \$3,913,000/yr [70,000 + 45,000]
- 4) Assume BREC coal to Station Two is 4% sulfur and 11,200 BTU/lb. HMPL coal to Station Two is 2.6% sulfur and 12,000 BTU/lb.

Where 19,500 is the conversion factor for 2 lbs. of 502 per lb. of sulfur, assuming 97.5% of the sulfur in the coal is captured in the flue gas stream.

5) The HMPL portion of Station Two "reagent prep" O & M would be:

The reagent preparation facilities and the waste treatment facilities are located in separate areas.

if for example: the HMPL coal ATC surn were: 1,177,558 x 10' the BREC coal BTU burn were: 11,143,418 x 10°

then the HMPL portion comes to \$540,000,yr.

#### WASTE TREATMENT

The "waste treatment" area power, maintenance and labor costs and the scrubber sludge disposal and storage costs would be split similarly, except that Green and HMPL bleed flowmeters would be used to calculate TPY of waste to be treated and stored. The TPY of waste treated would be used in step (2) instead of TPY lime.

7.4 THE SECOND SENTENCE OF SECTION 4.1 IS AMENDED TO READ AS FOLLOWS:

Title to those joint use facilities or portions thereof provided by Big Rivers, including the FGD Joint Facilities, will remain in Big Rivers, and all such facilities will be clearly and permanently marked as the property of Big Rivers.

- 7.5 SECTION 5.1 IS AMENDED TO READ AS FOLLOWS:
- The costs of providing City's joint use facilities and of modifying Big Rivers' joint use facilities (other than the FGD Scrubber facilities) as provided herein have been paid out of the proceeds of the Station Two Bonds. cost of modifying the Joint Use Facilities described in Exhibit 1, Page 3, Parts B & C for use by Big Rivers' Green Station and the City's Staion Two shall be The cost of additional allocated to Station Two. modifications shall be allocated 'etween Big Rivers' Green Station and the City's Station Two using the methodology provided in Section 13.8 of the Power Plant The amounts so Construction and Operation Agreement. allocated to City's Station Two shall be further allocated between Big Rivers and City in the proportion of capacity allocation established under Section 5.2 of the May 1, 1993 Amendments. Subject to the provisions of Sections 3.3 and 3.4 of this Agreement, the costs of operating, maintaining, repairing, renewing, replacing, and adding to such joint use facilities shall be allocated to the parties' respective generating stations as provided in Section 13 of the parties' Power Plant Construction and Operation Agreement.

# STATION TWO DECOMMISSIONING COSTS

8. If Big Rivers exercises its option under Section 1.1 of

the May 1, 1993 Amendments to extend the life of the Contracts for the operating life of Station Two, as heretofore defined, parties shall bear decommissioning costs of Station Two in the proportions in which they shared capacity costs during the life of Station Two.

IN TESTIMONY WHEREOF, the parties hereto have executed this Agreement in multiple counterparts as of the date first herein written.

This 29th day of June, 1993.

CITY OF HENDERSON, KENTUCKY

Koherto (City Seal)

OF HENDERSON UTILITY COMMISSION

BIG RIVERS ELECTRIC CORPORATION

ATTEST:

# AMENDMENTS TO CONTRACTS Al. DNG CITY OF HENDERSON, KENTUCKY CITY OF HENDERSON UTILITY COMMISSION AND BIG RIVERS ELECTRIC CORPORATION

These Amendments entered into and effective as of July 1998 (the "1998 Amendments") by and between City of Henderson, Kentucky, a municipal corporation and City of the third class organized under the laws of the Commonwealth of Kentucky, of 222 First Street, Henderson, KY 42420, City of Henderson Utility Commission, a public body politic and corporate organized under Kentucky Revised Statutes 96.520 and related statutes, of 100 Fifth Street, Henderson, KY 42420, the said City and Commission being referred to herein collectively as "City," and Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, KY 42420, known as "Big Rivers" herein.

### WITNESSETH:

WHEREAS, the parties hereto are parties to a Power Sales Contract, a Power Plant

Construction and Operation Agreement and a Joint Facilities Agreement all dated August 1, 1970

and Big Rivers and City of Henderson Utility Commission are parties to an Agreement for

Transmission and Transformation Capacity dated April 11, 1975, the Spare Transformer

Agreement dated July 11, 1972, the Systems Reserves Agreement dated January 1, 1974, the

Agreement of April 8, 1980 regarding O&M and R&R Funds, and the Agreement of February 15,

1991 concerning Administrative and General Costs, and Amendments to such contracts dated

May 1, 1993, all of such contracts and agreements as amended being known herein as the

"Contracts" and incorporated herein by reference, and

ORIGINAL

or expiration of this Agreement. Amounts from this Fund shall be withdrawn in accordance with Section 19.3(c); and

- (b) City shall establish a new Henderson Station Two O&M
  Fund and shall deposit immediately available funds in the
  amount of \$100,000. Thereafter, City agrees that each
  month it shall make levelized payments into the Henderson
  Station Two O&M Fund, not to exceed \$8,300, so as to
  restore a minimum balance of \$100,000. All interest on
  such amounts shall be repaid to Henderson at the end of
  each calendar year and all amounts in such fund shall be
  paid to City upon termination or expiration of this
  Agreement. Amounts from this fund shall be withdrawn in
  accordance with Section 19.3(c).
- (c) All required expenditures for operation and maintenance shall be made from the Big Rivers Station Two O&M Fund and the Henderson Station Two O&M Fund in proportion to the then effective allocation of Station Two capacity between City and Big Rivers, in accordance with Section 3 of this Agreement. No expenditures shall be made from these accounts other than for operation and maintenance expenses that would have been permitted to be paid as "Operating Expenses" under the Bond Ordinance

# JOINT FACILITIES AGREEMENT

The Joint Facilities Agreement, as heretofore amended by the May 1, 1993
 Amendments, is further amended as follows:

# SECTION 3.3 IS AMENDED TO READ AS FOLLOWS:

3.3 Big Rivers will allocate for the continuing joint use of the parties in the operation of their respective generating stations (Big Rivers' Green Station and City's Station Two) those Green Station FGD System Facilities described in Exhibit 1. Page 3, Part C hereto. For such use, Big Rivers shall be paid by City a prorated share of the annual carrying costs, calculated as:

Station Two net capacity
Station Two plus Green Station net capacities

Currently 312 MW 766 MW

times the then net book value of those facilities, further multiplied by a capital carrying charge rate of 11.5 percent. Big Rivers' net book value shall be determined by taking the net book value of those facilities as of December 31, 1994, i.e. \$21,675,601.32, adjusting them annually for depreciation (according to the depreciation methodology set forth in Exhibit 2), and taking into account additional costs resulting from renewals and replacements thereof. Big Rivers authorizes City to inspect Big Rivers' books to verify the original cost of these facilities, annual depreciations thereto, and the costs of any renewals and replacements thereof. All inspections by City of Big Rivers shall be at mutually agreeable times determined in advance after written request from City.

# SYSTEM RESERVES AGREEMENT

5. The System Reserves Agreement of January 1, 1974 is hereby amended as follows:

# SECTIONS 2.1 AND 3.1 ARE DELETED AND REPLACED BY A NEW SECTION 2.1 TO READ AS FOLLOWS:

The City and Big Rivers covenant and agree that each will comply with any 2.1 system reserve capacity requirements now required or imposed at a future date applicable to it (as such requirements may be modified from time to time and as such requirements apply to it given its respective operational characteristics) by NERC, ECAR, any successor organizations to NERC and ECAR (as applicable), any applicable regulatory or governmental agency, and any regional transmission authority, reliability council or like organization, in each case having any system reserve capacity requirements applicable to it. Absent such a requirement, neither City nor Big Rivers shall have any obligation pursuant to this Agreement to maintain system reserves. Notwithstanding the above limitations. City agrees to comply with any requirements validly imposed by any of the above entities upon Big Rivers based on Big Rivers' role as control area operator, but only if and to the extent that such requirements imposed on Big Rivers are on account of or due to the generation and/or load of the City

### Exhibit 2

# JOI. T FACILITIES AGREEMENT DEPRECIATION METHODOLOGY

For purposes of Section 3.3 of the Joint Facilities Agreement and the calculation thereunder of the annual capital carrying costs for the Green Station FGD System Facilities (the "FGD Facilities"), the following depreciation methods and accounting practices shall be used:

- I. Existing FGD Facilities: The FGD Facilities, as such facilities shall exist as of the date of execution of the 1998 Amendments to Contracts among the City of Henderson, Kentucky ("City"), the City of Henderson Utility Commission ("HUC") (the City and HUC being sometimes collectively referred to herein as "Henderson") and Big Rivers Electric Corporation ("Big Rivers"), shall be depreciated on a straight-line basis over an agreed useful life of 25 years, with depreciation commencing as of June 1, 1995 and expiring May 31, 2020. The net book value of those facilities as of June 1, 1995 shall be \$21,675,601 for purposes of this Agreement. Notwithstanding the above described language, Big Rivers, City, and HUC agree that the above-described depreciation methodology and its effect upon payments due by any party shall be prospective only and shall have no effect relating to any payments made prior to the date of execution of the 1998 Amendments to Contracts.
- 2. Additions to the FGD Facilities. All additions, betterments, improvements and replacements to the FGD Facilities shall be capitalized in accordance with the prevailing Capitalization Guidelines approved by HUC and the operator of Big Rivers' Green generating station as of the date of such addition, betterment or improvement is placed in service. On the date hereof and until otherwise agreea', the "Capitalization Guidelines" shall be the capitalization guidelines attached hereto. Those additions, betterments, improvements or replacements which are capitalized under the Capitalization Guidelines (the "Capital Asset") shall, for purposes of the determination of the annual carrying costs of the FGD Facilities, be depreciated on a straight-line basis over the useful life of the Capital Asset (which useful life must be agreed upon by the parties prior to installation of the Capital Asset); provided that such useful life shall in no event exceed the useful life of the FGD Facilities as set forth in the most recently completed Depreciation Study for that facility or a Depreciation Study for the FGD Facilities which is commissioned by the Parties, upon the reasonable request of a Party, immediately following the installation of such addition, betterment, improvement or replacement.
- 3. Retirement from Service. If any Capital Asset that is a component of the FGD Facilities is disposed of, removed or otherwise retired from service as a consequence of the installation of a new Capital Asset, then, for purposes of the determination of the armual capital carrying costs of the FGD Facilities, the net book value of such retired asset, determined as of the date the new Capital Asset is placed in service, shall be subtracted from the net book value of the FGD Facilities as of such date.

Attached hereto is a depreciation schedule for illustration purposes only. The attached schedule illustrates the application of the depreciation methodology provided for herein to a hypothetical set of facts and is not intended to establish the actual depreciation schedule for the FGD Facilities, nor is it to be interpreted to establish the actual depreciation schedule for the FGD Facilities, nor is it to be interpreted to establish the annual capital carrying costs for the FGD Facilities allocable to Station Two.

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05/12/2020

#### Capitilization Guidelines

The Parties hereby agree that these Capitalization Guidelines together with the attached Company Policy Number 10 of Big Rivers, Capitalization of Expenditures, dated November 30, 1993 shall constitute the "Capitalization Guidelines" identified in Exhibit 2 to the 1998 Amendments and shall serve as the Capitalization Guidelines for the purposes of Exhibit 2. These Capitalization Guidelines (including without limitation, the attached Company Policy No. 10) may not be amended, modified or supplemented following the Execution Date without the prior written consent of each of the Parties.

The Parties agree that the attached Company Policy No. 10 of Big Rivers (which is incorporated by reference herein) shall serve to amend and supplement the RUS Uniform System of Accounts Bulletin 1767B for purposes of the Accounting Practices, and for purposes of any determination of whether an expenditure shall be a Capital Asset for the purpose of Exhibit 2.

SUBJECT

Capitalization of Expenditures

PAGE

RE-ISSUE DATE 11/30/93 Approved by

SCOPE:

Determining when to capitalize an expenditure to "Electric Plant in Service" account 101.000; opposed to expense in accordance with REA Bulletin 181-1.

POLICY:

To be capitalized, an item of property must be covered by one of the following classifications:

(A) New Retirement Unit

1 of 2

- (B) Retirement Unit Replacement
- (C) Retirement System Addition
- (D) Retirement System Replacement
- (E) New Minor Property Item
- (F) Minor Property Item Replacement with Betterment
- (G) Computer Software and Software Upgrades

RULES:

See the corresponding lettered paragraph below for rules governing each case. Stated dollar values are after consideration of freight, sales tax, discount, etc.

# (A) New Retirement Unit

- Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, a
- 2. Be readily separable and separately useable, and
- 3. Have an expected useful life of more than one year. Valves that are requisitioned, including those inventoried, which cost more than \$1,000 and are over 2" in size and are not replacements for an existing system are to be capitalized. (System valve replacements are to be charged to maintenance.)

# (B) Retirement Unit Replacement

- 1. Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, a
- 2. Be a replacement of a similar retirement unit or consist of replacing minor property items that total to more than 50% of the existing retirement unit cost. If the 50% test is met, it is assumed a new retirement unit has been created. Retire 100% of the ok unit and recapitalize the salvageable portion along with the new minor property item(s). (The replacement of existing minor property items costing 50% or less of the original retirement unit is to be charged to maintenance.)

# (C) Retirement System Addition

- Be an addition to or an expansion of a system, and
- 2. Cost more than \$1,000 in boiler or turbogenerator plant or \$500 in other accounts, ar
- 3. Be of permanent nature, and
- 4. Be an integral part of an existing system. (A system is a grouping of generic or interacting items forming a unified whole. Classification as a system is for accounting convenience and enables an efficient and methodical means to account for a groupit of Items which are frequently changing as a result of additions and replacements. Classification as a system may be appropriate where specific item Identity is difficult ascertain. Financial Services will make all system determinations. When it is eviden that multiple items are purchased on multiple requisitions, possibly on different dates for the same system project, the capitalization decision shall be based on the total project cost.)

COMPANY POLICY

SUBJECT

Capitalization of Expenditures

PAGE

2 of 2

RE-ISSUE DATE

11/30/93

Approved by

# (D) Retirement System Replacement

1. Be an integral part of an existing system, and

2. Be of permanent nature, and

3. Cost more than 50% of the existing retirement system. If the 50% test is met, it assumed a new retirement system has been created. Retire 100% of the old s and recapitalize the salvageable portion along with the new replacement cost. (Replacement of an existing system costing 50% or less of the original system charged to maintenance.)

# (E) New Minor Property Item

1. Minor Property item not previously existing, and

2. Be of a permanent nature, and

3. Cost exceeds 25% of the retirement unit of which it will become a part or \$10,00 the smaller of the two. (Otherwise, the addition of minor property items is to be charged to operations.)

# (F) Minor Property Item Replacement with Betterment

1. Be of a permanent nature, and

2. Result in a substantial betterment with the primary aim of making the property at more useful, more efficient, more durable, or capable of greater capacity. Capit the cost in accordance with the NOTE 1, below.

# (G) Computer Software and Software Upgrades

- 1. Capitalize any new software purchase of \$1,000 or more if used with a boiler or turbogenerator computer or \$500 or more if used for any other computer, as long the new software has a useful life of more than one year.
- 2. Any software upgrade should be capitalized if the cost of the upgrade exceeds 2 the software which it will become a part or \$10,000, the smaller of the two. The 25% must be \$1,000 or more if used with a boiler or turbogenerator computer or or more it used for any other computer. The software upgrade must have a life c more than one year.

NOTE 1:

In all cases above except (E), the amount capitalized is governed by standard according principles. For (E) above, the amount capitalized is equal to the difference between cost of the new minor property item and the cost of replacement without betterment today's prices. The remaining dollars are to be charged to maintenance.

NOTE 2:

A work order is required when constructing, fabricating, modifying, installing, or rem capital facilities or equipment. See Estimate Construction Work Order procedure nu 011.210.08 for details.

REFERENCES:

Excerpts taken from REA Bulletin 181-1 (Page 101-13) and 181-2 (Page 1.)

05/12/2020

# 2005 AMENDMENTS TO CONTRACTS DATED AS OF APRIL 1, 2005 BY AND AMONG CITY OF HENDERSON, KENTUCKY, CITY OF HENDERSON UTILITY COMMISSION, BIG RIVERS ELECTRIC CORPORATION, WKE STATION TWO INC., AND

LG&E ENERGY MARKETING INC.

Revenue Bonds, Station Two Series, dated as of March 1, 1973, have been paid in accordance with their terms, the two county restriction provided for in the Internal Revenue Service Letter Ruling, dated January 26, 1971, shall no longer be applicable with respect to the operation of the Henderson-Daviess System and the City Electric System referred to in Section 21.1 above (or to the capacity or energy generated by Station Two), and, accordingly, the parties to the Power Sales Contract agree that the provisions of Section 21.1, 21.2 and 21.3 of this Power Sales Contract will no longer be applicable or have any force or effect with respect to the capacity and energy generated after the date of payment of such Bonds by Station Two or the City's Station One Power Plant."

#### IV. BIG RIVERS ASSIGNMENT

Section 401 Section 37.1 of the Construction and Operation Agreement. Section 24.1 of the Power Sales Contract and Section 15.1 of the Joint Facilities Agreement are each amended by adding the following:

> "Notwithstanding anything to the contrary contained in this Agreement or the other Agreements (as hereinafter defined) or the Station Two Agreement, in addition to the assignment of such Agreements by Big Rivers to the United States of America, Big Rivers may assign its rights and interests under the Agreements, including this Agreement, and the Station Two Agreement as security for, and may grant a security interest herein and therein

pursuant to the Mortgages (as hereinafter defined) as security for, any and all of its obligations to the other mortgagees or secured parties specifically identified in the Mortgages as being secured thereby; provided that in exercising any of its rights or remedies arising out of such assignment of rights and interests as security, no such mortgagee or secured party (other than WKE, LEM or Western Kentucky Energy Corp., or their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement)), shall itself have the right to occupy, operate or maintain Station Two or exercise any other right, remedy or interest so assigned, pledged or granted as aforesaid, unless it shall meet the requirements set forth in clauses (i) to (iii), inclusive, below, as if it were a transferee or assignee as provided therein (the aforementioned limitation not to be deemed to limit any foreclosure of the mortgage liens and security interests so long as upon foreclosure the transferee or assignee of such rights and interests, whether or not including the mortgagee or secured party, shall meet the requirements set forth in clauses (i) to (iii), inclusive); and each such mortgagee or secured party may transfer or assign the rights and interest(s) so

assigned, pledged or granted as security pursuant to a sale in foreclosure of the lien of any of the Mortgages, or a sale in lieu of a foreclosure of the lien of any of the Mortgages (or the exercise of power of sale); provided that, except in the case of WKE, LEM and Western Kentucky Energy Corp., and their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement), (i) the transferee or assignee shall be an electric utility, combination electric and gas utility or an Affiliate thereof (as hereinafter defined) and shall assume all of the duties and obligations of Big Rivers under the Agreements and the Station Two Agreement, including, without limitation, all other agreements that relate to the interest being transferred or assigned, (ii) such transferee or assignee that undertakes such duties and obligations of Big Rivers as aforesaid is authorized by all appropriate regulatory authorities and under applicable law to fulfill such duties and obligations, and (iii) such transferee or assignee is approved by the City, which approval shall not be unreasonably withheld, conditioned or delayed, and in its consideration of such approval it is understood that the City may

take into account, among other relevant matters, the experience and reputation of such transferee or assignee in operating and maintaining coal-fired electric generating facilities similar to Station Two, the creditworthiness of such transferee or assignee and whether the business or interest of such transferee or assignee (or its Affiliate) is in conflict with the interest of the City. For purposes of this Section the following terms as used in this Section shall be defined as follows:

(1) The term "Mortgages" shall mean (i) the Restated Mortgage and Security Agreement, dated as of July 15, 1998, among Big Rivers, as mortgagor, and the United States of America acting through the Rural Utilities Service, Ambac Assurance Corporation and the National Rural Utilities Cooperative Finance Corporation (together, the "Original Mortgagees"), recorded in Mortgage Book 559, page 1, Office of the Henderson County Court Clerk, (ii) the Supplemental Mortgage and Security Agreement dated as of April 1, 2000, among the Big Rivers, as Mortgagor, and the Original Mortgagees, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust and Ambac Credit Products, LLC (together, the "Supplementa Mortgage Mortgagees"), recorded in Mortgage Book 621, page 285, Office of the Henderson County Court Clerk, (iii) the Second Restated Mortgage and Security

Agreement among Big Rivers, as mortgagor, and the Supplemental Mortgage Mortgagees and Credit Suisse First Boston, acting by and through its New York Branch (together, the "Second Restated Mortgage Mortgagees"), recorded in Mortgage Book 647, page 125, Office of the Henderson County Court Clerk, (iv) the Third Restated Mortgage and Security Agreement, dated as of August 1, 2001, among Big Rivers, as mortgagor, and the Second Restated Mortgage Mortgagees and U.S. Bank National Association, as Trustee, recorded in Mortgage Book 679, page 1, Office of the Henderson County Court Clerk, as amended by the First Amendment to Third Restated Mortgage and Security Agreement dated as of July 15, 2003, recorded in Mortgage Book 812, page 599, Office of the Henderson County Court Clerk, (v) the Mortgage and Security Agreement (LEM Mortgage), dated as of July 15, 1998, among Big Rivers, LG&E Energy Marketing Inc., Western Kentucky Energy Corp., LG&E Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 199, Office of the Henderson County Court Clerk, as amended by the First Amendment to Mortgage and Security Agreement (LEM Mortgage) dated as of August 22, 2002, recorded in Mortgage Book 749, page 805, Office of the Henderson County Court Clerk, (vi) the Mortgage and Security Agreement, dated as of July 15, 1998, among Big Rivers, Western Kentucky Energy Corp., LG&E

Energy Marketing Inc., WKE Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 123, Office of the Henderson County Court Clerk, (vii) the Subordinated Mortgage and Security Agreement, dated as of April 1, 2000, among Big Rivers, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust, PBR-1 OP Statutory Trust, PBR-2 OP Statutory Trust, PBR-3 OP Statutory Trust, FBR-1 OP Statutory Trust, FBR-2 OP Statutory Trust, Ambac Credit Products, LLC, AME Investments, LLC, Cobank, ACB, Bluegrass Leasing, Fleet Real Estate, Inc., AME Asset Funding, LLC, and Ambac Assurance Corporation, recorded in Mortgage Book 621, page 328, Office of the Henderson County Court Clerk, and (viii) any instrument or instruments that replace or are substituted for any of the foregoing instruments, in the case of (i) through (viii) above, as the same may be further amended or supplemented from time to time.

- (2) The term "Agreements" shall mean the Construction and Operation Agreement, the Power Sales Contract and the Joint Facilities Agreement, in each case as amended and supplemented from time to time.
- (3) The term "Affiliate" of any designated entity shall mean any entity that has a relationship with the designated entity whereby either of such entities directly or indirectly controls, is

controlled by, or is under common control with the other. For this purpose, the term "control" means the power, direct or indirect, of one entity to direct or cause the direction of the management or policies of another, whether by contract, through voting securities or otherwise.

#### V. CONSENT AND AGREEMENT

WKE and LEM, as assignees of certain of the rights, title and Section 501 interests of Big Rivers under the Agreements and pursuant to their respective assumptions of certain of the obligations of Big Rivers under the Agreements, all pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, hereby consent and agree to the amendments to the Agreements contained in the 2005 Amendments to Contracts (subject to the conditions and limitations set forth in the 2005 Amendments to Contracts), and the Parties agree that under and pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, WKE and LEM shall, as such assignees, be entitled (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) as aforesaid, to all the rights, title and interests of Big Rivers under the 2005 Amendments to Contracts and shall be bound (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) to perform such obligations of Big Rivers under the 2005 Amendments to Contracts (other than Big Rivers' obligation pursuant to Section 201 or Section 401 thereof) that are assumed by WKE and LEM pursuant to the Station Two Agreement and the Assignment and Assumption Agreement and .. ise or otherwise exist during the term of the Station Two Agreement (except as otherwise provided, and subject to the limitations in the

Station Two Agreement), as well as bound by their respective obligations as Parties hereunder.

VI. REQUIRED APPROVALS; EFFECTIVE DATE; REPRESENTATIONS AND ACKNOWLEDGEMENTS; TERMINATION OF INTERIM AGREEMENTS; MISCELLANEOUS

Section 601 The Parties agree that:

- (a) Each Party shall use its commercially reasonable efforts to cooperate with the other Parties to obtain at the earliest practicable time all governmental regulatory approvals and any creditors' consents and approvals required for the Parties' respective execution, delivery and performance of the 2005 Amendments to Contracts, the Amendatory Station Two Agreement, the Guarantor's Consent and Acknowledgment, the Big Rivers' Creditors' Subordination Agreement and the Big Rivers' Easement, and each Party shall otherwise use its commercially reasonable efforts to satisfy for its part the conditions of the effectiveness of all provisions of the 2005 Amendments to Contracts applicable to it or for which it is responsible as set forth in subsection (b) of this Section 601.
- (b) Upon the execution and delivery of the 2005 Amendments to Contracts by the Parties this Section 601 shall become effective and, notwithstanding anything to the contrary set forth elsewhere herein, all other provisions of the 2005 Amendments to Contracts shall become effective only upon the date (based as to clauses (i), (ii) and (iii) below on certifications by the Parties as set forth in clause (iv) below) of the last of the following to occur:

(i) each Party shall have received all regulatory and other approvals, consents and authorizations required or necessary (A) for the effectiveness of all the provisions of the 2005 Amendments to Contracts with respect to all Parties thereto and the performance by the Parties of their respective duties and obligations hereunder, and for all the provisions of the 2005 Amendments to Contracts to become the legal obligation of all Parties thereto, (B) for the effectiveness of the Amendatory Station Two Agreement as to all parties thereto and the performance by all such parties of their respective duties and obligations thereunder, and for the Amendatory Station Two Agreement to become the legal and binding obligation of all parties thereto; (C) for the execution and delivery by all relevant parties of the Big Rivers' Easement and the Big Rivers' Creditors Subordination Agreement and the performance by such parties of their respective duties and obligations thereunder, and for the Big Rivers Easement and the Big Rivers Creditors' Subordination Agreement to become the legal obligation of all such parties, including in the case of subclauses (A) through (C) above, without limitation, any approvals, consents or authorizations that may be required from the Kentucky Public Service Commission, the Rural Utilities Service or any other creditor of Big Rivers that may hold one or more security interests in Big Rivers' interests in the Agreements or the

real property that is the subject of the Big Rivers' Easement;

- (ii) the Amendatory Station Two Agreement, the Big Rivers Easement and the Big Rivers' Creditors' Subordination Agreement shall have been executed and delivered by the respective parties thereto and all the provisions thereof shall, either before or contemporaneous with all provisions of the 2005 Amendments to Contracts, have become effective and binding on such parties; and
- (iii) LG&E Energy LLC shall have executed and delivered the Guarantor's Consent and Acknowledgement and received all regulatory and other approvals, consents and authorizations required therefor.
- (iv) Each Party shall have furnished to the other Parties a written certificate to the effect that for its part each of the conditions set forth in clauses (i), (ii) and (iii) above, has been satisfied.
- (v) The Parties shall have delivered each to the other, such opinions of counsel and other documentation in customary form and substance relating to the 2005 Amendments to Contracts and the other agreements referred to in this subsection (b) reasonably evidencing the due authorization, execution and delivery thereof the binding effect and enforceability thereof, the receipt of all required regulatory, creditor and other approvals thereof and

consents thereto and such other matters as reasonably requested by any Party;

- (c) In the event that all the provisions of the 2005 Amendments to Contracts shall not become fully effective as to all Parties in accordance with subsection (b) of this Section 601 on or prior to April 30, 2006 (or such later date as shall be agreed to by the Parties), the 2005 Amendments to Contracts shall forthwith terminate and shall no longer have any force or effect (except for a Party's obligations for a breach or default under this Section 601 occurring prior to such termination, which obligations shall survive such termination), provided, however, if prior to April 30, 2006, the Station Two Agreement shall terminate, the 2005 Amendments to Contracts shall terminate only as to WKE and LEM and in that event this Section 601 shall continue in effect as to Big Rivers and the City;
- (d) Notwithstanding anything to the contrary set forth elsewhere in the 2005 Amendments to Contracts, upon the effectiveness of all the provisions of the 2005 Amendments to Contracts as contemplated above, the 2005 Amendments to Contracts shall be deemed to have retroactive effectiveness to June 1, 2004 as among the Parties hereto.

Section 602 As of the date on which all of the provisions of the 2005

Amendments to Contracts shall be fully effective, each Party represents and warrants to each of the other Parties that:

(a) Such Party is duly organized and validly existing under applicable law and

has full power and authority to conduct its business as presently conducted, and to execute, deliver and perform the 2005 Amendments to Contracts.

- (b) The execution, delivery and performance of the 2005 Amendments to

  Contracts have been duly authorized by all necessary action on the part of such Party and do not
  require approval or consent of, or notice to, any creditor or any trustee or holder of any
  indebtedness or other obligations of such Party or any indebtedness entitled to any security
  interest in any property, rights or interests of such Party, other than such approvals, consents and
  other action as have been duly obtained or taken.
- (c) Neither the execution, delivery or performance by such Party of the 2005

  Amendments to Contracts, nor the consummation by such Party of the transactions contemplated thereby, will conflict with or result in any violation of or constitute a default under any terms of any material agreement, mortgage, contract, indenture, lease or other instrument, or any applicable law, by which such Party or its properties or assets are bound.
- (d) The execution, delivery or performance by such Party of any provision of the 2005 Amendments to Contracts, do not require the consent or approval of, the giving of notice to, the registration with, or the taking of any other action in respect of, any government authority or agency, including any judicial body, other than such consents, approvals, notices, registration or other action which have been duly obtained, given, sent or taken.
- (e) These 2005 Amendments to Contracts have been duly executed and delivered by such Party and constitute the legal, valid and binding obligation of such Party enforceable against such Party in accordance with its terms, except as such enforcement may be

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limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the rights of creditors generally and by general principles of equity, regardless of whether enforcement is sought in a proceeding in equity or at law.

(f) There are no pending or to the actual knowledge of such Party, threatened actions or proceedings by or before any court or administrative agency that, either individually or in the aggregate, are reasonably likely materially and adversely to affect the ability of such Party to perform its obligations under these 2005 Amendments to Contracts.

heretofore funded SCR Capital Costs and other costs of the Station Two SCR System, as well as SCR Ammonia Costs, and have otherwise performed certain obligations and undertaken certain activities with respect to the Station Two SCR System or the design, acquisition, construction, installation, start-up and testing thereof, in each case pursuant to the Interim Funding Agreement, and the Parties hereby agree that provision of such funding, the performance of such obligations and the undertaking of such activities shall be deemed to have been authorized, undertaken and accomplished consistent and in accordance with the Parties' respective obligations under the provisions of the Agreements (as amended hereby) and the Station Two Agreement. The acknowledgements and agreements of the Parties pursuant to this Section 603 shall apply with respect to all such fundings, performance and undertaking through the effective date of all provisions of the 2005 Amendments to Contracts.

Section 604 The Parties agree that upon all provisions of these 2005

Amendments to Contracts becoming fully effective as provided in Section 601, any amounts

remaining in the Interim SCR Account held by the City under the Interim Funding Agreement shall be paid into the SCR Account established under the Construction and Operation Agreement; and the Interim Funding Agreement and the Interim SCR Account shall each terminate in accordance with their respective terms. To the extent a Party has funded a share of SCR Capital Costs prior to all provisions of the 2005 Amendments to Contracts becoming fully effective that is greater than or less than the share of such costs required to be funded by that Party in accordance with the 2005 Amendments to Contracts (including without limitation, any SCR Capital Costs funded by the City, WKE or LEM pursuant to the Interim Funding Agreement), the other relevant Party or Parties agree to promptly reimburse that Party (in the case of an over funding), or that Party agrees to promptly reimburse the other relevant Party or Parties (in the case of an under funding), in each case, in an amount necessary to reflect the Parties' respective funding obligations for SCR Capital Costs under the 2005 Amendments to Contracts, without set-off, deduction or counterclaim. As used in the Interim Funding Agreement, references to the 2002 Amendments to Contracts shall mean the 2005 Amendments to Contracts. The Parties agree that notwithstanding the provisions of Section 8 of the Interim Funding Agreement to the contrary, neither Western Kentucky Energy Corp. nor WKE Corp. are required to be parties to the 2005 Amendments to Contracts as a condition to the Interim Funding Agreement becoming immediately null and void as contemplated in that Section 8.

Except as amended by the 2005 Amendments to Contracts, each of Section 605 the Agreements shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have executed the 2005 Amendments to Contracts in multiple counterparts as of the date first written above.

ACTIEST:

Acting City Clerk

(City Seal)

ATTEST:
Wals Lymn
Secretary

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LG&E Energy Marketing Inc.

Vice President

By: Moan

Title: Resident

Big Rivers Electric forporation

By: Sall Ville

Title: President

# 313 RIVERS ELECTRIC CORPORATION

June 25, 1993

Kendel Bryan, General Manager City of Henderson Utility Commission P.O. Box 8, 100 5th Street Henderson, KY 42420

Dear Kendel:

In accordance with your message to Travis Housley, and in lieu of amending Exhibit 1 to the May 1, 1993 Amendments, this letter is to confirm that the following three items are included within the Etc., Part B, Item 20, as "Joint Use Facilities provided by and owned by the City but located on Big Rivers property":

- Unit heat and air conditioner units for the substation control building;
- Outdoor substation lighting and control building lighting; and
- Prefabricated metal control building, with reinforced concrete foundation.

If this conforms to your understanding, please sign both copies of this letter, keep one for your files and return one to me for my file.

Sincerely yours,

BIG RIVERS ELECTRIC CORPORATION

Day.

A. Schmitz, General Manager

This letter correctly states our understanding and agreement.

Dated this 70 day of June, 1993.

..

CITY OF HENDERSON UTILITY COMMISSION

BV:

Kendel Bryan, General Manager

#### EXISTING HMPBL STATION TWO FACILITIES

- All Station Two facilities located on City property are owned by the PART A. City of Henderson Utility Commission except the BTG control board for Big Rivers' Reid Unit 1. This property is indicated as areas A and B on Exhibit 2. The Reid control board is now located in the Station Two control room. The Station Two facilities are:
  - Two Cooling Towers, Ecodyne Model 670-2-71011, S/N E-70-12783 and 1. E-70-12784

Four Circulating Water Pumps, Byron Jackson Model 57RXM S/N 711-C-1621, 2. 711-c-1622, 711-c-1623, and 711-c-1624

One Turbine Building including Control Room, Switchgear, Fans, Pumps, 3. Motors, Coal Pulverizers and Other Plant Auxiliary Equipment.

Two Steam Generators, Riley Stoker, National Board Nos. 2292 (repair no. 4. 390) and 2379, S/N 3576 and 3675.

Two Turbine Generators, One General Electric S/N 178863, One Westinghouse 5. S/N 13A43311/43321

Two Electrostatic Precipitators, Research Cottrell, Model No. BillC52F9X30 6. One Chimney, 350 feet tall, concrete shell with brick liner, serving both 7. units

- Joint Use Facilities Provided By and Owned By the City But Located on PART B. Big Rivers' Property.
  - Barge Mooring Cells Nos. 1N, 2N, 3N, 4N, 1S, 25, 35 and 4S as shown on

Burns & Roe Drawing No. 04-3280-53200 One Coal Barge Unloader, McDowell Wellman, 1000 net ton/hr capacity

- Eight Coal Conveyors 1, 2, 3A, 3B, 4A, 4B, 5B and 6B, as shown on attached Exhibit 2
- One Reclaim Hopper which feeds coal conveyors 4A and 4B

One Crusher House fed by conveyor No. 1

- One Tugboat The "William Newman" 37 feet long, 21.27 gross tons, 14.0 net 6. tons, coastguard capacity 350 HP
- One Water Treatment Plant With Demineralizer Building and associated 7. equipment
- 8. One 50,000 Gallon Capacity Fuel Oil Storage Tank & Distribution System

- One Flyash Silo, Sump & System Components One Prefab Metal Warehouse adjacent to Fly Ash Silo 10.
- Coal Handling Equipment As Listed In Continuous Property Records 11. One Lot of Materials & Spare Parts in Big Rivers Warehouse No. 15 as 12. 13. defined by inventory control records
  One Ash Pond and Effluent Lines

- Circulating Water Lines as shown on attached Exhibit 2 14.
- Station Two Ash Pond Oredgings in Green Station Sludge Disposal Landfill 15.
- adjacent to Green River south of Green Station
- Four 161KV 011 Circuit Breakers, General Electric, S/N 0139A7206208, 0139A7206209, 0139A7206212, 0139A7206213, located in Plant Switchyard. Two Step-up Transformers, McGraw Edison, S/N C-04280-5-1, C-04280-5-2,
  - located in Plant Switchyard.
  - Two Auxiliary Transformers, Westinghouse, S/N RCP 37261, RCP 37262, located in Plant Switchyard.

- One Excitation Transformer, General Electric, S/N D-597562, located in Plant Switchyard.
- 20. One Lot of Line Terminal Structures, Bus, Relay Panels, Etc., located in Plant Switchyard as shown on attached Exhibit 2
- PART C. Joint Use Facilities Owned by Big Rivers and located on Big Rivers property
  - 1. Reid Intake Structure, Two Pumps, and Circulating Water System to serve Reid Unit 1
  - Coal System Crusher Tower supplied by coal conveyors 4A and 4B
     Coal Conveyors Number 5A and 6A as shown on attached Exhibit 2
  - 4. Plant Entrance Roads from highways 2096 and 2097 and Two Concrete Block Guardhouses
  - 5. Reid Office Building and Maintenance Shop
  - Reid Grounding Transformer Eastern S/N PMR427988
  - 7. Sewage Treatment Facility for Reid, Green and HMP&L Station Two power
  - 8. Fire Water System for Reid Station
  - Switchyard Control House for Breaker Controls as shown on attached Exhibit 2
- PART D. Other Facilities Owned by the City of Henderson Utility Commission But Not Classified as Joint Use Facilities, a portion or all of which is located on Big Rivers property
  - 1. One 161KV Line from Reid EHV Substation to City Substation No. 4.
  - One Line Terminal Bay and Associated Equipment in Reid EHV Substation for City 161KV Line to City Substation No. 4.
  - Fifty Percent (50%) Ownership of 161/69 KV Transformer G1, Westinghouse, S/N RLP 15941) at Henderson County Substation, and related substation facilities.
  - Ten Percent (10%) Ownership of Big Rivers 161KV Line from Station Two Switchyard to Henderson County Substation.
  - Forty Percent (40%) Ownership of Spare Step Up Transformer (General Electric S/N K 547026) & Railcar (No. BREX 242).
  - 6. One 69KV Transmission Line from plant switchyard to City Substation No. 2

#### PROPOSED HMP&L STATION TWO FACILITIES FOR FGD SCRUBBER SYSTEM

Station Two FGD Facilities To Be Owned by City of Henderson on Big Rivers ZT A. Property

FGD System Chimney, 350' Tall

2. Two Wheelabrator Absorber Modules, Building & Associated Equipment

3. Two Booster Fans

- Auxiliary Building as shown on attached Exhibit 2 containing Controls and Electrical Equipment, Maintenance, Locker and Shower Facilities
- One Station Two Slaker Building Enclosing Three Slaking Tanks & Equipment 5.

One Station Two Additive Hold Tank 6.

- Two Lime Feed Conveyors from Big Rivers' Green Station Lime Storage 7. Silos 2C1 & 2C2
- Two Additive Feed Systems; Station Two Scrubber System Includes Pipe & Pipe 8. ' Rack
- Two Bleed Slurry Systems to Big Rivers' Green Station Primary Dewatering 9. System Including Pipe, Pipe Rack & Splitter Boxes

10. Two New Thickener Return Water Tanks & Controls

One New Filtrate Surge Tank and Controls 11.

- One Electrical Power Supply for FGD System, with redundant feeds including power transformer, bus work, relay panels and metering equipment
- FGD Joint Use Facilities To Be Owned by City of Henderson on Big Rivers PART B. Property
  - Two Lime Slaking Water Pumps and Lines to Slaking Building

Two Pug Mill Mixers (Listed Manufacturer and Serial Nos. when known) 2.

One Vacuum Filter and Associated Equipment Including Building Expansion as shown on attached Exhibit 2

Two New Thickener Underflow Lines and Two Flow Manitors

- Two Control Systems on Big Rivers' Green Station Thickener Return Water 5. Tanks
- Existing Facilities Owned By Big Rivers Electric For Green Station FGD PART C. System As Shown On Attached Exhibit 2 Which Will Be Jointly Used By Green Station and HMP&L Station Two And Which Are Located On Big Rivers Property
  - One Lime Barge Unloader, Dravo Wellman 200/400 Net Ton/Hr Capacity For 1. Lime, 1500 Net Ton/Hr Capacity For Coal

One Lime Conveyor L1 and Transfer Tower As Shown On Exhibit 2 2.

Two Lime Silos: 2C1 and 2C2 As Shown On Exhibit 2, and Six Lime Screw 3. Conveyors: 2CW-LFC, 2CE-LFC, 2C1-SC, 2C2-SC, 1CW-LFC, 1CE-LFC

Four Thickeners for Primary Dewatering of Bleed Slurry: 1A, 1B, 2A, 2B, 4.

Including Tunnels, Pumps, and Ventilation Systems

One Secondary Dewatering System and Sludge Stackout System, Including Solid 5. Waste Building and Sludge Stackout Area as Shown on Exhibit 2; Three Vacuum Filters with Feed Systems: FL-1A, FL-1B, FL-1C; Eleven Filter Cake Conveyors and Radial Stackers: CO-1A, CO-1B, CO-1C, CO-2A, CO-2B, CO-3A, CO-3B, CO-6A, CO-6B, CO-7A, CO-7B; and Four Fly-Ash Screw Conveyors Two Ash Silos and Pneumatic Transfer System

6.

- Two Green Station River Water Clarifiers: CL-101 and CL-102, with Three 7. Slaker Water Pumps: 1A, 1B and 2A One Solid Waste Loader, Hitachi S/N 171-0373
- 8.
- One Sludge Haul Road and Two Truck Scales 9.

#### BIG RIVERS ELECTRIC CORPORATION

#### INTEROPPICE CORRESPONDENCE

TO: Distribution List

PROM: Steve Jackson SW

DATE: May 12, 1993

RE: HMP&L Station Two and Joint Use Facilities Description

The attached documents were generated to address REA concerns expressed in review of the proposed amendment to the Big Rivers agreement with the City of Henderson. The documents attempt to provide a description of the equipment and property at the Reid, Station Two and Green site that are solely or jointly owned by the City or that are joint use facilities which each party has a right to use for the operation of their respective generating units. In addition these documents address the equipment that will be added for and shared between the Station Two acrubber and the Green Station scrubber in the same manner. The attached documents are:

Exhibit 1 pages 1 to 3: written description of existing and proposed Station Two and joint use facilities.

Exhibit 2 : General Arrangement Site Plan drawing depicting the equipment described in Exhibit 1 when possible.

Annex 1,2 and 3 revised to match the information provided in Exhibit 1.

These documents have been provided to Mr. Morton Holbrook, Mr. Henry Neal and the REA. Please review them and provide me any comments or revisions required as soon as possible.

Distribution List
Paul Schmitz
Scott Reed
John West
Richard Greenwell
Travis Housley
Bill Blackburn
Jeff Garner HMP&L-2 copies

Jim McIllwain-2 copies
Mike Thompson-2 copies
Don Mann
Greg Black
Dan Todd
Bob Phillips

ELECTRIC CORPORATION May 14, 1993

Mr. Mortan Holbrook Holbrook, Wible, Sullivan & Mountjoy, P.S.C. 100 St. Ann Building P.O. Box 727 Owensboro, KY 42302-0727

Dear Mr. Holbrook:

Enclosed is one copy of the Green/Station Two Shared Facilities Study report prepared by Burns and McDonnell. This report documents the adequacy of the existing Green Station FGD facilities and the equipment additions and modifications needed to handle the combined capacity for Green and Station Two FGD systems. This report is being provided in order to address the concern expressed by Mr. Steve Slovikosky of the REA. He felt this document would provide them the ability to answer any questions that might be raised concerning the ability to share the Green FGD facilities with Station Two.

There are two minor modifications to the Lime Slaking and Slurry Feed system arrangement outlined in the report. These changes are a result of review and approval of the system arrangement outlined by Wheelabrator in their proposal. The changes include:

- A single drag chain conveyor will feed lime from two existing lime silos and their screw conveyors instead of a dual drag chain conveyor system feeding from all four silos as proposed in the study.
- The system will include two slurry feed loops, but only one slurry hold 2. tank. Instead of the additional tank, a crosstie system will be provided with the Green Station slurry hold tanks to allow additional capacity by transfer of slurry from the other tanks.

By copy of this letter, we are providing this report to Mr. Terry Brady and Mr. Steve Slovikosky.

Let us know if any additional information is required.

Sincerely,

James H. McIllwain Manager of Construction

cc: Terry Brady, Esq. - REA Steve Slovikosky - REA

mes H.M. Eller

## ELECTRIC CORPORATION

May 12, 1993

Mr. Morton Holbrook Holbrook, Wible, Sullivan & Mountjay, P.S.C. 100 St. Ann Building P.O. Box 727 Owensboro, KY 42302-0727

Dear Mr. Holbrook:

Attached is a copy of the "Station Two" description which was revised following our review with you on Monday, May 10. The drawing which is referenced as "Exhibit 2" in several items of the description is also attached. Also included are copies of revised Annexes 1, 2, and 3.

We have faxed a copy of everything except the drawing (Exhibit 2) to Terry Brady and Steve Slovikosky, and will FedEx a copy of the material with Exhibit 2 today.

Let us know if any additional information is needed.

Sincerely,

James H. McIllwain

Manager of Construction

cc: Terry Brady, Esq.

Steve Slovikosky

#### EXISTING HMP&L STATION TWO FACILITIES

All Station Two facilities located on City property are owned by the City of Henderson Utility Commission except the BTG control board for Big Rivers' Reid Unit 1. This property is indicated as areas A and B on Exhibit 2. The Reid control board is now located in the Station Two control room. The Station Two facilities are:

Two Cooling Towers, Ecodyne Model 670-2-71011, S/N E-70-12783 and 1. E-70-12784

Four Circulating Water Pumps, Byron Jackson Model 57RXM S/N 711-C-1621, 711-C-1622, 711-C-1623, and 711-C-1624
One Turbine Building including Control Room, Switchgear, Fans, Pumps, 2.

3.

Motors, Coal Pulverizers and Other Plant Auxiliary Equipment.

Two Steam Generators, Riley Stoker, National Board Nos. 2292 (repair no. 390) and 2379, S/N 3576 and 3675. 4.

Two Turbine Generators, One General Electric S/N 178863, One Westinghouse 5. S/N 13A43311/43321

Two Electrostatic Precipitators, Research Cottrell, Model No. 811LC52F9X30 6. One Chimney, 350 feet tall, concrete shell with brick liner, serving both 7. units

Joint Use Facilities Provided By and Owned By the City But Located on Big Rivers' Property.

- Barge Mooring Cells Nos. 1N, 2N, 3N, 4N, 15, 25, 35 and 45 as shown on Burns & Roe Drawing No. 04-3280-53200
- 2.
- One Coal Barge Unloader, McDowell Wellman, 1000 net ton/hr capacity Eight Coal Conveyors 1, 2, 3A, 3B, 4A, 4B, 5B and 6B, as shown on attached 3. Exhibit 2
- One Reclaim Hopper which feeds coal conveyors 4A and 4B
- One Crusher House fed by conveyor No. 1 5.
- One Tugboat The "William Newman" 37 feet long, 21.27 gross tons, 14.0 net 6. tons, coastguard capacity 350 HP
- One Water Treatment Plant With Demineralizer Building and associated 7. equipment
- One 50,000 Gallon Capacity Fuel Oil Storage Tank & Distribution System 8.
- 9.
- One Flyash Silo, Sump & System Components One Prefab Metal Warehouse adjacent to Fly Ash Silo 10.
- One Coal Handling Equipment As Listed In Continuous Property Records 11.
- One Lot of Materials & Spare Parts in Big Rivers Warehouse No. 15 as 12. defined by inventory control records
- One Ash Pond and Effluent Lines 13.
- Circulating Water Lines as shown on attached Exhibit 2 14.
- Station Two Ash Pond Dredgings in Green Station Sludge Disposal Landfill 15. adjacent to Green River south of Green Station
- Four 161KV Oil Circuit Breakers, General Electric, S/N 0139A7206208, 0139A7206209, 0139A7206212, 0139A7206213, located in Plant Switchyard. Two Step-up Transformers, McGraw Edison, S/N C-04280-5-1, C-04280-5-2, 16.
- 17. located in Plant Switchyard.
- Two Auxiliary Transformers, Westinghouse, S/N RCP 37261, RCP 37262, located 18. in Plant Switchyard.

One Excitation Transformer, General Electric , S/N D-597562, located in Plant Switchyard,

One Lot of Line Terminal Structures, Bus, Relay Panels, Etc., located in 20. Plant Switchyard as shown on attached Exhibit 2

Joint Use Facilities Owned by Big Rivers and located on Big Rivers property

Reid Intake Structure, Two Pumps, and Circulating Water System to serve 1. Reid Unit 1

Coal System Crusher Tower supplied by coal conveyors 4A and 4B 2.

Coal Conveyors Number 5A and 6A as shown on attached Exhibit 2 3. Plant Entrance Roads from highways 2096 and 2097 and Two Concrete Block 4. Guardhouses

Reid Office Building and Maintenance Shop

Reid Grounding Transformer Eastern S/N PMR427988 6.

Sewage Treatment Facility for Reid, Green and HMP&L Station Two power 7.

Fire Water System for Reid Station 8.

3.

5.

Switchyard Control House for Breaker Controls as shown on attached 9.

Other Facilities Owned by the City of Henderson Utility Commission But Not Classified as Joint Use Facilities, a portion or all of which is located on Big Rivers property

One 161KV Line from Reid EHV Substation to City Substation No. 5.

One Line Terminal Bay and Associated Equipment in Reid EHV Substation for 2. City 161KV Line to City Substation No. 5.

Fifty Percent (50%) Ownership of 161/69 KV Transformer G1, Westinghouse.

S/N RLP 15941) at Henderson County Substation. Ten Percent (10%) Ownership of Big Rivers 161KV Line from Station Two 4. Switchyard to Henderson County Substation.

Forty Percent (40%) Ownership of Spare Step Up Transformer (General Electric S/N K 547026) & Railcar (No. BREX 242).

One 69KV Transmission Line from plant switchyard to City Substation No. 2 6.

#### PROPOSED HMP&L STATION THO FACILITIES FOR FGD SCRUBBER SYSTEM

FGD Joint Facilities To Be Owned by City of Henderson on Big Rivers Property

FGD System Chimney, 350' Tall

Two Wheelabrator Absorber Modules, Building & Associated Equipment 1. 2.

Two Booster Fans 3.

- Auxiliary Building as shown on attached Exhibit 2 containing Controls and 4. Electrical Equipment, Maintenance, Locker and Shower Facilities
- One Station Two Slaker Building Enclosing Three Slaking Tanks & Equipment 5.

One Station Two Additive Hold Tank 6.

Two Lime Slaking Water Pumps and Lines to Slaking Building 17.

- Two Lime Feed Conveyors from Big Rivers' Green Station Lime Storage 8. Silos 201 & 202
- Two Additive Feed Systems; Station Two Scrubber System Includes Pipe & Pipe 9.
- Two Bleed Slurry Systems to Big Rivers' Green Station Primary Dewatering System Including Pipe, Pipe Rack & Splitter Boxes Two Pug Mill Mixer (Listed Manufacturer and Serial Nos. when known) 10.

One Vacuum Filter and Associated Equipment Including Building Expansion as 11. 12. shown on attached Exhibit 2

Two New Thickener Underflow Lines and Two Flow Monitors 13.

Two Control Systems on Big Rivers' Green Station Thickener Return Water 14.

Two New Thickener Return Water Tanks & Controls 15.

One New Filtrate Surge Tank and Controls

One Electrical Power Supply for FGD System, with redundant feeds including 16. 161/4.16KV transformer, bus work, relay panels and metering equipment

Existing Facilities Owned By Big Rivers Electric For Green Station FGD System As Shown On Attached Exhibit 2 Which Will Be Jointly Used By Green Station and HMP&L Station Two And Which Are Located On Big Rivers Property

One Lime Barge Unloader, Dravo Wellman 200/400 Net Ton/Hr Capacity For Lime, 1500 Net Ton/Hr Capacity For Coal 1.

One Lime Conveyor L1, As Shown On Exhibit 2

- 2. One Lime Transfer Tower Fed By L1 Conveyor As Shown On Exhibit 2
- Six Lime Screw Conveyors: 2CW-LFC, 2CE-LFC, 2C1-SC, 2C2-SC, 1CW-LFC, 3. 4.

Two Lime Silos 2C1 and 2C2 As Shown On Exhibit 2 Four Thickeners for Primary Dewatering of Bleed Slurry: 1A, 1B, 2A, 2B 5. 6.

Three Vacuum Filters: FL-1A, FL-1B, FL-1C 7. One Filter Feed System To Supply Three Vacuum Filters In Solid Waste 8. Building As Shown On Exhibit 2

Two Ash Silos & Feed Systems

Eleven Filter Cake Conveyors & Radial Stackers: CO-1A, CO-1B, CO-1C, CO-2A, CO-2B, CO-3A, CO-3B, CO-6A, CO-6B, CO-7A, CO-7B One Sludge Stackout Area As Shown On Exhibit 2 10.

11.

- Three Existing Slaker Water Pumps: 1A, 1B and 2A 12.
  - Two Green Station River Water Clarifiers: CL-101 and CL-102
- 13. One Green Station Bottom Ash Sluice Water System 14.
- One Sludge Haul Road and Two Truck Scales

Listing of Joint Use Facilities Owned by Big Rivers Electric Corporation and Used in the Operation of Station Two and Big Rivers' Reid and Green Power Plants and More Particularly Described In Exhibit 1 and Located On Exhibit 2

- 1.23.45.67.89.

- Reid Intake Structure & Pumps
  Coal System Crusher Tower
  Conveyors Number 5A and 6A
  Plant Entrance Roads and Guardhouses
  Reid Office Building and Maintenance Shop
  Reid Grounding Transformer
  Site Sewage Treatment Facility
  Fire Water System for Reid Station
  Switchyard Control House for Breaker Controls

Listing of Joint Use Facilities Owned by City of Henderson Utility Commission and Used in the Operation of Station Two and Big Rivers' Reid and Green Power Plants and More Particularly Described In Exhibit 1 and Located On Exhibit 2

- Barge Mooring Cells Nos. 1N, 2N, 3N, 4N, 1S, 2S, 3S, and 4S
- 2. Coal Barge Unloader
- Coal Conveyors 1, 2, 3A, 3B, 4A, 4B, 5B and 6B 3.
- 4. Reclaim Hopper Crusher House 5.
- Tugboat The "William Newman" 6.
- Water Treatment & Demineralizer Building & Plant 7.
- Fuel Oil Storage Tank & Systems 8.
- Flyash Silo, Sump & System Components Warehouse adjacent to Fly Ash Silo 9.
- 10.
- Coal Handling Equipment As Listed In Continuous Property Records 11.
- One Lot of Materials & Spare Parts in Big Rivers Warehouse No. 15 12.
- 13. Ash Pond and Effluent Lines
- Circulating Water Lines 14.
- Station Two Ash Pond Dredgings in Green Station Sludge Disposal Landfill 15.
- Four 161KV 011 Circuit Breakers, General Electric, S/N 0139A7206208, 16. 0139A7206209, 0139A7206212, 0139A7206213, located in Plant Switchyard.
- Two Step-up Transformers, McGraw Edison, S/N C-04280-5-1, C-04280-5-2, 17. located in Plant Switchyard.
- Two Auxiliary Transformers, Westinghouse, S/N RCP 37261, RCP 37262, located 18. in Plant Switchyard.
- One Excitation Transformer, General Electric , S/N D-597562, located in 19. plant switchyard.
- One Lot of Structures, Bus, Relay Panels, Etc., located in Plant Switchyard 20.

# To Which 11.5% Annual Carrying Charge Is To Be Applied

Thickener equipment	\$ 889,534.61	Barge Unloader Cells; Foundations	\$1,066,270.00	
.hickener equipment	\$ 1,145,429.00			
Lime Silo Equipment	\$ 2,423,640.00	Solid Waste Building Foundations	\$ 442,241.00	
Lime Silo Equipment	\$ 720,183.00	Control House; Barge Unloader	\$ 20,360.00	
Foundations, Misc.	\$ 8,418,755.91	The state of the s	£ 20 250 00	
Foundations, Piping, Conveyors, Valves	\$13,769,110.40	Electrical Building; Barge Unloader	\$ 20,360.00	
Air Dryer, JU	\$ 16,189.41	G2 Clarifier Equip. Building	\$ 395,490.00	
Lime Conveyor	\$ 5,725.40	Solid Waste Building; Structure	\$ 547,042.00	
Barge Unloader	\$ 734,852.00			
Screw Conveyors	\$ 18,879.00	Air Conditioning System; IUCS Building	\$ 2,441.00	
Barge Crane	\$ 39,844.00	Barge Unloader Cab; HVAC Unit	\$ 630,00	
Dust Collectors	\$ 385,716.00	Access Bridge To Unloader Cells	\$ 333,449.00	
Barge Trolley	\$ 38,759.00			
arge, Bucket Elev.	\$ 211,047.00	Yard Lighting; Solid Waste Area	\$ 6,838.00	
Hoist, Barge Unloader	\$ 66,390.00	26 May 1-24 1-25 1-25 1-25 1-25 1-25 1-25 1-25 1-25	12 (5) 112 21	
Unloader & Cells \$ 4,606,636.98		Sludge Haul Road, Both Gravel & Paved	\$2,499,207.29	
Lime Conveyor	\$ 2,123,066.00	Pneumatic Ash Transfer System	\$ 503,857.12	
Solid Waste Loader	\$ 323,633.00			
Clarifier	\$ 399,277.00	Improvements and Modifications	\$ 169,366.43	
Subtotal Column 1	\$36,336,667.71	Subtotal Column 2	\$6,008,551.84	
Installed Value \$42,345,219.55		Cost Split Ratio Green 440 MWStation Two 315 MW Station Two Allocation: 315 MW divided by 755 MW = 41.72%		
Depreciated Value As Of 12/31/94	\$21,675,601.32	Station Two portion is \$9 the same ratio as determi	,043,061 using ned above	
		Annual cost at 11.5% is \$ which would be split betwand Big Rivers in the same each party's allocation of capacity	reen HMP&L ne ratio as	



ECTRIC CORPORATION

May 13, 1994

Mike Thompson (2cc)

Mr. Jeff Garner Henderson Municipal Power & Light 100 Fifth Street Henderson, Kentucky 42420

> RE: Station Two Scrubber Project Letter agreement, S-107

Dear Jeff:

Attached please find one original copy of our letter agreement concerning cancellation of contract 5-107, modifications that will be made to Green facilities and sulfur content of coals to be burned.

Per my discussion, we will be filing this agreement with the Kentucky Public Service Commission as a part of our surcharge filing and changes to agreements between Big Rivers and Henderson Municipal Power and Light.

Your cooperation is appreciated.

Phillips.

Senior Construction Coordinator

CC: Paul Schmitz Travis Housley James McIllwain-John West David Schultz David Spainhoward Jim Busby, original for fi

James Miller, HWS&M

Post Office Box 24, Henderson, KY 42420 Telephone 502-827-2561

20-CI-00073

31 1914

#### U.S. DEPARTMENT OF AGRICULTURE RURAL ELECTRIFICATION ADMINISTRATION

\* REA SORROWSE CESICHATION Konducky @ Big Flyers

THE WITHIN Amendments to Contracts (May 1, 1993 Amendments) among City of

Henderson, Kentucky, City of Henderson Utility Commission and Big Rivers

Electric Corporation

SUBMITTED BY THE ABOVE DESIGNATED BORROWER PURSUANT TO THE TERMS OF THE LOAN CONTRACT, IS HEREBY APPROVED SOLELY FOR THE PURPOSES OF SUCH CONTRACT.

FOR THE ADMINISTRATOR

DATED

19/7/93

EXHIBIT

## ELECTRIC CORPORATION

January 12, 1994

City of Henderson Utility Commission 110 Fifth Street Henderson, KY 42420

Re: SO<sup>2</sup> FGD Scrubbers for HMP&L Station Two - Contract S-107

#### Gentlemen:

This letter is to confirm agreements with respect to the cancellation of Contract S-107 for HMP&L Station Two scrubbers.

- 1. Henderson has rejected the bids on Contract S-107.
- 2. The following equipment will not be installed at this time:
  - Fourth vacuum filter drum and its associated equipment, including a a vacuum pump and motor, receiver tank, filtrate pump and motor
  - Two (2) larger pug mills and motors b.
  - Modifications to flyash feed screw conveyor C.
  - Increased lime storage facilities and lime feed conveyors d.
  - Modifications to existing conveyor belts e.
  - Enlargement of the sludge stack out area 1.
  - Modification and/or relocation of one (1) radial stackout conveyor g.
  - Addition to existing secondary dewatering building which would house the h. fourth vacuum filter drum and its equipment.
  - Installation of a 4160 or 480-volt power supply to run the new equipment

- 3. The following equipment will be installed:
  - Two additional thickener underflow lines with magnetic flow meters
  - Thickener restoration to all four thickeners, with weirs and launders
  - c. One 150,000-gallon filtrate surge tank and pumps and piping
  - d. Magnetic flow meters on the four existing Green auxiliary bleed lines
- 4. Effective with the date that the scrubber system for HMPL Station Two becomes operable in a reliable, continuous, and designed capacity manner, coal to HMP&L Station Two shall not exceed approximately 3.6 percent sulfur, weighted monthly average, (based upon the sulfur content of the coal currently purchased by Henderson and the sulfur content of coal projected to be purchased by Big Rivers for HMP&L Station Two as shown in Big Rivers' 1993 IRP), and Green Station coal sulfur content shall not exceed approximately 3.9 percent sulfur, weighted monthly average, or such variances as the parties may agree upon from time to time.
- If any of the items of equipment listed in paragraph 2 are needed in the future for the Henderson or the Big Rivers' system, they will be installed pursuant to the May 1, 1993 amendments between us.

If this correctly states our agreements, please executive two copies of this letter, keep one for your files, and return the other to us.

Sincerely yours,

BIG RIVERS ELECTRIC CORPORATION

Paul A. Schmitz

General Manager

The foregoing correctly states our agreements. Dated this \_\_\_\_\_\_ day of January, 1994.

CITY OF HENDERSON UTILITY COMMISSION

sudel D Beyon

Kendel Bryan

General Manager

RESOLVED, that the Chairman, B. E. Higginson, is hereby authorized and directed to execute for and in behalf of the Utility Commission AMENDMENTS TO CONTRACTS AMONG CITY OF HENDERSON, KENTUCKY, CITY OF HENDERSON UTILITY COMMISSION AND BIG RIVERS ELECTRIC CORPORATION, the terms and provisions of which agreement are incorporated herein by reference.

Witness the signature of Dudley H. Everson this 29th day of June, 1993.

dley Hy Everson, Secretary

#### CERTIFICATION OF CITY CLERK

I, Joann Roberts, hereby certify that I am the duly qualified and acting City Clerk of the City of Menderson, Henderson County, Kentucky, and that the attached is a true and accurate copy of the Resolution No. 24-93, duly adopted, passed, read and signed, as prescribed by the Kentucky Revised Statutes at a special called meeting of the City Commission of the City of Henderson, Kentucky, held at the regular meeting place on the 29th day of June, 1993, and that the foregoing Resolution authorizing the Mayor of the City of Henderson, Kentucky, to execute AMENDMENTS TO CONTRACTS AMONG CITY OF HENDERSON, KENTUCKY, CITY OF HENDERSON UTILITY COMMISSION AND BIG RIVERS ELECTRIC CORPORATION has been duly recorded in the official records of said City.

IN WITNESS WHEREOF, I have hereunto set my hand as City Clerk and affixed hereto the official seal of said City, this the 29th day of June, 1993.

(City Seal)

RESOLUTION AUTHORIZING THE MAYOR
TO EXECUTE AN AGREEMENT AMENDING CONTRACTS
AMONG THE CITY OF HENDERSON, KENTUCKY, THE CITY OF
HENDERSON UTILITY COMMISSION AND BIG RIVERS ELECTRIC CORPORATION

WHEREAS, the Henderson Utility Commission has requested the Board of Commissioners to approve certain amendments to the Power Sales Contract, Power Plant Construction & Operation Agreement, and Joint Facilities Agreement relating to the operation of the City's Station Two electric generating facility and the allocation of power from said facility; and

WHEREAS, the amendments to the aforesaid contracts are necessary and advisable to accommodate the construction and installation of a flue gas desulfurization system (scrubbers) at Station Two:

NOW THEREFORE, be it resolved by the Board of Commissioners for the City of Henderson, Kentucky:

- 1. The Mayor, William L. Newman, be and he hereby is authorized and directed to execute for and in behalf of the City a certain AMENDHENTS TO CONTRACTS AMONG CITY OF HENDERSON, KENTUCKY, CITY OF HENDERSON UTILITY COMMISSION AND BIG RIVERS ELECTRIC CORPORATION, the terms and provisions of which agreement are incorporated herein by reference.
- This Resolution shall become effective immediately upon its passage.

On motion of Commissioner <u>Hike Farmer</u>, seconded by Commissioner <u>Bill Womack</u> that the foregoing Resolution be adopted, the vote was called. On roll call the vote stood:

Complesioner Taylor:	ABSENT:
Commissioner Farmer:	AYEL
Commissioner Johnson:	AYE
Commissioner Womack:	AYE:
Mayor Newman:	AYE:

WHEREUPON, Mayor Newman declared the Resolution adopted, affixed his signature and the date thereto and ordered that the same be recorded.

Alliena Maron Mayor

June 29/993

ATTEST:

Joann Roberts, City Clerk

On motion of Director Hamilton, seconded by Director Cooper, a d carried by unanimous vote, of the directors as declared by the President. T.e following resolutions were adopted:

RESOLVED that execution by Morton Henshaw, President of Big Rivers Electric Corporation, as attested by William B. Briscoe, Secretary of the corporation, of the "May 1, 1993, Amendments" between the City of Henderson, Kentucky, the City of Henderson Utility Commission, and Big Rivers Electric Corporation be ratified and approved, these Amendments having previously been approved by the Board, but not executed by all the parties until the 29th day of June, 1993.

I, William B, Briscoe, Secretary-Treasurer of the Board of Directors of Big Rivers Electric Corporation hereby certify that the above is a true and correct excerpt from the minutes of Regular Meeting of said Corporation held on 7-9-93.

Museum B. Brenen

Janet Cole, Webster Circuit Clerk Presiding Judge: HON. C. RENE' WILLIAMS (605230)

05/12/2020

iled 20-CI-00073 EXH: 000064 of 000091

Director Hamilton moved that the amendments to all contracts among the City of Henderson, Kentucky, City of Henderson Utility Commission, and Big Rivers Electric Corporation be approved as presented and that the President be authorized to execute said amendments with management and corporate counsel authorized to make minor changes as deemed necessary. Director Powers seconded the motion which carried by unanimous vote.

I, William B. Briscoe, Secretary-Treasurer of the Board of Directors of Big Rivers Electric Corporation hereby certify that the above is a true and correct excerpt from the minutes of Regular Meeting of said Corporation held on 3-12-93.

Krisiam R. Brescon

# AMENDMENTS TO CONTRACTS AMONG CITY OF HENDERSON, KENTUCKY CITY OF HENDERSON UTILITY COMMISSION AND BIG RIVERS ELECTRIC CORPORATION

These Amendments entered into as of May 1, 1993 (the "May 1, 1993 Amendments") by and between City of Kenderson, Kentucky, a municipal corporation and city of the second class organized under the laws of Kentucky, of 222 First Street, Henderson, KY 42420, City of Henderson Utility Commission, a public body politic and corporate organized under Kentucky Revised Statutes 96.520 and related statutes, of 100 Fifth Street, Henderson, KY 42420, the said City and Commission being referred to herein collectively as "City", and Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, KY 42420, known as "Big Rivers" herein.

#### WITNESSETH:

WHEREAS, the parties hereto are parties to a Power Sales Contract, a Power Plant Construction and Operation Agreement and a Joint Facilities Agreement all dated August 1, 1970 and Big Rivers and City of Henderson Utility Commission are parties to an Agreement For Transmission and Transformation Capacity dated April 11, 1975, the Spare Transformer Agreement dated July 11, 1972, the System Reserves Agreement dated January 1, 1974, the Agreement of April 8, 1980 regarding O&M and R&R Funds, and the Agreement of February 15, 1991 concerning Administrative and General Costs, all of such contracts and agreements as amended being known herein as the "Contracts" and incorporated herein by reference, and

WHEREAS, pursuant to the Contracts, and to ordinances of the City of Henderson, Hentucky providing for the sale of its electric revenue bonds, an electric generating station consisting of generating Units : and 2, each described in the Contracts as having 175-megawatt capacity, and related facilities all known herein as "Station Two", were constructed and are now owned by the City of Henderson, Kentucky and operated under the Contracts with Big Rivers, and

WHEREAS, City and Big Rivers have agreed that Station Two must be equipped with a Flue Gas Desulfurization System ("known herein as the "Station Two FGD System") to comply with the 1990 Amendments to the Clean Air Act (Acid Rain Act), and

WHEREAS, certain facilities now owned by Big Rivers subject to certain mortgage liens, and used in operating the FGD System of Big Rivers' Green Generating Station, can be used jointly by the Green Station and by Station Two, thus greatly reducing the cost of the Station Two FGD System, and

WHEREAS, the Station Two FGD System will require financing in whole or in part by sale of emission allowances granted under the Acid Rain Act, funds from the Station Two Renewal and Replacement Fund and the Station Two Operations and Maintenance Fund, and revenues from the respective electric utility systems of the parties hereto.

NOW, THEREFORE, in order to comply with the Acid Rain Act, and provide for the financing, construction, and operation of the Station Two FGD System as a part of Station Two, and in

consideration of the mutual covenants herein contained. It is covenanted and agreed among the parties hereto as follows:

#### ALL CONTRACTS

1. The terms of all of the Contracts except the Joint Facilities Agreement and the Agreement for Transmission and Transformation Capacity shall terminate on October 31, 2003, unless otherwise terminated, or extended, as herein provided. Unless otherwise terminated, or extended, as herein provided, the Joint Facilities Agreement shall terminate in accordance with Section 8 of said Agreement, and the Agreement for Transmission and Transformation Capacity shall terminate in accordance with Section 7.2 of said Agreement.

Big Rivers shall have three options for extending the terms of the Contracts; as amended, on the same terms and conditions thereof, as follows:

- 1.1 By written notice to City on or before October 31, 1998, to extend the terms for the operating life of Station Two, the operating life of which shall be considered to continue for so long as Unit One and Unit Two, or either of them, is operated, or is capable of normal, continuous, reliable operation for the economically competitive production of electricity, temporary outages excepted.
- 1.2 If Big Rivers does not exercise the option granted in subparagraph 1.1, by written notice to City on or before October 31, 1998, Big Rivers may extend the terms for five years from October 31, 2003 to October 31, 2008.

- 1.3 If Big Rivers exercises the option granted in 1.2, by written notice to City on or before October 31, 2003, Big Rivers may extend the terms for an additional five year term from October 31, 2008 to October 31, 2013.
- Contracts, (a) all of them, except the Joint Facilities Agreement and the Agreement for Transmission and Transformation Capacity, and any options for their renewal, shall terminate 90 days after Big Rivers allocation of capacity from City's Station Two shall be zero, and (b) the terms of all of the Contracts shall be extended automatically until all Station Two revenue bonds of the City of Henderson which have been approved by Big Rivers have been paid.
- 2. The Contract Year of all of the Contracts shall commence on June 1 and end on May 31 of each year to conform to City's fiscal year, except that the Contract Year for the last year of the Contracts shall end on the last day of the term then in effect.
- 3. The effective date of these May 1, 1993 Amendments shall be the date following their execution upon which the last of all required approvals and creditors' lien subordinations or accommodations satisfactory to the parties hereof have been obtained, including approvals of the Rural Electrification Administration, the Kentucky Fublic Service Commission, and any other public regulatory body whose approval is required, provided, however, that the effective date shall then be retroactive to February 1, 1993.
  - 4. Nothing herein contained shall constitute general

obligations of the City of Menderson within Mentucky Constitutional restrictions on such obligations. The obligations herein imposed on City of Menderson shall be borne entirely from revenues or other legally available funds of City's electric light and power system.

#### POWER SALES CONTRACT

- 5. THE POWER SALES CONTRACT OF AUGUST 1, 1970, AS HERETOFORE AMENDED, IS FURTHER AMENDED AS FOLLOWS:
  - 5.1 SECTION 2.2 IS AMENDED TO READ AS FOLLOWS:

Station Two: City's 350-megawatt generating station (now rated at 315 MW net send out capacity), located at a site on Green River in Henderson County, Kentucky, and, to the extent furnished and owned by City, all auxiliary facilities, joint use facilities and related facilities, additions, expansions and improvements thereto, including the Station Two FGD System added thereto, and renewals and replacements, but excluding the City Transmission and Facilities as herein defined, Transformation excluding facilities furnished and owned by Big Rivers. The ownership and location of Station Two, and auxiliary, joint use and related facilities thereon as owned or to be owned by City, and those furnished and owned or to be owned by Big Rivers are shown in Exhibits 1 and 2 hereto.

#### 5.2 SECTION 3.3 IS AMENDED TO READ AS FOLLOWS:

The capacity of the Station Two which is surplus to the City's needs will be allotted to Big Rivers on the basis of five years advance written notice from the City, and Big Rivers shall have the right to receive, and the obligation to take and pay for the capacity of Station Two so allotted to it in the manner herein provided. City may adjust its five year projection of capacity needs in an amount not to exceed five (5) megawatts in any one contract year. Any capacity not utilized by City may be used by Big Rivers. The present allocation of Station Two capacity is 82.86% to Big Rivers and 17.14% to City.

5.3 SECTION 3.6 AS AMENDED BY AMENDMENT NUMBER ONE OF MARCH 2. 1971 IS AMENDED TO READ AS FOLLOWS:

The Total Capacity of Station Two as referred to herein shall be the average of the total continuous net send-out

capability of all generating units in Station Two. The parties agree that the present total capacity is 315-megawatts. The parties recognize that Station Two capacity will be reduced by the power required to operate the Station Two FGD System. Either party hereto may request tests from time to time on thirty days prior notice to determine the current Total Capacity. Such tests shall be of at least twenty-four hours duration under actual load carrying conditions, when the equipment is operated at rated pressure and temperature with all auxiliary equipment in service, and at a power factor of approximately ninety percent (90%). The measurement will be made at the 161 KV metering points at the Station Two Switch Yard.

#### 5.4 SECTION 3.7 IS AMENDED TO READ AS FOLLOWS:

The total continuous net send-out capability of any new unit of Station Two shall be tested on or before the date of commercial operation thereof, and the capacity as thus determined will remain the established Total Capacity of such unit until changed by tests requested by either party.

#### 5.5 SECTION 6.2 IS AMENDED TO READ AS FOLLOWS:

Capacity charges to Big Rivers for any Monthly Billing Period shall be the same proportion of the Total Capacity costs of Station Two for such Monthly Billing Period as Big Rivers allocation of surplus net send-out capacity of Station Two during such Monthly Billing Period bears to the total net send-out capacity of Station Two for such Monthly Billing Period as established pursuant to Section 3 of this Agreement.

5.6 SECTION 6.6 IS AMENDED BY ADDING SUBPARAGRAPH (d)

#### THERETO AS FOLLOWS:

- (d) The additional payments described in this Section 6.6 and the fourteen and one-half cents per month per kilowatt of the Total Capacity of Station Two charged to the City as described in Section 13.6 of the Power Plant Construction and Operation Agreement between the parties of August 1, 1970, shall both terminate on October 31, 2003, despite changes in the terms of the Contracts.
- 5.7 THE FIRST SENTENCE OF SECTION 9.4 18 AMENDED TO READ

AS FOLLOWS:

As quickly as is reasonably possible, but in no event later than one hundred twenty (120) days after the end of each Contract Year Big Rivers shall submit to City a detailed statement of the actual capacity costs for all Monthly Billing Periods of such Contract Year, based on the annual audit of accounts provided for in Section 11.

S.8 SECTION IS IS AMENDED BY ADDING THERETO THE

#### FOLLOWING:

- 15.2 In addition to and not in substitution for the other remedies of the city provided under this Agreement, or by other legal, equitable, if Big Rivers administrative remedies, default in making any payment properly owing under this Agreement and (a) such default continues for sixty days following written notice thereof by the City to Big Rivers or (b) if an Event of Default occurs under the RESTRUCTURING AGREEMENT dated August 31, 1987 among Big Rivers, the United States of America, acting through the Administrator of Rural Electrification Administration, Manufacturers Hanover Trust Company and Irving Trust Company, and their successors and assigns by reason of which any or all of the creditors therein described declare all debts owing to one or more of such creditors to be due and payable, the City may at any time thereafter have the following additional rights and remedies:
  - (1) on 5 days prior written notice to Big Rivers, City may, until such default is corrected, make sales to others of power generated by Station Two and allocated hereunder to Big Rivers and shall collect the proceeds from such sales and, subject to the provisions of the Bond Ordinance, shall apply them as a credit to capacity charges owing by Big Rivers to the City, then to payments to Big Rivers on Big Rivers' cost of operation and maintenance of Station Two, including its fuel and lime costs and any excess to Big Rivers until Big Rivers' payment default is corrected.
  - (2) On thirty days written notice by City to Big Rivers, and if Big Rivers defaults to City have not been corrected. City may terminate all contracts with Big Rivers with respect to Station Two and assume immediate possession and operation of Station Two and sell and subject to the crediting procedure of

subparagraph (1), retain the proceeds of all sales of power generated by Station Two thereafter; provided that no such sales shall replace sales made by Big Rivers and/or its distribution co-op members under then existing contracts.

- City under by exercised rights (3) 20 subparagraphs (1) and (2), or either of them, shall relieve Big Rivers of its continuing obligations to pay that portion of the debt service costs which are allocated to it when such rights were first exercised by City, of sales the case credited in subparagraph (1) by any revenues provided from the sale of Big Rivers allocated capacity as in subparagraph (1) above, provided sales the case of credited in subparagraph (2) by any revenues received from the sale of Big Rivers prior allocation in excess of operation and maintenance costs of Station Two, including fuel and lime costs.
- (4) In the exercise of its rights under the preceding subparagraphs (1) and (2), city shall have the right (a) to use Big Rivers transmission system for transmitting power in performance of off system power sales made by city from Station Two at fair market wheeling charges then prevailing in Indiana and Kentucky and (b) continue the use of Joint Use Facilities by bearing the costs thereof calculated according to the Joint Facilities Agreement.
- (5) City shall make no sales under the preceding subparagraph (1) on any term or condition which would adversely affect the rights or security of holders of Station Two bonds, or impair or adversely affect the eligibility for tax exemption of interest on such bonds or, if notified by Big Rivers prior to any agreement to make such sales, adversely affect the rights, or security of holders of notes of Big Rivers secured by Big Rivers' interest in the Joint Use Facilities or in the Reid and Green Stations. City shall give Big Rivers written notice five (5) business days prior to entering into any agreement for such sales.
- 15.3 In addition to, and not in substitution for, the other remedies of Big Rivers provided under this

Agreement, or by any other legal, equitable or administrative remedies, if City defaults in making any payments properly owing under the Contracts and such default continues for 60 days following written notice thereof by Big Rivers to City Big Rivers may at any time thereafter, if all Station Two Revenue Bonds approved by Big Rivers have been paid, on 30 days written notice by Big Rivers to City, and if City's defaults to Big Rivers have not been corrected, then Big Rivers may terminate all contracts with City with respect to Station Two, in which event Big Rivers shall have the continued right to use of Joint Use Facilities by paying the capacity costs thereof calculated in accordance with the Joint Facilities Agreement.

5.10 SECTION 21.1 AS RENUMBERED TO 22.1 IN THE MARCH 2, 1971 AMENDMENT IS AMENDED AS PROVIDED IN SECTION 1 OF THE MAY 1, 1993 AMENDMENTS.

POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT

- THE POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT OF AUGUST 1, 1970, AS AMENDED, IS FURTHER AMENDED AS FOLLOWS:
- SECTION 1.3 IS AMENDED BY ADDING THERETO 6.1 FOLLOWING:

Such Interconnection Agreement was supplemented and amended by an Amended Agreement dated October 13, 1981 and by a "FIRST AMENDMENT" dated January 10, 1989 which are in effect.

- 6.2 SECTION 4 IS AMENDED BY ADDING THE FOLLOWING:
- City, with the approval of Big Rivers, has entered into a Contract dated February 5, 1993 with Wheelabrator Air Pollution Control Inc. for the construction and installation of a portion of the Station Two FGD System. City will enter into such further contracts as are necessary, and as are approved by Big Rivers which approval shall not be unreasonably withheld, to complete the design, construction, installation and operation of the Station Two System. City and Big Rivers shall each immediately seek such permits and approvals as are required of each of them.

- provide one engineering shall 4.6 Big Pivers representative and one clerk to work with engineering firm employed by the City as 240 owner's representative on the FGD Station provide will City project. representative already assigned to Station The cost of these three representatives, including salaries, benefits and out-of-pocket expenses, shall be considered capital costs of the project.
- 4.7 All proceeds from the sale of SO<sub>2</sub> allowances allocated to Station Two, from whatsoever source, in excess of those needed for Station Two operation shall be divided between City and Big Rivers in the proportions of 17.14% to City and 82.86% to Big Rivers. The sale of all Station Two allowances shall be approved by the City and Big Rivers.
- 4.8 Until such time as a sum equal to the net proceeds of the sale of Station Two SO<sub>2</sub> allowances has been paid on the costs of the Station Two FGD System, the parties hereto shall bear such scrubber costs in the proportions of 17.14% to the City and 82.86% to Big Rivers. Thereafter costs of the Station Two FGD System shall be borne in the proportion of capacity allocation established under Section 5.2 of the May 1, 1993 Amendments.
- 4.9 Except as otherwise agreed by the parties, all invoices for the design, construction and installation of the Station Two FGD System shall be issued to City and paid by City pursuant to Section 4.11 hereof. City shall bill Big Rivers monthly for its share of such costs as determined by Section 4.8 hereof and Big Rivers shall pay such share pursuant to Section 4.10 hereof.
- 4.10 Big Rivers shall pay the amounts billed to it by City under Section 4.9 hereof to the Trustee from time to time in sufficient amounts to satisfy progress payments required on contracts executed by City for the design, construction and installation of said FGD System. City's remaining portion of the costs for the Station Two FGD System shall be paid by City from time to time in sufficient amounts to satisfy progress payments required on said contracts.
- 4.11 City shall instruct the Trustee to remit all sums paid under Section 4.10 hereof for the design, construction, and installation of the Station Two FGD System to City for deposit into the Station Two

account in the Renewals and Replacement Fund, out of which city shall timely pay all costs due on the Station Two FGD System.

#### JOINT FACILITIES AGREEMENT

- THE JOINT FACILITIES AGREEMENT IS AMENDED AS FOLLOWS:
  - 7.1 SECTION 3.1 IS AMENDED BY ADDING THE FOLLOWING:
  - Big Rivers has heretofore allocated for the 3.1(a) continuing joint use of the parties the facilities listed on Exhibit 1, Page 2, Part C hereto.
    - SECTION 3.2 IS AMENDED BY ADDING THE POLLOWING AT

#### THE END THEREOF:

The auxiliary facilities which City has previously allocated for the joint use of the parties are listed in Exhibit 1, Pages 1 and 2, Part B.

NEW SUBPARAGRAPHS SHALL BE ADDED TO SECTION 3 AS 7.3

#### FOLLOWS:

Big Rivers will allocate for the continuing joint use of the parties in the operation of their respective generating stations (Big Rivers Green Station and City's Station Two) those Green Station FGD System Facilities described in Exhibit 1, Page For such use, Fig Rivers shall 3, Part C hereto. be paid by city a prorated share of the annual carrying costs, calculated as:

Station Two net capacity Station Two plus Green Station net capacities

## Currently 315 MW

times the net book value of those facilities as of December 31, 1994, i.e. \$21,675,601.32, further multiplied by a capital carrying charge rate of 11.5 percent.

City's payment to Big Rivers shall be included as a cost under Paragraph (g) of Section 6.3 of the Power Sales Contract between the partier.

The costs of operating and maintaining the FGD 3.4

Joint Facilities described in Exhibit 1, Page 1, Parts 83 and C hereto, and the cost of sludge stackout and disposal (including haulage and deposit in appropriate landfills) therefrom, shall be allocated to the Green Station and Station Two (except for the cost of coal and lime which shall be provided by each party for its own use) in the proportions in which the stations put sulfur through the Green and Station Two FGD systems, based upon the tonnage of lime and coal and the sulfur and BTU content of the coal, and calculated as shown in the following example:

#### REAGENT PREPARATION1

- Assume lime, power, maintenance and labor costs \$10,000,000/yr.
- From additive feed flowmeters 70,000 Tons Per Year (TPY) of lime went to Green absorbers and 45,000 TPY went to Station Two absorbers.
  - The Station Two portion of the "reagent prep" O&M costs: 3)

Assume BREC coal to Station Two is 4% sulfur and 11,200 BTU/1b. HMPL coal to Station Two is 2.6% sulfur and 12,000 BTU/1b. desperse

$$\frac{2.6 (19,500)}{12,000} = 4.22 \text{ lbs. } SO_2/\text{muBTU}$$

Where 19,500 is the conversion factor for 2 lbs. of SO2 per lb. of sulfur, assuming 97.5% of the sulfur in the coal is captured in the flue gas stream.

The HMPL portion of Station Two "reagent prep" O & M would be:

The reagent preparation facilities and the waste treatment facilities are located in separate areas.

if for example: the HMPL coal STU burn were: 2,977,555 x 106 the BREC coal BTU burn were: 11,143,418 x 106

then the HMPL portion comes to \$546,200/yr.

#### WASTE TREATMENT

The "waste treatment" area power, maintenance and labor costs and the scrubber sludge disposal and storage costs would be split similarly, except that Green and HMPL bleed flowmeters would be used to calculate TPY of waste to be treated and stored. The TPY of waste treated would be used in step (2) instead of TPY lime.

7.4 THE SECOND SENTENCE OF SECTION 4.1 IS AMENDED TO READ AS FOLLOWS:

Title to those joint use facilities or portions thereof provided by Big Rivers, including the FGD Joint Facilities, will remain in Big Rivers, and all such facilities will be clearly and permanently marked as the property of Big Rivers.

- 7.5 SECTION 5.1 IS AMENDED TO READ AS FOLLOWS:
- The costs of providing City's joint use facilities and of modifying Big Rivers' joint use facilities (other than the FGD Scrubber facilities) as provided herein have been paid out of the proceeds of the Station Two Bonds. The cost of modifying the Joint Use Facilities described in Exhibit 1, Page 3, Parts B & C for use by Big Rivers' Green Station and the City's Station Two shall be allocated to Station Two. The cost of additional modifications shall be allocated between Big Rivers' Green Station and the City's Station Two using the methodology provided in Section 13.8 of the Power Plant The amounts so Construction and Operation Agreement. allocated to City's Station Two shall be further allocated between Big Rivers and City in the proportion of capacity allocation established under Section 5.2 of the May 1, 1993 Amendments. Subject to the provisions of Sections 3.3 and 3.4 of this Agreement, the costs of operating, maintaining, repairing, renewing, replacing, and adding to such joint use facilities shall be allocated to the parties' respective generating stations as provided in Section 13 of the parties' Power Plant Construction and Operation Agreement.

#### STATION TWO DECOMMISSIONING COSTS

8. If Big Rivers exercises its option under Section 1.1 of

the May 1, 1993 Amendments to extend the life of the Contracts for the operating life of Station Two, as heretofore defined, the parties shall bear decommissioning costs of Station Two in the proportions in which they shared capacity costs during the life of Station Two.

IN TESTIMONY WHEREOF, the parties hereto have executed this Agreement in multiple counterparts as of the date first herein written.

This 29th day of June, 1993.

CITY OF HENDERSON, KENTUCKY

Roberts (City Seal)

CITY OF HENDERSON UTILITY COMMISSION

BIG RIVERS ELECTRIC CORPORATION

ATTEST:

# EXISTING HMP&L STATION TWO FACILITIES

- All Station Two facilities located on City property are owned by the PART A. City of Henderson Utility Commission except the BTG control board for Big Rivers' Reid Unit 1. This property is indicated as areas A and B on Exhibit 2. The Reid control board is now located in the Station Two control room. The Station Two facilities are:
  - Two Cooling Towers, Ecodyne Model 670-2-71011, S/N E-70-12783 and E-70-12784
  - Four Circulating Water Pumps, Byron Jackson Model 57RXM S/N 711-C-1621. 2. 711-C-1622, 711-C-1623, and 711-C-1624
  - One Turbine Building including Control Room, Switchgear, Fans, Pumps, 3. Motors, Coal Pulverizers and Other Plant Auxiliary Equipment.
  - Two Steam Generators, Riley Stoker, National Board Nos. 2292 (repair no. 4. 390) and 2379, S/N 3576 and 3675.
  - Two Turbine Generators. One General Electric S/N 178863. One Westinghouse 5. S/N 13A43311/43321
  - Two Electrostatic Precipitators, Research Cottrell, Model No. B11LC52F9X30 6.
  - One Chimney, 350 feet tall, concrete shell with brick liner, serving both
- Joint Use Facilities Provided By and Owned By the City But Located on PART B. Big Rivers' Property.
  - Barge Mooring Cells Nos. IN. 2N. 3N. 4N, 1S, 2S, 3S and 4S as shown on
  - Burns & Roe Drawing No. 04-3280-\$3200

  - One Coal Barge Unloader, McDowell Wellman, 1000 net ton/hr capacity Eight Coal Conveyors 1, 2, 3A, 3B, 4A, 4B, 5B and 6B, as shown on attached 14.0 Exhibit 2
  - One Reclaim Hopper which feeds coal conveyors 4A and 4B
  - 5.
  - One Crusher House fed by conveyor No. 1 One Tugboat The "William Newman" 37 feet long, 21.27 gross tons, 14.0 net 6. tons, coastguard capacity 350 HP
  - One Water Treatment Plant With Demineralizer Building and associated equipment
  - 8: One 50,000 Gallon Capacity Fuel Oil Storage Tank & Distribution System
  - One Flyash Silo, Sump & System Components One Prefab Metal Warehouse adjacent to Fly Ash Silo
  - 11. Coal Handling Equipment As Listed In Continuous Property Records
  - 12. 13. One Lot of Materials & Spare Parts in Big Rivers Warehouse No. 15 as
  - defined by inventory control records
  - One Ash Pond and Effluent Lines
  - Circulating Water Lines as shown on attached Exhibit 2
  - Station Two Ash Pond Dredgings in Green Station Sludge Disposal Landfill
  - adjacent to Green River south of Green Station
  - Four 161KV Oil Circuit Breakers, General Electric, S/N 0139A7206208,
    - 0139A7206209, 0139A7206212, 0139A7206213, located in Plant Switchyard. Two Step-up Transformers, McGraw Edison, S/N C-04280-5-1, C-04280-5-2,
  - located in Plant Switchyard. Two Auxiliary Transformers, Westinghouse, S/N RCP 37261, RCP 37262, located in Plant Switchyard.

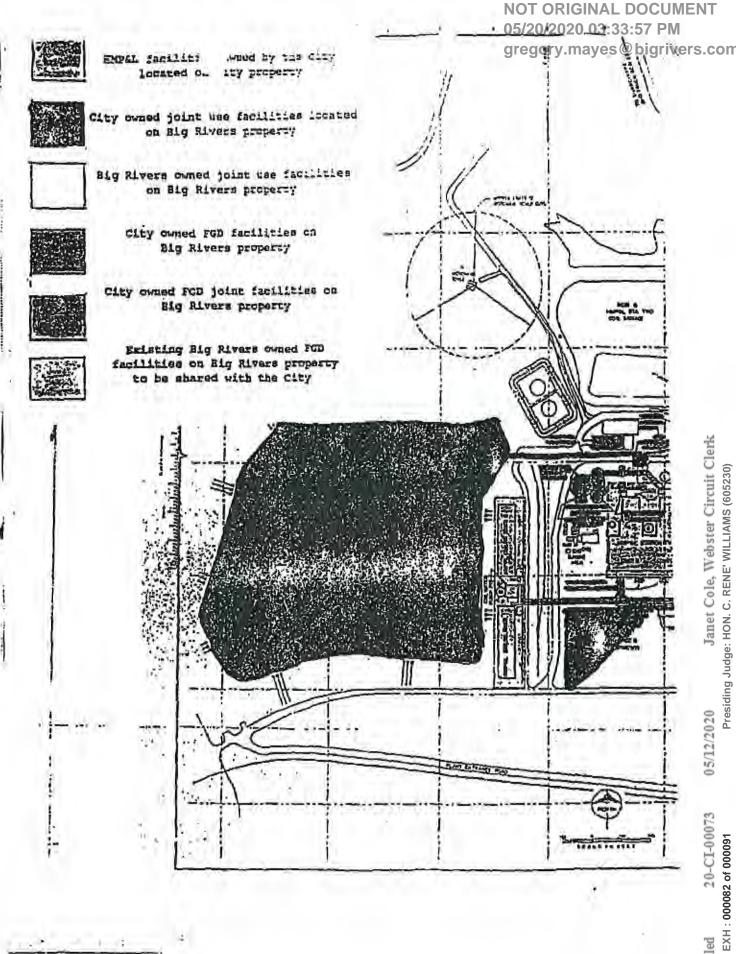
- 19. One Excitation Transformer, General Electric, S/N 0-597562, located in Plant Switchyard.
- 20. One Lot of Line Terminal Structures, Sus. Relay Panels, Etc., located in Plant Switchyard as shown on attached Exhibit 2
- PART C. Joint Use Facilities Owned by Big Rivers and located on Big Rivers property
  - Reid Intake Structure, Two Pumps, and Circulating Water System to serve Reid Unit 1
  - Coal System Crusher Tower supplied by coal conveyors 4A and 4B
  - Coal Conveyors Number 5A and 6A as shown on attached Exhibit 2
     Plant Fotrance Roads from highways 2096 and 2097 and Two Concret
  - Plant Entrance Roads from highways 2096 and 2097 and Two Concrete Block Guardhouses
  - 5. Reid Office Building and Maintenance Shop
  - Reid Grounding Transformer Eastern S/N PMR427988
  - 7. Sewage Treatment Facility for Reid, Green and HMP&L Station Two power plants
  - 8. Fire Water System for Reid Station

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- Switchyard Control House for Breaker Controls as shown on attached Exhibit 2
- PART D. Other Facilities Owned by the City of Henderson Utility Commission But Not Classified as Joint Use Facilities, a portion or all of which is located on Big Rivers property
  - One 161KV Line from Reid EHV Substation to City Substation No. 4.
  - One Line Terminal Bay and Associated Equipment in Reid EHV Substation for City 161KV Line to City Substation No. 4.
  - Fifty Percent (50%) Ownership of 161/69 KV Transformer G1, Westinghouse, S/N RLP 15941) at Henderson County Substation, and related substation facilities.
  - Ten Percent (10%) Ownership of Big Rivers 161KV Line from Station Two Switchyard to Henderson County Substation.
  - Forty Percent (40%) Ownership of Spare Step Up Transformer (General Electric S/N K 547026) & Railcar (No. BREX 242).
  - 6. One 69KV Transmission Line from plant switchyard to City Substation No. 2

#### PROPOSED HMP&L STATION TWO FACILITIES FOR FGD SCRUBBER SYSTEM

- PART A. Station Two FGD Facilities To Be Owned by City of Henderson on Big Rivers Property
  - 1. FGD System Chimney, 350' Tall
  - 2. Two Wheelabrator Absorber Modules. Building & Associated Ecuipment
  - 3. Two Booster Fans
  - 4. Auxiliary Building as shown on attached Exhibit 2 containing Controls and Electrical Equipment, Maintenance, Locker and Shower Facilities
  - 5. One Station Two Slaker Building Enclosing Three Slaking Tanks & Equipment
  - One Station Two Additive Hold Tank 6.
  - Two Lime Feed Conveyors from Big Rivers' Green Station Lime Storage 7. Silos 2C1 & 2C2
  - 8. Two Additive Feed Systems: Station Two Scrubber System Includes Pipe & Pipe
  - 9. Two Bleed Slurry Systems to Big Rivers' Green Station Primary Dewatering System Including Pipe, Pipe Rack & Splitter Boxes
  - 10. Two New Thickener Return Water Tanks & Controls
  - 11. One New Filtrate Surge Tank and Controls
  - One Electrical Power Supply for FGD System, with redundant feeds including power transformer, bus work, relay panels and metering equipment
- PART B. FGD Joint Use Facilities To Be Owned by City of Henderson on Big Rivers Property
  - Two Lime Slaking Water Pumps and Lines to Slaking Building
  - 2. Two Pug Mill Mixers (Listed Manufacturer and Serial Nos. when known)
  - 3. One Vacuum Filter and Associated Equipment Including Building Expansion as shown on attached Exhibit 2
  - Two New Thickener Underflow Lines and Two Flow Monitors
  - 5. Two Control Systems on Big Rivers' Green Station Thickener Return Water Tanks
- PART C. Existing Facilities Owned By Big Rivers Electric For Treen Station FGD System As Shown On Attached Exhibit 2 Which Will Be Jointly Used By Green Station and HMP&L Station Two And Which Are Located On Big Rivers Property
  - One Lime Barge Unloader, Dravo Wellman 200/400 Net Ton/Hr Capacity For 1. Lime, 1500 Net Ton/Hr Capacity For Coal
  - 2. One Lime Conveyor L1 and Transfer Tower As Shown On Exhibit 2
  - 3. Two Lime Silos: 201 and 202 As Shown On Exhibit 2, and Six Lime Screw Conveyors: 2CW-LFC, 2CE-LFC, 2C1-SC, 2C2-SC, 1CW-LFC, 1CE-LFC
  - 4. Four Thickeners for Primary Dewatering of Bleed Slurry: 1A, 1B, 2A, 2B,
  - Including Tunnels, Pumps, and Ventilation Systems
    One Secondary Dewatering System and Sludge Stackout System, Including Solid
    Waste Building and Sludge Stackout Area as Shown on Exhibit 2; Three Vacuum
    Filters with Feed Systems: FL-1A, FL-1B, FL-1C; Eleven Filter Cake
    Conveyors and Radia) Stackers: CO-1A, CO-1B, CO-1C, CO-2A, CO-2B, CO-3A,
    CO-3B, CO-6A, CO-6B, CO-7A, CO-7B; and Four Fly-Ash Screw Conveyors
    Two Ash Silos and Pneumatic Transfer System
    Two Green Station Place Classificates 5.
  - 6.
  - Two Green Station River Water Clarifiers: CL-101 and CL-102, with Three 7. Slaker Water Pumps: 1A, 1B and 2A
  - 8. One Solid Waste Loader, Hitachi S/N 171-0373
  - One Studge Haul Road and Two Truck Scales



Janet Cole, Webster Circuit Clerk Presiding Judge: HON. C. RENE' WILLIAMS (605230)

05/12/2020

20-CI-00073 EXH: 000082 of 000091

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7	K!	1.D. = DKB: GENERAL\ANNEX3 GREEN STATION ASSETS (	OVENON USE WITH	HMPAL SCRU	BBER	PREPARED (	)3-K	y-9
2		The state of the s				Otes Alexa		
,			GROSS BOOK VALUE	YAS B	ACCT	NET BOOK VALUE 12-31-94		
7		SLUDGE HAUL ROAD, BOTH GRAVEL & PAVED (PART OF) STRUCTURES & IMPROVEMENTS	2,499,207.29 169,366.43		3113 3113	1, 239, 783. 90 88, 342. 25		79 79
>								
		FOUNDATION, CONCRETE, EQUIPMENT SUPPORTS				2, 686, 433, 07		
) :		FLUIDIZER PIPING VENTILATION SYSTEM	11, 102, 65	1-800567-1 1-800574-1	3123	6,414.12		
>		VENTILATION SYSTEM LINE DRY HANDLING SYSTEM		1-800575-1	3123	1,216.84		
ž.		CRONE, LINE DRY HANDLING FILTRATE SUMP PUMP		I-800753-1 I-600248-1		4, 910, 70 2, 486, 63		
3		NETER, SADDLE FLOW 4-INCH NETER, TUBE FLOW 3-INCH	Los Paparles Vincian	I-010027-1 I-010028-1	3123 3123	655, 12 863, 44		
3		PETER, SADDLE FLOW 6-INCH VENTILATION FAN, THICKENER TURNEL		1-010029-1 1-010023-1	3123	929, 19 698, 61		
		VENTILATION FAN, THICKENER TUNNEL. VENTILATION FAN, THICKENER TUNNEL.	The state of the s	I-010034-1 I-010035-1	3123	698.61 698.61		
1.		VENTILATION FAN, THICKENER TUNNEL. CONVEYOR, BELT-BUCKET, E-I LIFT	The second section and the second second	1-010036-1 1-012608-1	3123	698. 61 1, 831. 20		
>		FILTRATE SUMP PUMP, MARLON FILTRATE SUMP PUMP, MARLON	5,603.93	1-013491-1 1-013492-1	3153	4, 038, 83 4, 038, 83		
)		TUCS FLYASH VACUUM LINES FOUNDATIONS, MISC.	8,418,755.91	1-017284-1	3123	6,528.57		
		AIR DRYER, IU		1-008854-1	3123	9, 542, 46		
)		LIME CONVEYOR	100 M	1-800166-1	3123	3, 124, 14		
5		DUST COLLECTORS DUST COLLECTORS	204,671.00 63,639.00		3123	109, 653, 39 34, 095, 55		
		DUST COLLECTORS	117,406.00		17.51-19.	58, 242. 05		
,		DUST COLLECTORS	385,716.00			201, 990, 99		
,		Barge, Bucket, Elevator Barge, Bucket, Elevator	176, 539.00 34, 508.00		3123	94, 582.60 18, 488.17		
		and the second	211,047.00			113,070.77		

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### SOLID WASTE BUILDING: STRUCTURE ## 475,286.00 I-B00258-1 3113 235,775.75 SOLID WASTE BUILDING: STRUCTURE ## 71,756.00 I-B00258-2 3113 38,443.81 AIR CONDITIONING SYST TUSC BLDG 2,441.00 I-B00746-1 3113 1,516.82 ACCESS BRIDGE TO UNLDADER CELLS 333,449.00 I-B00258-1 3113 178,647.96 YARD LIGHTING, SOILD WASTE AREA 6,838.00 I-B01583-1 3113 4,628.80 ** TOTAL 8,846,611.61 4,571,281.86 ** FONS, CONCRETE, EDUIPMENT, DESILFURIZATION 2,446,645.00 I-B00254-2 3123 1,213,711.37 1 EQUIPMENT SUPPORTS-DESILFURIZATION SYSTEM 4,503,177.00 I-B00257-2 3123 2,233,898.72 1 PIPING SYSTEM, SOLID WASTE 213,562.00 I-B00320-1 3123 105,941.99 11	-95	ay-	PREPARED 03-M		PAL SCRUBBER	ON USE WITH HA	1.D. = DKB:GENERAL \ANNEX3 GREEN STATION ASSETS COM	9
HOIST, BARSE UNLODING SYSTEM   11,678.00 1-009288-1 3123   6,257.29   6,257.29   11,677.00 1-009291-3 3123   6,257.29   10,577.00 1-009291-3 3123   6,257.29   10,577.00 1-009291-3 3123   6,257.29   10,577.00 1-009291-3 3123   6,257.29   10,577.00 1-009291-3 3123   6,257.29   10,577.00 1-009291-3 3123   6,256.22   6,257.29   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,257.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   6,256.22   10,577.00 1-009291-3 3123   1,577.49 50   1,577.49			NET ROOK				And the second of the second of the	)
HOUST, BARSE UNLOADING SYSTEM   11,678.00 1-009289-1 3123 6,257.29   HOUST, BARSE UNLOADING SYSTEM   11,678.00 1-009291-1 3123 6,255.22   HOUST, BARSE UNLOADING SYSTEM   11,677.00 1-009291-1 3123 6,256.32   HOUST, BARSE UNLOADING SYSTEM   11,677.00 1-009292-1 3123 6,256.32   HOUST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009292-1 3123 6,256.32   HOUST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009292-1 3123 6,256.32   HOUST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009293-1 3123 4,287.26			VALUE	ACCT	TAG B	TO A STATE OF THE		,
HOUST, BARSE UNLOADING SYSTEM   11,678.00 1-009289-1 3123 6,257.29   HOUST, BARSE UNLOADING SYSTEM   11,678.00 1-009291-1 3123 6,255.22   HOUST, BARSE UNLOADING SYSTEM   11,677.00 1-009291-1 3123 6,256.32   HOUST, BARSE UNLOADING SYSTEM   11,677.00 1-009292-1 3123 6,256.32   HOUST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009292-1 3123 6,256.32   HOUST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009292-1 3123 6,256.32   HOUST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009293-1 3123 4,287.26		١	6,257.29	3123	1-009288-1	11,678.00	HOIST. BARSE UNLOADING SYSTEM	
MOIST, BARSE UNLOADING SYSTEM   11,678.00 1-009290-1 3123 6,255.32     MOIST, BARSE UNLOADING SYSTEM   11,677.00 1-009291-1 3123 6,255.32     MOIST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009293-1 3123 6,255.32     MOIST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009293-1 3123 5,555.32     MOIST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009293-1 3123 5,555.32     MOIST, CABLE SHIFTING, BARSE UNLOADING SYSTEM   11,677.00 1-009293-1 3123 4,287.26     MOIST, BARSE UNLOADING SYSTEM   11,677.00 1-009293-1 3123 2,468,042.82     MOIST, BARSE UNLOADING SYSTEM   4,606,635.93 1-80333-1 3123 2,468,042.82     MOIST, BARSE UNLOADING SYSTEM   4,606,635.93 1-80333-1 3123 2,468,042.82     MOIST, BARSE UNLOADING SYSTEM   4,606,635.93 1-80333-1 3123 2,468,042.82     MOIST, BARSE UNLOADING SYSTEM   4,606,635.00 1-800337-1 3123 1,107,449.90     SULTA MARKET LOADER CEUIP, THICKHERE REUIP, LINE SILLO EBUIP, LINE SILLO EBUIP, LINE SILLO EBUIP, LINE SILLO EBUIP, ROBBE UNLOADER COMEYOR   9,433.00 1-009493-1 3123 19,007.00     MOIST, BARSE UNLOADER CEUNE CONVEYOR SYSTEM   2,443,640.00 1-800336-1 3123 323,703.32     SULTA MARKET SHILLONG FORS.   3,433.00 1-009293-1 3123 393,703.32     SULTA MARKET SHILLONG FORS.   3,433.00 1-009293-1 3123 393,703.32     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,440.00 1-009293-1 3123 3123 393,703.32     SULTA MARKET SHILLONG FORS.   3,940.00 1-800283-1 3123 21,325.59     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,440.00 1-009293-1 3123 21,325.59     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,400.00 1-009293-1 3123 21,325.59     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,400.00 1-009293-1 3123 21,325.59     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,400.00 1-009293-1 3123 21,325.59     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,400.00 1-009293-1 3123 21,325.59     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,400.00 1-009293-1 3123 21,325.59     BARSE UNLOADER CELLI FEMS, LOCKET CONVEYOR   9,400.00 1-009293-1 3123 2123 21,325.59     BARSE UN					1-009289-1	11,678,00		•
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HOIST, CABLE SHIFTING, BARSE UNLOADING   1,677.00 1-009292-1 3123   4,287.26     HOIST, CABLE SHIFTING, BARSE UNLOADING   6,090.00 1-009293-1 3123   4,287.26     HOISTS, BARSE UNLOADING SYSTEM   4,606,636.99 1-800335-1 3123   2,468,042.82     LINE CONVEYOR SYSTEM   2,123,066.00 1-800337-1 3123   1,137,449.90     SULID MASTE LOADER   22,123,066.00 1-800337-1 3123   1,137,449.90     BARSE UNLOADER CABF HAVE UNIT   630.00 1-009423-1 3123   230,403.67     CARLETON CONTROL CON					1-009291-1	11,677,00		
HOIST, CABLE SHIFTING, BARSE UNLOADING 8,002.00 I-009293-1 3123 4,287.26  HOISTS, BARSE UNLOADER 66,390.00 35,571.77  UNLOADER + CELLS (BARSE UNLOADING SYSTEM) 4,606,636.39 I-800335-1 3123 2,468,048.62 2128,066.00 I-800337-1 3123 1,137,449.90 320,100 MRSTE LOADER 232,633.00 I-013130-1 3123 230,403.67 2128 1,137,449.90 320,403.67 329,277.00 I-009423-1 3123 198,070.00 320,000 I-009749-1 3113 0.00 320,000 I-009749-1 3113 0.00 320,000 I-009749-1 3113 0.00 320,000 I-009749-1 3113 0.00 320,000 I-009749-1 3123 323,493.00 I-009341-1 3123 1,802,877.41 3124 1,802,000 I-800305-1 3123 325,844.31 323 323,773.32 325,844.31 323 323 323 323 323 323 323 323 323 3					1-009292-1	11,677,00		4
UNLORDER + CELLS (BARGE UNLOADING SYSTEM)  LINE CONVEYOR SYSTEM  SULID WASTE LORDER  SULID WASTE LORDER  CLARIFIER  DLARIFIER  SULID WASTE LORDER  CLARIFIER  SULID WASTE LORDER  CLARIFIER  SULID WASTE MAND UNIT  CONTROL MOMENT CRUE  LINE SILU EDUIP, LINE SILU EDUIP, BARGE UNLOADER CRUE  SCREW CONVEYOR SCREW CONVEYOR  SCREW CONVEYOR  SCREW CONVEYOR  SULID WASTE BUILDING FONS.  CONTROL MOUSE BARGE UNLOADER  CLARIFIER EQUIP, BARGE UNLOADER CELLIF FONS. CONTROL MOUSE BARGE UNLOADER  CLARIFIER EQUIP, BARGE UNLOADER CELLIF FONS. CONTROL MOUSE BARGE UNLOADER  CLARIFIER EQUIP, BARGE UNLOADER CELLIF FONS. CONTROL MOUSE BARGE UNLOADER CLARIFIER EQUIP, BARGE UNLOADER CELLIF FONS. CONTROL MOUSE BARGE UNLOADER CLARIFIER EQUIP, BUILDING FONS. CONTROL MOUSE BARGE UNLOADER CLARIFIER EQUIP, BUILDING STRUCTURE CONTROL MOUSE BARGE UNLOADER CLARIFIER EQUIP, BUILDING STRUCTURE CONTROL MOUSE BARGE UNLOADER CONTROL MOUSE CELLIF TOWN. CONTROL MOUSE CELLIF TOWN. CONTROL MOUSE CONTROL TOWN. CONTROL MOUSE CELLIF TO			100 Late 170 Co.					1
LIME CONVEYOR SYSTEM   2, 123, 066.00 1-800337-1 3123 1, 137, 449.90			35,571.77		A. J. A.	66, 390.00	HOISTS, BARGE UNLOADER	)
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DURING BARSE UNLOADER CABF HARC UNIT 630.00 1-009A23-1 3123 198,070.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0								2
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Direction of the color of the							THICKENER EQUIP.	)
BARGE UNLOADER SCREW CONVEYOR SCREW							LINE SILU EDUIP,	79
SCREM CONVEYOR SCREW				1.07% (5.17.1			LINE SILO EQUIP.	
SCREM CONVEYOR 9,439.00 I-009294-1 3123 5,057.42  SCREM CONVEYOR 9,440.00 I-009295-1 3123 5,057.43  BARGE CRAME 33,844.00 I-009284-1 3123 21,329.59  BARGE UNLOADER CELL; FDMS. 1,066,270.00 I-009286-1 3123 20,765.72  BARGE UNLOADER CELL; FDMS. 1,066,270.00 I-000267-1 3113 571,262.37  SOLID MASTE BUILDING FDMS. 442,241.00 I-000259-1 3113 219,382.52  CONTROL HOUSE; BARGE UNLOADER 20,350.00 I-000218-1 3113 10,100.01  BLECTAICAL BLOG; BARGE UNLOADER 20,350.00 I-000218-1 3113 10,100.01  B-2 CLARIFIER EQUIP. BUILDING 396,490.00 I-000333-1 3113 212,423.04 1  SOLID MASTE BUILDING; STRUCTURE 475,286.00 I-000258-1 3113 38,443.81  AIR CONDITIONING SYST IUSC BLOG 2,441.00 I-000258-2 3113 38,443.81  AIR CONDITIONING SYST IUSC BLOG 2,441.00 I-000258-2 3113 38,443.81  ACCESS BRIGGE TO UNLOADER CELLS 333,449.00 I-00746-1 3113 178,647.96  YARD LIGHTING, SOILD MASTE AREA 6,838.00 I-001583-1 3113 4,628.00  TOTAL 8,846,611.61 4,571,281.86							BARGE UNLOADER	)
BARGE CRINE BARGE TROLLEY BARGE UNLOADER CELL; FDNS. SOLID MASTE BUILDING FONS. CONTROL HOUSE; BARGE UNLOADER BECTAICAL BLDG; BARGE UNLOADER BECTAICAL BLDG; BARGE UNLOADER BOLID WASTE BUILDING; STRUCTURE FOR CONDITIONING SYSTEM BARGE CRINE BARGE UNLOADER CO, 360.00 I-B00259-1 3113 219, 382.52 CONTROL HOUSE; BARGE UNLOADER CO, 360.00 I-B00219-1 3113 10, 100.01 BECTAICAL BLDG; BARGE UNLOADER CO, 360.00 I-B00219-1 3113 10, 100.01 BOLID WASTE BUILDING; STRUCTURE FOR CONDITIONING SYSTEM AIR CONDITIONING SYSTEME TI, 756.00 I-B00258-2 3113 38, 443.81 AIR CONDITIONING SYSTEM CALLS BARGE CRINE BARGE CRINE SOLID MASTE BUILDING; STRUCTURE TI, 756.00 I-B00258-2 3113 38, 443.81 TIGHT ON THE BUILDING; STRUCTURE TI, 756.00 I-B00258-1 3113 178, 647.96 YARD LIGHTING, BOILD MASTE AREA G, 838.00 I-B01583-1 3113 178, 647.96 YARD LIGHTING, BOILD MASTE AREA G, 838.00 I-B01583-1 3113 A, 628.80  FONS, CONCRETE, EDUIPMENT, DESILFURIZATION SYSTEM, SOLID MASTE PIPING SYSTEM, SOLID MASTE 213, 562.00 I-B00250-2 3123 2, 233, 598.72 1 PIPING SYSTEM, SOLID MASTE 213, 562.00 I-B00250-1 3123 105, 941.99 11			5,057.42	3123			SCREM CONVEYOR	
BARSE TROLLEY  BARSE UNLONDER CELL; FDNS.  SOLID MASTE BUILDING FONS.  SOLID MASTE BUILDING FONS.  CONTROL HOUSE; BARSE UNLONDER  CONTROL HOUSE; BARSE UNLO			5,057.43	3123	1-009295-1	9,440.00	SCREW CONVEYOR	
BARSE UNLONDER CELL; FDNS.  BARSE UNLONDER CELL; FDNS.  SOLID MASTE BUILDING FDNS.  CONTROL HOUSE; BARSE UNLONDER  BLECTAICAL BLOG; BARSE UNLONDER  BLECTAICAL BLOG; BARSE UNLONDER  B-2 CLARIFIER EQUIP, BUILDING  SOLID MASTE BUILDING; STRUCTURE  SOLID MASTE BUILDING; STRUCTURE  ATS, 286. 00 1-B00258-1 3113 212, 423. 04 1  BOLID MASTE BUILDING; STRUCTURE  ATS, 286. 00 1-B00258-1 3113 225, 775. 75  SOLID MAGTE BUILDING; STRUCTURE  ATS, 286. 00 1-B00258-1 3113 235, 775. 75  SOLID MAGTE BUILDING; STRUCTURE  ATRICONDITIONING SYST TUSC BLOG  ATRICONDITIONING SYS			21,329.59	3153	1-009284-1	39,844.00	BARGE CRANE	)
SOLID MASTE BUILDING FONS. 442,241.00 1-B00259-1 3113 219,382.52  CONTROL HOUSE! BARSE UNLOADER 20,360.00 1-B00218-1 3113 10,100.01  BLECTAICAL BLDG! BARSE UNLOADER 20,360.00 1-B00219-1 3113 10,100.01  B-2 CLARIFIER EQUIP. BUILDING 396,490.00 1-B00333-1 3113 212,423.04 1  BOLID MASTE BUILDING! STRUCTURE 475,286.00 1-B00258-1 3113 235,775.75  SOLID MASTE BUILDING! STRUCTURE 71,736.00 1-B00258-2 3113 38,443.81  AIR CONDITIONING SYS! TUSC BLDG 2,441.00 1-B00746-1 3113 1,516.82  ACCESS BRIDGE TO UNLOADER CELLS 333,449.00 1-B00258-1 3113 178,647.96  YARD LIGHTING, SOILD MASTE AREA 6,838.00 1-B01583-1 3113 4,628.80  TOTAL 8,846,611.61 4,571,281.86  FONS, CONCRETE, EDUIPMENT, DESULFURIZATION 2,446,645.00 1-B00254-2 3123 1,213,711.37 1  EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 1-B00257-2 3123 2,233,898.72 1  PIPING SYSTEM, SOLID MASTE 213,562.00 1-B00320-1 3123 105,941.99 11			20,765.72	3123	1-009285-1	38, 759.00	BARGE TROLLEY	
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CONTROL HOUSE: BARSE UNLOADER 20,360.00 I-B00218-1 3113 10,100.01  BLECTRICAL BLDG: BARSE UNLOADER 20,360.00 I-B00219-1 3113 10,100.01  G-2 CLARIFIER EQUIP. BUILDING 396,490.00 I-B00333-1 3113 212,423.04 1  BOLID WASTE BUILDING: STRUCTURE 475,286.00 I-B00258-1 3113 235,775.75  SOLID WASTE BUILDING: STRUCTURE 71,756.00 I-B00258-2 3113 38,443.81  AIR CONDITIONING SYS! IUSC BLDG 2,441.00 I-B00746-1 3113 1,516.82  RCCESS BRIDGE TO UNLOADER CELLS 333,449.00 I-B00258-1 3113 178,647.96  YARD LIGHTING, BOILD WASTE AREA 6,838.00 I-B01583-1 3113 4,628.80  TOTAL 8,846,611.61 4,571,281.86  FONS, CONCRETE, EDUIPMENT, DESULFURIZATION 2,446,645.00 I-B00254-2 3123 1,213,711.37 1  EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 I-B00257-2 3123 2,233,898.72 1  PIPING SYSTEM, SOLID WASTE 213,562.00 I-B00320-1 3123 105,941.99 11			219, 382, 52	3113			SOLID WASTE BUILDING FONS.	)
DECTRICAL BLOGI BARSE UMLOADER 20,360.00 I-B00219-1 3113 10,100.01 6-2 CLARIFIER EQUIP. BUILDING 396,490.00 I-B00333-1 3113 212,423.04 1 50.10 MASTE BUILDINGI STRUCTURE 475,286.00 I-B00258-1 3113 235,775.75 SOLID MASTE BUILDINGI STRUCTURE 71,756.00 I-B00258-2 3113 38,443.81 AIR CONDITIONING SYSI TUSC BLOG 2,441.00 I-B00746-1 3113 1,516.82 RCCESS BRIDGE TO UNLOADER CELLS 333,449.00 I-B00258-1 3113 178,647.96 YARD LIGHTING, SOILD MASTE AREA 6,838.00 I-B01583-1 3113 4,628.80 TOTAL 8,846,611.61 4,571,281.86  FONS, CONCRETE, EDUIPMENT, DESULFURIZATION 2,446,645.00 I-B00254-2 3123 1,213,711.37 1 EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 I-B00257-2 3123 2,233,898.72 1 PIPING SYSTEM, SOLID MASTE 213,562.00 I-B00320-1 3123 105,941.99 11			10, 100.01	3113	1-800218-1	20, 360, 00	CONTROL HOUSE! BARSE UNLOADER	30
### SOLID WASTE BUILDING: STRUCTURE ## 475,286.00 I-B00258-1 3113 235,775.75 SOLID WASTE BUILDING: STRUCTURE ## 71,756.00 I-B00258-2 3113 38,443.81 AIR CONDITIONING SYST TUSC BLDG 2,441.00 I-B00746-1 3113 1,516.82 ACCESS BRIDGE TO UNLDADER CELLS 333,449.00 I-B00258-1 3113 178,647.96 YARD LIGHTING, SOILD WASTE AREA 6,838.00 I-B01583-1 3113 4,628.80 ** TOTAL 8,846,611.61 4,571,281.86 ** FONS, CONCRETE, EDUIPMENT, DESILFURIZATION 2,446,645.00 I-B00254-2 3123 1,213,711.37 1 EQUIPMENT SUPPORTS-DESILFURIZATION SYSTEM 4,503,177.00 I-B00257-2 3123 2,233,898.72 1 PIPING SYSTEM, SOLID WASTE 213,562.00 I-B00320-1 3123 105,941.99 11			10, 100.01	3113	1-800219-1	20,360.00	ELECTRICAL BLDGI BARSE UNLOADER	
### SOLID WASTE BUILDING: STRUCTURE	1 81	1	212, 423.04	3113	I-R00333-1	396, 490, 00	6-2 CLARIFIER EQUIP. BUILDING	)
SOLID WASTE BUILDING: STRUCTURE 71,756.00 I-B00258-2 3113 38,443.81  AIR CONDITIONING SYST TUSC BLDG 2,441.00 1-B00746-1 3113 1,516.82  ACCESS BRIDGE TO UNLDADER CELLS 333,449.00 I-B00268-1 3113 178,647.96  YARD LIGHTING, SOILD WASTE AREA 6,838.00 I-B01583-1 3113 4,628.80  TOTAL 8,846,611.61 4,571,281.86  FONS, CONCRETE, EDUIPMENT, DESULFURIZATION 2,446,645.00 I-B00254-2 3123 1,213,711.37 1  EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 I-B00257-2 3123 2,233,898.72 1  PIPING SYSTEM, SOLID WASTE 213,562.00 I-B00320-1 3123 105,941.99 11			235,775.75	3113	1-800258-1	475, 286, 00		7
AIR CONDITIONING SYST TUSC BLDG 2,441.00 1-B00746-1 3113 1,516.82  ACCESS BRIDGE TO UNLDADER CELLS 333,449.00 1-B00268-1 3113 178,647.96  YARD LIGHTING, SOILD WASTE AREA 6,838.00 1-B01583-1 3113 4,628.80  TOTAL 8,846,611.61 4,571,281.86  FONS, CONCRETE, EDUIPMENT, DESULFURIZATION 2,446,645.00 1-B00254-2 3123 1,213,711.37 1  EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 1-B00257-2 3123 2,233,898.72 1  PIPING SYSTEM, SOLID WASTE 213,562.00 1-B00320-1 3123 105,941.99 11			38, 443.81	3113	1-800258-2	71,756.00		
### PROPRIES BRIDGE TO UNLOADER CELLS   333,449.00 I-B00268-1 3113 178,647.96			1,516,62	3113	1-800746-1	2,441.00		•
YARD LIGHTING, SOILD WASTE AREA 6,838.00 I-B01583-1 3113 4,628.80  TOTAL 8,846,611.61 4,571,281.86  FONS, CONCRETE, EDUIPMENT, DESULFURIZATION 2,446,645.00 I-B00254-2 3123 1,213,711.37 1 EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 I-B00257-2 3123 2,233,898.72 1 PIPING SYSTEM, SOLID WASTE 213,562.00 I-B00320-1 3123 105,941.99 11				a Maria and a second	1-800268-1	333, 449, 00		*
TOTAL 8, 846, 611.61 4, 571, 281.86  FONS, CONCRETE, EDUIPMENT, DESULFURIZATION 2, 446, 645.00 I-BOO254-2 3123 1, 213, 711.37 1  EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4, 503, 177.00 I-BOO257-2 3123 2, 233, 898.72 1  PIPING SYSTEM, SOLID WASTE 213, 562.00 I-BOO320-1 3123 105, 941.99 11			The second section is a second	1 4 4 4 4	C-32 5 1 65 6 Lo 1	THE RESERVE AND ADDRESS OF THE PARTY.		
EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 1-800257-2 3123 2,233,898.72 1 PIPING SYSTEM, SOLID HASTE 213,562.00 1-800320-1 3123 105,941.99 11			4,571,281.86			8,846,611.61	TOTAL	9
EQUIPMENT SUPPORTS-DESULFURIZATION SYSTEM 4,503,177.00 1-800257-2 3123 2,233,898.72 1 PIPING SYSTEM, SOLID HASTE 213,562.00 1-800320-1 3123 105,941.99 11	1 61	1	1,213,711.37	3123	1-800254-2	2,446,645.00	FONS, CONCRETE, EQUIPMENT, DESULFURIZATION	
PIPING SYSTEM, SOLID WASTE 213,562.00 E-800320-1 3123 105,941.99 11	1 81	1					2.00 E. V. S. UNIN DATE FOR DATE AND SHOP OF STREET AND	3
	-	11						
Status plantil ment amount product and section and sections and			99, 447. 91				PIPING SYSTEM, SOLID MASTE, GREEN 2	)

PIPING SYSTEM, M/INSULATION, SOLID MISSTE LINE SYS   122, 934.00   1-800322-1   3123   50, 983.74   11   79   79   79   79   79   79   79		1.D. = DKB:GENERAL VARNEX3 BREEN STATION ASSETS COM	ON USE NITH HA	PAL SCRIBBE	R	PREPARED 03-	lay-	35
PIPING SYSTEM, M/INSULATION, SOLID MASTE LINE SYS   122,934.00 1-500322-1 3123	9	All and the second seco	sones binny					
PIPING SYSTEM, WINSLATION, SÁLID MASTE LINE SYS B2	)			YAG 0	ACCT	Name of the Party		
PIPING SYSTEM, WINSLATION, SÁLID MASTE LINE SYS B2		PIPING SYSTEM, W/INSULATION, SOLID WASTE LINE SYS	122, 934.00	I-B00322-1	3123	60, 983, 74	11	79
PIRING SYSTEM, SLUDGE FEED PLAYS SH 62  FILTERS, VACUUM PLAYS, RECEIVERS, SH 61  FILTERS, VACUUM PLAYS, RECEIVERS, SH 62  FILTERS, VACUUM PLAYS, SH 62  FILTERS, VACUUM PLAYS, RECEIVERS, RECEIVERS	2						1	18
FILTERS, VACUUM PLANES, RECEIVERS, SH 61 FILTERS, VACUUM PLANES, RECEIVERS, SH 61 FILTERS, VACUUM PLANES, RECEIVERS, SH 62 FILTERS, VACUUM PLANES, RECEIVERS, SH 62 FILTERS, VACUUM PLANES, SH 62 FILTERS, VACUUM PLANES		PIPING SYSTEM, SLUDGE FEED PUMPS SW 61	21, 449, 00	1-800323-1	3123	10,640.04	11	79
FILTERS, VACIUM PIMPS, RECEIVERS, SIA 61  FILTERS, WACIUM PIMPS, RECEIVERS, SIA 62  FIPTING SYSTEM, SLIDBE/RECIRCULATION, SIA 63, 354, 305, 001 1-800325-1 3123 183, 240, 15 1 81  PIPTING SYSTEM, SLIDBE/RECIRCULATION, SIA 62  PLATFORMS, SIEEL SOLID MASTE 62  POWER AND CONTROL CRARE. SOLID MASTE 64  FOWER AND CONTROL CRARE. SOLID MASTE 64  FATE, SLIDE, SOLID MASTE FLYRSH BREEN 1  FATE, SLIDE, SOLID MASTE FLYRSH BREEN 2  CONNEYOR, SH FLYRSH BREEN 1  FREDER, SH FLYRSH BREEN 2  FREDER, SH FLYRSH BREEN 1  FREDER, SH FLYRSH BREEN 1  FREDER, SH FLYRSH BREEN 2  FREDER, SH FLYRSH BREEN 1  FREDER, SH FLYRSH BREEN 2  FREDER, SH FLYRSH BREEN 1  FREDER, SH FLYRSH B	(3)	PIPING SYSTEM, SLUDGE FEED PUMPS SN 62	54,057.00	1-800324-1	3123	28,961.83	1	81
FILTERS, WACKUM PRIPS, RECEIVERS, SH 61 FILTERS, WACKUM PRIPS, RECEIVERS, SH 62 FILTERS, WACKUM PRIPS, RECEIVERS, SH 63 FILTERS, WACKUM PRIPS, RECEIVERS, SH 63 FILTERS, WACKUM PRIPS, SH 62 FILTERS, WACKUM PRIPS, RECEIVERS, SH 61 FILTERS, WACKUM PRIPS, SH 62 FILTERS, SH 62 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, WACKUM PRIPS, SH 64 FILTERS, WACKUM P	)	FILTERS, VACUUM PUMPS, RECEIVERS, SH 61	488, 364, 00	I-B00325-1	3123	242,263.23	11	79
FILERS, WCLUM RUPDS, RECEIVERS, SM 62  PIPING SYSTEM, SLUDGE/RECIRCLERION, SM 61  PIPING SYSTEM, SLUDGE/RECIRCLERION, SM 62  PIPING SYSTEM, SUSTEM, INDOOR SOLID WASTE 61  PUPING SYSTEM, SUSTEM, INDOOR SOLID WASTE 62  PUPING SYSTEM, SUSTEM, INDOOR SOLID WASTE 62  PUPING SYSTEM SYSTEM, INDOOR SOLID WASTE 62  PUPING SYSTEM, SUSTEM, INDOOR SOLID WASTE 62  PUPING SYSTEM, INDOOR SOLID WASTE 63  PUPING SYSTEM, INDOOR SOLID WASTE 63  PUPING SYSTEM, SURGE 19MK SI, 62  PUPING SYSTEM, SURGE 19MK SI, 62  PUPING SYSTEM, SURGE 19MK SI, 62  PUPING SYSTEM SURGE 19MK SI, 62  PUPING SYSTEM SYSTEM SURP PUPING SOLID WASTE, GREEN 1  PUPING SYSTEM SYSTEM SURP PUPING SOLID WASTE, GREEN 1  PUPING SYSTEM SYSTEM SURP PUPING SOLID WASTE, GREEN 1  PUPING SYSTEM SYSTEM SURP PUPING SOLID WASTE, GREEN 1  PUPING	-		488, 364, 00	1-800326-1	3123	242, 263, 23	11	79
PIPING SYSTEM, SLIDGE/PECIROLATION, SN 61   31,305.00 1-B00326-1 3123   15,529,19   11   79			351, 353.00	I-B00327-1	3123	188,240.15		81
PIPING SYSTEM, SLIDGE/RECIRCULATION, SH 622  PIPING SYSTEM, SYSTEM, INDOOR SOLID WASTE 62  PLATFORMS, STEEL SOLID WASTE 62  POWER RND CONTROL CABLE SOLID WASTE 62  POWER RND CONTROL CABLE SOLID WASTE 63  POWER RND CONTROL CABLE SOLID WASTE 65  SG6, S72.00 1-800332-1 3123  281, 059.72 11 79  POWER RND CONTROL CABLE SOLID WASTE 62  SG7E, SLIDE, SOLID WASTE FLYASH SREEN 1 1,968.00 1-009120-1 3123  976.54 11 79  GATE, SLIDE, SOLID WASTE FLYASH SREEN 1 1,968.00 1-009120-1 3123  976.54 11 79  GATE, SLIDE, SOLID WASTE FLYASH SREEN 1 1,968.00 1-009120-1 3123  976.54 11 79  GATE, SLIDE, SOLID WASTE FLYASH SREEN 1 1,968.00 1-009120-1 3123  976.54 11 79  GATE, SLIDE, SOLID WASTE FLYASH SREEN 1 1,968.00 1-009120-1 3123  976.54 11 79  GATE, SLIDE, SOLID WASTE FLYASH SREEN 2 1,849.00 1-009120-1 3123  976.54 11 79  GATE, SLIDE, SOLID WASTE FLYASH SREEN 2 1,849.00 1-009120-1 3123  976.54 11 79  GATE, SLIDE, SOLID WASTE FLYASH SREEN 2 1,849.00 1-009120-1 3123  976.54 11 79  CONNEYOR, SH FLYASH SREEN 1 1,849.00 1-009120-1 3123  976.54 11 79  CONNEYOR, SH FLYASH SREEN 1 1,849.00 1-009120-1 3123  976.54 11 79  CONNEYOR, SH FLYASH SREEN 1 1,849.00 1-009120-1 3123  976.54 11 79  CONNEYOR, SH FLYASH SREEN 1 34,809.00 1-009120-1 3123  976.54 11 79  FEEDER, SH FLYASH SREEN 1 34,809.00 1-009120-1 3123  976.54 11 79  FEEDER, SH FLYASH SREEN 1 34,809.00 1-009120-1 3123  17,257.60 11 79  FEEDER, SH FLYASH SREEN 1 34,809.00 1-009120-1 3123  17,257.60 11 79  FEEDER, SH FLYASH SREEN 1 34,809.00 1-009120-1 3123  17,257.60 11 79  FEEDER, SH FLYASH SREEN 1 34,809.00 1-009120-1 3123  17,257.60 11 79  CONNEYOR MYPLATFORMS SH FLYASH SREEN 1 34,809.00 1-009120-1 3123  17,257.60 11 79  CONNEYOR MYPLATFORMS SH FLYASH SREEN 1 34,455.00 1-009130-1 3123  17,257.60 11 79  CONNEYOR MYPLATFORMS SH FLYASH SREEN 1 43,455.00 1-009130-1 3123  17,257.60 31 79  CONNEYOR MYPLATFORMS SH FLYASH SREEN 1 51,509.00 1-009170-1 3123  17,257.60 31 79  POUNT FIRST SOLID WASTE, SREEN 1 51,509.00 1-009170-1 3123  17,257.60 31 79  POUNT FOR MYPLATFORMS SH FLYASH SREEN 1 51,50	)	PIPING SYSTEM, SLUDGE/RECIRCULATION, SH 61	31, 305, 00	1-B00328-1	3153	15, 529, 19	11	79
PIPING SYSTEM, SLIDGE/RECIRCULATION, SH 62 7,051.00 1-000329-2 3123 3,777.58 1 81 PIPING SYSTEM, INDOOR SOLID MASTE 62 43,668.00 1-000330-1 3123 123,355.71 1 81 PIPING SYSTEM, INDOOR SOLID MASTE 62 43,668.00 1-000330-1 3123 124,776.05 17 PIPING SYSTEM, SUSTEM, INDOOR SOLID MASTE 62 285,799.00 1-000330-1 3123 124,776.05 17 PIPING SYSTEM, SUSTEM, SUS	20	PIPING SYSTEM SYSTEM, INDOOR SOLID WASTE BI	102,704.00	I-B00329-1	3153	50,948.48	11	79
PLATFORMS, STEEL SOLID MASTE POWER RND CONTROL CARLE SOLID MASTE 61 POWER RND CONTROL CARLE SOLID MASTE 62 POWER SOLID MASTE FLYRSH BREEN 1 POWER SOLID MASTE FLYRSH BREEN 2 POWER SOLID MASTE FLYRSH BREEN 3 POWER FLYRSH BREEN 3 POWER SOLID MASTE FLYRSH BREEN 3 POWER FLYRSH BREEN 4 POWER FLYRSH BREEN 1 POWER FLYRSH			7,051.00	I-B00329-2	3153	3,777.58	1	81
PLATFORMS, STEEL SOLID MASTE POMER AND CONTROL CARLE SOLID MASTE 61 POMER AND CONTROL CARLE SOLID MASTE 62 POMER AND CONTROL FOR SOLID MASTE 62 POMER SOLID MASTE FLYRSH BREEN 1 POMER SOLID MASTE FLYRSH BREEN 2 POMER SOLID MASTE FLYRSH BREEN 3 POMER SOLID MASTE	)					23, 395, 71	-1	81
POWER AND CONTROL CARLE SOLID MASTE 61 POWER AND CONTROL CARLE SOLID MASTE 62 POWER AND CONTROL CARLE SOLID MASTE 62 EATE, SLIDE, SOLID MASTE FLYASH BREEN 1 FATE, SLIDE, SOLID MASTE FLYASH BREEN 2 FATE, SLIDE, SOLID MASTE FLYASH BREEN 3 FATE, SLIDE, SOLID MASTE FLYASH BREEN 1 FATE, SLIDE, SOLID MASTE FLYASH BREEN 1 FATE, SLIDE, SOLID MASTE SOLI							11	79
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17	COME PLOWER, W/CLOTH ROPE, SOLID WASTE GI	12,390.00	A FIRSTON	3123	6, 146, 70	11	79
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)	CONVEYOR, FILTER DISCHARGE, SOLID WASTE IA 61	45, 999.00	1-009206-1	3123	22,818.39	11	79
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4	CORVEYOR, MIXER FEED, SOULD MASTE GI	47, 151.00 1	1-115600-1	3153	23, 390. 25	11	79
3	CONVEYOR, MIXER FEED, SOLID HASTE GO	47, 151.00 1	-009212-1	3123	23, 390. 25	11	79
	NIXER, SOLID WASTE GI	99, 976, 00 1	-009213-1	3153	49,595.07	11	79
ď.	NIXER, SOLID WASTE 61	99,975.00 1	-009214-1	3153	49, 594. 10	11	79
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9	VALVE, CONTROL & SLIDSE RECIRCULATION, SOLID WASTE GI	6, 333.00 1		3123	3, 141.87		79
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PANEL, ADDITIONS FOR GREEN 2	67,085,00		3123	35,941.07	1	81
SUBSTATION, SOLID WASTE, 480V, EREEN 1	76, 496,00	1-009244-1	3153	37,947.27	11	79
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NCC, SOLID WASTE, 480V, GREEN 1	13,420.00	1-009251-1	3123	6,657.08	11	79
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)			Gross Book Value	TAG 9	ACCT	NET BOOK VALUE 12-31-94			
,	NCC,	MCC, ADDITIONS TO GREEN 2 SOLID WASTE, 480V, GREEN 1 MCC, ADDITIONS TO GREEN 2	13,421.00	1-009258-1	3123 3123 3123	1, 393.14 6, 657.45 1, 393.14	11	61 79 81	
)		SULID WASTE, 480V, GREEN 1 MCC, ADDITIONS TO GREEN 2 SOLID WASTE, 480V, GREEN 1	13, 421.00 2, 601.00 13, 421.00	I-009259-1 I-009259-2 I-009260-1	3123 3123 3123	6,657.45 1,393.14 6,657.45	11	79 81 79	
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)		DLE FLOW, 4 INCH, SCRUBBER			3123	759.50 6,877,879.22	5	88	
)	PNEI	UNATIC ASH TRANSFER SYSTEM		1-800801-1		314,618.21	7	83	
ر ک		GRAND TOTAL	42,345,219.55		į	21, 675, 601. 32			

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### EXISTING HMP&L STATION TWO FACILITIES

- PART A. All Station Two facilities located on City property are owned by the City of Henderson Utility Commission except the BTG control board for Big Rivers' Reid Unit 1. This property is indicated as areas A and B on Exhibit 2. The Reid control board is now located in the Station Two control room. The Station Two facilities are:
  - Two Cooling Towers, Ecodyne Model 670-2-71011, S/N E-70-12783 and 1. E-70-12784
  - 2. Four Circulating Water Pumps, Byron Jackson Model 57RXM S/N 711-C-1621. 711-C-1622, 711-C-1623, and 711-C-1624
  - One Turbine Building including Control Room, Switchgear, Fans, Pumps, 3. Motors, Coal Pulverizers and Other Plant Auxiliary Equipment.
  - 4. Two Steam Generators, Riley Stoker, National Board Nos. 2292 (repair no. 390) and 2379, S/N 3576 and 3675.
  - Two Turbine Generators, One General Electric S/N 178863, One Westinghouse 5. S/N 13A43311/43321
  - Two Electrostatic Precipitators, Research Cottrell, Model No. B11LC52F9X30 6.
  - 7. One Chimney, 350 feet tall, concrete shell with brick liner, serving both
- PART B. Joint Use Facilities Provided By and Owned By the City But Located on Big Rivers' Property.
  - 1. Barge Mooring Cells Nos. 1N, 2N, 3N, 4N, 1S, 2S, 3S and 4S as shown on Burns & Roe Drawing No. 04-3280-53200
  - 2. One Coal Barge Unloader, McDowell Wellman, 1000 net ton/hr capacity
  - 3. Eight Coal Conveyors 1, 2, 3A, 3B, 4A, 4B, 5B and 6B, as shown on attached Exhibit 2
  - 4. One Reclaim Hopper which feeds coal conveyors 4A and 4B
  - 5. One Crusher House fed by conveyor No. 1
  - One Tugboat The "William Newman" 37 feet long, 21.27 gross tons, 14.0 net 6. tons, coastguard capacity 350 HP
  - 7. One Water Treatment Plant With Demineralizer Building and associated equipment
  - 8. One 50,000 Gallon Capacity Fuel Oil Storage Tank & Distribution System
  - 9. One Flyash Silo, Sump & System Components
  - One Prefab Metal Warehouse adjacent to Fly Ash Silo 10.
  - Coal Handling Equipment As Listed In Continuous Property Records 11.
  - 12. One Lot of Materials & Spare Parts in Big Rivers Warehouse No. 15 as defined by inventory control records
  - One Ash Pond and Effluent Lines
  - Circulating Water Lines as shown on attached Exhibit 2
  - Station Two Ash Pond Dredgings in Green Station Sludge Disposal Landfill adjacent to Green River south of Green Station
    - Four 161KV 0il Circuit Breakers, General Electric, S/N 0139A7206208,
  - 0139A7206209, 0139A7206212, 0139A7206213, located in Plant Switchyard. Two Step-up Transformers, McGraw Edison, S/N C-04280-5-1, C-04280-5-2, 17. located in Plant Switchyard.
  - Two Auxiliary Transformers, Westinghouse, S/N RCP 37261, RCP 37262, located in Plant Switchyard.

- 19. One Excitation Transformer, General Electricy.ms/Ms@bigrivers.com 597562, located in Plant Switchyard.
- 20. One Lot of Line Terminal Structures, Bus, Relay Panels, Etc., located in Plant Switchyard as shown on attached Exhibit 2.
- Unit heaters and air conditioner units for the substation control building.
- Outdoor substation lighting and control building lighting.
- Prefabricated metal control building, with reinforced concrete foundation.
- PART C. Joint Use Facilities Owned by Big Rivers and located on Big Rivers property
  - Reid Intake Structure, Two Pumps, and Circulating Water System to serve Reid Unit 1.
  - Coal System Crusher Tower supplied by coal conveyors 4A and 4B.
  - Coal Conveyors Number 5A and 6A as shown on attached Exhibit 2.
  - Plant Entrance Roads from highways 2096 and 2097 and Two Concrete Block Guardhouses.
  - 5. Reid Office Building and Maintenance Shop.
  - Reid Grounding Transformer Eastern S/N PMR427988.
  - Sewage Treatment Facility for Reid, Green and HMP&L Station Two power plants.
  - Fire Water System for Reid Station.
  - Switchyard Control House for Breaker Controls as shown on attached Exhibit 2.
- PART D. Other Facilities Owned by the City of Henderson Utility Commission But Not Classified as Joint Use Facilities, a portion or all of which is located on Big Rivers property
  - One 161KV Line from Reid EHV Substation to City Substation No. 4.
  - One Line Terminal Bay and Associated Equipment in Reid EHV Substation for City 161KV Line to City Substation No.
  - Fifty Percent (50%) Ownership of 161/69KV Transformer G1, Westinghouse, S/N RLP 15941) at Henderson County Substation, and related substation facilities.
  - 4. Ten Percent (10%) Ownership of Big Rivers 161KV Line from Station Two Switchyard to Henderson County Substation.
  - Forty Percent (40%) Ownership of Spare Step Up Transformer (General Electric S/N K 547026) & Railcar (No. BREX 242).
  - 6. One 69KV Transmission Line from plant switchyard to City Substation No. 2.

## PROPOSED HMP&L STATION TWO FACILITIES FOR FGD SCRUBBER SYSTEM

PART A. Station Two FGD Facilities To Be Owned by City of Henderson on Big Rivers Property

1. FGD System Chimney, 350' Tall

2. Two Wheelabrator Absorber Modules, Building & Associated Equipment

3. Two Booster Fans

Auxiliary Building as shown on attached Exhibit 2 containing Controls and 4. Electrical Equipment, Maintenance, Locker and Shower Facilities

5. One Station Two Slaker Building Enclosing Three Slaking Tanks & Equipment

6. One Station Two Additive Hold Tank

- Two Lime Feed Conveyors from Big Rivers' Green Station Lime Storage 7. Silos 201 & 202
- Two Additive Feed Systems; Station Two Scrubber System Includes Pipe & Pipe 8.
- 9\_ Two Bleed Slurry Systems to Big Rivers' Green Station Primary Dewatering System Including Pipe, Pipe Rack & Splitter Boxes

Two New Thickener Return Water Tanks & Controls

11. One New Filtrate Surge Tank and Controls

- 12. One Electrical Power Supply for FGD System, with redundant feeds including power transformer, bus work, relay panels and metering equipment
- PART B. FGD Joint Use Facilities To Be Owned by City of Henderson on Big Rivers Property

1. Two Lime Slaking Water Pumps and Lines to Slaking Building

Two Pug Mill Mixers (Listed Manufacturer and Serial Nos. when known) 2.

3. One Vacuum Filter and Associated Equipment Including Building Expansion as shown on attached Exhibit 2

Two New Thickener Underflow Lines and Two Flow Monitors 4.

- Two Control Systems on Big Rivers! Green Station Thickener Return Water 5. Tanks
- PART C. Existing Facilities Owned By Big Rivers Electric For Green Station FGD System As Shown On Attached Exhibit 2 Which Will Be Jointly Used By Green Station and HMP&L Station Two And Which Are Located On Big Rivers Property
  - One Lime Barge Unloader, Dravo Wellman 200/400 Net Ton/Hr Capacity For 1. Lime, 1500 Net Ton/Hr Capacity For Coal

2. One Lime Conveyor L1 and Transfer Tower As Shown On Exhibit 2

Two Lime Silos: 2C1 and 2C2 As Shown On Exhibit 2, and Six Lime Screw 3. Conveyors: 2CW-LFC, 2CE-LFC, 2C1-SC, 2C2-SC, 1CW-LFC, 1CE-LFC

Four Thickeners for Primary Dewatering of Bleed Slurry: 1A, 1B, 2A, 2B, 4.

Including Tunnels, Pumps, and Ventilation Systems

One Secondary Dewatering System and Sludge Stackout System, Including Solid 5. Waste Building and Sludge Stackout Area as Shown on Exhibit 2; Three Vacuum Filters with Feed Systems: FL-1A, FL-1B, FL-1C; Eleven Filter Cake Conveyors and Radial Stackers: CO-1A, CO-1B, CO-1C, CO-2A, CO-2B, CO-3A, CO-3B, CO-6A, CO-6B, CO-7A, CO-7B; and Four Fly-Ash Screw Conveyors

6. Two Ash Silos and Pneumatic Transfer System

- Two Green Station Rive: Water Clarifiers: CL-101 and CL-102, with Three 7,
- Slaker Water Pumps: 1A, 1B and 2A One Solid Waste Loader, Hitachi S/N 171-0373 8.
- 9. One Sludge Haul Road and Two Truck Scales

# POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT BETWEEN

CIT/ OF HENDERSON. KENTUCKY

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and

BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

August 1, 1970

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# POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT

THIS AGREEMENT made and entered into as of August 1, 1970
by and between CITY OF HENDERSON, KENTUCKY, hereinafter referred
to as CITY, and BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION,
a Kentucky Corporation with principal offices in Henderson,
Kentucky, hereinafter referred to as BIG RIVERS.

WITNESSETH THAT:

# PART I STIPULATIONS AND DEFINITIONS

# SECTION 1 - STIPULATIONS (See 1993 Amendments)

- 1.1 City owns and operates an electric generating and distribution system (Municipal Electric Light & Power System) with total generating capability of forty-eight thousand (48,000) kilowatts and firm system capacity of twenty-two thousand (22,000) kilowatts, with which it serves the needs of City and its in-habitants for electric power and energy.
- 1.2 Big Rivers owns and operates electric generating stations and related transmission facilities with present generating capacity (including capacity under construction) of five hundred ninety thousand (590,000) kilowatts with which it supplies power and energy to its member Rural Electric Co-operative Corporations, which in turn serve the local consumers in their respective service areas.

- Amend. 1.3 The electric systems of City, Big Rivers, Southern Illinois Power Co-operative, an Illinois Corporation, and Hoosier Energy Division of Indiana Statewide Rural Electric, Inc., an Indiana Corporation, are interconnected to form what is known as the KII Pool under provisions of an interconnection agreement of April 1, 1968.
- 1.4 City's present system load is in excess of the firm capacity of its Municipal Power & Light System and it provides its deficient needs through the provisions of the KII Pool Agreement.
- 1.5 City is presently planning a comprehensive annexation program whereby the area of its corporate limits will be increased by approximately three-fold.
- 1.6 City's consulting engineers have determined that City will require additional generating capabilities by the year 1973 in order to provide for the needs of its electric consumers. Said engineers have further determined and recommended to City that the most feasible and economical plan for providing the City's present and anticipated electric generation needs is the construction by City of a relatively large and more efficient generating station, whereby City can provide adequate, low-cost power and energy for the present and future needs of its Municipal Electric Light & Power System, with interim sales of surplus power and energy: (a) to Big Rivers as provided in the parties' Power Sales Agreement of even date herewith; (b) through the provisions of the KII Pool Agreement; (c) or otherwise.
- 1.7 City's consulting engineers have reported that the site of City's present generating plant is inadequate for the addition of the required generating facilities and that

space requirements and the growing need and public demand for control of the urban environment make the selection of a remote, rural site most desirable.

- City's consulting engineers have determined and recommended to City that the most feasible and economical plan for the City's addition of such generating station is the establishment of a new generating station, presently consisting of two, one hundred seventy-five (175) megawatt, coal-fired, steam-electric generators, with provisions for the future addition of other generating units, at a site on the Green River in Henderson County Kentucky, adjacent to the Reid Station of Big Rivers, and so arranged as to provide for the joint utilization by City and Big Rivers of auxiliary facilities and operating personnel in such manner as to achieve optimum economies in construction and operation, all as authorized by KRS 96.520, as amended. The addition of such generating station to City's electric facilities would provide City a firm system capacity of two hundred twenty-three thousand (223,000) kilowatts, which is estimated to meet City's needs for electric power and energy for an additional twenty (20) years.
- 1.9 Big Rivers has agreed, subject to the terms of this Agreement that it will sell and convey such site and all required easements to City, that it will permit City to construct its generating station in the manner so recommended by its consulting engineers, and that it will enter into a power sales agreement with City for the purchase of all surplus capacity and related

energy available from time to time from said generating station.

- 1.10 City has accepted the determinations and recommendations of its consulting engineers and has determined to proceed with the design, construction, start-up and operation of such electric generating station (hereinafter referred to as Station Two) subject to the terms and provisions of this Agreement and other Agreements referred to herein.
- 1.11 City has employed the services of a nationally recognized engineering firm to design and supervise construction of its Station Two; has employed the services of financial advisers to assist in the sale of sufficient revenue bonds with which to finance the acquisition, construction and start-up of said Station Two and has employed the services of nationally recognized bond counsel. Upon the execution and approval of this Agreement City will direct its said employees to proceed with the performance of such services.

(See 2005 Amendments)

SECTION 2 - DEFINITIONS

2.1 Existing System: The electric utility system by which City serves the needs of City and its inhabitants (and some non-inhabitants) at the time of the execution of this Agreement, and all additions, expansions and improvements thereto and renewals and replacements thereof hereafter made, other than Station Two.

See 2005
Amend. 2.2 Station Two: City's proposed 350-megawatt generating station and all auxiliary facilities, joint use facilities

(provided by City) and other related facilities to be constructed at a site on Green River in Henderson County, Kentucky, together with all additions, expansions and improvements thereto and renewals and replacements thereof (which shall not include the City Transmission and Transformation Facilities as herein defined)

- 2.3 Auxiliary Facilities: Power plant facilities which are physically separated from the steam generators, turbines and electric generators comprising the generating station, and which are required for the operation, maintenance and/or control thereof, and/or the delivery of power and energy therefrom, but excluding the City Transmission and Transformation Facilities.
- 2.4 Joint Use Facilities: Auxiliary facilities which are so constructed and/or arranged as to be useful to City and Big Rivers in the operation, maintenance and control of their respective generating stations.
- 2.5 Date of Commercial Operation: The date upon which the first unit of City's Station Two has been placed in normal continuous operation so as to produce power and energy in a commercially acceptable manner.
- 2.6 Contract Year: With respect to the first contract year, the period from Date of Commercial Operation or June 30, 1974, whichever shall first occur, to and including the next succeeding December 31, and thereafter, the successive twelve-month periods beginning January 1 and ending December 31.
- 2.7 Monthly Billing Period: Each calendar month of any Contract Year.
- See 2005
  Amend. 2.8 Bond Ordinance: The Electric Light & Power Revenue
  Bond Ordinance adopted by City authorizing the issuance of
  Station Two Bonds, together with ordinances supplemental thereto

or amendatory thereof.

See 2005
Amend. 2.9 Station Two Bonds (the Bonds): The Electric Light
& Power Revenue Bonds authorized, sold and issued by City pursuant
to the Bond Ordinance, to provide for the costs of acquisition,

construction and start-up of City Station Two and shall include:

(i) the Electric Light & Power Revenue Bonds, Station Two Series
authorized and issued under the Bond Ordinance; and (ii) additional
Bonds, if any, authorized and issued under the Bond Ordinance to
provide for such costs of Station Two in excess of original estimates.

- 2.10 City Transmission and Transformation Facilities: The transmission and transformation facilities to be provided by City connecting Station Two to City's Existing System.
- 2.11 Trustee: The Trustee appointed pursuant to the Bond Ordinance.

See 2005 Amend. (Added Subsections 2.12 thru 2.57)

#### PART II

#### FACILITIES

SECTION 3 - ACQUISITION OF SITE (See 2005 Amendments)

- 3.1 Big Rivers agrees to sell and convey to City a site and necessary easements and rights-of-way for City's construction and operation of its Station Two, all in accordance with the parties Purchase-Sale Agreement of even date herewith.
- 3.2 Such site, easements and rights-of-way shall be conveyed and/or granted to City free and clear of any encumbrances whatsoever which would have priority over the rights of the holders of City's Electric Revenue Bonds.

  See 2005 Amend. (Added Subsection 3.3)

SECTION 4 - CONSTRUCTION OF PLANT

(See 1993 Amendments)
(See 2005 Amendments)

- 4.1 City will direct its employed engineering firm to proceed immediately with the design and development of plans and specifications for the construction of Station Two, consisting of two, one hundred seventy-five (175) megawatt coal-fired, steam-electric generating units, with all necessary auxiliary facilities, with such arrangement as will provide for the joint use by City and Big Rivers of auxiliary facilities and operating personnel so as to result in optimum economies of construction and operation. Such plans and specifications shall be subject to prior approval by City and, to the extent that Big Rivers' Reid Station is affected thereby, by Big Rivers.
- 4.2 City agrees to obtain all necessary permits for the construction and operation of its Station Two, moorage and associated facilities and further agrees to use its best efforts to cause any and all of such permits to extend for a term equal to the term of this Agreement, or to obtain any new or additional permits required to enable it to operate and maintain its Station Two for such term.
- 4.3 Upon completion by the engineers of such plans and specifications, and upon approval thereof by City and Big Rivers, as hereinabove provided, City will diligently proceed with the construction of Station Two in the most economical and efficient manner, consistent with good utility practices, and in such manner as to least interfere with the continued operation by Big Rivers of its Reid Station during the period of construction and the start-up of such facilities.

4.4 Big Rivers will provide construction assistance to City during the design, construction and start-up of City's Station Two in accordance with the provisions of Section 11,

Construction Assistance, of this Agreement.

See 1993 Amend. (Added Subsections 4.5 thru 4.11) See 2005 Amend. (Added Subsections 4.12 thru 4.22)

SECTION 5 - TRANSMISSION AND TRANSFORMATION FACILITIES

- 5.1 Adequate switchyard and 161 KV step-up transformers will be provided by City as a part of Station Two.
- 5.2 City will provide, at its own cost, one 69 KV transmission line and related transformation facilities connecting its Station Two to its Existing System (herein referred to as City Transmission and Transformation Facilities), with provision for increasing of transmission capacity to meet City's future needs.
- 5.3 Big Rivers will maintain at all times and provide for City's use, at no cost to City, surplus capacity on its two existing 69 KV transmission lines from point of City's Station Two switchyard to points of substations of City's Existing System, and will likewise provide for City's use any surplus capacity on additional transmission facilities which Big Rivers may hereafter construct in such a manner as to permit the transmission of electric energy from City's Station Two to its Existing System. In its use of such transmission facilities, City will not, in any manner, disrupt or adversely affect Big Rivers' service to its own customers.
- 5.4 Any transmission facilities required by City in addition to those provided as hereinabove recited, shall be provided by City at its own cost.

## SECTION 6 - JOINT USE FACILITIES

each provide such joint use facilities as are determined by the City's employed engineering firm (and approved by City and Big Rivers) to be furnished by each, respectively, and will each provide, on a best efforts basis, for the continued operation and maintenance thereof for the joint use and benefit of the parties, all as provided in the parties' Joint Facilities Agreement of even date herewith.

#### SECTION 7 - FUEL SUPPLY

- 7.1 An initial coal supply will be established out of the proceeds of the Station Two Bonds as a facility of City's Station Two. Bond proceeds in the amount of \$465,000 will be allotted therefore.
- 7.2 Such coal supply will be maintained as a fuel reserve throughout the term of this Agreement through the addition of replacement fuels as such reserve is from time to time, consumed in the operation of City's Station Two.
- 7.3 Start-up fuels will be supplied by Big Rivers as provided in Section 12, Start-Up Assistance.

# SECTION 8 - GENERAL PLANT EQUIPMENT

8.1 City will acquire out of the proceeds of the Station Two Bonds, as part of the initial facilities of Station Two, general plant equipment sufficient to efficiently operate and maintain Station Two.

- SECTION 9 CAPITAL FUNDS AND ACCOUNTS (See 2005 Amendments)
  See 2005
  Amend. 9.1 The following capital funds and accounts (among others)
  will be established out of the proceeds of the Station Two Bonds
  as facilities of City's Station Two:
  - (a) a Station Two Account in the Operating & Maintenance Fund (hereinafter referred to as the Station Two O. & M. Account) in the amount of \$500,000.00.
  - (b) a Debt Reserve Account in the Debt Service Fund, in the amount required therefore under provisions of the Bond Ordinance, hereinafter referred to as the Station Two Debt Reserve Account.
  - (c) a Station Two Account in the Renewals and Replacements Fund (hereinafter referred to as the Station Two R. & R. Account) in the amount of \$750,000.00.
  - 9.2 Such accounts and funds shall be held, managed, controlled, invested, expended, applied and maintained as provided by the Bond Ordinance and the parties' Power Sales Contract of even date herewith.

## SECTION 10 - SALE OF BONDS

- 10.1 City will authorize, sell and issue its Station Two Bonds bearing an average interest rate and maturity schedule acceptable to City with final maturity of not less than thirty (30) years from date of issuance, in a principal amount of \$76,000,000. The City shall also use its best efforts to sell and issue any additional Bonds required to provide for costs of Station Two in excess of original estimates.
- 10.2 The proceeds of such Bonds will be held, managed, controlled, invested, expended and applied as provided by the

Bond Ordinance.

#### PART III

## CONSTRUCTION, START-UP AND OPERATION

#### SECTION 11 - CONSTRUCTION ASSISTANCE

- 11.1 In connection with the acquisition and construction of City's Station Two, Big Rivers will provide to City, at the costs hereinafter recited, construction services and facilities as follows:
- (a) advice on the selection of the most economical and feasible power plant design.
- (b) review and recommendation on approval of plans and specifications.
- (c) evaluation of all construction and equipment bids and proposals; recommendation on contract awards and purchases.
- (d) coordination and supervision of all contractors and/or suppliers engaged in the actual construction of Station Two.
- (e) complete accounting services for all phases of acquisition and construction of Station Two.
- (f) compilation of a complete and accurate record of all drawings, specifications, contracts, reports, test results, correspondence and other written materials pertinent to the acquisition and construction of Station Two.
- (g) witnessing of all testing of materials and/or equipment incorporated into Station Two.
- (h) providing water and electric service required in the construction of Station Two.
  - furnishing, at no charge, space in Big Rivers Reid (i)

Station for City's consulting and construction engineers.

- providing such other assistance, services and/or facilities in connection with the acquisition and construction of Station Two as may from time to time be agreed upon by the parties.
- 11.2 City will reimburse Big Rivers for all its reasonable out-of-pocket expenses in providing the services and facilities enumerated in Section 11.1, plus an additional overhead allowance in the amount of twenty per cent (20%) on all such labor costs and ten per cent (10%) on all such materials and supplies. Such costs will be paid from the proceeds of Station Two Bonds.
- 11.3 It is understood that the services to be performed by Big Rivers under the provisions of this Section 11 are on an advisory basis, and that City has the right to make all final determinations in connection therewith. However, to the extent that the design and/or construction of Station Two shall have a material effect upon the economical and/or continuous operation of Big Rivers Reid generating plant, Big Rivers shall have the right of approval or disapproval of such determinations by City.
- City will provide adequate Builders Risk Insurance covering the complete construction and installation of its Station Two and shall further provide adequate insurance for protection of Big Rivers Reid Station and related facilities against damages from construction operations. The costs of such insurance will be paid out of the proceeds of the Station Two Bonds.

12.1 Big Rivers will provide to City, at the costs hereinafter recited, technical skills, labor, fuels, materials and other services required for starting up and placing into commercial operation City's Station Two.

12.2 Operating tests of all equipment and auxiliary facilities of Station Two will be performed by or under the direction of Big Rivers, and suitable reports thereof will be made to City. Big Rivers will direct City's engineers, contractors and suppliers in the making of all changes, adjustments, repairs, replacements, alterations or additions required in order to place City's Station Two and its various components into commercial operation and in compliance with the plans and specifications therefore adopted by City. Big Rivers will place Station Two into commercial operation as soon as reasonably possible and will immediately notify City thereof.

- 12.3 City will reimburse Big Rivers for its reasonable out-of-pocket expenses in providing the start-up assistance, services and/or materials referred to in this Section 12, plus an additional overhead allowance in the amount of twenty per cent (20%) on all such labor costs and ten per cent (10%) on all such materials, except fuels. Fuels will be furnished at cost.

  Such costs will be paid from the proceeds of the Station Two Bonds.
- 12.4 Electric energy produced from each unit of City's Station Two during start-up and prior to the Date of Commercial Operation shall be marketed wherever and whenever possible.

All amounts received from such sales of energy shall be for the account of City and shall be applied to the costs of construction of City's Station Two.

# SECTION 13 - OPERATION, MAINTENANCE AND CONTROL

- 13.1 Except as otherwise provided herein, City shall have full ownership, management, operation and control of its Station Two.
- 13.2 Subject to City's ownership, management and control, during the term of this Agreement Big Rivers will provide, as an independent contractor, all operating personnel, materials, supplies and technical services required for the continuous operation of City's Station Two so as to fulfill City's obligations (a) to provide the needs of City and its inhabitants as defined in the Power Sales Contract, (b) to Big Rivers as provided in the Power Sales Contract, (c) to the KII Pool members, as provided in the KII Pool Agreement and (d) to others to whom City may, from time to time, become contractually obligated in connection with its Station Two.
- 13.3 Purchases of materials and supplies required in the operation and maintenance of City's Station Two shall be made for City's account, subject to approval and acceptance by City and in compliance with all laws applicable thereto.
- 13.4 Big Rivers covenants and agrees that during the term of this Agreement it will at all times operate City's Station Two on a best efforts basis, in an efficient and economical manner, and will maintain, preserve and keep said Station Two and every

part and parcel thereof in good repair, working order and: condition, and will, from time to time, make all necessary and proper repairs, renewals and replacements thereto so that at all times the business to be carried on by City in connection therewith shall be properly and efficiently conducted.

- 13.5 Big Rivers will keep and maintain complete and accurate records of its operation and maintenance of City's Station Two, including without limitation: (a) the continued output of Station Two and the uses thereof by City, Big Rivers and others, (b) the continued input of labor, materials, supplies and services to Station Two, (c) records of all maintenance and repairs to Station Two, (d) records of all renewals and replacements of Station Two. (e) records of Station Two fuel consumptions, replacements and reserves, (f) current inventories of all supplies, equipment and replacement parts maintained in connection with Station Two, (g) such other records as shall be of assistance to City in the ownership, operation, maintenance, management and control of Station Two.
- 13.6 City will pay Big Rivers, on a monthly basis, its reasonable expenditures incurred in the operation and maintenance of City's Station Two under the terms of this Agreement, as defined and allocated to City's Station Two under the provisions of Section 13.8 - Allocation of Costs, plus an additional payment of fourteen and one-half (14 1/2) cents per month, per kilowatt of the total capacity of Station Two, as such total capacity is from time to time determined and established as provided in the parties Power Sales Contract of even date herewith.

13.7 Such payments to Big Rivers by City shall be made monthly on the basis of the Annual Budget then in effect, and in accordance with the provisions of Sections 14 and 18 of this Agreement.

#### 13.8 Allocation of Costs:

It is recognized that Big Rivers will operate and maintain its Reid Generating Station with the same operating personnel and facilities as it will use for the operation of City's .

Station Two. For purposes of defining and allocating the costs thereof the parties agree as follows:

- (a) the following costs of operation and maintenance will be allocated to the particular generating station to which they are applied, and will be charged directly to such generating station:
- (1) Costs of materials, supplies and fuels attributable directly to a generating plant.
- (2) Costs of repairs, maintenance and spare parts attributable directly to a generating plant.
- (3) Costs of renewals, replacements and additions attributable directly to a generating plant.
- (4) Costs of emergency and/or maintenance capacity and energy attributable directly to a generating plant.
- (5) Property taxes validly imposed upon each party's plant and related facilities.
- (6) Costs of insurance attributable to a generating plant.
- (b) The following costs of operation and maintenance will be allocated between Big Rivers Reid Station and City's Station

Two on the basis of each generating station's total capacity as related to the sum of such total capacities:

- (1) All operating labor and fuel handling labor.
- (2) All maintenance labor common to both plants.
- (3) All supplies common to both plants.
- (4) All maintenance materials common to both plants.
- (5) All costs of operation, maintenance, repair, addition, renewal and replacement of joint use facilities as described in Section 6 of this Agreement.
- (6) All applicable taxes except property taxes on plant and taxes directly attributable to cost of fuels and/or sales of power and energy.
  - (7) All administrative costs.
  - (8) Costs of professional services.
  - (9) All costs of accounting and records keeping.
  - (10) All remaining costs of insurance.
- (11) All other costs of operation and maintenance not otherwise allocated under the provisions of  $\underline{th}$  is Section 13.
- (c) Each party will provide its own fuels for the operation of City's Station Two.
- (d) Each party will bear its own costs for construction, operation, maintenance and repair of its transmission and transformation facilities beyond points of delivery from the Station Two Switchyard. Big Rivers will make no charge to City for the use of Big Rivers' transmission facilities from point of City's Station Two switchyard to the several substations of City's Existing System.

(e) Big Rivers will keep adequate records of the costs of operating and maintaining City's Station Two and its Reid Station, and the allocation of such costs to City's Station Two, and will make such records available to City and its representatives at all reasonable times and places.

#### 13.9 Right to Intervene

Should Big Rivers at any time during the term of this Agreement fail, for any reason whatsoever, to provide, on a best efforts basis, the continuous and economical operation of City's Station Two as provided in this Agreement, then City shall have the right to immediately take over the complete operation and maintenance of its Station Two and all auxiliary facilities and joint use facilities required in the operation thereof, and to continue the operation and maintenance thereof under the terms and provisions of this Agreement until it shall be determined that Big Rivers is able to properly resume such operation and maintenance in the manner provided in this Agreement.

13.10 Each of the parties hereby grants to the other all reasonable rights of access, ingress and egress to the generating plant, joint use facilities, auxiliary facilities, related facilities, transmission and transformation facilities and such other lands, properties and/or facilities as shall be necessary, advisable or convenient in order to efficiently and continuously carry on the operation of City's Station Two and Big Rivers' Reid Station under the terms and provisions of this Agreement.

#### PART IV

#### BUDGETING, ACCOUNTING AND BILLING

## SECTION 14 - BUDGETING (See 2005 Amendments)

- 14.1 Prior to the commencement of each Contract Year and so as to comply with the provisions of the Bond Ordinance there shall be prepared by Big Rivers and submitted to City a proposed operating budget for such Contract Year. Big Rivers will provide therewith all data and information necessary or convenient for City's review and evaluation of such proposed operating budget.
- 14.2 The proposed operating budget and all supporting data and information will be reviewed by City and upon approval thereof, including any amendments thereof or additions thereto, by City, City will adopt such budget as the Annual Budget for the coming Contract Year.
- 14.3 Upon its adoption by City, and its approval by Big Rivers, the Annual Budget will become the basis for payments to Big Rivers for the operating and maintenance of City's Station Two during the Contract Year for which it is adopted. See 2005

  Amend. 14.4 The Annual Budget may be amended by the parties as provided in the Bond Ordinance.

## SECTION 15 - ACCOUNTING AND AUDITING (See 2005 Amendments)

15.1 Big Rivers will keep and maintain complete and accurate books, records and accounts of its operation and maintenance of City's Station Two all in accordance with the rules and regulations prescribed by any governmental agency having jurisdiction thereof, the provisions of the Bond Ordinance relating thereto, and in accordance with the uniform system of

accounts prescribed by the Federal Power Commission. All such records shall be available for inspection and utilization by City and its representatives at all reasonable times and places.

See 2005
Amend. 15.2 Such books, records and accounts shall be subject to annual audit as provided in the Bond Ordinance.

#### SECTION 16 - BILLING AND PAYMENTS

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- 16.1 On or before the twentieth day of each calendar month of the Contract Year Big Rivers will present to City a statement of payment due covering the operation and maintenance of City's Station Two for the Monthly Billing Period just ended, such statement showing in detail the costs and charges included therein, with proper vouchers substantiating such charges. Such statements, when approved by the City, will become the basis for actual charges by Big Rivers to City for the operation and maintenance of City's Station Two for such Monthly Billing Period and shall be the basis for adjustments, if any, as provided in Section 16.6 hereof.
- 16.2 Monthly payments to Big Rivers for the operation and maintenance of City's Station Two shall be made on the basis of the Annual Budget then in effect, and shall be due and payable currently, for each Monthly Billing Period on or before the twentieth day of such month. Payments shall be deemed complete upon the posting thereof in the regular United States Mail, properly addressed and affixed with postage.
- 16.3 If any such payment or portion thereof is not paid when due as herein provided, a penalty in the amount of one per

cent (1%) of the unpaid amount may, at the option of Big Rivers, be added thereto at the commencement of each thirty (30) day period thereafter, and due and payable therewith. Provided however that in the case of a bona fide dispute as to the amount of any such monthly payment, then the delayed payment charge will be applicable only to that unpaid portion thereof which is not reasonably in dispute.

## 16.4 Off-Setting Accounts

The City shall have the right to off-set accounts payable to Big Rivers against accounts receivable from Big Rivers under the provisions of the parties Power Sales Contract, or otherwise. Off-setting of accounts shall be employed in determining any delayed payment charges as provided herein.

16.5 Big Rivers shall have the right at any time, and from time to time, to require City to give bond (either cash or with corporate surety acceptable to Big Rivers) for the payment to Big Rivers of operating and maintenance charges as provided in this Agreement, less the amount of any off-setting payments due from Big Rivers to City under the provisions of the parties' Power Sales Contract, for a period of time not exceeding two Monthly Billing Periods during any Contract Year. The amount of any such bond shall be adjusted in order to be applicable to the current Contract Year. The cost of any such surety bond shall be charged as a Station Two operating expense.

16.6 On or before one hundred twenty (120) days after the end of each Contract Year, Big Rivers shall submit to City

a detailed summary of its monthly statements for payment for the operation and maintenance of City's Station Two, showing the actual charges due to be paid to Big Rivers by City for the entire Contract Year based upon the annual audit of accounts provided for in Section 15.2. If, on the basis of such summary the actual aggregate operation and maintenance charges for such Contract Year exceeded the amounts paid to Big Rivers under the Annual Budget, or otherwise, then City shall pay to Big Rivers promptly the amount to which Big Rivers is so entitled. If, on the basis of such summary, the actual aggregate payments made to Big Rivers for operation and maintenance of City's Station Two under provisions of the Annual Budget, or otherwise, exceeded the actual amount due therefore, then such excess shall be credited against City's next monthly payment or payments to Big Rivers due hereunder, or paid to City If no such payments are due to Big Rivers.

SECTION 17 - METERING, METER TESTING AND BILLING ADJUSTMENTS

17.1 Printing Demand Meters, or equivalent meters, with a sixty (60) minute demand interval, which will meter kilowatts, and suitable watthour meters which will meter kilowatt hours shall be used to meter the delivery of power and energy from City's Station Two. The metered kilowatt demand of City, Big Rivers and others from City's Station Two shall be the means of measuring the capacity of City's Station Two used by each. The metered kilowatt hours of energy used by City, Big Rivers and others from City's Station Two shall be the basis for fuel replacements to the Station Two fuel reserve as provided in Section 7 hereof.

17.2 The meters will be arranged so as to provide a

total measurement of kilowatt demand and a total measurement of kilowatt hours delivered to City and others from City's Station Two.

of said meters as may be necessary to maintain them at the highest practical commercial standard of accuracy, with tests performed at intervals of not more than twelve months. Big Rivers will advise City promptly of the results of all such tests. City will be given prior notice of and may have representatives present at such tests and inspections. Big Rivers will made additional tests of said meters at the reasonable request of City and in the presence of City's representatives.

17.4 Big Rivers will make all meter readings and/or recordings necessary to provide an accurate report of the kilowatt demand and consumption of electric energy by City, Big Rivers and others from City's Station Two during each Monthly Billing Period, and at the end of each Monthly Billing Period will promptly report to City thereon.

Big Rivers and others from City's Station Two shall be the basis for fuel replacements to the Station Two fuel reserve. Big Rivers shall at all times accurately measure and record the heat content and quantity of all fuels consumed in the operation of Section Two, and shall properly allocate and report to City at the end of each Monthly Billing Period the fuels consumed by City, Big Rivers and others through their respective uses of electric energy from City's Station Two.

SECTION 18 - INSURANCE (See 2005 Amendments)

- 18.1 Except to the extent that City's Station Two is insured during construction, installation and other acquisition thereof by City, its contractors and/or suppliers, at all times during the term of this Agreement City shall maintain at least the following insurance on its Station Two, the costs thereof prior to Date of Commercial Operation to be paid as a construction cost, and thereafter as an operating expense:
- (a) fire, extended coverage and vandalism, broad form, in an amount at least equal to ninety per cent (90%) of the full insurable value of City's Station Two, Twenty-Five Thousand Dollars (\$25,000) deductible, against loss or damage from fire, lightening, tornado, windstorm, flood or wavewash, hail, explosion, riot, riot attending a strike, civil commotion, vandalism and malicious mischief, aircraft, vehicles and smoke. In determining the full insurable value recognition of risks applicable to individual coverages shall be taken into consideration and such value with respect thereto shall be established as would be carried in accordance with sound business practices for electric utilities.
- (b) A standard form of comprehensive general liability insurance against claims for personal injury (including wrongful death) and property damage with minimum limits as follows:
  - (1) personal injury, \$1,000,000 each person \$1,000,000 each occurrence
  - (2) property damage, \$1,000,000 each occurrence

- (c) A standard form of comprehensive automobile liability insurance with minimum limits as follows:
  - (1) personal injury, \$ 500,000 each person \$1,000,000 each occurrence
  - (2) property damage, \$ 100,000 each occurrence 100,000 aggregate
- (d) Workmen's Compensation Insurance as required by the laws of Kentucky.
- (e) Prior to the initial firing of the boiler, broad form boiler and machinery breakdown, in the minimum amount of \$7,000,000 for Unit One and an additional \$7,000,000 for Unit Two, \$200,000 deductible.
- (f) Inland Marine Insurance on all off-highway vehicles and Marine Insurance on docks, barges, work boats and other marine items, in amounts equal to maximum insurable values.
- 18.2 Such insurance shall provide coverage for City, and for Big Rivers to the extent that risk of loss shall be imposed on Big Rivers through the provisions of this Agreement and other agreements herein referred to.
- 18.3 Such insurance will be obtained by Big Rivers for the account of City, subject to approval and acceptance by City. See 2005 Amend. 18.4 During the term of this Agreement all insurance proceeds from policies obtained pursuant to this Section shall be paid and applied by the City. Big Rivers and/or the insurance company or companies providing same in accordance with the provisions of the Bond Ordinance.

18.5 In case of any damage, destruction, accident, occurrence or other loss covered in part or in full by any such insurance policy or policies, Big Rivers shall give prompt notice thereof to City, the Trustee, and the insurance company or companies providing coverage therefore.

# PART V GENERAL PROVISIONS

#### SECTION 19 - CONSTRUCTION AND OPERATING STANDARDS

19.1 City's Station Two and its auxiliary facilities, joint use facilities and other related facilities which are the subject of this Agreement shall be constructed, operated and maintained in accordance with standards and specifications equal to those provided by the National Electric Safety Code of the United States Bureau of Standards, and as required by any regulatory authority having jurisdiction thereof.

## SECTION 20 - INSPECTIONS, RIGHT OF ACCESS

20.1 Each party hereto shall permit the duly authorized representatives and employees of the other party to enter upon its premises for the purpose of reading or checking meters, inspecting, testing, repairing, renewing or replacing any or all of the facilities and equipment owned by the other party located on such premises, or for the purpose of performing any other work necessary in order to carry out the provisions of this Agreement. Such inspections shall be conducted so as not to interfere with the scheduled operation of such plants.

20.2 Each party shall be responsible for the safety of its own representatives and employees when on the premises of the other pursuant to the right of access granted in this Agreement, and shall hold harmless and indemnify the party granting access from any loss or damage whatsoever by reason of any injury, including death, of such representatives and/or employees, unless the same shall be due to the negligence or willful misconduct of the party granting such access or its authorized agents or employees.

## SECTION 21 - RELATIONSHIP OF THE PARTIES

- 21.1 Except as otherwise specifically provided herein, the terms of this Agreement shall not be construed as an agreement for partnership, joint venture, association or other relationship whereby either party shall be responsible for the obligations and/or liabilities of the other party hereto.
- 21.2 Except as otherwise specifically provided herein, neither party to this Agreement shall be liable for any act, omission or legal obligation of the other party hereto with respect to: (a) the parties to this Agreement, (b) the agents, servants and/or employees of the parties to this Agreement, or (c) any persons, corporations or other entities not a party to this Agreement.
- 21.3 Except as otherwise specifically provided herein, neither party to this Agreement shall, by reason of the provisions hereof, be deemed a principal, agent, sub-contractor or employee

of the other party hereto, nor shall either party to this Agreement have the authority to bind the other party to this Agreement to any contract or any other obligation, without specific written authority therefore.

## SECTION 22 - INDEMNIFICATION

22.1 Big Rivers, as operator of City's Station Two assumes full responsibility and liability for the maintenance and operation of the same, on a best efforts basis, and shall indemnify and save harmless the City from all liability and expense on account of any and all damages, claims or actions, including injury to or death of persons or damage to property arising from any act or accident in connection with the operation and maintenance of City's Station Two and all facilities related thereto, caused by the negligence or any malfeasance or nonfeasance of Big Rivers, its agents, servants and/or employees; and the City shall indemnify and save harmless Big Rivers from all liability and expense on account of any damages, claims or actions including injury to or death of persons or property arising from any act or accident caused by the negligence or any malfeasance or nonfeasance of the City, its agents, servants and/or employees.

## SECTION 23 - UNCONTROLLABLE FORCES:

23.1 Neither party hereto shall be considered in default or breach with respect to any obligation under this Agreement if prevented from fulfilling such obligation by

reason of an Uncontrollable Force. Any party unable to fulfill any obligation by reason of Uncontrollable Forces shall exercise due diligence to remove such disability as soon as reasonably possible.

23.2 The term "Uncontrollable Force" shall mean any force which is not within the control of any party to this Agreement, and which by exercise of due diligence and foresight could not reasonably have been avoided, including, but not limited to; an act of God, fire, flood, earthquake, explosion, strike, sabotage, an act of the public enemy, civil or military authority, including court orders, injunctions, and orders of government agencies having proper jurisdiction, insurrection or riot, an act of the elements, failure of equipment, or inability to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers.

## SECTION 24 - ARBITRATION

- 24.1 Any controversy or claim arising out of, or relating to this Agreement or the breach thereof, including disagreements between the Trustee and either or both parties to this Agreement, may be submitted to Arbitration at the time, in the manner and upon the terms agreed upon by the parties.
- 24.2 Arbitrations shall not be considered the sole or exclusive means of settling controversies which may arise under the terms and provisions of this Agreement, nor shall Arbitration be considered a condition precedent to any action in court of law or equity or proceedings before any governmental agency or regulatory body having jurisdiction thereof.

25.1 In the event of a default by either party in the performance of any one or more of the provisions of this Agreement, the agrieved party shall, in addition to the remedies specified in this Agreement, have the right to use and employ all rights and remedies available through courts of law and/or equity, governmental agencies and/or regulatory bodies having jurisdiction thereof.

#### SECTION 26 - WAIVER

26.1 The failure of either party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights, but the same shall continue and remain in full force and effect.

#### SECTION 27 - NOTICES

27.1 Any payment, written notice, demand or request required or permitted under this Agreement shall be deemed properly given to or served upon the recipient when posted through the regular United States mail, properly addressed, and affixed with postage as follows:

to City:

General Manager, Municipal Power & Light

P.O. Box 8

Henderson, Kentucky 42420

to Big Rivers:

Manager, Big Rivers R.E.C.C.

P.O. Box 24

Henderson, Kentucky 42420

to the Trustee: as established pursuant to the Bond Ordinance.

27.2 The designation of the person to be notified, or the addresses of such persons, may be changed at any time upon written notice to the other parties.

# PART VI OTHER PROVISIONS

SECTION 28 - COMPLIANCE WITH BOND ORDINANCE (See 2005 Amendments)
See 2005
Amend.28.1 This Agreement shall be subject to the terms and
provisions of the Bond Ordinance. City and Big Rivers agree
that they will not amend, modify or otherwise alter this Agreement in any manner that will conflict with the provisions of
the Bond Ordinance as the same may, from time to time, exist.

## SECTION 29 - ADDITIONAL GENERATING UNITS

29.1 It is understood and agreed that, space being available, additional generating units may be added to City's Station Two during the term of this Agreement in order to provide for the future and expanding needs of City and its inhabitants for electric power and energy with sales of surplus power and energy to Big Rivers, subject to mutual agreement of the parties as to the terms and conditions applicable thereto.

## SECTION 30 - COMPLIANCE WITH GOVERNMENTAL REGULATIONS

30.1 City and Big Rivers will, at all times, faithfully obey and comply with existing and future laws, rules and reg-

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ulations of federal, state or local governmental bodies lawfully affecting the operations and activities of and in connection with City's Station Two.

## SECTION 31 - OBLIGATIONS OF THE PARTIES

- 31.1 All sums payable by the City under the terms and provisions of this Agreement shall be payable and borne solely from the revenues of City's electric utility system, including its Existing System, its Station Two generating plant and such other additions, extensions or facilities as it may from time to time own and/or operate, and from the proceeds of its Electric Revenue Bonds. No debt or obligation of City under this Agreement shall constitute a general obligation of the City.
- 31.2 City covenants that it will, subject to the approval of any regulatory bodies having jurisdiction thereof, at all times maintain rates for services rendered by its electric utility system which will be sufficient to adequately meet the costs of ownership, proper operation and maintenance thereof, including the costs of operation and maintenance of its Station Two, as provided in this Agreement.

## SECTION 32 - CITY INCLUDES UTILITY COMMISSION

32.2 It is recognized by the parties that the City operates, manages and controls its electric utility system through its City of Hender:on Utility Commission, appointed pursuant to KRS. 96.530. All references to City under the terms and provisions of this Agreement shall include its City of Henderson Utility Commission to the extent applicable.

32.2 The parties agree that all rights and obligations of City under the terms and provisions of this Agreement shall also constitute rights and obligations of the City of Henderson Utility Commission. By its execution of this Agreement the City of Henderson Utility Commission covenants and agrees that all references to City under the terms and provisions of this Agreement shall include the City of Henderson Utility Commission, and that it shall be obligated under this Agreement accordingly.

#### SECTION 33 - TERM AND TERMINATION

- 33.1 The term of this Agreement shall commence upon the execution hereof by City and Big Rivers and shall terminate on October 31, in the year Two Thousand and Three (2003) unless otherwise terminated as hereinafter provided.
- 33.2 Notwithstanding the provision of Section 33.1, this Agreement shall terminate in event of the termination of the parties Power Sales Agreement of even date herewith, as provided therein.

SECTION 34 - SALE OR OTHER DISPOSITION OF PLANT.

34.1 City and Big Rivers mutually agree that neither will sell or otherwise dispose of its electric generating plant and auxiliary facilities (referring to City's Station Two. Big Rivers' Reid Station, all auxiliary facilities, joint use facilities and alterations and additions thereof) unless the same has been

offered to the other party hereto in writing, and such other party has failed, for a period of one year, after receipt of such offer to accept same and pay the purchase price or other agreed consideration therefor. After such one-year period, or upon written refusal of said offer, whichever first occurs, the selling party may proceed to make such sale or other disposition to others not a party to this Agreement upon at least equal terms or conditions. Provided however, that if such sale or disposition to others, not a party to this Agreement, shall not have occurred within the one-year period immediately following termination of the other parties right to accept said offer, no such sale or other disposition shall thereafter be made by the selling party without again first offering same to the other party to this Agreement as above provided.

34.2 Any sale, assignment or other disposition by either party to others not a party to this Agreement shall be made subject to all of the rights, obligations, terms and conditions of this Agreement, the Joint Facilities Agreement, the parties Power Sales Contract, the parties real estate Purchase-Sale Agreement and any amendments or additions thereto which are then applicable, and it shall be a condition of such sale or other disposition that the purchaser or acquirer thereof assume all of the obligations of the disposing party under the terms of said Agreements.

34.3 The provisions of this Section 34 pertaining to City's sale or other disposition of its Station Two and other facilities mentioned herein shall be subject to all laws applicable thereto.

#### SECTION 35 - AMENDMENTS

35.2

- 35.1 No amendments of this Agreement shall be effective unless reduced to writing and executed by all parties hereto.
- It is understood that Big Rivers may not agree to any amendment, modification or alteration of this Agreement without first obtaining approval of the Administrator of the Rural Electrification Administration.

## SECTION 36 - SEVERABILITY

36.1 In the event that any part of this Agreement is declared illegal or no longer in force by reason of an order issued by a court or regulatory body of competent jurisdiction, all remaining portions of this Agreement which are not affected by such order shall continue in full force and effect.

#### SECTION 37 - ASSIGNMENT (See 2005 Amendments)

37.1 This Agreement shall be binding upon the parties hereto, their respective successors and assigns. Provided however, that this Agreement shall not be assigned by either party (except for an assignment by Big Rivers to the United States of America) without the written consent of the other party, and any such assignment shall be subject to the pro-

visions of Section 34.2 of this Agreement. See 2005 Amends. Added Big Rivers Assignment, Consent and Agreement, Required Approvals; Effective Date; Representations and Acknowledgements; Termination of Interim Agreements; Miscellaneous SECTION 38 - APPROVAL

This Agreement shall be subject to the approval

of all local, state or federal regulatory bodies having jurisdiction thereof and shall become effective only upon the execution thereof by the parties and approval by the Administration.

## SECTION 39 - CONDITIONS PRECEDENT

- 39.1 This Agreement in its entirety is entered into subject to the following express conditions precedent:
- (a) That the parties shall enter into and execute the Power Sales Contract, the real estate Purchase-Sale Agreement and the Joint Facilities Agreement which are referred to in this Agreement.
- (b) That the parties shall be able to obtain all approvals and authorizations from public authorities and the Administrator of the Rural Electrification Administration necessary to enable them lawfully to enter into and carry out this Agreement, and other Agreements referred to in Section 39.1 (a).
- (c) That the City shall be able to issue and sell its
  Station Two Bonds bearing a rate of interest and maturity schedule
  acceptable to City, with a final maturity of not less than thirty
  years from date of issuance, in the principal sum of \$76,000,000.
- (d) That all conditions precedent recited in the parties Power Sales Contract, the real estate Purchase-Sale Agreement and the Joint Facilities Agreement have occurred.
- 39.2 If all of the said conditions precedent do not occur within one year from the date hereof, this Agreement shall

be void and all rights hereunder shall terminate unless the parties agree in writing to extend the time for the happening of said conditions precedent.

## SECTION 40 - AUTHORITY TO EXECUTE

40.1 This Agreement is executed by the duly authorized officers or representatives of the parties pursuant to authority granted to each of them by the lawful action of their respective official commissions or boards.

	Executed	a t	Henderson,	Kentucky	this	day	of	
19								

CITY OF HENDERSON, KENTUCKY

BY	Wille	erec	21	Mayor
27	William	L. N	ewman,	Mayor

ATTEST:

(City Seal)

CITY OF HENDERSON UTILITY COMMISSION

ATTEST:

4. Zuer

ATTEST:

This instrument prepared by:

of WEST MARKWELL & BRYANT Suite 320 - Imperial Building 110 Third Street Henderson, Kentucky 42420

NOT ORIGINAL DOCUMENT 05/20/2020 03:37:14 PM gregory.mayes@bigrivers.com

EXCERPT FROM MINUTES OF REGULAR MEETING OF BOARD OF DIRECTORS OF BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION HELD IN HENDERSON, KENTUCKY, ON AUGUST 21, 1970

After thorough discussion it was moved by Robert D. Green seconded by D. B. Wilson that Big Rivers execute the Power Sales Contract, the Power Plant Construction and Operation Agreement and the Joint Facilities Agreement and to approve the Electric Light and Power Revenue Bond Ordinance to be adopted August 27, 1970. Motion carried.

I, Robert D. Green, Vice President of Board of Directors of Big Rivers Rural Electric Cooperative Corporation hereby certify that the above is a true and correct excerpt from the minutes of the regular meeting of said corporation held on August 21, 1970.

Robert D. Green, Vice President

05/12/2020 Janet Cole, Webster Circuit Clerk Presiding Judge: HON. C. RENE' WILLIAMS (605230)

led 20-CI-00073 EXH: 000043 of 000141

#### AGREEMENT

THIS AGREEMENT dated February 15, 1991, between the UTILITY COMMISSION FOR THE CITY OF HENDERSON, KENTUCKY, a public entity established and existing under the laws of the Commonwealth of Kentucky, hereinafter referred to as "Utility Commission", and BIG RIVERS ELECTRIC CORPORATION, a corporation organized under the laws of the Commonwealth of Kentucky, hereinafter referred to as "Big Rivers", both parties with principal offices at Henderson, Kentucky.

#### RECITALS

- A. The Utility Commission manages an electric utility known as the Henderson Municipal Power & Light System ("HMP&L") serving the City of Henderson, Kentucky and its inhabitants. Big Rivers is an electric utility owning and operating electric generating plants and facilities in western Kentucky.
- B. The Utility Commission has statutory control over an electric generating plant and facilities owned by the City of Henderson located in Webster County, Kentucky, referred to herein as "Station Two".
- C. Big Rivers operates Station Two and takes surplus capacity and energy therefrom pursuant to various contracts between the parties hereto and the City of Henderson.
- D. Burns & McDonnell Engineering Co. and Arthur Andersen & Co. have performed a study allocating administrative and general costs incurred by the parties in the operation of their respective utilities to the operation of Station Two.
- E. The parties wish to adopt and implement the study subject to pertain modifications.

NOW, THEREFORE, in consideration of the premises, the parties agree as follows:

- 1. The REPORT ON HMP&L STATION TWO ADMINISTRATIVE AND GENERAL COSTS ALLOCATION FOR HENDERSON MUNICIPAL POWER & LIGHT AND BIG RIVERS ELECTRIC CORPORATION dated November 2, 1989 (the "Report") prepared by Burns & McDonnell Engineering Co. and Arthur Andersen & Co., is hereby approved and confirmed except as modified by this agreement. A copy of the Report is attached hereto and incorporated herein by reference.
- The parties acknowledge Rivers that Big heretofore maintained Station Two parts inventory at its sole Big Rivers' cost of acquisition of Station Two parts of December 31, 1990 is One Million Five Hundred Ten Thousand Six Hundred Sixty-Nine Dollars and 86/100 (\$1,510,669.86). On or before February 21, 1991, the Utility Commission shall purchase Station Two parts inventory by payment to Big Rivers of One Million Five Hundred Ten Thousand Six Hundred Sixty-Nine Dollars and 86/100 (\$1,510,669.86) from either the Station Two Account of the Operation and Maintenance Fund or the Station Two Account of the and Replacement Fund established and maintained by the Utility Commission pursuant to the Electric Light & Power Revenue Ordinance of the City of Henderson, Kentucky, adopted August 1970. The parties shall restore the minimum balances required aforesaid funds in compliance with Section 309 of the Bond in the manner prescribed by Section 6 of the Power Sales between the parties dated August 1, 1970 and the Agreement dated April 8, 1980.

The cost to maintain Station Two parts inventory after January 1, 1991 shall be allocated between the parties on an annual basis in direct proportion to the generation capacity of Station Two reserved by the Utility Commission and allotted to Big Rivers pursuant to the Power Sales Contract.

The following additional terms shall apply with respect to Station Two inventory:

- (a) The carrying cost of Station Two parts inventory shown on Schedule 3D of the report shall not be allocated under this Agreement.
- (b) Payment shall be made at time of purchase for all additions and replacements to Station Two parts inventory after January 1, 1991.
- (c) Parts issued for use at Station Two from other warehouses maintained by Big Rivers will be charged to Station Two at time of issue.
- (d) Station Two shall receive credit at time of issue for parts taken from Station Two inventory for use at Big Rivers' separate facilities.
- (e) Additions and replacements to Station Two parts inventory shall continue to be made in accordance with applicable competitive bidding laws and approved by the Utility Commission.
- (f) Station Two parts inventory in existence at the time of termination of the power plant construction and operating agreement between Big Rivers and the City of Henderson, Kentucky dated August 1, 1970 and any extensions or renewals thereof, shall become the property of the City of Henderson, Kentucky.

3. The parties stipulate that the Report allocated Ninety-Three Thousand Six Hundred Eighty-Eight Dollars and 12/100 (\$93,688.12) as Station Two administrative and general costs incurred in the operation of Big Rivers' electronic data processing department and publication department for the 1987-1988 fiscal year.

The following is the derivation of the electronic data processing and publication departments costs:

\$17,896.29 8,757.73 \$26,654.02	Print Shop Payroll 3B Expenses 3C TOTAL
\$42,871.72	Electronic Data Processing Payroll 3B
24,162.38	Expenses 3C
\$67,034.10	TOTAL
26,654.02	
\$93,688.12	TOTAL Print Shop and EDP

4. The parties stipulate that the Report allocated the sum of Two Hundred Fifty-Nine Thousand Nine Hundred Eighty-Eight Dollars and 00/100 (\$259,988.00) as Station Two administrative and general costs, except labor, for the 1987-1988 fiscal year (the "Base Cost"). The Base Cost will be adjusted for all fiscal years subsequent to 1988-1989 according to the Producer's Price Index, Table 6, All Commodities, published by the Bureau of Labor Statistics of the United States Department of Labor.

The following is the derivation of the administrative costs (the "Base Cost"):

5204,349	Administrative from Study 3C					
720	Administrative Supplies from Study 3;					
38,324	Depreciation & Taxes from Study 3E					
5243,293	BREC Cost					
<u>16.695</u>	HMP&L Administrative Cost (includes \$200 for supplies)					

ã. The parties stipulate that the Report as modified allocated the sum of Three Hundred Forty-Three Thousand Seven Hundred Eighty-Two Dollars and 00/100 (\$343,782.00) for Big Rivers' executive administrative nondirect labor costs (the "Base Cost") and the sum of One Hundred Seventy-Four Thousand Nine Thirty-Seven Dollars and 00/100 (\$174,937.00) for Big administrative support nondirect labor costs (the "Base Cost") and the sum of Thirty-Seven Thousand Six Hundred Eight-Seven Dollars and 00/100 (\$37,687.00) for HMP&L's executive administrative nondirect labor costs (the "Base Cost"). The Base Cost for fiscal years subsequent to 1988-1989 shall be adjusted according to indices developed from the Employment and Earnings Annual Average published by the Bureau of Labor Statistics of the United States Department of Labor, (2) Two indices will be used, one for executive administrative and one for administrative support. Attachment B will replace Schedule 3B in the G&A study.

The following is the derivation of the nondirect labor costs (the "Base Cost"):

- 138,540

```
Administrative Salaries)
                         Schedule 3B or New Attachment B
                         highlighted numbers equal 187,648
                         (Difference due to rounding)
             Support areas charged before to Production
             Accounts; now charged to G&A Accounts
108,204
             From Attachment B, Also Schedule 3A
             146,300 - Additional Administrative Cost
             (36,160) - Energy Control
              (1,936) - Production Salary
             108,204
    579
             Workers Comp. Schedule 3A
             679 is from 79,220 which is total Workers Comp.
                                                   Attachment
```

Table SC-2 3A (Previously Paid G&A

49,387	Employee Benefits Schedu 49,387 is from 407,700 which is total Employee	Maria Galani	Attachment	D
34,267	Payroll taxes Schedule 1 34,267 is from 264,311 which is total Payroll 1		Attachment	E
518,718	From Attachment A			
	77 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	xecutive Admin dministrative	and the state of t	
	Constructed December 1 Line 1			

- HMP&L Executive Administrative adjusted Schedule 3A 37,687
- respective shares of the Utility Commission and Big Rivers in allocated Station Two administrative and general base costs, as adjusted, shall be determined for the 1988-1989 fiscal year and annually for all subsequent fiscal years proportion to the generation capacity of Station Two reserved by the Utility Commission and allotted to Big Rivers pursuant to the Power Sales Contract between the parties dated August 1, 1970. stipulated in the foregoing paragraphs 4 and 5 shall not be increased or decreased except by mutual agreement of the parties, arbitration award or Court order to fairly and equitably reflect actual administrative and general costs. The method devised Report and this agreement for the allocation and sharing of Two administrative and general costs shall be utilized balance of the term of the Power Plant Construction and Operating Agreement dated August 1970 and any extensions or renewals thereof.
- 1991. before Commission shall pay to Big Rivers the following amounts:

Fourteen Thousand Eight Hundred Seventy-One Dollars and 13/100 (\$14,871.13) representing the Utility Commission's net additional share of Station Two administrative and general costs incurred in the operation of Big Rivers' electronic data processing and publication departments for the 1987-1988 fiscal year'; Forty-Nine Thousand Three Hundred Sixty-Eight Dollars and 01/100 (\$49,368.01) representing the Utility Commission's net additional share of Station Two administrative and general costs for the 1988-1989 fiscal year; and Forty-One Thousand Six Hundred Eighty Dollars and 48/100 (\$41,680.48) representing the Utility Commission's net additional share of the Station Two administrative and general costs for the 1989-1990 fiscal year.

- 8. The allocation to Station Two of HMP&L additional administrative payroll costs shown on Schedule F of the Report will be automatically increased to reflect services attributable to Station Two performed by a proposed new HMP&L employee whose duties will include acting as liaison with Big Rivers on Station Two matters.
- 9. The allocation to Station Two of HMD&L's administrative and other expenses shown on Schedule G of the Report shall be automatically increased to reflect that portion of the cost of operational costs of a new office building utilized for Station Two purposes.
- 10. In addition to the foregoing adoption and implementation of the Report, Big Rivers will reconnect its Zion 69KV transmission line to HMP\$L's substation upon written request of the Utility Commission.

- 11. The parties stipulate that execution of this agreement constitutes a mutual release of all claims, causes of action or demands that each party may now have against the other party with respect to the operation, control and fiscal management of Station Two.
- 12. This agreement may be modified only in writing executed by the parties or as specified in Section 24 of the Power Plant Construction and Operation Agreement.
- 13. This agreement is binding upon the parties, their successors in interest and assigns.

WITNESS the signatures of the duly authorized officers of the Utility Commission for the City of Henderson, Kentucky and Big Rivers Electric Corporation made pursuant to the attached resolutions this day and date first above written.

UTILITY COMMISSION FOR

By:

Chairman

ATTEST:

Dudley & Everson

Hillam B Brese

BIG RIVERS ELECTRIC CORPORATION

By.

President

ATTEST:

Handerson, Kentucky, City of Henderson Utility Commission and Elg Rivers

Electric Corporation

SUBMITTED BY THE ABOVE DESIGNATED BORROWER PURSUANT TO THE TERMS OF THE LOAN CONTRACT, IS HEREBY APPROVED SOLELY FOR THE PURPOSES OF SUCH CONTRACT.

FOR THE ADMINISTRATOR

DATED

9/7/93

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Agreement, or by any other legal, equitable or administrative remedies, if City defaults in making any payments properly owing under the Contracts and such default continues for 60 days following written notice thereof by Big Rivers to City Big Rivers may at any time thereafter, if all Station Two Revenue Bonds approved by Big Rivers have been paid, on 30 days written notice by Big Rivers to City, and if City's defaults to Big Rivers have not been corrected, then Big Rivers may terminate all contracts with City with respect to Station Two, in which event Big Rivers shall have the continued right to use of Joint Use Facilities by paying the capacity costs thereof calculated in accordance with the Joint Facilities Agreement.

5.10 SECTION 21.1 AS RENUMBERED TO 22.1 IN THE MARCH 2, 1971 AMENDMENT IS AMENDED AS PROVIDED IN SECTION 1 OF THE MAY 1, 1993 AMENDMENTS.

POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT

- 6. THE POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT OF AUGUST 1, 1970, AS AMENDED, IS FURTHER AMENDED AS FOLLOWS:
- 6.1 SECTION 1.3 IS AMENDED BY ADDING THERETO THE

#### FOLLOWING:

Such Interconnection Agreement was supplemented and am ded by an Amended Agreement dated October 13, 1981 and by a "FIRST AMENDMENT" dated January 10, 1989 which are in effect.

- 6.2 SECTION 4 IS AMENDED BY ADDING THE FOLLOWING:
- 4.5 City, with the approval of Big Rivers, has entered into a Contract dated February 5, 1993 with Wheelabrator Air Pollution Control Inc. for the construction and installation of a portion of the Station Two FGD System. City will enter into such further contracts as are necessary, and as are approved by Big Rivers which approval shall not be unreasonably withheld, to complete the design, construction, installation and operation of the Station Two System. City and Big Rivers shall each immediately seek such permits and approvals as are required of each of them.

- one engineering trovide shall Rivers Big representative and one clerk to work with engineering firm employed by the City as owner's representative on the Station Two will provide City project. representative already assigned to Station Two. The cost of these three representatives, including benefits and out-of-pocket expenses, shall be considered capital costs of the project.
- 4.7 All proceeds from the sale of SO<sub>2</sub> allowances allocated to Station Two, from whatsoever source, in excess of those needed for Station Two operation shall be divided between City and Big Rivers in the proportions of 17.14% to City and 82.86% to Big Rivers. The sale of all Station Two allowances shall be approved by the City and Big Rivers.
- Ontil such time as a sum equal to the net proceeds of the sale of Station Two SO<sub>2</sub> allowances has been paid on the costs of the Station Two FGD System, the parties hereto shall bear such scrubber costs in the proportions of 17.14% to the City and 82.86% to Big Rivers. Thereafter costs of the Station Two FGD System shall be borne in the proportion of capacity allocation established under Section 5.2 of the May 1, 1993 Amendments.
- 4.9 Except as otherwise agreed by the parties, all invoices for the design, construction and installation of the Station Two FGD System shall be issued to City and paid by City pursuant to Section 4.11 hereof. City shall bill Big Rivers monthly for its share of such costs as determined by Section 4.8 hereof and Big Rivers shall pay such share pursuant to Section 4.10 hereof.
- 4.10 Big Rivers shall pay the amounts billed to it by City under Section 4.9 hereof to the Trustee from time to time in sufficient amounts to satisfy progress payments required on contracts executed by City for the design, construction and installation of said FGD System. City's remaining portion of the costs for the Station Two FGD System shall be paid by City from time to time in sufficient amounts to satisfy progress payments required on said contracts.
- 4.11 City shall instruct the Trustee to remit all sums paid under Section 4.10 hereof for the design, construction, and installation of the Station Two FGD System to City for deposit into the Station Two

MAKEK

account in the Renewals and Replacement Fund, out of which City shall timely pay all costs due on the Station Two FGD System.

# MOINT FACILITIES AGREEMENT

- 7. THE JOINT FACILITIES AGREEMENT IS AMENDED AS FOLLOWS:
  - 7.1 SECTION 3 1 IS AMENDED BY ADDING THE FOLLOWING:
  - 3.1(a) Big Rivers has heretofore allocated for the continuing joint use of the parties the facilities listed on Exhibit 1, Page 2, Part C hereto.
    - 7.2 SECTION 3.2 IS AMENDED BY ADDING THE POLLOWING AT

#### THE END THEREOF:

The auxiliary facilities which City has previously allocated for the joint use of the parties are listed in Exhibit 1, Pages 1 and 2, Part B.

7.3 NEW SUBPARAGRAPHS SHALL BE ADDED TO SECTION 3 AS

#### FOLLOWS:

3.3 Big Rivers will allocate for the continuing joint use of the parties in the operation of their respective generating stations (Big Rivers Green Station and City's Station Two) those Green Station FGD System Facilities described in Exhibit 1, Page 3, Part C hereto. For such use Big Rivers shall be paid by City a prorated share of the annual carrying costs, calculated as:

Station Two net capacity
Station Two plus Green Station net capacities

# Currently 315 MW 755 MW

times the net book value of those facilities as of December 31, 1994, i.e. \$21.675.601.320 further multiplied by a capital carrying charge take of 11.5 percent.

City's payment to Big Rivers shall be included as a cost under Paragraph (g) of Section 6.3 of the Power Sales Contract between the partier.

3.4 The costs of operating and maintaining the FCO



## 2005 AMENDMENTS TO CONTRACTS AMONG CITY OF HENDERSON, KENTUCKY, CITY OF HENDERSON UTILITY COMMISSION, BIG RIVERS ELECTRIC CORPORATION. WKE STATION TWO INC. AND LG&E ENERGY MARKETING INC.

These 2005 AMENDMENTS are entered into as of April 1, 2005, (the "2005 Amendments to Contracts") by and among the City of Henderson, Kentucky, a municipal corporation and a city of the second class organized under the laws of the Commonwealth of Kentucky, of 222 First Street, Henderson Kentucky, 42420, City of Henderson Utility Commission, a public body politic and corporate, organized under Kentucky Revised Statutes. Section 96.530 and related statutes, of 100 Fifth Street, Henderson, Kentucky 42420 (said City and Commission being referred to collectively as "City"), Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, Kentucky 42420 ("Big Rivers"), WKE Station Two Inc., a Kentucky corporation of 145 North Main Street, Henderson, Kentucky 42420 ("WKE"), and LG&E Energy Marketing Inc., an Oklahoma corporation of 220 West Main Street, Louisville, Kentucky 40202 ("LEM") (collectively, the "Parties").

#### WITNESSETH

WHEREAS, (a) the City, Big Rivers, WKE (as assignee of Big Rivers) and LEM (as assignee of WKE) are parties to a Power Sales Contract, as amended (the "Power Sales Contract") (WKE and LEM being parties with joint rights, interests and obligations under the Power Sales Contract are referred to jointly herein as WKE/LEM), the City, Big Rivers and WKE (as assignee of Big Rivers) are parties to a Power Plant Construction and Operation Agreement, as amended (the "Construction and Operation Agreement") and the City, Big Rivers

NOW, THEREFORE, in order to comply with the Current NOx SIP Regulations by providing for the funding, design, acquisition, construction, installation, operation and maintenance of the Station Two SCR System as a part of Station Two, and to provide for certain other matters related to Station Two, and in consideration of the mutual covenants herein contained, it is stipulated, covenanted and agreed by and among the Parties hereto that the Agreements shall be amended and supplemented as follows effective as and when expressly provided in Section 601 of these 2005 Amendments to Contracts (but not before).

## I. CERTAIN DEFINED TERMS IN THE AGREEMENTS

Section 101 "Station Two" as defined in Section 2.2 of the Power Sales

Contract and Section 2.2 of the Construction and Operation Agreement and as used in the

Joint Facilities Agreement is redefined to read as follows:

"Station Two: City's 350-megawatt generating station (rated on the date of the 2005 Amendments to Contracts at 312 MW net send out capability), located at a site on the Green River in Henderson County, Kentucky, and, to the extent furnished and owned by City, all auxiliary facilities, joint use facilities and related facilities, renewals, replacements, additions, expansions and improvements thereto, including the Station Two FGD System added thereto and the Station Two SCR System, but excluding the City's Transmission and Transformation Facilities as herein defined, and excluding facilities furnished and owned by Big Rivers. The location of Station Two, including the Station Two SCR System, is

shown in Exhibit Al to the Power Sales Contract and the Construction and Operation Agreement (as added by the 2005 Amendments to Contracts) attached hereto and reference is made to Exhibits 1 and 2 of the Cross-Grants of Rights of Access and Easements, dated July 20, 1993, by the City and Big Rivers for the location of the Station Two FGD System and the joint use and related facilities with respect to Station Two as owned by the City, and those furnished and owned by Big Rivers.

Section 102 The terms "Station Two Bonds" or "Bonds" as used in the Agreements and defined in Section 2.9 of the Power Sales Contract and Section 2.9 of the Construction and Operation Agreement are redefined to read as follows:

> "Station Two Bonds" or "Bonds" shall mean bonds, if any, authorized and issued by the City subsequent to the date of the 2005 Amendments to Contracts, with the prior written approval of Big Rivers (and, during the term of the Station Two Agreement, of WKE and LEM), in order to finance any major repairs, renewals or replacements of Station Two or major additions or improvements thereto; provided, that the Station Two Bonds or Bonds shall not be deemed to include: (a) the City's Electric Light and Power Refunding Revenue Bonds, Station Two Series, Dated as of March 1, 1973 (which bonds have been paid, defeased or redeemed prior to the date hereof); or (b) any other bonds or other evidences of indebtedness issued by or for the City, or otherwise guaranteed or

secured by the City or its assets or properties, including its municipal electric system, for the purpose of financing or funding only the City's share or any portion thereof of any costs or expenses associated with the Station Two SCR System or Station Two.

Section 103 "Bond Ordinance" as defined in Section 2.8 of the Construction and Operation Agreement and Section 2.8 of the Power Sales Contract is redefined to read as follows:

> "Bond Ordinance" shall mean any bond ordinance or any supplements or amendments to a bond ordinance, adopted by the City subsequent to the date of the 2005 Amendments to Contracts authorizing any Station Two Bonds, which ordinance and each such supplement and amendment shall have received the written approval of Big Rivers (and, if adopted during the term of the Station Two Agreement, WKE and LEM).

Section 104 Section 2 of the Power Sales Contract and Section 2 of the Construction and Operation Agreement are amended by adding thereto the following:

> "2312" Actual Station Two Generation Share" shall mean, for a NOx Season (or a portion thereof), with respect to the City or Big Rivers (or WKE/LEM as assignee of Big Rivers), respectively, the net energy (MW hrs) actually generated by Station Two and taken by the City or Big Rivers (or WKE/LEM, as assignee of Big

Rivers), as the case may be, for such NOx Season (or portion thereof) divided by the Actual Net Station Two Generation for such NOx Season (or portion thereof).

2.13 "Actual Hours In NOx Season" shall mean, for a NOx Season (or a portion thereof), the product of the number of days in such NOx Season (or portion thereof) multiplied by 24.

2.14 "Actual Net Station Two Generation" shall mean, for a NOx Season (or a portion thereof), the total amount of net energy (MW hrs) actually generated by both generating units of Station Two during such NOx Season (or portion thereof).

"215" "Allocable SCR Costs" shall mean, (A) with respect to capacity charges for a Monthly Billing Period payable by Big Rivers (or by WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract: (i) the SCR Ammonia Costs for such Monthly Billing Period as allocated to Big Rivers (or WKE/LEM as Big Rivers' assignee) in accordance with Section 6.2 (a) of the Power Sales Contract, and (ii) the portion of the SCR Catalyst Acquisition Costs for such Monthly Billing Period as allocated to Big Rivers in accordance with Section 6.2(b) of the Power Sales Contract, or (B) with respect to the capacity charges for a Contract Year, the aggregate of the SCR Ammonia Costs for such Contract Year and the SCR Catalyst Acquisition Costs with

respect to a Catalyst Layer acquired during such Contract Year.

Allocable SCR Costs shall not include any SCR Capital Costs.

2.16 "Allotted Allowances" shall mean, for a NOx Season, the NOx allowances and emission credits allotted to Station Two pursuant to the applicable Federal and Kentucky NOx Regulations for such NOx Season.

Catalyst Layer, fuel that (a) does not qualify as Base Coal, (b) is designated by a Party to be used in connection with such Catalyst Layer as provided in the contract with the vendor of such Catalyst Layer, and (c) is permitted to be used by that Party without rendering ineffective (in whole or in part) or materially adversely affecting the vendor's guarantee or warranty with respect to that Catalyst Layer set forth in such vendor contract.

"Alternate Fuel Differential Amount" shall mean, with respect to a particular Catalyst Layer, the amount of the differential with respect to the purchase price of such Catalyst Layer, as set forth in the successful bid by the vendor of such Catalyst Layer, attributable to any designation by Big Rivers (or WKE/LEM as Big Rivers' assignee) or the City of its use of Alternate Fuel with respect to such Catalyst Layer.

2.19 "Amendatory Station Two Agreement" shall mean the



Amendatory Agreement, dated as of April 1, 2005, among the City, Big Rivers, WKE, LEM, Western Kentucky Energy Corp. and WKE Corp., but only to the extent that agreement shall have become effective and enforceable in accordance with its terms.

[2]20] "Average Station Two Capacity Share" shall mean, for a NOx Season, with respect to the City or Big Rivers (or WKE/LEM as assignee of Big Rivers), respectively, (i) in the event that the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of Total Capacity (determined as provided in Section 3 of the Power Sales Contract) changes during such NOx Season, the decimal share (rounded to 4 places) of Total Capacity obtained by dividing (A) the sum of (x) the product obtained by multiplying the number of MWs of the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of such Total Capacity by the number of days in the period of such NOx Season during which such share shall be in effect and (y) the product obtained by multiplying the number of MWs of the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of such Total Capacity in effect for the other period of such NOx Season by the number of days in such period, by (B) the product obtained by multiplying the number of MWs of the Total Capacity for such NOx Season by the number of days in such NOx Season; or (ii) in

the event that the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of Total Capacity (determined as provided in Section 3 of the Power Sales Contract) does not change during such NOx Season, the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, decimal share of such Total Capacity for such NOx Season.

- 2.21 "Base Coal" shall mean coal having specifications falling within the ranges set forth on Exhibit A2 attached hereto.
- \$2.22 "Base NOx Removal" shall mean, for a NOx Season, a removal of 75% of the Station Two SCR Inlet NOx Tons during such NOx Season through the use of the Station Two SCR System.
- 2.23 "Big Rivers' Creditors' Subordination Agreement" shall mean the Agreement dated as of April 1, 2005, among Big Rivers and the United States of America, acting through the Administrator of the Rural Utilities Service, Ambac Assurance Corporation, the National Rural Utilities Cooperative Finance Corporation, Credit Suisse First Boston, acting by and through its New York Branch, US Bank National Association, as trustee under the Trust Indenture dated as of August 1, 2001, Ambac Credit Products, LLC, Bluegrass Leasing, Fleet Real Estate, Inc., AME Investments, LLC, CoBank, ACB, AME Asset Funding, LLC, AMBAC Credit

Products, LLC, the City of Henderson, Kentucky, the City of Henderson Utility Commission, Western Kentucky Energy Corp., WKE Station Two, Inc., LG&E Energy Marketing Inc., WKE Corp., and PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust, PBR-1 OP Statutory Trust, PBR-2 OP Statutory Trust, PBR-3 OP Statutory Trust, FBR-1 OP Statutory Trust and FBR-2 OP Statutory Trust, in each case, acting through State Street Bank and Trust Company, National Association as the same may be amended in accordance with its terms.

224 "Big Rivers' Easement" shall mean the Grant of Rights and of Easements, dated as of April 1, 2005, between and among Big Rivers, Western Kentucky Energy Corp. and the City as the same may be amended in accordance with its terms.

225 "Catalyst Failure" shall mean, with respect to a particular Catalyst Layer, the failure of such Catalyst Layer to meet the Guaranteed Life Cycle (as defined in Exhibit E to the Power Sales Contract as added by the 2005 Amendments to Contracts and attached hereto) thereof due to the use of fuel having characteristics not permitted to be used without rendering ineffective (in whole or in part) or materially adversely affecting the guarantee or warranty of the vendor of such Catalyst Layer.

2.26 "Catalyst Layer" shall mean the initial third layer of catalyst to be installed in the Station Two SCR System at a time subsequent to the effectiveness of all provisions of the 2005 Amendments to Contracts, and each replacement layer of catalyst to be installed in the Station Two SCR System.

2.27 "Catalyst Refund Payment" shall mean, with respect to a Party and a particular Catalyst Layer, the refund payment by such Party with respect to such Catalyst Layer provided for in Section IV of Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto) and payable in accordance with Section 6.8 of the Power Sales Contract.

2.28 "City Actual Load Factor" shall mean, for a NOx Season, the net energy (in MWh) actually generated by Station Two and taken by the City for such NOx Season, divided by the product obtained by multiplying (i) the Actual Hours In NOx Season for such NOx Season by (ii) the product of the Total Capacity multiplied by the City's Average Station Two Capacity Share for such NOx Season.

22.29 "City Excess Allowances" shall mean, for any NOx Season with respect to which there shall be a City Reduction Generation Amount (it being understood that there shall be no City Excess Allowances in the event there is no City Reduction Generation Amount for the relevant NOx Season), the product obtained by

multiplying the City Reduction Generation Amount for such NOx Season by a fraction (i) the numerator of which is the number of Station Two Allocated Allowances for such NOx Season that would have been required to comply with applicable Federal and Kentucky NOx Regulations if the Station Two Stack NOx Emissions for such NOx Season had been in an amount that would have resulted from the application of the SCR Design NOx Removal to the Station Two SCR Inlet NOx Tons for such NOx Season and (ii) the denominator of which is the net energy (MWh) actually generated by Station Two for such NOx Season. Notwithstanding the forgoing, in the event of a complete outage of both generating units of Station Two throughout such NOx Season, the City's Excess Allowances for such NOx Season would equal the City's Average Station Two Capacity Share for such NOx Season of the lesser of (A) all Allotted Allowances for that NOx Season or (B) the number of Station Two Allocated Allowances for that NOx Season required so that 85% of the Station Two Stack NOx Emissions that would result by multiplying the Station Two Standard SCR Inlet NOx Tons by one (1) minus the SCR Design NOx Removal would comply with the applicable Federal and Kentucky NOx Regulations.

2.30 "City Reduction Generation Amount" shall mean (and shall only have relevance), for any NOx Season with respect to which

the City Actual Load Factor is less than the City Standard Load
Factor for such NOx Season, an amount of Station Two generation
(MW hrs) equal to (i) 85% of the maximum amount of generation
(MW hrs) associated with the City's Average Station Two
Capacity Share of the Total Capacity for such NOx Season
multiplied by (ii) the decimal obtained by dividing (x) the
difference between the City Standard Load Factor for such NOx
Season and the City Actual Load Factor for such NOx Season, by
(y) the City Standard Load Factor for such NOx Season.

Station One Electric Generating Plant located on a site on the Ohio River in Henderson, Kentucky, consisting of Unit 1 with a nameplate rating of 1,230 kW; Unit 2 with a nameplate rating of 1,230 kW; Unit 2 with a nameplate rating of 1,230 kW; Unit 3 with a nameplate rating of 5,000 kW; Unit 4 with a nameplate rating of 5,000 kW; Unit 5 with a nameplate rating of 12,650 kW; and Unit 6 with a nameplate rating of 29,091 kW (and for purposes of the 2005 Amendments to Contracts, a rated net capacity (after station use) of 26 MW.

"232 "City's Station One Rated Capacity" shall mean the rated net capacity (after station use) of Unit 6 of the City's Station One Power Plant as of the date of the 2005 Amendments to Contracts, which the Parties agree is 26MW, together with the energy associated with such rated capacity.

2.33 "City Standard Load Factor" shall mean, for any NOx Season, 85%.

2.34 "Construction and Operation Agreement" shall mean the Power Plant Construction and Operation Agreement, dated August 1, 1970, as amended, among the City, Big Rivers and WKE (as assignee of Big Rivers).

2.35 "Federal and Kentucky NOx Regulations" shall mean the Current NOx SIP Regulations, as the same may be hereafter approved, modified or supplemented by regulations or other action of the Federal Environmental Protection Agency, including, without limitation, any modification that results in a reduction or an increase in the NOx allowances or emission credits allotted to Station Two or Unit 6 of the City's Station One Power Plant, or otherwise amended, modified or supplemented, and shall include any laws, rules or regulations enacted, issued or adopted in lieu of any of the foregoing, but only to the extent they regulate or restrict NOx emissions.

2.36 "Guarantor's Consent and Acknowledgement" shall mean the Consent and Acknowledgement dated as of April 1,2005, by LG&E Energy LLC (successor by merger with LG&E Energy Corp.)., as Guarantor under the Guarantee Agreement [Station Two Obligations], dated July 15, 1998, by and among LG&E

Energy LLC., the City of Henderson and the City of Henderson Utility Commission.

2.37 "Index Rate" shall mean 5%.

2:38 "NOx Season" shall mean that period during each year that is defined as the "NOx Season" for such year under applicable Federal and Kentucky NOx Regulations and shall be deemed to include any applicable portion of a NOx Season. Reference to a NOx Season for a Contract Year shall mean the period consisting of those months of the Contract Year included within such NOx Season, and in the event that a Contract Year includes portions of two separate NOx Seasons, shall mean the periods that consist of those months of the Contract Year within each such portion of each NOx Season within such Contract Year.

239 "Outstanding" as used with respect to any Station Two Bonds, shall have the same meaning as set forth for such term in the Bond Ordinance authorizing such Station Two Bonds.

2.40 "Reagents" shall mean (i) the lime used in operation of the Station Two Flue Gas Desulfurization System and (ii) such other minerals, materials, supplies or substances for Station Two that the parties to the Power Sales Contract may determine to constitute a "Reagent", such determination to be evidenced by a written instrument which shall set forth the basis on which Big Rivers and

the City (or WKE/LEM as applicable) shall each supply such Reagent.

2.41 "SCR Ammonia Costs" shall mean, (A) with respect to capacity charges for a Monthly Billing Period payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract, the costs of the ammonia used in the operation of the Station Two SCR System as allocated to Big Rivers (or WKE/LEM as Big Rivers' assignee) in accordance with Section 6.2(a) of the Power Sales Contract for such Monthly Billing Period (other than costs for ammonia for the initial start-up and testing of the Station Two SCR System, which are treated as SCR Capital Costs), including, without limitation, storage and handling costs allocable to such ammonia, or (B) with respect to capacity charges for a Contract Year, the aggregate of such costs of the ammonia used in the operation of the Station Two SCR System during such Contract Year.

2.42 "SCR Amortized Capital Cost per MW" shall mean, for the initial Contract Year beginning June 1, 2004 and for each of the next nineteen (19) Contract Years following such initial Contract Year, (i) an amount equal to the annual debt service that would accrue during such Contract Year with respect to a bond issue in a principal amount equal to the total amount of SCR Capital Costs (exclusive of the SCR Capital Overcontrol Amount and the amount

1)

of \$123,584 attributable to the use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System by WKE/LEM or Big Rivers) bearing interest at a rate equal to the Index Rate, payable over 20 years with level annual debt service, divided by (ii) the number of MWs of the Total Capacity of Station Two as determined for such Contract Year pursuant to Section 3.6 of the Power Sales Contract.

"2343 "SCR Capital Costs" shall mean all capitalized costs and expenses associated with the original design, acquisition, construction, installation, start-up and testing of the Station Two SCR System (exclusive of the SCR Capital Overcontrol Amount and the amount of \$123,584 attributable to the use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System by WKE/LEM or Big Rivers), including applicable out-of-pocket costs of the Parties as provided in Section 4.20(e) of the Construction and Operation Agreement, and including the costs thereof payable pursuant to the Interim Funding Agreement, whether funded by the City, Big Rivers or WKE, and including the costs of the catalyst initially installed with respect to the Station Two SCR System and the ammonia supplies required for initial start-up and testing of the Station Two SCR System.

2.44 "SCR Capital Cost Share" shall mean, in the case of Big Rivers (or WKE as Big Rivers' assignee) 0.6955 and, in the case of the City, 0.3045.

2.45 "SCR Capital Overcontrol Amount" shall mean the difference (which the Parties agree is \$778,435), based on the public bids received by the City with respect to the SCR Contract for the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System, between (i) the amount of the lowest bid acceptable to the Parties for the components of a selective catalytic reduction system of Station Two capable of removing 75% of the Station Two NOx emissions assuming the use of Base Coal, and (ii) the amount of the bid in fact accepted by the City with the consent of the other Parties for the components of the Station Two SCR System capable of removing 90% of the Station Two NOx emissions assuming the use of Base Coal, as such difference (that is, the \$778,435) shall be adjusted to give effect to any change orders approved by the Parties and provided to the contractor under the SCR Contract, assuming that the amount of each such change order shall be allocated to the 75% NOx removal capability system and the Station Two SCR System, respectively, in the same proportion as (x) the amount of such bid acceptable with respect to the 75% NOx removal system bears to (y) the amount of such bid in fact accepted with respect to the Station Two SCR System (it being agreed by the Parties that in the case of each change order such adjustment (whether an increase or

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a decrease) to the "SCR Capital Overcontrol Amount" shall be equal to 2,22% of the increase or decrease in the contract price given effect by such change order).

2.46, "SCR Catalyst Acquisition Costs" shall mean, with respect to a Catalyst Layer, (A) with respect to capacity charges for any Monthly Billing Period payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract, the portion of the purchase price for such Catalyst Layer, the relevant Alternate Fuel Differential Amount (if any) with respect to that Catalyst Layer, and the portion of the cost of materials and labor associated with the installation of such Catalyst Layer and the costs of removal and disposal of the catalyst layer being replaced by such Catalyst Layer (if any), provided that such removal and disposal costs shall be offset as provided in Section 6.9 of the Power Sales Contract (as added by the 2005 Amendments to Contracts) by any amount received in connection with the sale or disposal of such catalyst layer being replaced, in each case as allocated for such Monthly Billing Period to Big Rivers (or WKE/LEM as assignee of Big Rivers) pursuant to Section 6.2(b) of the Power Sales Contract, or (B) with respect to capacity charges for a Contract Year, the aggregate of the purchase price for such Catalyst Layer, any Alternate Fuel Differential Amount (regardless of the Party responsible for the

same) and the other costs of such Catalyst Layer, including the costs of removal and disposal of the catalyst layer being replaced, as incurred during such Contract Year, provided that such removal and disposal costs shall be offset as provided in Section 6.9 of the Power Sales Contract (as added by the 2005 Amendments to Contracts) by any amount received in connection with the sale or disposal of such catalyst layer being replaced. SCR Catalyst Acquisition Costs shall not include costs of operation or maintenance of an installed Catalyst Layer or, except as otherwise provided in Section IV(D) of Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto), costs of a Catalyst Dispute Resolution Procedure (as defined in the aforesaid Exhibit E), all of which costs shall constitute costs associated with the operation and maintenance of Station Two under Section 6.3 of the Power Sales Contract. SCR Catalyst Acquisition Costs shall not include any SCR Capital Costs.

2,47, "SCR Contract" shall mean the (i) Contract SCR-01 SCR Equipment and Erection, dated as of July 9, 2002, entered into by the City with the successful bidder, as the same may be amended with the prior written consent of Big Rivers and, during the term of the Station Two Agreement, WKE, and (ii) the Contract SCR-02 Foundation, dated October 7, 2002, entered into by the City and

the successful bidder, as the same may be amended with the prior written consent of Big Rivers and, during the term of the Station Two Agreement, WKE.

2.48 "SCR Design NOx Removal" shall mean .90.

2.49 "Station One Unit 6 Allotted Allowance" shall mean, for a NOx Season, the NOx allowances and emissions credits allotted to Unit 6 of the City's Station One Power Plant pursuant to the applicable Federal and Kentucky NOx Regulations for such NOx Season.

2:50 "Station One Unit 6 Stack NOx Emissions" shall mean, for a NOx Season, the amount of NOx emissions from Unit 6 of the City's Station One Power Plant corresponding with the actual generation of energy by Unit 6 during such NOx Season (but in no event greater than the NOx emissions associated with the use and operation of Unit 6 of the City's Station One Power Plant at the City's Station One Power Plant Rated Capacity plus three (3) MWs of station use), as measured by the Station One Unit 6 Certified Continuous Emissions Monitoring System.

2.51 "Station Two Agreement" shall mean the Agreement and Amendments to A recements, dated as of July 15, 1998, among the City, Big Rivers, WKE, LEM, Western Kentucky Energy Corp. and WKE Corp., as heretofore amended and as amended by the

Amendatory Station Two Agreement, and as may hereafter be amended in accordance with its terms,

2.52 "Station Two Allocated Allowances" shall mean, for a NOx Season, the number of Allotted Allowances required for the Station Two Stack NOx Emissions during such NOx Season to be in compliance with the applicable Federal and Kentucky NOx Regulations.

2.53 "Station Two SCR Inlet NOx Tons" shall mean, for a NOx Season, the Station Two SCR inlet NOx tons for such NOx Season as measured by the inlet NOx duct monitors or calculated by mutual agreement in the event the inlet NOx duct monitors are not monitoring or functioning properly or sufficiently to calculate to Station Two SCR Inlet NOx Tons.

254 "Station Two SCR System" shall mean the selective catalytic reduction system purchased by the City and constructed and installed at and operated solely in connection with, Station Two, designed to provide at least a 90% continuous NOx removal capability during normal uses, and meeting design specifications, cost criteria and other criteria that are reasonably satisfactory to the Parties, which system shall include at the time of its initial commercial operation, among other related or supporting components and facilities, the equipment and components identified on Exhibit Bito the Power Sales Contract and the Construction and Operation Agreement (as added by the 2005 Amendments to Contracts) attached hereto and made a part hereof.

2.55 "Station Two Stack NOx Emissions" shall mean, for a NOx Season, the amount of the Station Two NOx emissions as measured by the Station Two Certified Continuous Emissions Monitoring Systems pursuant to the applicable Federal and Kentucky NOx Regulations.

2.56 "Station Two Standard SCR Inlet NOx Tons" shall mean, for a NOx Season, 2,800 NOx tons.

2.57 "Total Capacity" shall mean, with respect to Station Two, the Total Capacity as defined in Section 3.6 of the Power Sales Contract.

## II. CONSTRUCTION AND OPERATION AGREEMENT

Section 201 Section 3 of the Construction and Operation Agreement is amended by adding thereto the following:

> "3.3 Big Rivers will transfer and convey to the City easements on land lying adjacent to the Station Two plant site in order to permit the construction, operation and maintenance thereon of certain portions of the Station Two SCR System, including the SCR reactors and the ammonia storage facility, and the auxiliary building, together with any additional rights and easements to the City required for the construction, operation, maintenance and removal of auxiliary facilities required in connection therewith and for access thereto, all in accordance with the Big Rivers'

Easement.

Section 4 of the Construction and Operation Agreement is Section 202 amended by adding thereto the following:

> 特刊刻 The City, with the approval of Big Rivers (and WKE, as assignee of Big Rivers), awarded the SCR Contract and such other contracts with the selected contractors or vendors of the Station Two SCR System as are necessary for the design, acquisition, construction, installation, startup and testing of the Station Two SCR System, and will diligently pursue under the terms of such contracts such design, acquisition, construction, installation, startup and testing of the Station Two SCR System consistent with prudent utility practices and will perform and discharge its obligations under such contracts. Big Rivers (and WKE, as assignee of Big Rivers) and the City agree to coordinate their respective use, operation and maintenance of Station Two so as to reasonably facilitate any remaining design, acquisition, construction, installation, start-up or testing of the Station Two SCR System that may be required following the effectiveness of all provisions of the 2005 Amendments to Contracts. The City agrees to use its commercially reasonable efforts to cause its vendors and contractors to undertake such work in a manner consistent with the contracts therefor that minimizes any adverse effects on the use. operation and maintenance of Station Two. SCR Capital Costs

shall be funded by the City and WKE (and Big Rivers in the event the Station Two Agreement is terminated, subject to the limitations set forth in the Agreements), in the manner set forth in Section 4.20 of the Construction and Operation Agreement. The City shall use its commercially reasonable efforts to obtain and maintain the necessary permits and other governmental and third-party approvals for the design, acquisition, construction, installation, start-up, testing, use, operation and maintenance of the Station Two SCR System, and Big Rivers (and WKE, as assignee of Big Rivers) shall seek any such additional permits and approvals as are required of it. The Parties hereto agree that they shall use their commercially reasonable efforts to operate and maintain Station Two so as to comply with the vendor's recommendations provided in the SCR Contract as to the Station Two SCR System, or as provided in the successful bid for the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System, in either case with respect to meeting its performance guarantees and warranties, except to the extent emergency conditions exist which require the operation or maintenance of Station Two in a contrary manner. WKE will obtain and maintain adequate builder's risk insurance, boiler and machinery and other insurance required to be maintained by the City under the SCR Contract, and the City, Big Rivers and WKE shall be named as

additional insureds or loss payees (as their interest may appear) as provided in the SCR Contract covering the complete construction and installation of the Station Two SCR System. Any additional cost of such insurance shall be included as part of SCR Capital Costs. The City agrees to afford Big Rivers and WKE reasonable access to all plans, specifications and contracts for and to furnish copies of any required or permitted notices to or from any contractor or vendor relating to the design, construction, acquisition, installation, start-up, testing, operation and maintenance of the Station Two SCR System. The City shall obtain the prior written approval of Big Rivers and WKE (which approval shall not be unreasonably withheld, conditioned or delayed) regarding any material changes to such plans, specifications or contracts and for the approval or acceptance by the City pursuant to such contracts of the completion or commercial operation of any material component or aspect of the Station Two SCR System, and shall generally consult with Big Rivers and WKE and allow them to reasonably participate in all meetings, inspections, tests and audits with such contractors and vendors with respect to the design, construction, acquisition, installation, start-up and testing of the Station Two SCR System. The City shall also obtain the written approval of WKE and Big Rivers (such approval not to be unreasonably withheld,

conditioned or delayed) prior to any exercise by the City of any right that it may have to terminate or suspend any contract with any such vendor or contractor relative to the Station Two SCR System or to undertake to correct or repair any defective or non-conforming work or components thereof that may have been undertaken or performed by any vendor or contractor or to complete any uncompleted work by such vendor or contractor with respect to the Station Two SCR System.

to provide consulting services during the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System. The City agrees to promptly provide to Big Rivers and WKE copies of all reports, analyses and other information that may be generated or provided by Burns & McDonnell to the City in connection with their consulting services with respect to the Station Two SCR System (including, without limitation, those generated or provided prior to the effective date of all provisions of the 2005 Amendments to Contracts) and agrees to cause such consultants to afford Big Rivers and WKE reasonable access to their relevant representatives for the purpose of obtaining follow-up or additional information regarding their services, the results thereof and the Station Two SCR System generally.

4.14. SCR Ammonia Costs and SCR Catalyst Acquisition Costs

will be recorded by Big Rivers (or WKE as assignee of Big Rivers) so as to identify those Costs on a Contract Year and a month by month basis, separate and apart from the other costs and expenses incurred in the operation and maintenance of Station Two.

4.15 The City, WKE and Big Rivers have used their respective commercially reasonable efforts, consistent with their respective obligations under the 2005 Amendments to Contracts, so that the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System met the compliance dates with respect to NOx emissions required by the Federal and Kentucky NOx Regulations applicable thereto, and the reasonable costs of such actions (except as otherwise provided in Section 4.20(e) below) shall constitute SCR Capital Costs.

## 4.16 [Reserved]

MAN7. The Parties agree that all Allotted Allowances for a NOx Season (as prorated for any applicable portion of a NOx Season) shall be allocated and applied in order of priority as follows (absent the written agreement of the City, WKE, LEM and Big Rivers to the contrary), and no Party shall be entitled to use (or claim any right to use) such Allotted Allowances in a manner contrary to such allocation and application nor shall any Party cause or instruct the Station Two Designated Representative to use such Allotted Allowances in a manner contrary to such allocation and application:

- (a) Such Allotted Allowances shall first be allocated for the benefit of the City, WKE and, following the expiration or termination of the Station Two Agreement, Big Rivers and applied to Station Two Stack NOx Emissions for such NOx Season in an amount equal to the Station Two Allocated Allowances for such NOx Season.
- (b) Such Allotted Allowances shall next be allocated, but only to the extent of the amount remaining after the allocation thereof in the amounts provided pursuant to subsection (a) above, to and become the property of the City in an amount equal to the City Excess Allowances, if any, for such NOx Season. The City shall be entitled to use, apply, allocate or dispose of the City Excess Allowances allocated pursuant to this subsection (b) in any manner and for any purpose deemed appropriate by it (and permissible under applicable laws, rules and regulations), without accounting for the same to any other Party.
- (c) Such Allotted Allowances shall next be allocated, but only to the extent of the amount remaining after the allocation thereof in the amounts provided pursuant to subsection (a) above and in the amounts, if any, provided pursuant to subsection (b)

above, and applied to the Station One Unit 6 Stack NOx Emissions so that, after the application by the City to the Station One Unit 6 Stack NOx Emissions of an amount of NOx allowances or emission credits (from whatever source, but excluding Allotted Allowances other than City Excess Allowances) equal to the Station One Unit 6 Allotted Allowances for such NOx Season, the Station One Unit 6 Stack NOx Emissions for such NOx Season will be in compliance with the applicable Federal and Kentucky NOx Regulations (it being understood that for the purpose of determining the Allotted Allowances (if any) to be allocated pursuant to this subsection (c), an amount of NOx allowances and emissions credits (from whatever source, but excluding Allotted Allowances other than City Excess Allowances) equal to the Station One Unit 6 Allotted Allowances for that NOx Season shall be deemed to have been first applied to the Station One Unit 6 Stack NOx Emissions, whether or not the Station One Unit 6 Allotted Allowances or any other NOx allowances and emissions credits are in fact applied to the Station One Unit 6 Stack NOx Emissions); provided that the Allotted Allowances allocated pursuant to this subsection (c) shall not exceed 40 allowances or emissions credits (it being understood and agreed by the Parties that the portion of such 40 allowances or emissions credits not so required for the compliance of the Station One Unit 6 Stack NOx

Emissions for such NOx Season, after the application of an amount of NOx allowances or emissions credits equal to the Station One Unit 6 Allotted Allowances for such NOx Season, shall be available to WKE or Big Rivers (as applicable) pursuant to Subsection (d) below).

(d) Such Allotted Allowances shall next be allocated, but only to the extent of the amount remaining after allocation thereof in the amounts provided pursuant to subsection (a) above, and in the amounts, if any, provided pursuant to subsections (b) and (c) above, to and become property of WKE and, following the term of the Station Two Agreement (and as prorated for any applicable portion of a NOx Season), shall be allocated to and become the property of Big Rivers. WKE or Big Rivers, as applicable, shall be entitled to use, apply, allocate or dispose of such Allotted Allowances allocated as provided in this subsection (d) in any manner or for any purpose deemed appropriate by it (and permissible under applicable laws, rules or regulations), without accounting for the same to any other Party, including without limitation, using or applying the same in connection with or in support of the use or operation of any other power generation facilities that are owned or operated by WKE or Big Rivers, as applicable, except as otherwise provided in the Amendatory Station Two Agreement. The Parties acknowledge that WKE's

right to receive or utilize such Allotted Allowances for NOx

Seasons (or portions thereof) following the term of the Station Two

Agreement shall cease upon the expiration or termination of the

Station Two Agreement, and that Big Rivers' right to receive and

utilize the same shall thereafter continue throughout the term of the

Construction and Operation Agreement.

- (e) Exhibit C to the Construction and Operation

  Agreement (as added by the 2005 Amendments to Contracts)

  attached hereto sets forth an example of the calculations pertaining to the allocation and application of Allotted Allowances for an assumed year in accordance with subsections (a), (b), (c) and (d) above.
- (f) It is understood that in the event Big Rivers (or WKE or LEM, as assignee of Big Rivers) exercises its right under Section 3.8 of the Power Sales Contract to purchase Excess Henderson Energy or energy associated with Excess Henderson Capacity during any NOx Season, Big Rivers (or WKE or LEM, as assignee of Big Rivers) shall furnish from its own sources (which may include its Allotted Allowances allocated pursuant to subsection (d) above) the emission allowances or credits required so that when applied to the Station Two Stack NOx Emissions resulting from the generation of such Excess Henderson Energy or energy associated with such Excess Henderson Capacity, such Station

Two Stack NOx Emissions comply with the applicable Federal and Kentucky NOx Regulations. It is further understood that in the event the Allotted Allowances for a NOx Season, when first allocated to the Station Two Stack NOx Emissions for such NOx Season as contemplated above, are not sufficient to cause all such Station Two Stack NOx Emissions to be in compliance with the applicable Federal and Kentucky NOx Regulations, the City and Big Rivers (or WKE/LEM, as assignee of Big Rivers) shall be responsible for furnishing, in proportion to their respective Actual Station Two Generation Shares of the Actual Station Two Generation for that NOx Season, the additional NOx emissions allowances or credits required so that their remaining Station Two Stack NOx Emissions are in compliance with applicable Federal and Kentucky NOx Regulations.

(g) Big Rivers, the City and WKE agree to cooperate with one another and to use their respective commercially reasonable efforts (in the case of WKE, during the term of the Station Two Agreement only) to effect and implement the allocations contemplated above, and to otherwise carry out the intents and purposes of this Section 4.17, including without limitation, by instructing the Station Two Designated Representative to hold, allocate and/or use all Allotted Allowances in a manner consistent with the foregoing. To the extent required under the

circumstances, a Party shall execute and deliver to the other relevant Party one or more documents of title reasonably required to reflect that Party's ownership of the relevant Allotted Allowances as contemplated above, upon the written request of that Party. To the extent the City acquires title to or control over any Allotted Allowances for a NOx Season in excess of those allocated as contemplated in subsections (a), (b) and (c) above, it shall assign and transfer (or direct the Station Two Designated Representative to assign and transfer) such title to or control over the same to WKE or, for any NOx Season (or portion thereof) following the expiration or termination of the Station Two Agreement, to Big Rivers, without any additional consideration and free and clear of all liens and encumbrances of any nature. The City shall not attempt to make any forward sale or other conveyance of any Allotted Allowances (other than any City Excess Allowances allocated to it pursuant to subsection (b) above), it being understood that all such Allotted Allowances shall be used by the City solely in connection with Station Two NOx Stack Emissions and the Station One Unit 6 Stack NOx Emissions as contemplated in (a), (b) or (c), as applicable, above or shall be allocated to WKE or Big Rivers as contemplated in subsection (d) above.

(h) The City agrees to maintain complete and accurate

records regarding the allotment under the Federal and Kentucky NOx Regulations of NOx allowances and emissions credits to the City's Station One Power Plant, the use of any Allotted Allowances for the City's Station One Power Plant as provided in subsection (c) of this Section 4.17, and the City Excess Allowances, if any, as allocated pursuant to subsection (b) of this Section 4.17. The City agrees to give WKE, Big Rivers and their respective representatives reasonable access from time to time to all such records and to furnish the following information for each NOx Season to WKE and Big Rivers, as applicable: (i) on or prior to March 1 of each year following each NOx Season, a copy of the annual report made by the City's Station One Power Plant Designated Representative to environmental regulatory authorities regarding the receipt and disposition of NOx allowances or emissions credits pertaining to Unit 6 of the City's Station One Power Plant for such prior NOx Season; and (ii) on or prior to January 31 of each year following each NOx Season, the following information: (x) the number of the NOx allowances or emissions credits allotted to Unit 6 of the City's Station One Power Plant for such NOx Season under applicable Federal and Kentucky NOx Regulations, (y) the energy (MWh) generated (including energy for station use) by Unit 6 of the City's Station One Power Plant during such NOx Season and (z) the total Station One Unit 6 Stack

NOx Emissions during such NOx Season. The City further agrees to furnish WKE and Big Rivers, as applicable, copies of any such quarterly reports required to be filed by the City's Station One Power Plant Designated Representative with environmental regulatory authorities, as well as monthly reports tracking the NOx allowance and emissions credit consumption of Unit 6 of the City's Station One Power Plant. The City also agrees to cooperate and use its best commercial efforts to provide to WKE and Big Rivers, as applicable, and the Station Two Designated Representative, as soon as practicable but in any event in a timely manner, any information set forth in the second sentence of this subsection that is required for the Station Two Designated Representative to prepare and file the annual report with environmental regulatory authorities regarding the receipt and disposition of Allotted Allowances.

(i) Big Rivers and, during the term of the Station Two Agreement, WKE agree to maintain complete and accurate records regarding Allotted Allowances and the allocation and application thereof as provided in subsections (a), (b), (c) and (d) of this Section 4.17, and agree to give the City and its respective representatives reasonable access from time to time to all such records. Big Rivers and, during the term of the Station Two Agreement, WKE further agree to direct the Station Two

Designated Representative to furnish to the City on or prior to March 1 of each year following each NOx Season a copy of the annual report made by the Station Two Designated Representative to environmental regulatory authorities regarding receipt and disposition of Allotted Allowances for such prior NOx Season. Big Rivers and, during the term of the Station Two Agreement, WKE will direct the Station Two Designated Representative to cause such report to include information that any Party may reasonably request in writing (and with reasonable advance notice) and as shall be permissible while maintaining the reports in compliance with applicable Federal and Kentucky NOx Regulations, including Allotted Allowances balances on hand at the beginning and at the end of such NOx Season and the summary of receipts and dispositions of Allotted Allowances during such NOx Season. WKE and Big Rivers, as applicable, further agree to direct the Station Two Designated Representative to furnish to each of the other Parties copies of any such quarterly reports to be filed by the Station Two Designated Representative with environmental regulatory authorities, as well as monthly reports tracking the Allotted Allowance consumption. In addition, WKE and Big Rivers, as applicable, agree to cooperate and use their respective best commercial efforts to provide to the City and the Designated Representative for City's Station One Power Plant, as

soon as practicable but in any event in a timely manner, any information relating to Station Two operation or Allotted Allowances required for the Designated Representative for City's Station One Power Plant to prepare and file the annual report with environmental regulatory authorities regarding the receipt and disposition of NOx allowances and emissions credits with respect to City's Station One Power Plant.

(j) For purposes of any calculation of the number of Allotted Allowances allocated or applied pursuant to this Section 4.17, the number of Allotted Allowances resulting from such calculation shall be rounded, if necessary, to the nearest whole number (e.g., 33.67 being rounded up to 34 and 33.34 being rounded down to 33) with one half of an Allotted Allowance being rounded up.

4.18 The reasonable costs incurred by the Parties in connection with obtaining all governmental regulatory approvals and any creditors' consents and approvals required for the Parties' respective execution of or performance of the 2005 Amendments to Contracts, the Amendatory Station Two Agreement, the Guarantor's Consent and Acknowledgement, the Big Rivers' Creditors' Subordination Agreement and the Big Rivers' Easement shall constitute SCR Capital Costs reimbursable as provided in Section 4.20(e).

4.19 The Parties acknowledge that the City, on the one hand, and each of WKE, LEM and Big Rivers, on the other hand, have a vested interest in ensuring that the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System meets certain schedules and that the Station Two SCR System performs to stated NOx removal capabilities, all as warranted or guaranteed by the relevant bidders, vendors or contractors thereof (or as otherwise contemplated in the contract(s) with such bidders, vendors or contractors), and that such Parties may be damaged by reason of a failure by the Station Two SCR System to meet those schedules or warranted or guaranteed performance capabilities. In light of those mutual interests the parties agree that:

(1) The City shall diligently pursue (with counsel reasonably satisfactory to the Parties) and on behalf of the City, WKE, LEM and Big Rivers as their respective interests may appear, on a best commercial efforts basis, (i) any and all contractual rights and remedies that it may have against any bidder, vendor or contractor with respect to the Station Two SCR System or any component(s) thereof, or on account of any failure of or by that system to meet any of the schedules, performance specifications, criteria or

capabilities warranted or guaranteed by such bidder, vendor or contractor, or otherwise on account of any misrepresentation, breach of warranty or nonfulfillment of any covenant or agreement on the part of that bidder, vendor or contractor in any manner relating to the Station Two SCR System (including without limitation, the pursuit of specific performance and any liquidated damages or other relief available as a result of, or arising by reason of, any such failure. misrepresentation, breach or non-fulfillment), and (ii) any and all contractual rights and remedies that it may have against any provider of a surety, performance or other bond with respect to the Station Two SCR System on behalf of any such bidder, vendor or contractor;

(2) The City shall afford WKE, LEM and Big Rivers a reasonable opportunity to participate in the City's efforts to pursue its and their respective rights and remedies as contemplated in subsection (1) above, including the right to promptly receive copies of all pleadings and correspondence with the relevant bidder, vendor or contractor, or provider of a surety, performance or other bond, to attend all hearings and settlement discussions with that bidder, vendor or

contractor (or its counsel), or provider of a surety, performance or other bond (or any counsel thereof), and to approve any settlement of the City's claims against that bidder, vendor or contractor, or provider of a surety, performance or other bond (which approval shall not be unreasonably withheld, conditioned or delayed by WKE, LEM or Big Rivers);

(3) The reasonable costs and expenses incurred by the City, WKE, LEM and Big Rivers in connection with the foregoing efforts ("Collection Costs") shall initially be allocated between and promptly funded (or, as applicable, reimbursed) by the City and WKE (or, in the event the Station Two Agreement shall have expired or been terminated, by the City and Big Rivers) on a 50%/50% basis, with 20% of any amounts so allocated to and paid or reimbursed by WKE being promptly thereafter reimbursed by Big Rivers to WKE upon its written request. To the extent any damages are recovered from the relevant bidder, vendor, contractor or provider of a surety, performance or other bond, the amounts so recovered shall first be used to proportionately reimburse the City, WKE and Big Rivers for the portions of the Collection Costs so

funded, paid or reimbursed by them, before such amounts are allocated between or among the Parties as contemplated in paragraphs (4), (5) and (6) below;

- (4) In the case of the proceeds of liquidated damages (net of the damages used for the recovery of the Parties' Collection Costs as contemplated in paragraph (3)) payable as a result of a failure of the bidder, vendor or contractor to meet its guaranties or warranties as to NOx removal or its schedules with respect to completion or commercial operation after testing of the Station Two SCR System or a component thereof (such failure being in this paragraph (4) referred to as the "Vendor Failure"), with respect to a particular day, such proceeds, after reimbursement of the reasonable costs and expenses of the Parties incurred in connection with submitting and enforcing a claim or the recovery of damages therefor, as the same shall be reallocated as provided in subsection (3) above, shall be applied as follows:
  - In the case of liquidated damages payable due to a Vendor (i) Failure consisting of a failure to meet its guaranties or warranties as to the NOx removal capability of the Station

Two SCR System or a component thereof, including a failure of the Station Two SCR System or a component thereof to meet such guaranties or warranties by a scheduled date, whether or not such Vendor Failure occurs or the liquidated damages are payable during a NOx Season, the proceeds of such liquidated damages with respect to such particular day shall be paid and allocated between the City and WKE/LEM as follows:

- (A) if the percentage of NOx removal capability of the Station Two SCR System resulting from or in light of such Vendor Failure equals or exceeds the Base NOx Removal, all such proceeds of liquidated damages with respect to such day shall be paid by the City to WKE/LEM; and
- (B) if the percentage of NOx removal capability of the
  Station Two SCR System resulting from or in light of
  such Vendor Failure is less than the Base NOx
  Removal, there shall be allocated to the City from
  such proceeds of liquidated damages an amount
  determined in accordance with the following formula:

$$X = .3045 \times \left[1 - \frac{Y}{Y + (NR \times Z)}\right] \times LDP$$

## where:

X = amount to be allocated to the City; NR = a fraction the numerator of which is the difference between the Base NOx Removal and the actual percentage of NOx removal capability of the Station Two SCR System (or a component thereof) resulting from such Vendor Failure and the denominator of which is the Base NOx Removal;

= the SCR Capital Overcontrol Amount; and LDP = the amount of the proceeds of liquidated damages with respect to such particular day; and = the final contract price for the Station Two SCR System as determined in accordance with the SCR Contract and any settlement agreements or the like that may be entered into by the City with the successful bidder (with the prior written consent of Big Rivers and, during the term of the Station Two Agreement, WKE);

and the balance of such proceeds of liquidated damages shall be paid by the City to WKE/LEM.

- (ii) In the case of liquidated damages payable due to a Vendor Failure to meet a scheduled date for the tie-in of duct work to either of the Station Two generating units, whether or not such Vendor Failure shall occur or such liquidated damages shall be payable during a NOx Season, the proceeds of such liquidated damages with respect to such particular day shall be paid and allocated between the City and WKE/LEM as follows:
  - (A) if the City shall have available to it for such day the full amount of its share of the Total Capacity of Station Two as allocated pursuant to Section 3 of the Power Sales Contract and due to such Vendor Failure WKE/LEM shall not have available to it the full amount of its surplus capacity from Station Two as allocated pursuant to Section 3 of the Power Sales Contract, the proceeds of such liquidated damages with respect to such particular day shall be paid by the City to WKE/LEM,
  - (B) if the City shall not have available to it for such day the full amount of its share of the Total Capacity of

Station Two as allocated pursuant to Section 3 of the Power Sales Contract, the proceeds of such liquidated damages with respect to such particular day shall be paid to and allocated between the City and WKE/LEM, respectively, in the same proportion as (x) the amount (in MWs) of the City's full share of the Total Capacity of Station Two that is not so available to the City for such day bears to (y) the amount (in MWs) of the full surplus capacity of Station Two allocated for such day to WKE/LEM pursuant to Section 3 of the Power Sales Contract that is not so available to WKE/LEM.

In all cases, other than those in which paragraph (4) above is (5)applicable, the proceeds of liquidated damages and of the payment of other claims or the recovery of other damages under contracts with the abovementioned bidders, vendors or contractors, or under any surety, performance or other bond, after reimbursement of the parties reasonable costs and expenses incurred in connection with submitting and enforcing claims or the recovery of damages thereon, as the same shall be reallocated as provided in paragraph (3) above, shall be paid to and allocated between the City and WKE/LEM in the same proportion as their average respective shares of the Total Capacity of Station Two as allocated pursuant to Section 3 of the Power Sales Contract during each Contract Year from and including the Contract Year which includes the first date of the relevant failure, breach action or omission of the bidder, vendor or contractor giving rise to such recovery, through and including the Contract Year in which such recovery is made.

- (6) In the event WKE, LEM or Big Rivers shall receive from the City an allocated portion of the proceeds of any claims or any liquidated or other damages as contemplated in paragraphs (4) and (5) above (net of the damages used for the recovery of the Parties' Collection Costs as contemplated in paragraph (3)), WKE and LEM, on the one hand, and Big Rivers, on the other hand, agree that all such amounts shall be allocated to them or divided between them as set forth below, except as otherwise expressly provided in this paragraph (6).
  - (i) All liquidated damage amounts and other damage amounts that shall be received from the City as contemplated in paragraph (5) above shall be divided such that WKE and LEM shall receive the portion thereof determined by reference to the following formula and Big Rivers shall receive the balance:

$$A = \frac{B}{23.5}$$

Where:

- WKE's and LEM's collective allocated portion of such damages, expressed as a percentage (which shall not be a negative percentage); and
- The number of years (and/or portions thereof) remaining in B = the full "Term" of the Station Two Agreement as of the first date of the relevant failure of the Station Two SCR System or bidder, vendor or contractor giving rise to the claims(s) or damages contemplated in paragraph (5) above.
- All liquidated damage proceeds allocated and paid by the City to WKE/LEM as contemplated in subparagraph (4)(i) above by reason of a Vendor Failure of the type described in that subparagraph ("Subparagraph (4)(i) Damages") shall be remitted to and retained by WKE/LEM for their own account; provided, that WKE/LEM hereby agree to first use any such Subparagraph (4)(i) Damages for the acquisition of NOx allowances or emissions credits to the extent required for the operation of Station Two and the generation of WKE's or LEM's share of Total Capacity during the Term in the absence of a commercially-operational, conforming Station Two SCR System, before retaining such damages or using such damages for any other purpose; and provided further, that in the event, as of the expiration of the Term of the

Station Two Agreement or the early termination of the Station Two Agreement, the relevant bidder, vendor or contractor that paid such liquidated damages has not delivered and installed all components of the Station Two SCR System for which it was responsible in conformity with the guarantees, warranties or other material commitments set forth in its contract with the City, then promptly following that expiration or termination of the Station Two Agreement, WKE/LEM shall pay to Big Rivers a share of the Subparagraph (4)(i) Damages actually received by it or them (net of the amount of those damages used by WKE/LEM to acquire NOx allowances or emissions credits as contemplated above) equal to the percentage of all SCR Capital Costs for which WKE/LEM were responsible under Section 4.20 of the Construction and Operation Agreement that have been funded by Big Rivers as of the expiration or termination of the Station Two Agreement, together with interest on Big Rivers' share of those Subparagraph (4)(i) Damages from the date first received by WKE/LEM through the date paid to Big Rivers at the "Prime Rate" (as defined in the Station Two Agreement).

(iii) All liquidated damage proceeds paid and allocated by the City to WKE/LEM as contemplated in subparagraph (4)(ii) above by reason of a Vendor Failure of the type described in that

subparagraph ("Subparagraph (4)(ii) Damages") shall be remitted to and retained by WKE/LEM for their own account; provided, that if the relevant Vendor Failure contemplated in subparagraph (4)(ii) and the contract between the City and the relevant bidder, vendor or contractor do not physically or contractually prevent the City (or WKE as the City's contractual operator of Station Two) from restarting and operating either Station Two generating unit in accordance with the requirements of the Station Two Contracts following the expiration of the scheduled outage during which the tie-in of duct work to the Station Two generating units was originally scheduled to be completed, and if either (A) WKE/LEM voluntarily extend that scheduled outage, or restart the Station Two generating units but thereafter voluntarily shut down either or both of those units, in either case in order to accommodate the completion of the tie-in of duct work, or (B) either or both of the Station Two generating units suffer an unscheduled or forced outage due to a mechanical or operational problem unrelated to the tie-in of duct work and such tie-in of duct work is undertaken during the period that the unscheduled or forced outage continues, then any Subparagraph (4)(ii) Damages that are allocated and paid by the City to WKE/LEM for the days (or portions

thereof) during which the scheduled outage was so voluntarily extended, for the days (or portions thereof) during which the Station Two generating units (or either of them) were so voluntarily shut down, or for the days (or portions thereof) of the unscheduled or forced outage during which the tie-in of duct work was so performed (as applicable), shall be allocated between WKE/LEM, on the one hand, and Big Rivers, on the other hand, based upon the formula set forth in subparagraph (6)(i) above, but with component "B" of that formula being the number of years (and/or portions thereof) remaining in the full Term of the Station Two Agreement as of the first date of the relevant Vendor Failure contemplated in subparagraph (4)(ii) above. Notwithstanding the foregoing provisions of this subparagraph (iii), in the event an unscheduled or forced outage as contemplated above is required to be extended beyond the period that would have been required in order to correct or repair the mechanical or operational problems initially giving rise to that outage, in order to allow the completion of tie-in of duct work undertaken during that outage and necessary for the restart of either or both of the Station Two generating units, then WKE/LEM shall be entitled to retain for their own account all Subparagraph (4)(ii) Damages paid for the days (or portions thereof) during

which that unscheduled or forced outage is extended to allow the completion of that work.

(iv) As between WKE/LEM, on the one hand, and Big Rivers, on the other hand, the Party(ies) receiving the proceeds of relevant liquidated damages or other damages from the City as contemplated in paragraph (4) or (5) above (net of the damages used for the recovery of the Parties' Collection Costs as contemplated in paragraph (3)) shall promptly thereafter pay to the other of those Parties its allocable share of those damages (if any) as contemplated in this paragraph (6) in immediately available funds. Notwithstanding anything contained in this paragraph (6) to the contrary, Big Rivers shall not be entitled to receive any portions of the proceeds of any claims or any liquidated or other damages, as contemplated in paragraph (4) or (5) above, until such time as Big Rivers shall have funded its respective share of all SCR Capital Costs as contemplated in the Amendatory Station Two Agreement. The receipt or retention by WKE/LEM of liquidated damages or other damages as contemplated in this Section 4.19 shall not preclude WKE/LEM from asserting or claiming that Big Rivers has an obligation under the Station Two Agreement to contribute its share of the costs of any other SCR Capital Costs, Station Two Improvements costs or

Henderson Incremental Environmental O&M Costs
associated with, resulting from or necessitated by the relevant
Vendor Failure or other failure of the Station Two SCR
System or the bidder, vendor or contractor contemplated in
paragraph (4) or (5) above, as applicable, nor shall Big Rivers
be deemed to be released or discharged from any such
obligations.

- (7) A Party's respective entitlements to portions of the proceeds of liquidated damages as contemplated above shall not be affected by any decision by such Party (or any of them) to separately acquire NOx allowances or emissions credits in order for the generation of its share of Total Capacity of Station Two (and in the case of the City, the generation of energy associated with the City's Station One Power Plant Rated Capacity) to remain compliant with the Federal and Kentucky NOx Regulations. The City agrees to hold all liquidated damages or other damages that may be recovered from a particular bidder, vendor or contractor (as contemplated in paragraph (4) or paragraph (5) above) in escrow for the benefit of the Parties until their respective shares (if any) thereof can be calculated and such amounts can be allocated and paid or distributed as contemplated in this Section 4.19.
- (8) The proceeds of any insurance maintained with respect to any damage or destruction of the Station Two SCR System or any part

thereof during the construction, start-up and testing thereof or with respect to the completion of the Station Two SCR System shall be applied by the City to the repair, reconstruction or completion thereof, as applicable.

4.20 The SCR Capital Costs have been and shall be funded in the manner provided in this Section 4.20, notwithstanding any provisions to the contrary elsewhere in the Construction and Operation Agreement or the Power Sales Contract. In addition the amount of \$123,584 shall be paid by WKE to the City with respect to WKE's proposed use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System and the SCR Capital Overcontrol Amount shall be paid to the City by WKE, in each case to the extent not already funded by WKE pursuant to the Interim Funding Agreement. The City shall apply all such amounts to the payment of such costs of the Station Two SCR System.

- (a) Promptly upon all provisions of the 2005 Amendments to Contracts becoming fully effective as contemplated in Section 601 below, the City agrees to establish and maintain at a bank in Henderson, Kentucky, reasonably satisfactory to the Parties, an SCR Construction Account (the "SCR Account") into which funds shall be deposited, and out of which payments shall be made, to fund the SCR Capital Costs not previously funded.
- (b) The Parties agree to continue the budget for SCR Capital Costs established by the Interim Funding Agreement and to meet periodically to review

and, as needed, update such budget which shall not be amended, modified or supplemented absent the prior written consent of the City, WKE and Big Rivers, which consent shall not be unreasonably withheld, conditioned or delayed.

(c) Prior to the first day of each month, the City shall invoice WKE (or, in the event the Station Two Agreement shall have been terminated, Big Rivers) in writing for WKE's SCR Capital Cost Share of the budgeted SCR Capital Costs that are anticipated by the City, in good faith, to be expended by it during the coming month, and that have not already been funded by WKE pursuant to the Interim Funding Agreement. The City shall promptly provide WKE and Big Rivers with such information regarding those anticipated expenses as WKE (or Big Rivers) may reasonably request. Within five (5) business days after its receipt of that invoice, WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers) shall deposit into the SCR Account funds in an amount equal to its SCR Capital Cost Share of the budgeted SCR Capital Costs for that coming month. Within one (1) business day following that deposit by WKE, the City shall deposit into the SCR Account the City's SCR Capital Cost Share of such budgeted SCR Capital Costs that are anticipated to be expended during that coming month. Once both of those deposits have been made (but not before), the City shall be entitled to thereafter draw upon the SCR Account to fund the budgeted expenditures of the SCR Capital Costs actually incurred by it in the applicable month (or in any subsequent month to the extent the relevant expenditures anticipated for the applicable month are deferred to a subsequent month with the written concurrence of the City and WKE (or, if the Station Two

Agreement shall have been terminated, Big Rivers)). In the event the actual expenditures of SCR Capital Costs associated with a particular aspect or component of the Station Two SCR System are less than the budgeted amounts therefor which were deposited by the City or WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers), the excess amounts in the SCR Account shall be retained in the SCR Account to fund future unanticipated or unbudgeted SCR Capital Costs (with the written concurrence of the City, WKE and Big Rivers) or shall be released as contemplated in paragraph (d) below. In the event the actual obligations associated with a particular aspect or component of the Station Two SCR System require expenditures of SCR Capital Costs in excess of the budgeted amounts and available amounts which were deposited by the City and WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers) in the SCR Account, the amount of the deficiency in the SCR Account shall be deposited in the SCR Account within five (5) business days by the City and WKE (or, if the Station Two Agreement shall have been terminated, Big Rivers) in accordance with their respective SCR Capital Cost Shares.

(d) The City agrees to hold and maintain all funds deposited into the SCR. Account in trust for the City and WKE (and, if the Station Two Agreement shall have been terminated, Big Rivers) and agrees to use such funds solely in connection with the SCR Capital Costs as provided in this Section 4.20. If, as of the completed construction and commercial operation date of the Station Two SCR System, any amounts remain in the SCR Account which are not required to fund budgeted SCR Capital Costs that have actually accrued or that can

reasonably be expected to accrue thereafter, those remaining amounts shall promptly thereafter be released by the City from the SCR Account and returned to the City and WKE (and, if the Station Two Agreement shall have been terminated, Big Rivers) in the same proportions as those funds were deposited by those Parties into the SCR Account. In the event the Station Two Agreement shall have been terminated and the rights of WKE under the Agreements shall have been cancelled or reassigned to Big Rivers prior to a release of funds by the City from the SCR Account as contemplated in the preceding sentence, and to the extent the funds so released to Big Rivers constitute a return of funds that were deposited by WKE into the SCR Account as contemplated in paragraph (c) above, Big Rivers agrees to remit and pay to WKE such released funds within ten (10) business days following its receipt thereof without set-off, deduction or counterclaim. The covenant of Big Rivers in the preceding sentence shall survive the expiration or termination of the Station Two Agreement and/or the Construction and Operation Agreement.

(e) The Parties agree that all out-of-pocket costs and expenses that may be incurred by them or any of them (other than the costs and expenses described in Section 4.19 (3) of the Construction and Operation Agreement and other than a Party's cost to borrow or otherwise raise the funds required to be contributed by it toward SCR Capital Costs under this Agreement or under the Amendatory Station Two Agreement), whether pursuant to the 2005 Amendments to Contracts or the Interim Funding Agreement, in connection with (i) the initial design, acquisition, construction, installation, start-up and testing of the Station Two SCR System in

accordance with the 2005 Amendments to Contracts, the Interim Funding Agreement and the SCR Contract; (ii) the development, negotiation and execution of the 2005 Amendments to Contracts, the Interim Funding Agreement, the Amendatory Station Two Agreement, the SCR Contract, the Big Rivers' Easement, the Big Rivers' Creditors' Subordination Agreement and the Guarantor's Consent and Acknowledgement; or (iii) the obtaining of all governmental and third-party consents or approvals required for such agreements or instruments or for the Station Two SCR System; shall constitute SCR Capital Costs. At such time as any Party shall incur any such out-of-pocket costs or expenses (other than the deposits required to be made by WKE or the City into the SCR Account and other than the payments required to be made by the City from the SCR Account, each as contemplated in Section 4.20(c) above) and shall seek reimbursement of the same, that Party shall thereafter submit a written request for reimbursement of such costs and expenses to the City with a copy to the other Parties (or, in the case of costs and expenses incurred by the City, shall notify WKE and Big Rivers in writing of such costs and expenses and of the City's intention to charge the same to the SCR Account as SCR Capital Costs), and all such requested costs and expenses shall be deemed to be added to the approved SCR Capital Costs budget for the Station Two SCR System (to the extent they are not already included in that approved budget) without further action on the part of any Party. Thereafter, such out-of-pocket costs and expenses shall be funded by the City and WKE into the SCR Account in the same manner as other budgeted SCR Capital Costs are funded pursuant to Section 4.20(c)

above, and thereafter shall be paid by the City to the relevant Party from the SCR Account within five business days, and a portion of those out-of-pocket costs shall be paid by Big Rivers to WKE as contemplated in Section 19.4(b) of the Station Two Agreement (as added pursuant to the Amendatory Station Two Agreement). Each Party agrees to provide reasonable documentation in support of a particular cost or expense claimed as being reimbursable to it hereunder upon the request of any other Party.

(f) Upon completion of construction of the Station Two SCR System and settlement of all obligations to third parties (that is, to parties other than the City, Big Rivers, WKE, LEM or their Affiliates) relating to SCR Capital Costs or to costs funded with the SCR Capital Overcontrol Amount and the \$123,584 with respect to alternate fuel with respect to the two initial catalyst layers of the Station Two SCR System, the City shall within forty five (45) days thereafter furnish to WKE and Big Rivers a final written accounting of all items of SCR Capital Costs and all items of costs funded with the SCR Capital Overcontrol Amount and such \$123,584 with respect to alternate fuel for the Station Two SCR System. WKE and Big Rivers shall have until sixty (60) days following receipt of such accounting to question the suitability or correctness of any item thereof or to propose other costs for inclusion in that final accounting, and unless that proposed final accounting is so questioned, or other costs are so proposed within that period, the suitability and correctness of such accounting shall be conclusively presumed. In the event that WKE or Big Rivers shall question the suitability or correctness of any item or items of such accounting, or shall propose other costs

for inclusion in that accounting, the City shall review each such questioned item or items or additional costs and notify WKE and Big Rivers in writing within thirty (30) days thereafter as to whether or not it found any error(s) or omission(s) and, if any such error(s) or omission(s) were found, such notice shall also set forth any reimbursements or payments required to correct such error(s) or omission(s). If, however, after such review and notice by the City, any such questions remain unresolved or differences between the parties persist regarding the proposed final accounting, the City, WKE and Big Rivers shall endeavor, in good faith, to resolve the same for a period of at least sixty (60) days. In the absence of such consensual resolution any party shall be free to resort to the courts to resolve the dispute. Upon the suitability and correctness of such final accounting being conclusively presumed, agreed or determined, and upon the making of any such required payments and reimbursements as a final settlement of accounts, the City shall close the SCR Account and distribute to WKE and the City their respective SCR Capital Cost Shares of any remaining balance.

(g) Upon all provisions of the 2005 Amendments to Contracts becoming fully effective as contemplated in Section 601 below, the budget for SCR Capital Costs and the supplemental budget with respect to SCR Ammonia Costs, prepared and maintained as provided in the Interim Funding Agreement and approved as contemplated in Section 10 of the First Amendment to the Interim Funding Agreement shall continue as the approved budget for SCR Capital Costs and, in the case of such supplemental budget, as a supplement to the then current Annual Budget under and for the purposes of this Construction and Operation Agreement,

the other Agreements and the Station Two Agreement, and the Parties' respective rights and obligations hereunder and thereunder.

4.21) In the event that subsequent to the date of the 2005 Amendments to Contracts, Federal or Kentucky law and regulations shall require the treatment of any sulfuric acid ("SO3") emissions generated by the Station Two SCR System, the Parties agree (or in the event the Station Two Agreement shall have expired or shall have been terminated as of that time, the City and Big Rivers agree) to negotiate in good faith the terms and conditions of an arrangement under the Construction and Operation Agreement for the sharing and payment by them of the costs relating to such treatment of the SO3 emissions.

4.22 Big Rivers (or WKE as assignee of Big Rivers) will monitor the operating performance of the Station Two SCR System as provided in Section III of Exhibit D to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto) and will perform the fuel sampling and analyses to be performed by it as provided in Section V(C) and (D) of Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto).

Section 9 1 of the Construction and Operation Agreement is Section 203 amended to read as follows:

> "9.1 In the event of he issuance of any Station Two Bonds subsequent to the date of the 2005 Amendments to Contracts with the prior written consent of Big Rivers (and, during the term of the Station Two Agreement, WKE/LEM),

the applicable Bond Ordinance may establish and provide for the funding of such funds and accounts pertaining to such Station Two Bonds or to Station Two as shall be approved in writing by Big Rivers (and during the term of the Station Two Agreement WKE/LEM)."

Section 204 Section 14:4 of the Construction and Operation Agreement is amended to read as follows:

> "14.4 The Annual Budget may be amended only with the written agreement of the Parties."

Section 205 Section 15.2 of the Construction and Operation Agreement is amended to read as follows:

> "15.2 Such books, records and accounts shall be audited by an independent certified public accountant or a firm of certified public accountants of recognized standing, selected by the City. Such audit shall be completed within 120 days after the close of each Contract Year and WKE and Big Rivers shall be entitled to timely receipt of copies of the audit report of such accountant or firm of accountants and the accompanying financial statements. All such books, records and accounts shall be held and maintained by the City in confidence (and the City shall require its auditors to hold and maintain the same in confidence) for a period of five (5) years from the date of receipt, unless the same shall come into the public domain through no fault of the City or its auditors or unless disclosure thereof is required by applicable laws or regulations pertaining to the City or its auditors or any debt of the City with

respect to its municipal electric system or any Station Two Bonds or required for the exercise by the City of any of its rights or remedies under the Agreements or the Station Two Agreement."

Section 206 Section 18.4 of the Construction and Operation Agreement is amended to read as follows:

> "18.4 During the term of this Agreement all proceeds from policies of insurance maintained with respect to damage or destruction of Station Two or any component thereof and obtained pursuant to this Section shall be paid and applied by the City and Big Rivers (and during the term of the Station Two Agreement by WKE) to the cost of repair, reconstruction and replacement of such damaged or destroyed property unless otherwise agreed to by such parties; provided that if Station Two Bonds (that have been consented to as provided above) shall then be Outstanding such proceeds shall be paid and applied in accordance with the provisions of the applicable Bond Ordinance."

Section 207 Section 28.1 of the Construction and Operation Agreement is amended to read as follows:

> "28.1 In the event Station Two Bonds (that have been consented to as provided above) shall be at any time Outstanding, this Agreement shall be subject to the terms and provisions of the applicable Bond Ordinance. City and Big Rivers (and during the term of the Station Two Agreement, WKE) agree that they will not amend, modify or otherwise alter this Agreement in any manner that will conflict with the provisions of the applicable Bond

Ordinance as the same may, from time to time, exist."

## POWER SALES CONTRACT

Section 301

Section 3.1 of the Power Sales Contract is amended to read as

follows

"3,1 Subject to the allocation of surplus capacity to Big Rivers (or to WKE/LEM as Big Rivers' assignee) as hereinafter provided, the Total Capacity and output of City's Station Two shall be reserved to and available for use by the City for the purpose of supplying the needs of the City and its inhabitants for electric power and energy in excess of the capabilities, from time to time, of its Existing System. For avoidance of any doubt, the Station Two capacity and associated energy to be reserved to and available for use by the City for any Contract Year to supply the needs of the City and its inhabitants for electric power and energy shall be determined only after giving effect to the application of the then rated capacity and associated energy of the City's Station One Power Plant (without any reduction for any off-system capacity sales therefrom) to supply such ne

Section 301A The title of Section 6 of the Power Sales Contract is amended to read as follows:

> "Section 6. PAYMENT FOR CAPACITY, FUEL, ALLOCABDE SCR COSTS AND REAGENT REQUIREMENTS"

Section 302 Section 6.1 of the Power Sales Contract is amended to read as follows:

Revenue Bonds, Station Two Series, dated as of March 1, 1973, have been paid in accordance with their terms, the two county restriction provided for in the Internal Revenue Service Letter Ruling, dated January 26, 1971, shall no longer be applicable with respect to the operation of the Henderson-Daviess System and the City Electric System referred to in Section 21.1 above (or to the capacity or energy generated by Station Two), and, accordingly, the parties to the Power Sales Contract agree that the provisions of Section 21.1, 21.2 and 21.3 of this Power Sales Contract will no longer be applicable or have any force or effect with respect to the capacity and energy generated after the date of payment of such Bonds by Station Two or the City's Station One Power Plant,"

## IV. BIG RIVERS ASSIGNMENT

Section 401 Section 3./ (For the Construction and Operation Agreement, Section 24.1 of the Power Sales Contract and Section 15.1 of the Joint Facilities Agreement are each amended by adding the following:

> "Notwithstanding anything to the contrary contained in this Agreement or the other Agreements (as hereinafter defined) or the Station Two Agreement, in addition to the assignment of such Agreements by Big Rivers to the United States of America, Big Rivers may assign its rights and interests under the Agreements, including this Agreement, and the Station Two Agreement as security for, and may grant a security interest herein and therein

pursuant to the Mortgages (as hereinafter defined) as security for, any and all of its obligations to the other mortgagees or secured parties specifically identified in the Mortgages as being secured thereby; provided that in exercising any of its rights or remedies arising out of such assignment of rights and interests as security, no such mortgagee or secured party (other than WKE, LEM or Western Kentucky Energy Corp., or their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement)), shall itself have the right to occupy, operate or maintain Station Two or exercise any other right, remedy or interest so assigned, pledged or granted as aforesaid, unless it shall meet the requirements set forth in clauses (i) to (iii), inclusive, below, as if it were a transferee or assignee as provided therein (the aforementioned limitation not to be deemed to limit any foreclosure of the mortgage liens and security interests so long as upon foreclosure the transferee or assignee of such rights and interests, whether or not including the mortgagee or secured party, shall meet the requirements set forth in clauses (i) to (iii), inclusive); and each such mortgagee or secured party may transfer or assign the rights and interest(s) so

assigned, pledged or granted as security pursuant to a sale in foreclosure of the lien of any of the Mortgages, or a sale in lieu of a foreclosure of the lien of any of the Mortgages (or the exercise of power of sale); provided that, except in the case of WKE, LEM and Western Kentucky Energy Corp., and their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement), (i) the transferee or assignee shall be an electric utility, combination electric and gas utility or an Affiliate thereof (as hereinafter defined) and shall assume all of the duties and obligations of Big Rivers under the Agreements and the Station Two Agreement, including, without limitation, all other agreements that relate to the interest being transferred or assigned, (ii) such transferee or assignee that undertakes such duties and obligations of Big Rivers as aforesaid is authorized by all appropriate regulatory authorities and under applicable law to fulfill such duties and obligations, and (iii) such transferee or assignee is approved by the City, which approval shall not be unreasonably withheld, conditioned or delayed, and in its consideration of such approval it is understood that the City may

take into account, among other relevant matters, the experience and reputation of such transferee or assignee in operating and maintaining coal-fired electric generating facilities similar to Station Two, the creditworthiness of such transferee or assignee and whether the business or interest of such transferee or assignee (or its Affiliate) is in conflict with the interest of the City. For purposes of this Section the following terms as used in this Section shall be defined as follows:

(1) The term "Mortgages" shall mean (i) the Restated Mortgage and Security Agreement, dated as of July 15, 1998, among Big Rivers, as mortgagor, and the United States of America acting through the Rural Utilities Service, Ambac Assurance Corporation and the National Rural Utilities Cooperative Finance Corporation (together, the "Original Mortgagees"), recorded in Mortgage Book 559, page 1, Office of the Henderson County Court Clerk, (ii) the Supplemental Mortgage and Security Agreement dated as of April 1, 2000, among the Big Rivers, as Mortgagor, and the Original Mortgagees, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust and Ambac Credit Products, LLC (together, the "Supplemental Mortgage Mortgagees"), recorded in Mortgage Book 621, page 285, Office of the Henderson County Court Clerk, (iii) the Second Restated Mortgage and Security

Agreement among Big Rivers, as mortgagor, and the Supplemental Mortgage Mortgagees and Credit Suisse First Boston, acting by and through its New York Branch (together, the "Second Restated Mortgage Mortgagees"), recorded in Mortgage Book 647, page 125, Office of the Henderson County Court Clerk, (iv) the Third Restated Mortgage and Security Agreement, dated as of August 1, 2001, among Big Rivers, as mortgagor, and the Second Restated Mortgage Mortgagees and U.S. Bank National Association, as Trustee, recorded in Mortgage Book 679, page 1, Office of the Henderson County Court Clerk, as amended by the First Amendment to Third Restated Mortgage and Security Agreement dated as of July 15, 2003, recorded in Mortgage Book 812, page 599, Office of the Henderson County Court Clerk, (v) the Mortgage and Security Agreement (LEM Mortgage), dated as of July 15, 1998, among Big Rivers, LG&E Energy Marketing Inc., Western Kentucky Energy Corp., LG&E Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 199, Office of the Henderson County Court Clerk, as amended by the First Amendment to Mortgage and Security Agreement (LEM) Mortgage) dated as of August 22, 2002, recorded in Mortgage Book 749, page 805, Office of the Henderson County Court Clerk, (vi) the Mortgage and Security Agreement, dated as of July 15. 1998, among Big Rivers, Western Kentucky Energy Corp., LG&E

Energy Marketing Inc., WKE Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 123, Office of the Henderson County Court Clerk, (vii) the Subordinated Mortgage and Security Agreement, dated as of April 1, 2000, among Big Rivers, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust, PBR-1 OP Statutory Trust, PBR-2 OP Statutory Trust, PBR-3 OP Statutory Trust, FBR-1 OP Statutory Trust, FBR-2 OP Statutory Trust, Ambac Credit Products, LLC, AME Investments, LLC, Cobank, ACB, Bluegrass Leasing, Fleet Real Estate, Inc., AME Asset Funding, LLC, and Ambac Assurance Corporation, recorded in Mortgage Book 621, page 328, Office of the Henderson County Court Clerk, and (viii) any instrument or instruments that replace or are substituted for any of the foregoing instruments, in the case of (i) through (viii) above, as the same may be further amended or supplemented from time to time.

- (2)The term "Agreements" shall mean the Construction and Operation Agreement, the Power Sales Contract and the Joint Facilities Agreement, in each case as amended and supplemented from time to time.
- (3) The term "Affiliate" of any designated entity shall mean any entity that has a relationship with the designated entity whereby either of such entities directly or indirectly controls, is

controlled by, or is under common control with the other. For this purpose, the term "control" means the power, direct or indirect, of one entity to direct or cause the direction of the management or policies of another, whether by contract, through voting securities or otherwise.

## CONSENT AND AGREEMENT

Section 501 WKE and LEM, as assignees of certain of the rights, title and interests of Big Rivers under the Agreements and pursuant to their respective assumptions of certain of the obligations of Big Rivers under the Agreements, all pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, hereby consent and agree to the amendments to the Agreements contained in the 2005 Amendments to Contracts (subject to the conditions and limitations set forth in the 2005 Amendments to Contracts), and the Parties agree that under and pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, WKE and LEM shall, as such assignees, be entitled (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) as aforesaid, to all the rights, title and interests of Big Rivers under the 2005 Amendments to Contracts and shall be bound (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) to perform such obligations of Big Rivers under the 2005 Amendments to Contracts (other than Big Rivers' obligation pursuant to Section 201 or Section 401 thereof) that are assumed by WKE and LEM pursuant to the Station Two Agreement and the Assignment and Assumption Agreement and arise or otherwise exist during the term of the Station Two Agreement (except as otherwise provided, and subject to the limitations in the

Station Two Agreement), as well as bound by their respective obligations as Parties hereunder.

VI. REQUIRED APPROVALS; EFFECTIVE DATE; REPRESENTATIONS AND ACKNOWLEDGEMENTS; TERMINATION OF INTERIM AGREEMENTS; MISCELLANEOUS

Section 601 The Parties agree that:

- (a) Each Party shall use its commercially reasonable efforts to cooperate with the other Parties to obtain at the earliest practicable time all governmental regulatory approvals and any creditors' consents and approvals required for the Parties' respective execution, delivery and performance of the 2005 Amendments to Contracts, the Amendatory Station Two Agreement, the Guarantor's Consent and Acknowledgment, the Big Rivers' Creditors' Subordination Agreement and the Big Rivers' Easement, and each Party shall otherwise use its commercially reasonable efforts to satisfy for its part the conditions of the effectiveness of all provisions of the 2005 Amendments to Contracts applicable to it or for which it is responsible as set forth in subsection (b) of this Section 601.
- (b) Upon the execution and delivery of the 2005 Amendments to Contracts by the Parties this Section 601 shall become effective and, notwithstanding anything to the contrary set forth elsewhere herein, all other provisions of the 2005 Amendments to Contracts shall become effective only upon the date (based as to clauses (i), (ii) and (iii) below on certifications by the Parties as set forth in clause (iv) below) of the last of the following to occur:

(i) each Party shall have received all regulatory and other approvals, consents and authorizations required or necessary (A) for the effectiveness of all the provisions of the 2005 Amendments to Contracts with respect to all Parties thereto and the performance by the Parties of their respective duties and obligations hereunder, and for all the provisions of the 2005 Amendments to Contracts to become the legal obligation of all Parties thereto, (B) for the effectiveness of the Amendatory Station Two Agreement as to all parties thereto and the performance by all such parties of their respective duties and obligations thereunder, and for the Amendatory Station Two Agreement to become the legal and binding obligation of all parties thereto; (C) for the execution and delivery by all relevant parties of the Big Rivers' Easement and the Big Rivers' Creditors Subordination Agreement and the performance by such parties of their respective duties and obligations thereunder, and for the Big Rivers Easement and the Big Rivers Creditors' Subordination Agreement to become the legal obligation of all such parties, including in the case of subclauses (A) through (C) above, without limitation, any approvals, consents or authorizations that may be required from the Kentucky Public Service Commission, the Rural Utilities Service or any other creditor of Big Rivers that may hold one or more security interests in Big Rivers' interests in the Agreements or the

real property that is the subject of the Big Rivers' Easement;

- (ii) the Amendatory Station Two Agreement, the Big Rivers Easement and the Big Rivers' Creditors' Subordination Agreement shall have been executed and delivered by the respective parties thereto and all the provisions thereof shall, either before or contemporaneous with all provisions of the 2005 Amendments to Contracts, have become effective and binding on such parties; and
- (iii) LG&E Energy LLC shall have executed and delivered the Guarantor's Consent and Acknowledgement and received all regulatory and other approvals, consents and authorizations required therefor.
- (iv) Each Party shall have furnished to the other Parties a written certificate to the effect that for its part each of the conditions set forth in clauses (i), (ii) and (iii) above, has been satisfied.
- The Parties shall have delivered each to the other, such (v) opinions of counsel and other documentation in customary form and substance relating to the 2005 Amendments to Contracts and the other agreements referred to in this subsection (b) reasonably evidencing the due authorization, execution and delivery thereof the binding effect and enforceability thereof, the receipt of all required regulatory, creditor and other approvals thereof and

consents thereto and such other matters as reasonably requested by any Party;

- (c) In the event that all the provisions of the 2005 Amendments to Contracts shall not become fully effective as to all Parties in accordance with subsection (b) of this Section 601 on or prior to April 30, 2006 (or such later date as shall be agreed to by the Parties), the 2005 Amendments to Contracts shall forthwith terminate and shall no longer have any force or effect (except for a Party's obligations for a breach or default under this Section 601 occurring prior to such termination, which obligations shall survive such termination), provided, however, if prior to April 30, 2006, the Station Two Agreement shall terminate. the 2005 Amendments to Contracts shall terminate only as to WKE and LEM and in that event this Section 601 shall continue in effect as to Big Rivers and the City;
- (d) Notwithstanding anything to the contrary set forth elsewhere in the 2005 Amendments to Contracts, upon the effectiveness of all the provisions of the 2005 Amendments to Contracts as contemplated above, the 2005 Amendments to Contracts shall be deemed to have retroactive effectiveness to June 1, 2004 as among the Parties hereto.

As of the date on which all of the provisions of the 2005 Section 602 Amendments to Contracts shall be fully effective, each Party represents and warrants to each of the other Parties that:

> Such Party is duly organized and validly existing under applicable law and (a)

has full power and authority to conduct its business as presently conducted, and to execute, deliver and perform the 2005 Amendments to Contracts.

- (b) The execution, delivery and performance of the 2005 Amendments to Contracts have been duly authorized by all necessary action on the part of such Party and do not require approval or consent of, or notice to, any creditor or any trustee or holder of any indebtedness or other obligations of such Party or any indebtedness entitled to any security interest in any property, rights or interests of such Party, other than such approvals, consents and other action as have been duly obtained or taken.
- (c) Neither the execution, delivery or performance by such Party of the 2005 Amendments to Contracts, nor the consummation by such Party of the transactions contemplated thereby, will conflict with or result in any violation of or constitute a default under any terms of any material agreement, mortgage, contract, indenture, lease or other instrument, or any applicable law, by which such Party or its properties or assets are bound.
- (d) The execution, delivery or performance by such Party of any provision of the 2005 Amendments to Contracts, do not require the consent or approval of, the giving of notice to, the registration with, or the taking of any other action in respect of, any government authority or agency, including any judicial body, other than such consents, approvals, notices, registration or other action which have been duly obtained, given, sent or taken.
- (e) These 2005 Amendments to Contracts have been duly executed and delivered by such Party and constitute the legal, valid and binding obligation of such Party enforceable against such Party in accordance with its terms, except as such enforcement may be

limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the rights of creditors generally and by general principles of equity, regardless of whether enforcement is sought in a proceeding in equity or at law,

There are no pending or to the actual knowledge of such Party, threatened (f) actions or proceedings by or before any court or administrative agency that, either individually or in the aggregate, are reasonably likely materially and adversely to affect the ability of such Party to perform its obligations under these 2005 Amendments to Contracts.

Section 603 Each of the Parties acknowledges that WKE and the City have heretofore funded SCR Capital Costs and other costs of the Station Two SCR System, as well as SCR Ammonia Costs, and have otherwise performed certain obligations and undertaken certain activities with respect to the Station Two SCR System or the design, acquisition, construction, installation, start-up and testing thereof, in each case pursuant to the Interim Funding Agreement, and the Parties hereby agree that provision of such funding, the performance of such obligations and the undertaking of such activities shall be deemed to have been authorized, undertaken and accomplished consistent and in accordance with the Parties' respective obligations under the provisions of the Agreements (as amended hereby) and the Station Two Agreement. The acknowledgements and agreements of the Parties pursuant to this Section 603 shall apply with respect to all such fundings, performance and undertaking through the effective date of all provisions of the 2005 Amendments to Contracts.

Section 604 The Parties agree that upon all provisions of these 2005 Amendments to Contracts becoming fully effective as provided in Section 601, any amounts

remaining in the Interim SCR Account held by the City under the Interim Funding Agreement shall be paid into the SCR Account established under the Construction and Operation Agreement; and the Interim Funding Agreement and the Interim SCR Account shall each terminate in accordance with their respective terms. To the extent a Party has funded a share of SCR Capital Costs prior to all provisions of the 2005 Amendments to Contracts becoming fully effective that is greater than or less than the share of such costs required to be funded by that Party in accordance with the 2005 Amendments to Contracts (including without limitation, any SCR Capital Costs funded by the City, WKE or LEM pursuant to the Interim Funding Agreement), the other relevant Party or Parties agree to promptly reimburse that Party (in the case of an over funding), or that Party agrees to promptly reimburse the other relevant Party or Parties (in the case of an under funding), in each case, in an amount necessary to reflect the Parties' respective funding obligations for SCR Capital Costs under the 2005 Amendments to Contracts, without set-off, deduction or counterclaim. As used in the Interim Funding Agreement, references to the 2002 Amendments to Contracts shall mean the 2005 Amendments to Contracts. The Parties agree that notwithstanding the provisions of Section 8 of the Interim Funding Agreement to the contrary, neither Western Kentucky Energy Corp. nor WKE Corp. are required to be parties to the 2005 Amendments to Contracts as a condition to the Interim Funding Agreement becoming immediately null and void as contemplated in that Section 8.

Section 605 Except as amended by the 2005 Amendments to Contracts, each of the Agreements shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have executed the 2005 Amendments to Contracts in multiple counterparts as of the date first written above.

ATTEST:

Acting City Clerk
(City Seal)

ATTEST:
Secretary

City of	Hender	son, Kon	tucky	)
By:	7	T	1	
Title:	Mayor			<b>)</b>

City of Henderson Ut	tility Commission
By: William	I Smith
Title: Chairman	

	Station Two, Inc.	,
By:_	alph Bowl	
Title	Vice President	1
Title:	Vice President	

LG&L	Energy Marketing Inc.
Ву:	Moa
TOTAL	D- :0 -

Big Ri	vers Electric Corporation	
Ву:	vers Electric Gorporation	
Title:	President	

EXHIBIT A1 to the Power Sales Contract and the Construction and Operation Agreement

# LOCATION OF STATION TWO AND STATION TWO SCR SYSTEM

#### EXHIBIT A2 to the Power Sales Contract and the Construction and Operation Agreement

# STATION TWO SCR SYSTEM BASE COAL SPECIFICATIONS

# Ultimate Analysis - Weight % as received except as noted:

Design	Range
61.0	60.0 - 65.0
4.2	3.5 - 5.0
1.3	1.1 - 1.5
0.10	0.03 - 0.25
3.6	2.5 - 4.0
7.8	N/A
	7.0 - 12.0
	5.0 - 22.0
	10,800 - 12,000
6.27	4.0 - 7.0
	61.0 4.2 1.3 0.10 3.6 7.8 9.0 13.0 11,200

# Coal Ash Analysis - Weight % as received except as noted:

	Design	Range
Silica, SiO <sub>2</sub>	45.6	43.1 - 51.0
Ferric Oxide, Fe <sub>2</sub> O <sub>3</sub>	20.0	15.0 - 28.3
Alumina, Al <sub>2</sub> O <sub>3</sub>	21.9	18.5 - 23.7
Titania, TiO <sub>2</sub>	1.0	0.4 - 1.93
Calcium Oxide, CaO	2.6	1.6 - 5.2
Magnesium Oxide, MgO	3.8	0.6 - 4.5
Potassium Oxide, K <sub>2</sub> O	2.5	0.8 - 3.0
Sodium Oxide, Na <sub>2</sub> O	0.6	0.3 - 0.9
Undetermined		remainder

# Trace Elements (dry basis g/g)

	Design	Range
Arsenic, As	10	2-30
Vanadium, V	86	50 - 200

EXHIBIT B to the Power Sales Contract and the Construction and Operation Agreement

#### COMPONENTS OF STATION TWO SCR SYSTEM

#### SCR SYSTEM

The SCR system for each of the units is located between the boiler economizer outlet and the air heater inlet. The catalyst modules are located in one vertical down flow reactor for each boiler. The SCR reactors are of an outdoors design.

During periods of operation, flue gas from the boilers after the economizer sections will pass through the SCR and then through the air heaters. When the SCR is not in service, the flue gas will by-pass the SCR system. The ammonia injection system will use anhydrous ammonia from a storage facility. Two layers of catalyst will be employed initially to attain required performance. A third layer will be added, when necessary after the guarantee period, to maintain continued performance.

## Ammonia System

The purpose of the ammonia injection system is to ensure that there is a correct amount of ammonia and an even distribution of NH<sub>3</sub>/NO<sub>x</sub> ratio at the first catalyst layer. The ammonia injection process involves moving the liquid anhydrous ammonia from the storage tanks to the vaporizer skid, where it is vaporized, and then moved to the reactor area where it is mixed with heated dilution air. The ammonia air mixture is then injected into the flue gas duct ahead of the SCR reactor through a specially designed injection grid.

# SCR, Ductwork and Support System:

Pile Foundations

Grade Beams

Slabs on Grade

Equipment Pads

SCR and Ductwork Support Steel

Access Platforms and Stairs to Grade

2 SCR Reactor Vessels

SCR Inlet and Outlet Ductwork

SCR and Ductwork Insulation and Lagging

**Ductwork Expansion Joints** 

SCR and Ductwork Access Doors

Pipe Supports

# **Buildings and Enclosures:**

**Electrical Building Extension** 

NOx Analyzer Shelter

2 Dilution Air Fan Skid Enclosures

# Mechanical Equipment, SCR System:

- 4 Diverter Dampers
- 6 Diverter Damper Seal Air Fans
- 6 Damper Seal Air Fan Intake Silencers
- 2 Seal Air Heaters

SCR Catalyst Modules

Catalyst Handling Equipment; Carts, Air Powered Hoists, and Crane Beams

- 16 Sonic Air Horns
- 2 Air Filters
- 2 Air Compressors
- 1 Regenerative Air Dryer Skid
- 1 Air Receiver

- 6 Ash Hoppers
- 6 Hopper Ash Handling Valves

# Mechanical Equipment, Ammonia System:

- 2 Ammonia Storage Tanks
- 2 Ammonia Leak Detection System
- 3 Ammonia Vaporizers
- 4 Dilution Air Fans
- 4 Dilution Air Intake Silencers
- 4 Dilution Air Heaters
- 1 Mixing Chamber
- 2 Air Filters

Ammonia Piping

- 2 Ammonia Injection Grids and Associated Nozzles, etc.
- 3 Ammonia Area Eye Wash Stations

Nitrogen Bottles for Purging

## Electrical Equipment:

- 2 SCR Control Systems
- 2 Motor Control Centers
- 2 Gas Analyzers & Monitoring System

#### Air Preheater Refurbishment

Air Heater Baskets

4 Air Heater Rotors

Seals and Stay Plates

Multi-media Cleaning System

1 Air Heater Water Wash Skid

EXHIBIT C to the Construction and **Operation Agreement** 

# EXAMPLE OF CALCULATION FOR ALLOCATION OF ALLOTTED ALLOWANCES

0	OWANCES *		allowances 750	. S5 MWnet S5	B99,800	(e.g. 3,672) 3,672	(8-9-80%) 0.80	22 (e.g. 88%) 330	. 2750 tons 2,750	Allowances	06.00%) 0.90	8.g. 66 tons S6	allowances: 31		achy Share" 30,45% Caratz		890,000	int (MWhrs) 17,442 85 nC15"312"CSp((0.85.C7)0.85)	Ox Removal 275 C9*(1-C11)	* Emissions 275 -C19"	tion Amount 5 (CaptSycre	Hmuta Step 5 (F)(C3-C8-C21,C21,C3-C8)	imula Step 5	Bownness* 5 (FIC7<0.85.C23.0)		wmula Step 35 (F(C12-C13-0,C12-C13,0)	immula Step 35 FFCC-GGCZ+CZ4CZ4CZ4CZ4CZ4)	amula Step 35	a lass than 0) 35 IF(C28>40,40,C28)	le for use at 37.5 Pich-CB-C24-C28-C28-C28-C28-C28-C29	on One Unit 6 S 40-C29	WKEBREC 388 FICS-C8-C24-C25-C8-C24-C29)		ulowances" 759 sc3	758 FFC8	759 339 5.
æ	ALLOCATION OF STATION TWO ALLOTTED ALLOWANCES	DATA ENTRY (SHOWN WITH EXAMPLE VALUES)	"Station Two Allotted Allowances" (e.g. 750 allowances	"City Capacity Reservation" (e.g. 95 MWinet)	Actual Net Station Two Generation (e.g., 899,000 MWNrs	Total Number of Hours in NOx Season (e.g. 3,672)	"City Actual Load Factor" (s.g. 80%)	"Station Two Stack NOv Emissions" at % Actual SCR NOx Removal (e.g. 88%	"Station Two SCR Inlet NOx Tons" (e.g. 2750 tons	Station Two Alfocated Allowances	SCR Design NOx Removal (Flixed at 90.0%)	"Shitlen One Unit & Stack NOx Emissions" (4.g. \$6 tens	"Station One Unit 6 Allotted Allowances" (e.g. 31 allowances	REFERENCE CALCULATIONS		CITY'S EXCESS ALLOWANCES (APPLIES ONLY IF CITY ACTUAL LOAD FACTOR LESS THAN 85%)	Actual Net Station Two Generation (e.g. 890,000 MN/nrs)	City Reduction Seneration Amount (#IM/hrs)	Statton Two Stack NOx Emissions applying SCR Design NOx Removal	Station Two Allocated Allowances II SCR Design NOx Removal Applied to Stack Emissions	Station Two Max Allowances associated with City Reduction Generation Amount	Calculation Value/Formula Step	Calcutation Value/Formula Sisp	"City Excess Allowances"	CALCULATION OF STATION TWO ALLOTTED ALLOWANCES ALLOCATED TO STATION ONE UNIT 6	Calcutation Valuationmula Step	Calcutation Value / Formula Step	Cakulation Valuel Formula Step	Station Two Allotted Allowances Allocated to Station One Unit 5 (not to exceed 40 or be lass than 0)	ALLOWANCES ALLOCATED TO WIGHEREC Balance of Station Two Allothed Allowances to WKE/BREC less 46 Station Two Allothed Allowances potentially available for use at Station One Unit 6	Portion of 46 Potentially Available Station Two Allotted Allovances Not Allocated to Station One Unit 6	Balance of Station Two Allolted Allowances to WKE/BREC	SUMMARY OF ALLOWANCE DISTRIBUTION	SUMMARY OF ALLOWANCE DISTRIBUTION "Station Two Allotted Allowances"	mnowe peed	Station Two Allocated Allowances"   Station Two Allotted Allowances   "Station Two Allocated Allowances"   Inot to exceed amount of Station Two Allotted Allowances "Station Two Allocated Allowances"   Inot to exceed amount of Station Two Allotted Allowances

# POWER SALES CONTRACT

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C.

BETWEEN

CITY OF HENDERSON, KENTUCKY

and

BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

August 1, 1970

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- \*\* Section 28 created by 1971 Amendment#1 when Sections were renumbered New Section 21: HENDERSON-DAVIESS AND CITY ELECTRIC SYSTEMS Original Sections 21-27 renumbers Sections 22-28
- \*\* 1998 Amendments created a New Section 28 with subsections 28.1 28.4 (appears amendments in 1971 were overlooked)
- \*\* 2005 Amendments New Section 21.4 was added Section 24.1 was amended

#### POWER SALES CONTRACT

THIS AGREEMENT made and entered into as of August 1, 1970 by and between CITY OF HENDERSON, KENTUCKY, hereinafter referred to as CITY, and BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION, a Kentucky Corporation with principal offices in Henderson, Kentucky, hereinafter referred to as BIG RIVERS.

WITNESSETH THAT:

# PART I STIPULATIONS AND DEFINITIONS

#### SECTION 1 - STIPULATIONS

- electric system two 175-megawatt coal-fired, steam-electric generators with all necessary auxiliary facilities at a site on the Green River in Henderson County, Kentucky with which it will provide the immediate and future needs of City and its: inhabitants for electric power and energy. Such generating station shall be hereinafter referred to as Station Two.
- 1.2 Upon the completion of Station Two City will have electric power and energy surplus to the immediate needs of City and its inhabitants, which surplus power and energy can, pursuant to the authority of KRS 96.520 as amended, be sold to other public utilities in this state whose rates and services are regulated by the Kentucky Public Service Commission.

- 1.3 Big Rivers, which is a public utility in this state whose rates and services are regulated by the Kentucky Public Service Commission, is desirous of purchasing the surplus power and energy from time to time available from City's municipal electric system, including its proposed Station Two, and is willing to execute and fulfill the terms of this Agreement entitling it to take, and obligating it to pay for such surplus electric power and energy, subject to the terms and conditions recited herein.
- 1.4 By its addition of Station Two, City will be able to provide more economical and reliable electric service to itself and its inhabitants, and through its sales of surplus electric power and energy to Big Rivers, as provided by this Agreement, City can assure the economic feasibility of such addition.

SECTION 2 - DEFINITIONS 2005 Amendments

2.1 Existing System: The electric utility system by which City serves the needs of City and its inhabitants (and some non-inhabitants) at the time of the execution of this Agreement, and all additions, expansions and improvements thereto and renewals and replacements thereof hereafter made, other than Station Two.

1971 Amuse 2.2 Station Two: City's proposed 350-megawatt generating 1993 Amuse 2005 Amuse station and all auxiliary facilities, joint use facilities (provided by City) and other related facilities to be constructed at a site on Green River in Henderson County, Kentucky together with all additions, expansions and improvements thereto and

renewals and replacements thereof (which shall not include the City Transmission and Transformation Facilities as herein defined).

- 2.3 Auxiliary Facilities: Power plant facilities
  which are physically separated from the steam generators, turbines and electric generators comprising the generating station,
  and which are required for the operation, maintenance and/or
  control thereof, and/or the delivery of power and energy therefrom, but excluding the City Transmission and Transformation
  Facilities.
- 2.4 Joint Use Facilities: Auxiliary facilities which are so constructed and/or arranged as to be useful to City and Big Rivers in the operation, maintenance and control of their respective generating stations.
- 2.5 Date of Commercial Operation: The date upon which the first unit of City's Station Two has been placed in normal continuous operation so as to produce power and energy in a commercially acceptable manner.
- Jan Amend 2.6 Contract Year: With respect to the first contract year, the period from Date of Commercial Operation or June 30, 1974, whichever shall first occur, to and including the next succeeding December 31, and thereafter, the successive twelvementh periods beginning January 1 and ending December 31.
  - 2.7 Monthly Billing Period: Each calendar month of any Contract Year.
  - Bond Ordinance adopted by City authorizing the issuance of Station

Two Bonds, together with ordinances supplemental thereto or amendatory thereof.

'Apple Annual 2.9 Station Two Bonds (the Bonds): The Electric Light & Power Revenue Bonds authorized, sold and issued by City pursuant to the Bond Ordinance, to provide for the costs of acquisition, construction and start-up of City's Station Two and shall include: (i) the Electric Light & Power Revenue Bonds, Station Two Series authorized and issued under the Bond Ordinance; (ii) additional Bonds, if any, authorized and issued under the Bond Ordinance to provide for such costs of Station Two in excess of original estimates; and (iii) subject to the written approval of Big Rivers, additional Bonds, if any,

2.10 City Transmission and Transformation Facilities:
The transmission and transformation facilities to be provided
by City connecting Station Two to City's Existing System.

authorized and issued under the Bond Ordinance to finance any

Additional Project (as defined in the Bond Ordinance) for Station

2.11 Trustee: The Trustee appointed pursuant to the Bond Ordinance.

See 2005 Aminol - Added 2.12 thru 2.57

Two.

#### PART II

PLANT CAPACITY AND OUTPUT

1971 Amendment 1993 Amendment 1998 Amendment 2005 Amendment

SECTION 3 - ALLOCATION OF CAPACITY

2005 3.1 Subject to the allocation of surplus capacity to Big Amend.

Rivers as hereinafter provided, the total capacity and output of City's Station Two shall be reserved to and available for use by City for the purpose of supplying the needs of City and its inhabitants for electric power and energy in excess of the capabilities. from time to time, of its Existing System.

- 3.2 The "needs of City and its inhabitants" as used herein shall mean the needs of City for electric power and energy necessary in the operation of its governmental and proprietary facilities, and the retail sales of electric power and energy by City's Existing System to City's inhabitants, present and future, and those non-inhabitants which City is serving at the time of the execution of this Agreement.
- be allotted to Big Rivers on the basis of five years' advance written notice from City, and Big Rivers shall have the right to receive, and the obligation to take and pay for the capacity of City's Station Two so allotted to it in the manner herein provided. Upon the execution and approval of this Agreement, City will designate in writing Big Rivers' capacity allocation from Station Two for the Contract Years or portions thereof occurring too soon to permit five years' advance notice as hereinabove provided.
- and approval of this Agreement, (1) make any dispositions to others for resale of its generating capacity, except for the purpose of disposing of any surpluses resulting from good faith

over-estimates of its needs, or (2) add any commercial or industrial customers in excess of ten (10) megawatts each to its electric system, if to do either (1) or (2), as the case may be, would require the withdrawal of additional capacity from its Existing System and/or from Units One and Two of its Station Two. Expansions in the ordinary course of business of any commercial or industrial plants being served by City at the time of the execution of this Agreement shall not be considered added commercial or industrial customers for the purposes of this Agreement. Surplus capacity as referred to in (1) above shall be first offered to Big Rivers at City's cost.

3.5 Big Rivers shall have the right to receive, and the obligation to take and pay for the surplus capacity of City's Station Two allotted to it at any particular date as herein provided. Surplus capacity as herein used shall mean the Total Capacity of City's Station Two as then determined under Section 3.6, less that amount of such capacity at the time reserved to City as herein provided.

Jul 1971 Amond 13.6 The Total Capacity of Station Two as referred to 1993 Amond herein shall be the total continuous net send-out capability of all generating units in Station Two as determined by annual tests, made in the month of August, of at least twenty-four hours' duration under actual load carrying condition, when the equipment is operated at rated pressure and temperature with all auxiliary equipment in service, and at a power factor of

approximately ninety per cent (90%). The measurements will be made at the 161 KV metering points of the Station Two Switchyard.

each new unit of Station Two shall be tested on or before the Date of Commercial Operation thereof, if operationally possible, and the capacity as thus determined will remain the established Total Capacity of such unit until the first annual August test thereof, but shall not exceed a rating of 175 megawatts. If such test of any unit is deferred, the Total Capacity of such unit will be considered 175 megawatts until such test is made. As of June 30, 1974 the Total Capacity of Station Two shall be considered as 350 megawatts unless otherwise established by actual test with both units operational.

See 1998 Amond, Added 3.8.

## SECTION 4 - ALLOCATION OF ENERGY

4.1 Big Rivers shall be entitled at all times to take from Station Two energy associated with its allotted net capacity. Each party will be charged with its proportionate share of Station Two capacity required to operate Station Two auxiliary facilities.

#### SECTION 5 - STANDBY CAPACITY

5.1 Big Rivers' right to the use of surplus capacity of City's Station Two as provided in this Agreement shall be subject to the prior right of City to take its reserved capacity

from either generating unit of its Station Two, and in the event of an emergency or maintenance outage of either generating unit of City's Station Two, City's right to receive its reserved capacity from Station Two shall have priority.

CTION 6 - PAYMENT FOR CAPACITY; FUEL REQUIREMENTS 2005 Amendments

or June 30, 1974, whichever shall first occur, Big Rivers shall pay to the Trustee, capacity charges as hereinafter defined on the surplus capacity of Station Two allotted to it as provided in Section 3, Allocation of Capacity.

Jul 1949 Amend 6.2 Capacity charges to Big Rivers for any Monthly 3005 Amend 6.2 Capacity charges to Big Rivers for any Monthly Billing Period shall be the same proportion of the total capacity costs of City's Station Two for such Monthly Billing Period as Big Rivers' allocation of surplus capacity of Station Two during such Monthly Billing Period bears to the total capacity of City's Station Two for such Monthly Billing Period as established pursuant to Section 3 of this Agreement.

Ju Joos Amend 6.3 The total capacity costs of City's Station Two for each Monthly Billing Period shall be City's total costs resulting from the ownership, operation and maintenance of, and renewals and replacements to its Station Two, except costs of fuels for Station Two. Such costs shall include, but are not limited to:

- (a) Debt Service (as defined in the Bond Ordinance) for such Monthly Billing Period with respect to the Station Two Bonds.
  - (b) One-twelfth (1/12) of all costs associated with the

operation and maintenance of Station Two during such Contract Year, including, without limitation, all costs properly charge-able to F.P.C. Accounts 408, 500, 502, 505, 506, 510, 511; 512, 513, 514 and 924, and fiscal agency costs and expenses allocable to Station Two.

- (c) The amount which City is required under the Bond Ordinance to pay during such Monthly Billing Period into (i) the Station Two Account in the Operation and Maintenance Fund (Station Two O. & M. Account), so as to restore the minimum balance required to be maintained therein, and (ii) the Station Two Account in the Renewals and Replacements Fund (Station Two R. & R. Account) so as to restore the minimum balance required to be maintained therein.
- (d) Costs of renewals, replacements and additions (when such additions are agreed to by Big Rivers) which are not provided for through (i) funds available in the Station Two R. & R. Account in the Renewals and Replacements Fund, (ii) proceeds of insurance, or (iii) funds available from proceeds of bonds.
- (e) One-twelfth (1/12) of all costs of administration and general expense for Station Two during such Contract Year, and including, but not limited to, costs properly includible in F.P.C. Accounts 920, 921, 923, 924, 925, 926, 928 and 930.
- (f) Any amounts paid or payable to Big Rivers for such Monthly Billing Period under terms of the parties' Power Plant Construction and Operation Agreement (except any delayed payment penalties as therein provided) not included in the foregoing.

(g) Any other costs associated with Station Two which are not included in Paragraphs (a) through (f) hereof.

In the event any Contract Year shall embrace eleven or fewer months the fraction expressed in the foregoing paragraphs (b) and (e) shall be adjusted by substituting a denominator equal to such number of months.

For the purposes of paragraph (a) of this Section,

Station Two Bonds shall not include that principal amount of
Bonds determined by the Consulting Engineer under the Bond

Ordinance on or prior to the beginning of the first Contract

Year to be attributable to the costs of the City's Transmission

or Transformation Facilities and other improvements of City's

Existing System. The Principal Installments due for any year

of such Bonds so excluded shall be deemed to be that amount of
the Principal Installments of the Electric Light & Power Revenue

Bonds, Station Two Series, due for such year which bears the
same proportion to said Principal Installments for the Electric

Light & Power Revenue Bonds, Station Two Series, as the principal
amount of such Bonds so excluded bears to the aggregate principal
amount of Electric Light & Power Revenue Bonds, Station Two Series.

6.4 Net interest earned on the following funds under the Bond Ordinance and paid into the Electric Revenue Fund thereunder shall be applied as an offset to Capacity Costs:

(i) amounts shown in the Debt Service Account in the Debt Service Fund and applicable to the Station Two Bonds; (ii) amounts shown in the Debt Reserve Account in the Debt Service Fund as the

required reserve with respect to the Station Two Bonds, and amounts in the Station Two Accounts in the Operating & Maintenance Fund, Renewals & Replacements Fund, and the General Reserve Fund; (iii) insurance proceeds pending application with respect to Station Two.

- 6.5 Any tax lawfully imposed upon City in connection with the allocation of Station Two capacity and/or associated energy to Big Rivers shall be paid in its entirety by Big Rivers in addition to the capacity charges hereinabove referred to.
- agreed to be made by Big Rivers to City under the terms and provisions of this Agreement, in consideration for City's allocation to Big Rivers of the surplus capacity and energy of City's Station Two as provided in Section 3 hereof, Big Rivers covenants and agrees that during the original term only of this Agreement it will pay monthly to City, to the account of City's Existing System additional sums, based upon the amount of net capacity from time to time allocated from City's Station Two to Big Rivers, as follows:
  - (a) for each Monthly Billing Period during which Big Rivers' allocation of net capacity from City's Station Two is equal to or exceeds 250 megawatts, a sum of Eight Thousand Three Hundred Thirty-Three Dollars and Thirty-Three Cents (\$8,333.33).
  - (b) for each Ponthly Billing Period during which Big Rivers' allocation of net capacity from City's Station Two is

less than 250 megawatts and is equal to or exceeds 150 megawatts. a sum of Five Thousand Five Hundred Fifty-Five Dollars and Fifty-Six Cents (\$5,555.56).

(c) for each Monthly Billing Pariod during which Big Rivers' allocation of net capacity from City's Station Two is less than 150 megawatts and is equal to or exceeds 50 megawatts, a sum of Two Thousand Seven Hundred Seventy-Seven Dollars and Seventy-Eight Cents (\$2,777.78).

De 1993 Amena Added Big Rivers and City shall Fuel Requirements: 2005 Amend. each provide, at its own cost, the full replacement of all fuels consumed from the Station Two fuel reserve for the production of electric energy used by it during each month. If at any time during the term of this Contract the Station Two coal reserve shall fall below a full thirty (30) days' supply, then upon written demand by either party or the Consulting Engineer under the Bond Ordinance, both parties shall increase their respective monthly additions to the coal reserve by five per cent (5%) until the coal reserve is restored to the amount specified in such demand, not to exceed forty-five (45) days' supply for City's Station Two. Fuel consumption by each party will be determined on the basis of measured quantities, adjusted for heat content, and attributed to the parties on the basis of their respective uses of electric energy from City's Station

Two during each month. 6.8 and 6.9 Dec 2005 Amend. Added

SECTION 7 - CHARACTER OF SERVICE

Station Two Service to Big Rivers from City's

be at 161 KV, 3 phase 60 cycles, unless otherwise agreed upon by the parties.

SECTION 8 - METERING, METER TESTING AND BILLING ADJUSTMENT

- 8.1 Printing Demand Meters, or equivalent meters, with a sixty (60) minute demand interval, which will meter kilowatts, and suitable watthour meters which will meter kilowatt hours, shall be used to meter the delivery of power and energy from City's Station Two. The metered kilowatt demand of City, Big Rivers and others from City's Station Two shall be the means of measuring the capacity of City's Station Two used by each. The metered kilowatt hours of energy used by City, Big Rivers and others from City's Station Two shall be the basis for fuel replacements to the Station Two fuel reserve as provided in Section 6.7 hereof.
- 8.2 The meters will be arranged so as to provide a total measurement of kilowatt demand and a total measurement of kilowatt hours delivered to City, Big Rivers and others from City's Station Two.
- as may be necessary to maintain them at the highest practical commercial standard of accuracy, with tests performed at intervals of not more than twelve months. Big Rivers will be advised promptly of the results of all such tests. Big Rivers will be given prior notice of and may have representatives present at such tests and inspections. Additional tests of said meters

will be made at the reasonable request of Big Rivers and in the presence of its representatives.

- 8.4 If such periodic or additional tests show that a meter used for recording capacity and/or energy uses is accurate within one per cent (1%) slow or fast, no correction shall be made in such recordings. If any such tests show that such meter is inaccurate by more than one per cent (1%) slow or fast, correction shall be made in such recordings for the period during which the parties agree that the inaccuracy existed.
- 8.5 City's kilowatt demand and energy uses from its Station Two shall be metered at the following points:
- (a) at point of City's Station Two switchyard where delivery is taken over City Transmission and Transformation Facilities.
- (b) at point of City's Existing System substations where delivery is taken over Big Rivers' transmission system, with appropriate additions for ordinary transmission losses.
- 8.6 All of City's metering points shall be hourly summarized so as to determine City's aggregate hourly kilowatt demand and total energy uses from Station Two.
- 8.7 Big Rivers' kilowatt demand and energy uses from City's Station Two shall be metered at point of City's Station Two switchyard.
- 8.8 All meter readings and/or recordings necessary to provide an accurate report of kilowatt demand and electric energy uses from City's Station Two during each Monthly Billing Period

shall be promptly made. At the end of each Monthly Billing
Period a report shall be promptly made to Big Rivers of the
kilowatt demand and electric energy uses from City's Station
Two by City, Big Rivers and others during such Monthly Billing

Period.

SECTION 9 - BILLING AND PAYMENTS See 1993 Amendments

Joe 2005 Amendments

9.1 On or before the twentieth day of each calendar month during each Contract Year Big Rivers shall pay to City's Trustee, appointed under the Bond Ordinance, all capacity charges due from it in accordance with Section 6 hereof for its allotted Station Two capacity during the current Monthly Billing Period. Such payments shall be made on the basis of the Annual Budget in effect for the applicable Monthly Billing Period. Payments shall be deemed complete upon the posting thereof in the regular United States mail, properly addressed and affixed with postage.

9.2 If any such payment or portion thereof is not paid when due as herein provided, a penalty in the amount of one per cent (1%) of the unpaid amount may, at the option of City, be added thereto at the commencement of each thirty-day period thereafter, and due and payable therewith. Provided however, that in the case of a bona fide dispute as to the amount of any such payment, the delayed payment penalty will be applicable only to that unpaid portion of the invoice which is not reasonably in dispute.

Amond 9.3 Off-Setting Accounts: Big Rivers sharely charged bigrivers.com right to off-set accounts payable under this Agreement by any payments due it under Section 13.6 of the parties' Power Plant Construction and Operation Agreement of even date herewith and thereupon shall pay to the Trustee under the Bond Ordinance any remaining balance of the off-set account. Off-setting of accounts shall be employed in determining any delayed payment charges as provided herein.

On or before one hundred twenty (120) days after 1993 Amond 9 4 the end of each Contract Year there shall be submitted to Big Rivers a detailed statement of the actual capacity costs for all Monthly Billing Periods of such Contract Year, based on the annual audit of accounts provided for in Section 11. If, on the basis of such statement the actual aggregate capacity costs for said Contract Year exceeded the estimate thereof in the Annual Budget on the basis of which Big Rivers has made payments, Big Rivers shall pay promptly to the Trustee appointed under the Bond Ordinance the additional amount to which the City is entitled. If, on the basis of such statement the actual aggregate capacity costs for said Contract Year are less than the estimate thereof in the Annual Budget on the basis of which Big Rivers has made payments, such excess shall be credited against Big Rivers' next monthly payment or payments hereunder, or paid to Big Rivers if no such payments are due from Big Rivers.

SECTION 10 - OBLIGATIONS OF THE PARTIES

Die

10.1 All obligations of City under the terms and provisions of this Agreement shall be the sole obligations of City's

EXH: 000021 of 000137

electric utility system, including its Existing System, its
Station Two generating plant and such other additions, extensions and facilities that it may from time to time own and/or
operate. No debt or obligation of City under this Agreement shall
constitute a general obligation of the City.

- 10.2 City covenants that it will, subject to the approval of any regulatory bodies having jurisdiction thereof, at all times maintain rates for services rendered by its electric utility system which will be sufficient to adequately meet the costs of proper operation and maintenance thereof, to provide for the depreciation thereof through renewals and replacements, or otherwise, and to provide for the full and prompt payment of all obligations of City on all of its outstanding Electric Revenue Bonds, including without limitation its Station Two Bonds.
- under the terms and provisions of this Agreement shall constitute a general obligation of Big Rivers, and Big Rivers covenants that it will, subject to the approval of any regulatory bodies having jurisdiction thereof, at all times maintain rates for services rendered by its electric utility systems and such other business activities in which it shall engage for compensation, which will be sufficient to adequately make the full and prompt payment and performance of all its obligations to the Trustee for the Bonds under the terms and provisions of this Agreement.

SECTION 11 - ANNUAL AUDIT See 2005 Amendments)

See 2006 Amendments

11.1 An annual audit of the financial accounts of the City's Station Two shall be made in accordance with the provisions of the Bond Ordinance. Big Rivers shall be entitled to timely receipt of copies of the annual audit report.

11.2 Big Rivers shall have the right, at all reasonable times, to examine the books, accounts and records of City's Station Two in order to determine the accuracy of charges being made to it under the provisions of this Agreement.

# PART III GENERAL PROVISIONS

#### SECTION 12 - OPERATING STANDARDS

12.1 City will operate and maintain, under the provisions of the Power Plant Construction and Operation Agreement, the generating station, auxiliary facilities, joint use facilities and other related facilities comprising its Station Two, in accordance with standards and specifications equal to those provided by the National Electric Safety Code of the United States Bureau of Standards, and as required by any regulatory authority having jurisdiction thereof.

# SECTION 13 - UNCONTROLLABLE FORCES - CONTINUING OBLIGATION FOR PAYMENTS

13.1 Neither party hereto shall be considered in default or breach with respect to any obligation under this Agreement if prevented from fulfilling such obligation by reason of an Uncontrollable Force. Any party unable to fulfill any obligation by reason of Uncontrollable Forces shall exercise due diligence to remove such disability as soon as reasonably possible.

- 13.2 The term "Uncontrollable Force" shall mean any force which is not within the control of any party to this Agreement, and which by exercise of due diligence and foresight could not reasonably have been avoided, including, but not limited to, an act of God, fire, flood, earthquake, explosion, strike, sabotage, an act of the public enemy, civil or military authority, including court orders, injunctions, and orders of government agencies having proper jurisdiction, insurrection or riot, an act of the elements, failure of equipment, or inability to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers.
- 13.3 Anything to the contrary in this Contract notwithstanding, Big Rivers shall have a continuing obligation to
  make payments for capacity as provided in this Agreement,
  whether or not City's Station Two is inoperable or the operation
  thereof is interrupted, suspended or interferred with in whole
  or in part for any cause whatsoever, including Uncontrollable
  Forces.

#### SECTION 14 - ARBITRATION

14.1 Any controversy or claim arising out of, or relating to this Agreement or the breach thereof, including disagreements

between the Trustee and either or both parties to this Agreement, may be submitted to Arbitration at the time, in the manner and upon the terms agreed upon by the parties.

exclusive means of settling controversies which may arise under the terms and provisions of this Agreement, nor shall arbitration be considered a condition precedent to any action in court of law or equity or proceedings before any governmental agency or regulatory body having jurisdiction thereof.

SECTION 15 - DEFAULT See Additional in 1993 Amendments

Agreement in the performance of any one or more of the provisions hereof, the aggrieved party or parties shall, in addition to the remedies specified in this Agreement, have the right to use and employ all remedies available through courts of law and/or equity, governmental agencies and/or regulatory bodies having jurisdiction thereof.

SECTION 16 - WAIVER

16.1 The failure of either party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of such provisions or the relinquishment of any such rights, but the same shall continue and remain in full force and effect.

#### SECTION 17 - NOTICES

17.1 Any payment, written notice, demand or request required or permitted under this Agreement shall be deemed properly given to or served upon the recipient when posted through the regular United States mail, properly addressed, and

to City:

General Manager

Municipal Power and Light

P.O. Box 8

Henderson, Kentucky 42420

to Big Rivers:

affixed with postage as follows:

Manager

Big Rivers RECC

P.O. Box 24

Henderson, Kentucky 42420

to the Trustee:

as established by the Bond Ordinance.

17.2 The designation of the person to be notified, or the addresses of such persons, may be changed at any time upon written notice to the other parties.

# PART IV OTHER PROVISIONS

SECTION 18 - COMPLIANCE WITH BOND ORDINANCE 2005 Amendmental 2005 Amendmental 18.1 This Agreement shall be subject to the terms and provisions of the Bond Ordinance. City and Big Rivers agree that they will not amend, modify or otherwise alter this Agreement in any manner that will impair or adversely affect the security

afforded by the provisions of this Agreement to the holders of the City's Electric Revenue Bonds, including Station Two Bonds, for the payment of principal, interest and premium, if any, thereon, so long as any of such Bonds are outstanding and unpaid, or until provision is irrevocably made for the payment thereof.

SECTION 19 - MAINTENANCE OF RESERVES:

JOSS Amendments

Jul 2005 Amend

19.1 City covenants and agrees that during the term

of this Agreement, and any renewals or extensions thereof,

it will continue to keep and maintain, in the manner provided

in the Bond Ordinance and the supplemental ordinance providing

for the Station Two Bonds, as operating facilities of its

Station Two, the Station Two O. & M. Account, the Station Two

R. & R. Account and the Station Two fuel reserve, all as pro
vided under the terms of this Agreement and the parties' Power

Plant Construction and Operation Agreement of even date herewith.

Addd 19.2 (4,90)

Jul 2005 Amend Renumbered 19.2 to 19.1

SECTION 20 - CITY INCLUDES UTILITY COMMISSION

- 20.1 It is recognized by the parties that the City operates, manages and controls its electric utility system through its City of Henderson Utility Commission, appointed pursuant to KRS 96.530. All references to City under the terms and provisions of this Agreement shall include its City of Henderson Utility Commission to the extent applicable.
- 20.2 The parties agree that all rights and obligations of City under the terms and provisions of this Agreement shall also constitute rights and obligations of the City of Henderson

Utility Commission. By its execution of this Agreement the City of Henderson Utility Commission covenants and agrees that all references to City under the terms and provisions of this Agreement shall include the City of Henderson Utility Commission, and that it shall be obligated under this Agreement accordingly.

SECTION 21 - TERM AND TERMINATION 1993 Amendment

Jobs Amendment

1993 Amendment

21.1 The term of this Agreement shall commence upon the execution hereof by City and Big Rivers and shall terminate on October 31, 2003 unless otherwise terminated as hereinafter provided.

- 21.2 Big Rivers shall have the option of extending the term of this Agreement for two successive five-year terms provided that at least five years' advance written notice of each such extension is given to City. Such extension or extensions shall be upon the same terms and conditions applicable to the original term of this Agreement, except as otherwise provided in Section 6.6 hereof.
- 21.3 Notwithstanding the provisions of Sections 21.1 and 21.2, this Agreement and any options herein granted shall terminate as soon as Big Rivers' allocation of capacity from City's Station

Ju 2005 Added 21.4

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SECTION 22 - AMENDMENTS See 1971 Amendment #1

22.1 No amendments of this Agreement shall be effective unless reduced to writing and executed by all parties hereto. 22.2 It is understood that Big Rivers may not agree to any amendment, modification or alteration of this Agreement without first obtaining approval of the Administrator of the Rural Electrification Administration.

#### SECTION 23 - SEVERABILITY

23.1 In the event that any part of this Agreement is declared illegal or no longer in force by reason of an order issued by a court or regulatory body of competent jurisdiction, all remaining portions of this Agreement which are not affected by such order shall continue in full force and effect.

SECTION 24 - ASSIGNMENT See 2005 Amendments

hereto, their respective successors and assigns. Provided however, that this Agreement shall not be assigned by either party (except for an assignment by Big Rivers to the United States of America) without the written consent of the other party.

#### SECTION 25 - APPROVAL

25.1 This Agreement shall be subject to the approval of all local, state or federal regulatory bodies having jurisdiction thereof and shall become effective only upon the execution thereof by the parties and approval by the Administrator of the Rural Electrification Administration.

#### SECTION 26 - CONDITIONS PRECEDENT

- 26.1 This Agreement in its entirety is entered into subject to the following express conditions precedent:
- (a) That the parties shall enter into and execute the Power Plant Construction and Operation Agreement, the real estate Purchase-Sale Agreement and the Joint Facilities Agreement, all of even date herewith.
- (b) That the parties shall be able to obtain all approvals and authorizations from public authorities and the Administrator of the Rural Electrification Administration necessary
  to enable them lawfully to enter into and carry out this Agreement.
- (c) That the City shall be able to issue and sell its
  Station Two Bonds with rates of interest and schedule of maturities acceptable to City and Big Rivers, with a final maturity
  of not less than thirty years from date of issuance, in the
  principal sum of \$76,000,000.00.
- 26.2 If all of the said conditions precedent do not occur within one year from the date hereof, this Agreement shall be void and all rights hereunder shall terminate unless the parties agree in writing to extend the time for the happening of said conditions precedent.

# SECTION 27 - AUTHORITY TO EXECUTE See 1998 Amendments

27.1 This Agreement is executed by the duly authorized officers or representatives of the parties pursuant to authority granted to each of them by the lawful action of their respective official commissions or boards.

1998 Amend. Added Section 28 38.1 Exhibit 1

(4)	Executed at Henderson,	Kentucky this day of				
		CITY OF HENDERSON, KENTUCKY				
<del>-,,</del>		BY William & Mewadan) William L. Newman, Mayor				
	ATTEST:					
	Theresa Crafton	<u>.</u>				
	(City Seal)					
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CITY OF HENDERSON UTILITY COMMISSION				
		BV Aleta Louis Hatchett, Chairman				
	ATTEST:	00001 (00000000000000000000000000000000				
	Dudly A Euroson	2				
	0	BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION				
	*	BY Robert Reid, Sr., President				
	ATTEST:					
	D. B. Wilson, Secretary					
	This instrument prepared by:					
	to to BULD					
	of WEST MARRWELL & BRYANT Suite 320 - Imperial Building 110 Third Street Henderson, Kentucky 42420					

NOT ORIGINAL DOCUMENT 05/20/2020 03:45:09 PM gregory.mayes@bigrivers.com

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EXCERPT FROM MINUTES OF REGULAR MEETING OF BOARD OF DIRECTORS OF BIG RIVERS RURAL FLECTRIC COOPERATIVE CORPORATION HELD IN HENDERSON, KENTUCKY, ON AUGUST 21, 1970

After thorough discussion it was moved by Robert D. Green seconded by D. B. Wilson that Big Rivers execute the Power Sales Contract, the Power Plant Construction and Operation Agreement and the Joint Facilities Agreement and to approve the Electric Light and Power Revenue Bond Ordinance to be adopted August 27, 1970. Motion carried.

> I, Robert D. Green, Vice President of Board of Directors of Big Rivers Rural Electric Cooperative Corporation hereby certify that the above is a true and correct excerpt from the minutes of the regular meeting of said corporation held on August 21, 1970.

Vice President Green,

Janet Cole, Webster Circuit Clerk Presiding Judge: HON. C. RENE' WILLIAMS (605230)

05/12/2020

20-CI-00073 EXH: 000031 of 000137

# U. S. DEPARTMENT OF AGRICULTURE RURAL ELECTRIFICATION ADMINISTRATION

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POWER SALES CONTRACT

BETWEEN

CITY OF HENDERSON, KENTUCKY

AND

BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

## POWER SALES CONTRACT

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#### Amendment #1

The Power Sales Contract entered into as of August 1, 1970 by and between the City of Henderson, Kentucky and Big Rivers Rural Electric Co-operative Corporation is hereby amended in the following particulars:

- Section 2.2 is amended so as when amended the same shall read as follows:
  - 2.2 Station Two: City's proposed 350-megawatt generating station and all auxiliary facilities, joint use facilities (provided by City) and other related facilities to be constructed at a site on Green River in Henderson County, Kentucky (which shall not incl'le the City Transmission and Transformation Facilities as herein defined).
- Section 2.6 is amended so as when amended the same shall read as follows:
  - 2.6 Contract Year: With respect to the first contract year, the period from Date of Commercial Operation or June 30, 1974, whichever shall first occur, to and including the next succeeding December 31, and thereafter, the successive twelvementh periods beginning January 1 and ending

December 31; provided that in the event that City shall exercise its right under the Bond Ordinance to change from a calendar year accounting period, as shall be specified in a Supplemental Ordinance adopted in accordance with the Bond Ordinance, the term Contract Year as used herein shall thereupon refer to the same period as such new fiscal year accounting period with such changes in the accounting and budgeting procedures, including the adoption of a new Annual Budget hereunder, as shall be necessary or appropriate to effect such change in the Contract Year.

- 3. Section 3.6 is amended so as when amended the same shall read as follows:
  - 3.6 The Total Capacity of Station Two as referred to herein shall be the average of the total continous net sendout capability of all generating units in Station Two as determined by semi-annual tests, made in the months of August and January, of at least twenty-four hours' duration under actual load carrying condition, when the equipment is operated at rated pressure and temperature with all auxiliary equipment in service, and at a power factor of approximately ninety per cent

See 5/1/93 Arrandments

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(90%). The measurement will be made at the 161 KV metering points of the Station Two Switchyard.

4. SECTION 21 - TERM AND TERMINATION, and subsections 21.1. 21.2, and 21.3 are renumbered so as to be SECTION 22 - TERM AND TERMINATION and subsections 22.1, 22.2 and 22.3. A new Section 21 with subsections 21.1, 21.2 and 21.3 is added to read as follows:

SECTION 21 - HENDERSON-DAVIESS AND CITY ELECTRIC SYSTEMS The parties mutually agree that the Henderson-Daviess System and the City Electric System, as described in the City's Revised Request for Ruling, dated December 1970 and filed with the Internal Revenue Service (a copy of which has been delivered to Big Rivers), will be operated in the manner prescribed in said Revised Request for Ruling, so as to preclude any distribution of any of the generating capacity of said Henderson-Daviess System and said City Electric System outside the area of Henderson and Daviess Counties except as described in said Revised. Request for Ruling.

21.2 It is understood by the parties, however, that the requirement of Section 21.1 hereof will no longer be effective in the event and to the extent that

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any change in the applicable statute, regulations or rulings of the Internal Revenue Service should occur pursuant to which interest on the Bonds would remain exempt from federal income taxation in the absence of compliance with such requirement.

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- 21.3 Big Rivers covenants and agrees to save harmless and indemnify City for any loss or damage whatsoever arising out of Big Rivers' violations, if any, of the provisions of Section 21 of this contract.
- 5. SECTION 22 AMENDMENTS and its subsections 22.1 and 22.2 are renumbered so as to be SECTION 23 AMENDMENTS and subsections 23.1 and 23.2.
- 6. SECTION 23 SEVERABILITY and its subsection 23.1 are renumbered so as to be SECTION 24 - SEVERABILITY and subsection 24.
  - 7. SECTION 24 ASSIGNMENT and its subsection 24.1 are renumbered so as to be SECTION 25 - ASSIGNMENT and subsection 25.1.
  - 8. SECTION 25 APPROVAL and its subsection 25.1 are renumbered so as to be SECTION 26 APPROVAL and subsection 26.1.
  - 9. SECTION 26 CONDITIONS PRECEDENT and its subsections 26.1 and 26.2 are renumbered so as to be SECTION 27 CONDITIONS PRE-CEDENT and subsections 27.1 and 27.2.
  - 10. SECTION 27 AUTHORITY TO EXECUTE and its subsection 27.1 are renumbered so as to be SECTION 28 AUTHORITY TO EXECUTE and subsection 28.1.

All provisions of the parties' Power Sales Contract of August 27, 1970 not herein amended shall remain in full force and effect as originally adopted.

Executed at Henderson, Kentucky this Fort

CITY OF HENDERSON, KENTUCKY

ATTEST:

Clerk

(City Seal)

CITY OF HENDERSON UTILITY COMMISSIC

Hatchett, Chairman

ATTEST:

BIG RIVERS RURAL ELECTRIC CO-OPERATIVE CORPORATION

ATTEST:

Secretary

This instrument prepared by:

of WEST MARKWELL & BRYANT Suite 380 - Imperial Building 110 Third Street Henderson, Kentucky 42420

OF BIG RIVERS RURAL ELECTRIC COOPERATIVE CORPORATION
HELD IN HENDERSON, KENTUCKY, ON
FEBRUARY 26, 1971

Upon motion of D. B. Wilson seconded by Robert D. Green it was moved that Amendment #1 to Power Sales Contract between the City of Henderson and Big Rivers and Amendment #1 to the Power Plant Construction and Operation Agreement between the City of Henderson and Big Rivers be approved. Motion carried.

I, Robert D. Green, Vice President of the Board of Directors of Big Rivers Rural Electric Cooperative Corporation hereby certify that the above is a true and correct excerpt from the minutes of special meeting of said corporation held on February 26, 1971.

Robert D. Green, Vice President

#### ... U. S. DEPARTMENT OF AGRICULTURE RURAL ELECTRIFICATION ADMINISTRATION

SUBMITTED BY THE ABOVE DESIGNATED BORROWER PURSUANT TO THE TERMS OF THE LOAN CONTRACT, IS HEREBY APPROVED SOLEL

DAVID A. PAMIL

#### POWER SALES CONTRACT

#### Amendment #2

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The Power Sales Contract entered into as of August 1, 1970, as amended by Amendment #1 entered into as of March 2, 1971 ("Power Sales Contract"), by and between the City of Henderson, Kentucky and Big Rivers Rural Electric Co-Operative Corporation is hereby further amended in the following particulars:

- .. Section 2.9 is amended to read as follows:
- "2.9. Station Two Bonds (the Bonds): The Electric Light and Power Revenue Bonds authorized, sold and issued by City pursuant to the Bond Ordinance, to provide for the costs of acquisition, construction and start-up of City's Station Two and shall mean and include: (1) the Electric Light and Power Revenue Refunding Bonds, Station Two Series dated March 1, 1973, authorized under the Bond Ordinance to refund the Electric Light and Power Revenue Bonds, Station Two Series dated March 1, 1971, issued under the Bond Ordinance; (11) additional bonds, if any, authorized and issued under the Bond Ordinance to provide for such costs of Station Two in excess of original estimates; and (iii) subject to the written approval of Big Rivers, additional bonds, if any, authorized and issued under the Bond Ordinance to finance

any Additional Project (as defined in the Bond Ordinance for Station Two."

- 2. Section 21.2 is amended to read as follows:

  "21.2. It is understood by the parties, however,
  that the requirement of Section 21.1 hereof will no
  longer be effective in the event and to the extent that
  any change in the applicable statute, regulations or
  rulings of the Internal Revenue Service should occur
  pursuant to which interest on the Bonds, including the
  Electric Light and Power Revenue Refunding Bonds, Station Two Series dated March 1, 1973 and the Electric
  Light and Power Revenue Bonds, Station Two Series
  dated March 1, 1971, issued under the Bond Ordinance,
  would remain exempt from federal income taxation in the
  absence of compliance with such requirement."
- 3. The parties to this Amendment #2 hereby agree that all references to the Power Sales Contract in the Power Plant Construction and Operation Agreement dated August 1, 1970, as amended, and the Joint Facilities Agreement dated August 1, 1970, both by and between the parties hereto, shall be deemed to include and refer to the Power Sales Contract, as amended by this Amendment #2.
- 4. All provisions of the Power Sales Contract shall remain in full force and effect, except as amended by this Amendment #2.

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Presiding Judge: HON. C. RENE' WILLIAMS (605230)

5. This Amendment #2 to the Power Sales Contract shall take effect upon the issuance of the Electric Light and Power Revenue Refunding Bonds, Station Two Series dated March 1, 1973 in accordance with the terms of the Bond Ordinance, and the payment and discharge of the lien of the Electric Light and Power Revenue Bonds, Station Two Series dated March 1, 1971 in accordance with the provisions of Article XII of the Bond Ordinance.

Executed at Henderson, Kentucky this day of March , 1973.

CITY OF HENDERSON, KENTUCKY

By Millian R Newswer

ATTEST:

City Clerk

CITY OF HENDERSON UTILITY COMMISSION

[CITY SEAL]

ATTEST:

H. Guerron

**NOT ORIGINAL DOCUMENT** 05/20/2020 03:45:09 PM gregory.mayes@bigrivers.com

BIG RIVERS RURAL ELECTRIC CO-OPERATI

ATTEST:

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This instrument prepared by:

Unite Helen

REA SOMMOWER DESIGNATION Kentucky 62 Eig Rivers

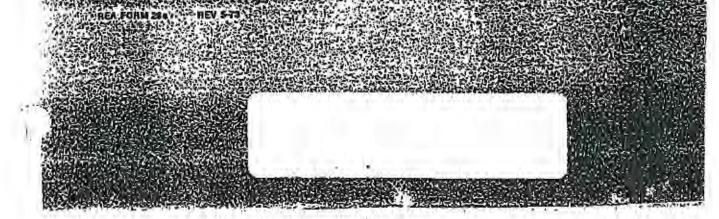
THE WITHIN @mendments to Contracts (May 1, 1993 Amendments) among City of

Henderson, Kentucky, City of Henderson Utility Commission and Big Rivers

Electric Corporation

SUBMITTED BY THE ABOVE DESIGNATED BORROWER PURSUANT TO THE TERMS OF THE LOAN CONTRACT, IS HEREBY APPROVED SOLELY FOR THE PURPOSES OF SUCH CONTRACT.

Janet Cole, Webster Circuit Clerk



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obligations of the City of Menderson within Henzulky Constitutional restrictions on such obligations. The obligations herein imposed on City of Henderson shall be borne entirely from revenues or other legally available funds of City's electric light and power system.

### POWER SALES CONTRACT

- 5. THE POWER SALES CONTRACT OF AUGUST 1, 1970, AS HERETOFORE AMENDED, IS FURTHER AMENDED AS FOLLOWS:
  - 5.1 SECTION 2.2 IS AMENDED TO READ AS FOLLOWS:

Station Two: City's 350-megawatt generating station (now rated at 315 MW net send out capacity), located at a site on Green River in Henderson County, Kentucky, and, to the extent furnished and owned by City, all auxiliary facilities, joint use facilities and related facilities, additions, expansions and improvements thereto, including the Station Two FGD System added thereto, and renewals and replacements, but excluding the City Transmission and Transformation Facilities as herein defined, and excluding facilities furnished and owned by Big Rivers. The ownership and location of Station Two, and auxiliary, joint use and related facilities thereon as owned or to be owned by Big Rivers are shown in Exhibits 1 and 2 hereto.

# 5.2 SECTION 3.3 IS AMENDED TO READ AS FOLLOWS:

The capacity of the Station Two which is surplu to the City's needs will be allotted to Big Rivers on the basis of five years advance written notice from the City, and Big Rivers shall have the right to receive, and the obligation to take and pay for the capacity of Station Two so allotted to it in the manner herein provided. Two so allotted to it in the manner herein provided. City may adjust its five year projection of capacity city may adjust its five year projection of capacity needs in an amount not to exceed five (5) megawatts in any one contract year. Any capacity not utilized by City may be used by Big Rivers. The present allocation of Station Two capacity is 82.86% to Big Rivers and 17.14% to City.

5.3 SECTION 3.6 AS AMENDED BY AMENDMENT NUMBER ONE OF

# MARCH 2, 1971 IS AMENDED TO READ AS FOLLOWS:

The Total Capacity of Station Two as referred to herein shall be the average of the total continuous net send-out

capability of all generating units in Station Two. The parties agree that the present total capacity is The parties recognize that Station Two capacity will be reduced by the power require ' to operate Either party hereto may the Station Two FGD System. request tests from time to time on thirty days prior notice to determine the current Total Capacity, tests shall be of at least twenty-four hours duration under actual load carrying conditions, when the equipment is operated at rated pressure and temperature with all auxiliary equipment in service, and at a power factor of approximately ninety percent (90%). The measurement will be made at the 161 KV metering points at the Station Two Switch Yard.

#### 5.4 SECTION 3.7 IS AMENDED TO READ AS FOLLOWS:

The total continuous net send-out capability of any new unit of Station Two shall be tested on or before the date of commercial operation thereof, and the capacity as thus determined will remain the established Total Capacity of such unit until changed by tests requested by either party.

#### 5.5 SECTION 6.2 IS AMENDED TO READ AS POLLOWS:

Capacity charges to Big Rivers for any Monthly Billing Period shall be the same proportion of the Total Capacity costs of Station Two for such Monthly Billing Period as Big Rivers allocation of surplus net send-out capacity of Station Two during such Monthly Billing Period bears to the total net send-out capacity of Station Two for such Monthly Billing Period as established pursuant to Section 3 of this Agreement.

5.6 SECTION 6.6 IS AMENDED BY ADDING SUBPARAGRAPH (d)

#### THERETO AS FOLLOWS:

- (d) The additional payments described in this Section 6.6 and the fourteen and one-half cents per month per kilowatt of the Total Capacity of Station Two charged to the City as described in Section 13.6 of the Power Plant Construction and Operation Agreement between the parties of August 1, 1970, shall both terminate on October 31, 2003, despite changes in the terms of the Contracts.
- 5.7 THE FIRST SENTENCE OF SECTION 9.4 IS AMENDED TO READ

AS FOLLOWS:





As quickly as is reasonably possible, but in no event later than one hundred twenty (120) days after the end of each Contract Year Big Rivers shall submit to City a detailed statement of the actual capacity costs for all monthly Billing Periods of such Contract Year, based on the annual audit of accounts provided for in Section 11.

5.8 SECTION 15 IS AMENDED BY ADDING THERETO THE

#### FOLLOWING:

- 15.2 In addition to and not in substitution for the other remedies of the City provided under legal, equitable, by other if Big Rivers Agreement, or default in making any payment properly owing under remedies, this Agreement and (a) such default continues for sixty days following written notice thereof by the city to Big Rivers or (b) if an Event of Default occurs under the RESTRUCTURING AGREEMENT dated August 31, 1987 among Big Rivers, the United States of America, acting through the Administrator of Rural Electrification Administration, Manufacturers Hanover Trust Company and Irving Trust Company, and their successors and assigns by reason of which any or all of the creditors therein described declare all debts owing to one or more of such creditors to be due and payable, the City may at any time thereafter have the following additional rights and remedies:
  - (1) on 5 days prior written notice to Big Rivers, City may, until such default is corrected, make sales to others or power generated by Station Two and allocated hereunder to Big Rivers and shall collect the proceeds from such sales and, subject to the provisions of the Bond Ordinance, shall apply them as a credit to capacity charges owing by Big Rivers to the City, then to payments to Big Rivers on Big Rivers' cost of operation and maintenance of Station Two, including its fuel and lime costs and any excess to Big Rivers until Big Rivers' payment default is corrected.
    - (2) On thirty days written notice by City to Big Rivers, and if Big Rivers defaults to City have not been corrected, City may terminate all contracts with Big Rivers with respect to station Two and assume immediate possession and operation of Station Two and sell and subject to the crediting procedure of

subparagram (1), rotain the proceeds of all sales of power generated by Station Two thereafter; provided that no such sales shall replace sales made by Big Rivers and/or its distribution co-op members under then existing contracts.

- under CLEY exercised by rights No (3) subparagraphs (1) and (2), or either of them, shall relieve Big Rivers of its continuing obligations to pay that portion of the debt service costs which are allocated to it when such rights were first exercised by City, case of sales the credited in subparagraph (1) by any revenues provided from the sale of Big Rivers allocated capacity as provided in subparagraph (1) above, and case of sales the in subparagraph (2) by any revenues received from the sale of Big Rivers prior allocation in excess of operation and maintenance costs of Station Two, including fuel and lime costs.
- (4) In the exercise of its rights under the preceding subparagraphs (1) and (2), City shall have the right (a) to use Big Rivers transmission system for transmitting power in performance of off system power sales made by City from Station Two at fair market wheeling charges then prevailing in Indiana and Kentucky and (b) continue the use of Joint Use Facilities by bearing the costs thereof ucalculated according to the Joint Facilities Agreement.
- (5) City shall make no sales under the preceding subparagraph (1) on any term or condition which would adversely affect the rights or security of holders of Station Two bonds, or impair or adversely affect the eligibility for tax exemption of interest on such bonds or, if notified by Big Rivers prior to any agreement to make such sales, adversely affect the rights, or security of holders of notes of Big Rivers secured by Big Rivers' interest in the Joint Use Facilities or in the Reid and Green Stations. City shall give Big Rivers written notice five (5) business days prior to entering into any agreement for such sales.
- 15.3 In addition to, and not in substitution for, the other remedies of Big Rivers provided under this

Agreement, or by any other legal, equitable or administrative remedies, if City defaults in making any payments properly owing under the Contracts and such default continues for 60 days following written notice thereof by Big Rivers to City Big Rivers may at any time thereafter, if all Station Two Revenue Bonds approved by Big Rivers have been paid, on 30 days written notice by Big Rivers to City, and if City's defaults to Big Rivers have not been corrected, then Big Rivers may terminate all contracts with City with respect to Station Two, in which event Big Rivers shall have the continued right to use of Joint Use Facilities by paying the capacity costs thereof calculated in accordance with the Joint Facilities Agreement.

5.10 SECTION 21.1 AS RENUMBERED TO 22.1 IN THE MARCH 2, 1971 AMENDMENT IS AMENDED AS PROVIDED IN SECTION 1 OF THE MAY 1, 1993 AMENDMENTS.

ROWER PLANT CONSTRUCTION AND OPERATION AGREEMENT

6. THE POWER PLANT CONSTRUCTION AND OPERATION AGREEMENT OF

AUGUST 1, 1970, AS AMENDED, IS FURTHER AMENDED AS FOLLOWS:

6.1 SECTION 1.3 IS AMENDED BY ADDING THERETO THE

#### FOLLOWING:

Sur Interconnection Agreement was supplemented and am ded by an Amended Agreement dated October 13, 1981 and by a "FIRST AMENDMENT" dated January 10, 1989 which are in effect

- 6.2 SECTION 4 IS AMENDED BY ADDING THE FOLLOWING:
- 4.5 City, with the approval of Big Rivers, has entered into a Contract dated February 5, 1993 with Wheelabrator Air Pollution Control Inc. for the construction and installation of a portion of the Station Two FGD System. City will enter into such further contracts as are necessary, and as are approved by Big Rivers which approval shall not be unreasonably withheld, to complete the design, construction, installation and operation of the Station Two System. City and Big Rivers shall each immediately seek such permits and approvals as are required of each of them.

#### AMENDMENTS TO CONTRACTS A! ONG CITY OF HENDERSON, KENTUCKY CITY OF HENDERSON UTILITY COMMISSION AND BIG RIVERS ELECTRIC CORPORATION

These Amendments entered into and effective as of July 1998 (the "1998 Amendments") by and between City of Henderson, Kentucky, a municipal corporation and City of the third class organized under the laws of the Commonwealth of Kentucky, of 222 First Street, Henderson, KY 42420, City of Henderson Utility Commission, a public body politic and corporate organized under Kentucky Revised Statutes 96.520 and related statutes, of 100 Fifth Street, Henderson, KY 42420, the said City and Commission being referred to herein collectively as "City," and Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, KY 42420, known as "Big Rivers" herein.

#### WITNESSETH:

WHEREAS, the parties hereto are parties to a Power Sales Contract, a Power Plant Construction and Operation Agreement and a Joint Facilities Agreement all dated August 1, 1970 and Big Rivers and City of Henderson Utility Commission are parties to an Agreement for Transmission and Transformation Capacity dated April 11, 1975, the Spare Transformer Agreement dated July 11, 1972, the Systems Reserves Agreement dated January 1, 1974, the Agreement of April 8, 1980 regarding O&M and R&R Funds, and the Agreement of February 15, 1991 concerning Administrative and General Costs, and Amendments to such contracts dated May 1, 1993, all of such contracts and agreements as amended being known herein as the "Contracts" and incorporated herein by reference, and

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Section 8 of said Agreement. This section expressly replaces the provisions of Section 1 of the May 1993 Amendments in their entirety.

- The effective date of these 1998 Amendments shall be the date following their 2. execution upon which the last of the following approvals of the 1998 Amendments is obtained:
  - 2.1 Approval of the Rural Utilities Service; and
  - Approval of the Kentucky Public Service Commission. 2.2
- 3. Nothing herein contained shall constitute general obligations of the City of Henderson within Kentucky Constitutional restrictions on such obligations. The obligations herein imposed on City of Henderson shall be borne entirely from revenues or other legally available funds of City's electric light and power system.

### POWER SALES CONTRACT

- 4. The Power Sales Contract of August 1, 1970, as heretofore amended, is further amended as follows:
  - SECTION 3.4 IS HEREBY AMENDED TO BE AND READ IN ITS (a) ENTIRETY AS FOLLOWS:
  - City agrees that it will not, after the execution and approval of this 3.4 Agreement, (1) make any dispositions to others for resale of its generating capacity, other than pursuant to Section 3.8 added by these 1998 Amendments, except for the purpose of disposing of any surpluses resulting from good faith over-estimates of its needs, or (2) add any commercial or industrial customers in excess of thirty (30) megawatts each to its electric system, if to do either (1) or (2), as the case may be, would require the withdrawal of additional capacity from its Existing System and/or from Units One and Two of its Station Two. Expansions in the ordinary course of business of any commercial or industrial plants being served by City at the time of the execution of these 1998 Amendments shall not be considered added commercial or industrial customers subject to the 30 megawatt size limitation for the purposes of this Agreement. Surplus capacity resulting from good faith over estimates as referred to in (1) above shall be first offered to Big Rivers at City's

cost. Big Rivers and City understand that City shall be entitled to meet (in increasing incremental amour as necessary) the load of any new commercial or industrial customer (which shall not exceed the 30 megawatt cap per customer established above) through its annual adjustment to its five year capacity reservation forecasts in amounts not exceeding five (5) megawatts per Contract Year (as described in Section 3.3 of this Agreement) and its subsequent capacity reservation forecasts under this Agreement,

#### A NEW SECTION 28 TO POWER SALES CONTRACT IS (b) HEREBY CREATED AND INCLUDED AS FOLLOWS:

28.1 City shall have the right (subject to the further limitations and provisions of this Section 28) to utilize within the City's service territory as of the date of these 1998 Amendments, including all areas within the existing City limits, capacity and energy from Station Two in excess of its reserved capacity allocations, as adjusted under Section 3.3 of this Agreement (such excess capacity and energy being referred to herein as "Station Two Economic Development Power"), to serve up to 50% of Economic Development Loads (defined below) of customers to the extent such customers are not otherwise served as of the date of commencement of the proposed service by City from reserved capacity allocations under this Agreement (each an "Economic Development Opportunity"); provided, however, that the maximum amount of Station Two Economic Development Power that may be utilized by City at any time shall not exceed 25 megawatts in the aggregate for all such Economic Development Opportunities, collectively. City's right to utilize Station Two Economic Development Power with respect to any Economic Development Opportunity is further conditioned upon City having made a binding written offer to purchase from Big Rivers, at the applicable rate set forth in Exhibit 1, the capacity and energy requirements of such Economic Development Opportunity not supplied by City with its reserved capacity or with Station Two Economic Development Power to meet such Economic Development Load. For purposes hereof, "Economic Development Load" means the demand for capacity and associated energy of (i) a new customer of City within City's service territory (as described above) or (ii) an existing customer of City in that service territory (as described above) created by a substantial expansion of such customer's plant or facility (defined as a projected annual increase in kWh consumption or kW demand of such customer of 20% or more as a result of a plant expansion). Upon utilization by City of Station Two Economic Development Power, such power shall be treated for

purposes of this Agreement, except Section 3.3 and clause (2) of Section 3.4 of this Agreement, as capacity of Stat . Two reserved to the City hereunder.

- For any Economic Development Opportunity of City as to which 28.2 City exercises its right under Section 28.1 to retain and utilize Station Two Economic Development Power by providing Big Rivers with a binding written offer to purchase, at the applicable rate set forth in Exhibit 1, the capacity and energy in the aggregate required by City for such Economic Development Opportunity in addition to the City's reserved capacity and Station Two Economic Development Power available under Section 28.1, City hereby agrees that Big Rivers shall have a period of fifteen days following receipt of City's written offer to accept the terms of such offer and to agree to supply the power at the applicable rate in Exhibit 1, over an agreed upon term. If Big Rivers rejects such offer or fails to accept such offer within such fifteen-day period, City shall be entitled to retain and utilize Station Two Economic Development Power in accordance with Section 28.1, and shall be entitled to negotiate with third-party suppliers to provide the remainder of the capacity and energy required to serve the Economic Development Load. Prior to entering into a binding contract with any such thirdparty supplier, City agrees to offer Big Rivers the right to match the price offered by such third-party supplier over the term offered by such third-party supplier, which right Big Rivers must exercise within five days of receipt of such third-party offer from City. If Big Rivers rejects such offer or fails to accept such offer within such five day period. City shall be free to execute a contract with such third-party supplier, provided, however, that if City shall not have contracted for the purchase of such capacity and energy with such third-party supplier within thirty-days after the expiration of that five-day period, no such contract shall be entered into without again first offering Big Rivers the opportunity to serve such remaining Economic Development Load upon the terms described in the preceding sentence.
- 28.3 In the event that Big Rivers fails to provide that portion of capacity and energy required to supply an Economic Development Opportunity that it has agreed to supply from Big Rivers' resources, whether at the specified prices contained in Exhibit 1, or upon terms matching those of a third-party supplier in accordance with Section 28.2, as the case may be, City shall be entitled to take from Station Two capacity and energy, in addition to the Station Two Economic Development Power to which City is already entitled, in such amounts as were to have been provided by Big

Rivers, with subsequent adjustments to the allocation of costs in accordance with this Agreement.

- 28.4 Big Rivers and City agree that the specified rates for capacity and energy contained in Exhibit 1 shall be fixed for a period of seven years after the date these 1998 Amendments become effective. Rates for periods after the date seven years after these 1998 Amendments become effective shall be subject to future negotiation.
- (c) A NEW SECTION 3.8 TO POWER SALES CONTRACT IS HEREBY CREATED AND INCLUDED AS FOLLOWS:
  - 3:8 Big Rivers and City hereby agree that the following provisions shall apply to energy from capacity not utilized by City or from capacity in excess of the capacity calculated in accordance with Section 3.6 of this Agreement.
  - (a) In the event that at any time and from time to time City does not take the full amount of energy associated with its reserved capacity from Station Two (determined in accordance with this Agreement), Big Rivers may, at its discretion, take and utilize all such energy (or any portion thereof designated by Big Rivers) not scheduled or taken by City (the "Excess Henderson Energy"), in accordance with Section 3.8(c).
  - (b) If at any time Station Two capacity is generated in excess of the Total Capacity of Station Two determined in accordance with Section 3.6 of this Agreement ("Excess Henderson Capacity"), Big Rivers shall take and utilize all energy associated with such Excess Henderson Capacity, unless otherwise agreed to by Big Rivers and City, in accordance with Section 3.8(c).
  - (c) Following the end of each calendar month, Big Rivers shall notify City of the amount of Excess Henderson Energy and energy associated with Excess Henderson Capacity, if any, taken by Big Rivers during the previous month, and Big Rivers shall pay City prior to the 25th day of the then current month for the amount of Excess Henderson Energy and energy associated with the Excess Henderson Capacity so taken by it at a rate equal to \$1.50 per mWh. In addition, Big Rivers shall provide, at its own cost, the full replacement of all fuels and reagents consumed from the

Station Two fuel and reagent reserves for the production of the Excess Henderson Energy and energy associated with the Excess Henderson Capacity so taken by it. Further, Big Rivers shall pay the portion of sludge disposal costs attributable to the Excess Henderson Energy and energy associated with Excess Henderson Capacity, as calculated in accordance with Section 3.4 of the Joint Facilities Agreement.

City agrees that Big Rivers, as operator, shall be allowed, but shall (d) not be required, to operate Station Two to obtain capacity above the Total Capacity of Station Two determined in accordance with Section 3.6 of this Agreement. City further agrees that it shall not at any time be permitted to sell or commit to any person other than Big Rivers any Excess Henderson Energy without having first offered Big Rivers the opportunity to purchase such Excess Henderson Energy. Big Rivers shall have a reasonable period of time after submission of the City's scheduled energy requirements to decide whether to purchase any Excess Henderson Energy not scheduled by City. Big Rivers agrees to notify City thereafter if it does not intend to purchase such energy, and agrees to give City a response within a reasonable time so that City may take efforts to resell this power to third-parties. City agrees to compensate Big Rivers according to Big Rivers' Open Access Transmission Tariff to the extent City utilizes any transmission on Big Rivers' transmission system in marketing Excess Henderson Energy.

# (d) A NEW SECTION 19.2 TO POWER SALES CONTRACT IS HEREBY CREATED AND INCLUDED AS FOLLOWS:

- 19.2 Big Rivers and City agree that on or before the date on which the Station Two Bonds are retired, and the remaining balance of monies contained in the Station Two Account in the Renewals and Replacements Fund in accordance with Section 1 of the Agreement dated April 8, 1980 between Big Rivers and City shall have been disbursed, the following shall occur:
- (a) Big Rivers shall establish a new Big Rivers Station Two Renewals and Replacements Fund and shall deposit immediately available funds in the amount of \$600,000. Thereafter, Big Rivers agrees that each month it shall make levelized payments into the Big Rivers Station Two Renewals and Replacements Fund, not to exceed \$50,000 each month, so as to restore a minimum balance of \$600,000. All interest on such amounts shall be repaid to Big Rivers at the end of each calendar year, and all amounts in such

fund shall be paid to Big Rivers upon termination or expiration of this Agreement. Amounts from this Fund shall be withdrawn in accordance with Section 19.2(c), and

- (b) City shall establish a new Henderson Station Two Renewals and Replacements Fund and shall deposit immediately available funds in the amount of \$150,000. Thereafter, City agrees that each month it shall make levelized payments into the Henderson Station Two Renewals and Replacements Fund, not to exceed \$12,500, so as to restore a minimum balance of \$150,000. All interest on such amounts shall be repaid to Henderson at the end of each calendar year and all amounts in such fund shall be paid to City upon termination or expiration of this Agreement. Amounts from this fund shall be withdrawn in accordance with Section 19.2(c).
- (c) All required expenditures for renewals and replacements shall be made from the Big Rivers Station Two Renewals and Replacements Fund and the Henderson Station Two Renewals and Replacements Fund in proportion to then effective allocation of Station Two capacity between City and Big Rivers, in accordance with Section 3 of this Agreement. No expenditures shall be made from these accounts other than for renewals and replacements that would have been permitted under the Bond Ordinance.
- (d) A NEW SECTION 19.3 TO POWER SALES CONTRACT IS HEREBY CREATED AND INCLUDED AS FOLLOWS:
  - 19.3 Big Rivers and City agree that on or before the date on which the Station Two Bonds are retired, and the remaining balance of monies contained in the Station Two Account in the Operation and Maintenance Fund in accordance with Section 1 of the Agreement dated April 8, 1980 between Big Rivers and City shall have been disbursed, the following shall occur:
  - (a) Big Rivers shall establish a new Big Rivers Station Two O&M
    Fund and shall deposit immediately available funds in the amount of
    \$400,000. Thereafter, Big Rivers agrees that each month it shall
    make levelized payments into the Big Rivers Station Two O&M
    Fund, not to exceed \$33,300 each month, so as to restore a
    minimum balance of \$400,000. All interest on such amounts shall
    be repaid to Big Rivers at the end of each calendar year, and all
    amounts in such fund shall be paid to Big Rivers upon termination

or expiration of this Agreement. Amounts from this Fund shall be withdrawn in accordance with Section 19.3(c); and

- (b) City shall establish a new Henderson Station Two O&M Fund and shall deposit immediately available funds in the amount of \$100,000. Thereafter, City agrees that each month it shall make levelized payments into the Henderson Station Two O&M Fund, not to exceed \$8,300, so as to restore a minimum balance of \$100,000. All interest on such amounts shall be repaid to Henderson at the end of each calendar year and all amounts in such fund shall be paid to City upon termination or expiration of this Agreement. Amounts from this fund shall be withdrawn in accordance with Section 19.3(c).
- (c) All required expenditures for operation and maintenance shall be made from the Big Rivers Station Two O&M Fund and the Henderson Station Two O&M Fund in proportion to the then effective allocation of Station Two capacity between City and Big Rivers, in accordance with Section 3 of this Agreement. No expenditures shall be made from these accounts other than for operation and maintenance expenses that would have been permitted to be paid as "Operating Expenses" under the Bond Ordinance.

### JOINT FACILITIES AGREEMENT

The Joint Facilities Agreement, as heretofore amended by the May 1, 1993
 Amendments, is further amended as follows:

### SECTION 3.3 IS AMENDED TO READ AS FOLLOWS:

3.3 Big Rivers will allocate for the continuing joint use of the parties in the operation of their respective generating stations (Big Rivers' Green Station and City's Station Two) those Green Station FGD System Facilities described in Exhibit 1, Page 3, Part C hereto. For such use, Big Rivers shall be paid by City a prorated share of the annual carrying costs, calculated as:

#### Exhibit 1

#### BIG RIVERS - CITY OF HENDERSON ECONOMIC DEVELOPMENT RATES

 Big Rivers will sell power to City of Henderson according to the following rate schedule (subject to the conditions of Section 28.2 of the Agreement) per mWh:

Year 1	\$20.00	
Year 2	\$20.00	M
Year 3	\$20.00	0.00
Year 4 (1st six months)		\$20.00
Year 4 (following six months	)	\$21.00
Year 5	\$21.00	
Year 6	\$21.00	
Year 7	\$21.00	
Year 8 and thereafter		to be negotiated

Year I shall commence on the first day of the month in which the 1998 Amendments become effective, and Year 2 and following years shall each commence on the anniversary of the first day of that month.

2. The Economic Development Rates offered by Big Rivers are for power only and are exclusive of any transmission charges Big Rivers is required to pay or charge itself to deliver this power to City on Big Rivers' transmission system. Except as otherwise provided below, Big Rivers will charge the City those transmission rates that Big Rivers is required by FERC to charge itself for delivery of such power. To the extent Big Rivers, in supplying this capacity and energy uses only transmission facilities for which City has already established transmission rights, Big Rivers will not charge an additional transmission fee. In the event Big Rivers obtains Economic Development Power from systems other than that of Big Rivers, Big Rivers shall not charge City an additional charge required to wheel such power to Big Rivers' transmission system.



#### 2005 AMENDMENTS TO CONTRACTS AMONG CITY OF HENDERSON, KENTUCKY, CITY OF HENDERSON UTILITY COMMISSION, BIG RIVERS ELECTRIC CORPORATION, WKE STATION TWO INC. AND LG&E ENERGY MARKETING INC.

These 2005 AMENDMENTS are entered into as of April 1, 2005, (the "2005 Amendments to Contracts") by and among the City of Henderson, Kentucky, a municipal corporation and a city of the second class organized under the laws of the Commonwealth of Kentucky, of 222 First Street, Henderson Kentucky, 42420, City of Henderson Utility Commission, a public body politic and corporate, organized under Kentucky Revised Statutes, Section 96.530 and related statutes, of 100 Fifth Street, Henderson, Kentucky 42420 (said City and Commission being referred to collectively as "City"), Big Rivers Electric Corporation, a rural electric cooperative corporation organized under Chapter 279 of the Kentucky Revised Statutes, P.O. Box 24, 201 Third Street, Henderson, Kentucky 42420 ("Big Rivers"), WKE Station Two Inc., a Kentucky corporation of 145 North Main Street, Henderson, Kentucky 42420 ("WKE"), and LG&E Energy Marketing Inc., an Oklahoma corporation of 220 West Main Street, Louisville, Kentucky 40202 ("LEM") (collectively, the "Parties").

#### WITNESSETH

WHEREAS, (a) the City, Big Rivers, WKE (as assignee of Big Rivers) and LEM
(as assignee of WKE) are parties to a Power Sales Contract, as amended (the "Power Sales
Contract") (WKE and LEM being parties with joint rights, interests and obligations under the
Power Sales Contract are referred to jointly herein as WKE/LEM), the City, Big Rivers and
WKE (as assignee of Big Rivers) are parties to a Power Plant Construction and Operation
Agreement, as amended (the "Construction and Operation Agreement") and the City, Big Rivers

NOW, THEREFORE, in order to comply with the Current NOx SIP Regulations by providing for the funding, design, acquisition, construction, installation, operation and maintenance of the Station Two SCR System as a part of Station Two, and to provide for certain other matters related to Station Two, and in consideration of the mutual covenants herein contained, it is stipulated, covenanted and agreed by and among the Parties hereto that the Agreements shall be amended and supplemented as follows effective as and when expressly provided in Section 601 of these 2005 Amendments to Contracts (but not before).

## I. CERTAIN DEFINED TERMS IN THE AGREEMENTS

Section 101 "Station Two" as defined in Section 2.2 of the Power Sales

Contract and Section 2.2 of the Construction and Operation Agreement and as used in the

Joint Facilities Agreement is redefined to read as follows:

"Station Two: City's 350-megawatt generating station (rated on the date of the 2005 Amendments to Contracts at 312 MW net send out capability), located at a site on the Green River in Henderson County, Kentucky, and, to the extent furnished and owned by City, all auxiliary facilities, joint use facilities and related facilities, renewals, replacements, additions, expansions and improvements thereto, including the Station Two FGD System added thereto and the Station Two SCR System, but excluding the City's Transmission and Transformation Facilities as herein defined, and excluding facilities furnished and owned by Big Rivers. The location of Station Two, including the Station Two SCR System, is

shown in Exhibit A1 to the Power Sales Contract and the

Construction and Operation Agreement (as added by the 2005

Amendments to Contracts) attached hereto and reference is made
to Exhibits 1 and 2 of the Cross-Grants of Rights of Access and

Easements, dated July 20, 1993, by the City and Big Rivers for the
location of the Station Two FGD System and the joint use and
related facilities with respect to Station Two as owned by the City,
and those furnished and owned by Big Rivers.

Section 102 The terms "Station Two Bonds" or "Bonds" as used in the

Agreements and defined in Section 2.9 of the Power Sales Contract and Section 2.9 of the

Construction and Operation Agreement are redefined to read as follows:

"Station Two Bonds" or "Bonds" shall mean bonds, if any, authorized and issued by the City subsequent to the date of the 2005 Amendments to Contracts, with the prior written approval of Big Rivers (and, during the term of the Station Two Agreement, of WKE and LEM), in order to finance any major repairs, renewals or replacements of Station Two or major additions or improvements thereto; provided, that the Station Two Bonds or Bonds shall not be deemed to include: (a) the City's Electric Light and Power Refunding Revenue Bonds, Station Two Series, Dated as of March 1, 1973 (which bonds have been paid, defeased or redeemed prior to the date hereof); or (b) any other bonds or other evidences of indebtedness issued by or for the City, or otherwise guaranteed or

secured by the City or its assets or properties, including its municipal electric system, for the purpose of financing or funding only the City's share or any portion thereof of any costs or expenses associated with the Station Two SCR System or Station Two.

"Bond Ordinance" as defined in Section 2.8 of the Construction Section 103 and Operation Agreement and Section 2.8 of the Power Sales Contract is redefined to read as follows:

> "Bond Ordinance" shall mean any bond ordinance or any supplements or amendments to a bond ordinance, adopted by the City subsequent to the date of the 2005 Amendments to Contracts authorizing any Station Two Bonds, which ordinance and each such supplement and amendment shall have received the written approval of Big Rivers (and, if adopted during the term of the Station Two Agreement, WKE and LEM).

Section 104 Section 2 of the Power Sales Contract and Section 2 of the Construction and Operation Agreement are amended by adding thereto the following:

> 212 "Actual Station Two Generation Share" shall mean, for a NOx Season (or a portion thereof), with respect to the City or Big Rivers (or WKE/LEM as assignee of Big Rivers), respectively, the net energy (MW hrs) actually generated by Station Two and taken by the City or Big Rivers (or WKE/LEM, as assignee of Big

Rivers), as the case may be, for such NOx Season (or portion thereof) divided by the Actual Net Station Two Generation for such NOx Season (or portion thereof).

2,13 "Actual Hours In NOx Season" shall mean, for a NOx Season (or a portion thereof), the product of the number of days in such NOx Season (or portion thereof) multiplied by 24.

214 "Actual Net Station Two Generation" shall mean, for a NOx Season (or a portion thereof), the total amount of net energy (MW hrs) actually generated by both generating units of Station Two during such NOx Season (or portion thereof).

"233" "Allocable SCR Costs" shall mean, (A) with respect to capacity charges for a Monthly Billing Period payable by Big Rivers (or by WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract: (i) the SCR Ammonia Costs for such Monthly Billing Period as allocated to Big Rivers (or WKE/LEM as Big Rivers' assignee) in accordance with Section 6.2 (a) of the Power Sales Contract, and (ii) the portion of the SCR Catalyst Acquisition Costs for such Monthly Billing Period as allocated to Big Rivers in accordance with Section 6.2(b) of the Power Sales Contract, or (B) with respect to the capacity charges for a Contract Year, the aggregate of the SCR Ammonia Costs for such Contract Year and the SCR Catalyst Acquisition Costs with

respect to a Catalyst Layer acquired during such Contract Year. Allocable SCR Costs shall not include any SCR Capital Costs.

2/16 "Allotted Allowances" shall mean, for a NOx Season, the NOx allowances and emission credits allotted to Station Two pursuant to the applicable Federal and Kentucky NOx Regulations for such NOx Season.

217 "Alternate Fuel" shall mean, with respect to a particular Catalyst Layer, fuel that (a) does not qualify as Base Coal, (b) is designated by a Party to be used in connection with such Catalyst Layer as provided in the contract with the vendor of such Catalyst Layer, and (c) is permitted to be used by that Party without rendering ineffective (in whole or in part) or materially adversely affecting the vendor's guarantee or warranty with respect to that Catalyst Layer set forth in such vendor contract.

218 "Alternate Fuel Differential Amount" shall mean, with respect to a particular Catalyst Layer, the amount of the differential with respect to the purchase price of such Catalyst Layer, as set forth in the successful bid by the vendor of such Catalyst Laver. attributable to any designation by Big Rivers (or WKE/LEM as Big Rivers' assignee) or the City of its use of Alternate Fuel with respect to such Catalyst Layer.

2:19 "Amendatory Station Two Agreement" shall mean the



Amendatory Agreement, dated as of April 1, 2005, among the City, Big Rivers, WKE, LEM, Western Kentucky Energy Corp. and WKE Corp., but only to the extent that agreement shall have become effective and enforceable in accordance with its terms.

2220 "Average Station Two Capacity Share" shall mean, for a NOx Season, with respect to the City or Big Rivers (or WKE/LEM as assignee of Big Rivers), respectively, (i) in the event that the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of Total Capacity (determined as provided in Section 3 of the Power Sales Contract) changes during such NOx Season, the decimal share (rounded to 4 places) of Total Capacity obtained by dividing (A) the sum of (x) the product obtained by multiplying the number of MWs of the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of such Total Capacity by the number of days in the period of such NOx Season during which such share shall be in effect and (y) the product obtained by multiplying the number of MWs of the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of such Total Capacity in effect for the other period of such NOx Season by the number of days in such period, by (B) the product obtained by multiplying the number of MWs of the Total Capacity for such NOx Season by the number of days in such NOx Season; or (ii) in

the event that the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, share of Total Capacity (determined as provided in Section 3 of the Power Sales Contract) does not change during such NOx Season, the City's or Big Rivers' (or WKE's or LEM's, as assignee of Big Rivers), as the case may be, decimal share of such Total Capacity for such NOx Season.

- 221 "Base Coal" shall mean coal having specifications falling within the ranges set forth on Exhibit A2 attached hereto.
- 222 "Base NOx Removal" shall mean, for a NOx Season, a removal of 75% of the Station Two SCR Inlet NOx Tons during such NOx Season through the use of the Station Two SCR System.
- \*223 "Big Rivers' Creditors' Subordination Agreement" shall mean the Agreement dated as of April 1, 2005, among Big Rivers and the United States of America, acting through the Administrator of the Rural Utilities Service, Ambac Assurance Corporation, the National Rural Utilities Cooperative Finance Corporation, Credit Suisse First Boston, acting by and through its New York Branch, US Bank National Association, as trustee under the Trust Indenture dated as of August 1, 2001, Ambac Credit Products, LLC, Bluegrass Leasing, Fleet Real Estate, Inc., AME Investments, LLC, CoBank, ACB, AME Asset Funding, LLC, AMBAC Credit

Products, LLC, the City of Henderson, Kentucky, the City of Henderson Utility Commission, Western Kentucky Energy Corp., WKE Station Two, Inc., LG&E Energy Marketing Inc., WKE Corp., and PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust, PBR-1 OP Statutory Trust, PBR-2 OP Statutory Trust, PBR-3 OP Statutory Trust, FBR-1 OP Statutory Trust and FBR-2 OP Statutory Trust, in each case, acting through State Street Bank and Trust Company, National Association as the same may be amended in accordance with its terms.

"Big Rivers' Easement" shall mean the Grant of Rights and of Easements, dated as of April 1, 2005, between and among Big Rivers, Western Kentucky Energy Corp. and the City as the same may be amended in accordance with its terms.

"Catalyst Failure" shall mean, with respect to a particular
Catalyst Layer, the failure of such Catalyst Layer to meet the
Guaranteed Life Cycle (as defined in Exhibit E to the Power Sales
Contract as added by the 2005 Amendments to Contracts and
attached hereto) thereof due to the use of fuel having
characteristics not permitted to be used without rendering
ineffective (in whole or in part) or materially adversely affecting
the guarantee or warranty of the vendor of such Catalyst Layer.

2.26 "Catalyst Layer" shall mean the initial third layer of catalyst to be installed in the Station Two SCR System at a time subsequent to the effectiveness of all provisions of the 2005 Amendments to Contracts, and each replacement layer of catalyst to be installed in the Station Two SCR System.

"Catalyst Refund Payment" shall mean, with respect to a

Party and a particular Catalyst Layer, the refund payment by such

Party with respect to such Catalyst Layer provided for in Section

IV of Exhibit E to the Power Sales Contract (as added by the 2005

Amendments to Contracts and attached hereto) and payable in

accordance with Section 6.8 of the Power Sales Contract.

"City Actual Load Factor" shall mean, for a NOx Season, the net energy (in MWh) actually generated by Station Two and taken by the City for such NOx Season, divided by the product obtained by multiplying (i) the Actual Hours In NOx Season for such NOx Season by (ii) the product of the Total Capacity multiplied by the City's Average Station Two Capacity Share for such NOx Season.

"2:29 "City Excess Allowances" shall mean, for any NOx Season with respect to which there shall be a City Reduction Generation Amount (it being understood that there shall be no City Excess Allowances in the event there is no City Reduction Generation Amount for the relevant NOx Season), the product obtained by

13

multiplying the City Reduction Generation Amount for such NOx Season by a fraction (i) the numerator of which is the number of Station Two Allocated Allowances for such NOx Season that would have been required to comply with applicable Federal and Kentucky NOx Regulations if the Station Two Stack NOx Emissions for such NOx Season had been in an amount that would have resulted from the application of the SCR Design NOx Removal to the Station Two SCR Inlet NOx Tons for such NOx Season and (ii) the denominator of which is the net energy (MWh) actually generated by Station Two for such NOx Season, Notwithstanding the forgoing, in the event of a complete outage of both generating units of Station Two throughout such NOx Season, the City's Excess Allowances for such NOx Season would equal the City's Average Station Two Capacity Share for such NOx Season of the lesser of (A) all Allotted Allowances for that NOx Season or (B) the number of Station Two Allocated Allowances for that NOx Season required so that 85% of the Station Two Stack NOx Emissions that would result by multiplying the Station Two Standard SCR Inlet NOx Tons by one (1) minus the SCR Design. NOx Removal would comply with the applicable Federal and Kentucky NOx Regulations.

2.30 "City Reduction Generation Amount" shall mean (and shall only have relevance), for any NOx Season with respect to which

the City Actual Load Factor is less than the City Standard Load Factor for such NOx Season, an amount of Station Two generation (MW hrs) equal to (i) 85% of the maximum amount of generation (MW hrs) associated with the City's Average Station Two Capacity Share of the Total Capacity for such NOx Season multiplied by (ii) the decimal obtained by dividing (x) the difference between the City Standard Load Factor for such NOx Season and the City Actual Load Factor for such NOx Season, by (y) the City Standard Load Factor for such NOx Season.

231 "City's Station One Power Plant" shall mean the City's Station One Electric Generating Plant located on a site on the Ohio River in Henderson, Kentucky, consisting of Unit 1 with a nameplate rating of 1,230 kW; Unit 2 with a nameplate rating of 1,230 kW; Unit 3 with a nameplate rating of 5,000 kW; Unit 4 with a nameplate rating of 5,000 kW; Unit 5 with a nameplate rating of 12,650 kW; and Unit 6 with a nameplate rating of 29,091 kW (and for purposes of the 2005 Amendments to Contracts, a rated net capacity (after station use) of 26 MW.

2.32 "City's Station One Rated Capacity" shall mean the rated net capacity (after station use) of Unit 6 of the City's Station One Power Plant as of the date of the 2005 Amendments to Contracts, which the Parties agree is 26MW, together with the energy associated with such rated capacity.

2.33 "City Standard Load Factor" shall mean, for any NOx Season, 85%.

234 "Construction and Operation Agreement" shall mean the Power Plant Construction and Operation Agreement, dated August 1, 1970, as amended, among the City, Big Rivers and WKE (as assignee of Big Rivers).

235 "Federal and Kentucky NOx Regulations" shall mean the Current NOx SIP Regulations, as the same may be hereafter approved, modified or supplemented by regulations or other action of the Federal Environmental Protection Agency, including, without limitation, any modification that results in a reduction or an increase in the NOx allowances or emission credits allotted to Station Two or Unit 6 of the City's Station One Power Plant, or otherwise amended, modified or supplemented, and shall include any laws, rules or regulations enacted, issued or adopted in lieu of any of the foregoing, but only to the extent they regulate or restrict NOx emissions.

12.36 "Guarantor's Consent and Acknowledgement" shall mean the Consent and Acknowledgement dated as of April 1,2005, by LG&E Energy LLC (successor by merger with LG&E Energy Corp.)., as Guarantor under the Guarantee Agreement [Station Two Obligations], dated July 15, 1998, by and among LG&E

Energy LLC., the City of Henderson and the City of Henderson Utility Commission.

2,37 "Index Rate" shall mean 5%.

"NOx Season" shall mean that period during each year that is defined as the "NOx Season" for such year under applicable

Federal and Kentucky NOx Regulations and shall be deemed to include any applicable portion of a NOx Season. Reference to a NOx Season for a Contract Year shall mean the period consisting of those months of the Contract Year included within such NOx Season, and in the event that a Contract Year includes portions of two separate NOx Seasons, shall mean the periods that consist of those months of the Contract Year within each such portion of each NOx Season within such Contract Year.

Bonds, shall have the same meaning as set forth for such term in the Bond Ordinance authorizing such Station Two Bonds.

Station Two Flue Gas Desulfurization System and (ii) such other minerals, materials, supplies or substances for Station Two that the parties to the Power Sales Contract may determine to constitute a "Reagent", such determination to be evidenced by a written instrument which shall set forth the basis on which Big Rivers and

the City (or WKE/LEM as applicable) shall each supply such Reagent.

2.41 "SCR Ammonia Costs" shall mean, (A) with respect to capacity charges for a Monthly Billing Period payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract, the costs of the ammonia used in the operation of the Station Two SCR System as allocated to Big Rivers (or WKE/LEM as Big Rivers' assignee) in accordance with Section 6.2(a) of the Power Sales Contract for such Monthly Billing Period (other than costs for ammonia for the initial start-up and testing of the Station Two SCR System, which are treated as SCR Capital Costs), including, without limitation, storage and handling costs allocable to such ammonia, or (B) with respect to capacity charges for a Contract Year, the aggregate of such costs of the ammonia used in the operation of the Station Two SCR System during such Contract Year.

2.42 "SCR Amortized Capital Cost per MW" shall mean, for the initial Contract Year beginning June 1, 2004 and for each of the next nineteen (19) Contract Years following such initial Contract Year, (i) an amount equal to the annual debt service that would accrue during such Contract Year with respect to a bond issue in a principal amount equal to the total amount of SCR Capital Costs (exclusive of the SCR Capital Overcontrol Amount and the amount

of \$123,584 attributable to the use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System by WKE/LEM or Big Rivers) bearing interest at a rate equal to the Index Rate, payable over 20 years with level annual debt service, divided by (ii) the number of MWs of the Total Capacity of Station Two as determined for such Contract Year pursuant to Section 3.6 of the Power Sales Contract.

2.43 "SCR Capital Costs" shall mean all capitalized costs and expenses associated with the original design, acquisition, construction, installation, start-up and testing of the Station Two SCR System (exclusive of the SCR Capital Overcontrol Amount and the amount of \$123,584 attributable to the use of Alternate Fuel with respect to the two initial catalyst layers of the Station Two SCR System by WKE/LEM or Big Rivers), including applicable out-of-pocket costs of the Parties as provided in Section 4.20(e) of the Construction and Operation Agreement, and including the costs thereof payable pursuant to the Interim Funding Agreement, whether funded by the City, Big Rivers or WKE, and including the costs of the catalyst initially installed with respect to the Station Two SCR System and the ammonia supplies required for initial start-up and testing of the Station Two SCR System.

2.44 "SCR Capital Cost Share" shall mean, in the case of Big Rivers (or WKE as Big Rivers' assignee) 0.6955 and, in the case of

05/12/2020 Janet Cole, Webster Circuit Clerk Presiding Judge: HON. C. RENE' WILLIAMS (605230)

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2.45 "SCR Capital Overcontrol Amount" shall mean the difference (which the Parties agree is \$778,435), based on the public bids received by the City with respect to the SCR Contract for the design, acquisition, construction, installation, start-up and testing of the Station Two SCR System, between (i) the amount of the lowest bid acceptable to the Parties for the components of a selective catalytic reduction system of Station Two capable of removing 75% of the Station Two NOx emissions assuming the use of Base Coal, and (ii) the amount of the bid in fact accepted by the City with the consent of the other Parties for the components of the Station Two SCR System capable of removing 90% of the Station Two NOx emissions assuming the use of Base Coal, as such difference (that is, the \$778,435) shall be adjusted to give effect to any change orders approved by the Parties and provided to the contractor under the SCR Contract, assuming that the amount of each such change order shall be allocated to the 75% NOx removal capability system and the Station Two SCR System, respectively, in the same proportion as (x) the amount of such bid acceptable with respect to the 75% NOx removal system bears to (y) the amount of such bid in fact accepted with respect to the Station Two SCR System (it being agreed by the Parties that in the case of each change order such adjustment (whether an increase or

a decrease) to the "SCR Capital Overcontrol Amount" shall be equal to 2.22% of the increase or decrease in the contract price given effect by such change order).

2:46 "SCR Catalyst Acquisition Costs" shall mean, with respect to a Catalyst Layer, (A) with respect to capacity charges for any Monthly Billing Period payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) pursuant to Section 6 of the Power Sales Contract, the portion of the purchase price for such Catalyst Layer, the relevant Alternate Fuel Differential Amount (if any) with respect to that Catalyst Layer, and the portion of the cost of materials and labor associated with the installation of such Catalyst Layer and the costs of removal and disposal of the catalyst layer being replaced by such Catalyst Layer (if any), provided that such removal and disposal costs shall be offset as provided in Section 6.9 of the Power Sales Contract (as added by the 2005 Amendments to Contracts) by any amount received in connection with the sale or disposal of such catalyst layer being replaced, in each case as allocated for such Monthly Billing Period to Big Rivers (or WKE/LEM as assignee of Big Rivers) pursuant to Section 6.2(b) of the Power Sales Contract, or (B) with respect to capacity charges for a Contract Year, the aggregate of the purchase price for such Catalyst Layer, any Alternate Fuel Differential Amount (regardless of the Party responsible for the

same) and the other costs of such Catalyst Layer, including the costs of removal and disposal of the catalyst layer being replaced, as incurred during such Contract Year, provided that such removal and disposal costs shall be offset as provided in Section 6.9 of the Power Sales Contract (as added by the 2005 Amendments to Contracts) by any amount received in connection with the sale or disposal of such catalyst layer being replaced. SCR Catalyst Acquisition Costs shall not include costs of operation or maintenance of an installed Catalyst Layer or, except as otherwise provided in Section IV(D) of Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts and attached hereto), costs of a Catalyst Dispute Resolution Procedure (as defined in the aforesaid Exhibit E), all of which costs shall constitute costs associated with the operation and maintenance of Station Two under Section 6.3 of the Power Sales Contract. SCR Catalyst Acquisition Costs shall not include any SCR Capital Costs.

2.47 "SCR Contract" shall mean the (i) Contract SCR-01 SCR
Equipment and Erection, dated as of July 9, 2002, entered into by
the City with the successful bidder, as the same may be amended
with the prior written consent of Big Rivers and, during the term of
the Station Two Agreement, WKE, and (ii) the Contract SCR-02
Foundation, dated October 7, 2002, entered into by the City and

the successful bidder, as the same may be amended with the prior written consent of Big Rivers and, during the term of the Station Two Agreement, WKE.

2.48 "SCR Design NOx Removal" shall mean .90.

2:49 "Station One Unit 6 Allotted Allowance" shall mean, for a NOx Season, the NOx allowances and emissions credits allotted to Unit 6 of the City's Station One Power Plant pursuant to the applicable Federal and Kentucky NOx Regulations for such NOx Season.

2.50 "Station One Unit 6 Stack NOx Emissions" shall mean, for a NOx Season, the amount of NOx emissions from Unit 6 of the City's Station One Power Plant corresponding with the actual generation of energy by Unit 6 during such NOx Season (but in no event greater than the NOx emissions associated with the use and operation of Unit 6 of the City's Station One Power Plant at the City's Station One Power Plant Rated Capacity plus three (3) MWs of station use), as measured by the Station One Unit 6 Certified Continuous Emissions Monitoring System.

2.51 "Station Two Agreement" shall mean the Agreement and Amendments to Agreements, dated as of July 15, 1998, among the City, Big Rivers, WKE, LEM, Western Kentucky Energy Corp. and WKE Corp., as heretofore amended and as amended by the

Amendatory Station Two Agreement, and as may hereafter be amended in accordance with its terms,

- 2.52 "Station Two Allocated Allowances" shall mean, for a NOx Season the number of Allotted Allowances required for the Station Two Stack NOx Emissions during such NOx Season to be in compliance with the applicable Federal and Kennicky NOx Regulations.
- 2.53 "Station Two SCR Inlet NOx Tons" shall mean, for a NOx Season, the Station Two SCR inlet NOx tons for such NOx Season as measured by the inlet NOx duct monitors or calculated by mutual agreement in the event the inlet NOx duct monitors are not monitoring or functioning properly or sufficiently to calculate to Station Two SCR Inlet NOx Tons.
- Feducion Two SCR System shall mean the selective catalytic feducion system purchased by the City and constructed and installed at, and operated solely in connection with, Station Two, designed to provide at least a 90% continuous NOx removal capability during normal uses, and meeting design specifications, cost criteria and other criteria that are teasonably satisfactory to the Parties, which system shall include at the time of its initial commercial operation, among other related or supporting components and facilities, the equipment and components identified on Exhibit B to the Power Sales Contract and the Construction and Operation Agreement (as added by the 2005 Amendments to Contracts) attached hereto and made a part hereof.

2.55 "Station Two Stack NOx Emissions" shall mean, for a NOx Season, the amount of the Station Two NOx emissions as measured by the Station Two Certified Continuous Emissions Monitoring Systems pursuant to the applicable Federal and Kentucky NOx Regulations.

2.56 "Station Two Standard SCR Inlet NOx Tons" shall mean, for a NOx Season, 2,800 NOx tons.

2.57 "Total Capacity" shall mean, with respect to Station Two, the Total Capacity as defined in Section 3.6 of the Power Sales Contract.

## II. CONSTRUCTION AND OPERATION AGREEMENT

Section 201 Section 3 of the Construction and Operation Agreement is amended by adding thereto the following:

"3.3 Big Rivers will transfer and convey to the City easements on land lying adjacent to the Station Two plant site in order to permit the construction, operation and maintenance thereon of certain portions of the Station Two SCR System, including the SCR reactors and the ammonia storage facility, and the auxiliary building, together with any additional rights and easements to the City required for the construction, operation, maintenance and removal of auxiliary facilities required in connection therewith and for access thereto, all in accordance with the Big Rivers'

Ordinance as the same may, from time to time, exist."

## III. POWER SALES CONTRACT

Section 301 Section 3. of the Power Sales Contract is amended to read as follows:

as Big Rivers' assignee) as hereinafter provided, the Total Capacity and output of City's Station Two shall be reserved to and available for use by the City for the purpose of supplying the needs of the City and its inhabitants for electric power and energy in excess of the capabilities, from time to time, of its Existing System. For avoidance of any doubt, the Station Two capacity and associated energy to be reserved to and available for use by the City for any Contract Year to supply the needs of the City and its inhabitants for electric power and energy shall be determined only after giving effect to the application of the then rated capacity and associated energy of the City's Station One Power Plant (without any reduction for any off-system capacity sales therefrom) to supply such needs of

Section 301A The title of Section 6 of the Power Sales Contract is amended to read as follows:

"Section 6. PAYMENT FOR CAPACITY, FUEL, ALLOCABLE SCR COSTS AND REAGENT REQUIREMENTS"

Section 302 Section 6.1 of the Power Sales Contract is amended to read as follows:

"6.1 Big Rivers (or during the term of the Station Two Agreement, WKE/LEM, as Big Rivers' assignee) shall pay to the City of Henderson Utility Commission capacity charges as hereinafter defined for the surplus capacity of Station Two allocated to it as provided in Section 3 of the Power Sales Contract."

Section 303 Section 6.2 of the Power Sales Contract is amended to read as follows:

> "6.2 Capacity charges payable by Big Rivers (or WKE/LEM, as Big Rivers' assignee), other than Allocable SCR Costs, for any Monthly Billing Period as provided in Section 6 of the Power Sales Contract shall be in the same proportion of the Total Capacity costs (exclusive of Allocable SCR Costs) of Station Two for such Monthly Billing Period as Big Rivers' (or WKE/LEM's, as Big Rivers' assignee) allocation of surplus net send-out capacity of Station Two during such Monthly Billing Period bears to the total net send-out capacity of Station Two for such Monthly Billing Period as established pursuant to Section 3 of the Power Sales Contract. Capacity charges payable by Big Rivers (or WKE/LEM, as Big Rivers' assignee) for any Monthly Billing Period as provided in Section 6 of the Power Sales Contract consisting of Allocable SCR Costs shall be calculated as follows:

(a) The amount of SCR Ammonia Costs for such Monthly

Billing Period allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall be determined in accordance with the formula and related provisions set forth in Exhibit D to the Power Sales Contract (as added by the 2005 Amendments to Contracts) attached hereto; and

(b) The amount of SCR Catalyst Acquisition Costs for such Monthly Billing Period allocated to Big Rivers (or to WKE/LEM, as Big Rivers' Assignee) shall be determined in accordance with the formula and related provisions set forth in Exhibit E to the Power Sales Contract (as added by the 2005 Amendments to Contracts) attached hereto, subject to the provisions of Sections 6.8 and 6.9 below.

Notwithstanding any other provision of the Power Sales Contract to the contrary, capacity charges payable by Big Rivers (or WKE/LEM as Big Rivers' assignee) for a Monthly Billing Period during each Contract Year commencing with the initial Contract Year beginning June 1, 2004 and ending with the expiration of the nineteenth (19th) Contract Year (i.e., a 20-year amortization) following such initial Contract Year, shall be adjusted so as to provide for each of the following:

> in the event that the City's share of the Total Capacity of (i)

Station Two as allocated pursuant to Section 3 of the Power Sales Contract for such Contract Year shall exceed its share of such Total Capacity for the Contract Year beginning

June 1, 2004, a credit to Big Rivers (or WKE/LEM, as Big Rivers' assignee) in an amount equal to one-twelfth (1/12 th)

(or such greater fraction as appropriate in the case of a

Contract Year embracing fewer than 12 months) of the product obtained by multiplying the SCR Amortized Capital

Cost per MW for such Contract Year, if any, by the number of MWs by which the City's share of the Total Capacity of Station Two for such Contract Year exceeds its share of the Total Capacity of Station Two for the Contract Year beginning June 1, 2004; and

(ii) in the event the City's share of the Total Capacity of Station

Two as allocated pursuant to Section 3 of the Power Sales

Contract for such Contract Year shall be less than its share
of such Total Capacity for the Contract Year beginning

June 1, 2004, an additional payment by Big Rivers (or

WKE/LEM, as Big Rivers' assignee) in an amount equal to
one-twelfth (1/12th) (or such greater fraction as appropriate
in the case of a Contract Year embracing fewer than 12

months) of the product obtained by multiplying the SCR

Amortized Capital Cost per MW for such Contract Year, if

any, by the number of MWs by which the City's share of the Total Capacity of Station Two for such Contract Year is less than its share of Total Capacity of Station Two for the Contract Year beginning June 1, 2004.

The initial paragraph of Section 6.3 of the Power Sales Contract is Section 304 amended to read as follows:

- "6.3. The Total Capacity costs of Station Two for each Monthly Billing Period shall be the City's total cost resulting from the ownership, operation and maintenance of, and renewals and replacements to, Station Two, except that the cost of fuels and Reagents with respect to Station Two shall not be included as such capacity costs and such capacity costs shall not include any SCR Capital Costs or any Debt Service except Debt Service on Station Two Bonds (which as applicable have been consented to by WKE/LEM and/or Big Rivers as contemplated in the Construction and Operation Agreement, as amended by the 2005 Amendments to Contracts), if any. Such capacity costs shall include but are not limited to:
- In the event Station Two Bonds shall be Outstanding, Debt Service (a) (as defined in the applicable Bond Ordinance with respect to such Station Two Bonds) for such Monthly Billing Period with respect to such Station Two Bonds.

- (b) One-twelfth (1/12th) or such greater fraction as appropriate in the case of a Contract Year embracing fewer than 12 months) of all costs associated with the operation and maintenance of Station Two during such Contract Year, including, without limitation, Allocable SCR Costs and all other costs properly chargeable to FERC Accounts 408, 500, 502, 505, 506, 510, 511, 512, 513, 514 and 924, and fiscal agency costs and expenses allocable to Station Two.
- (c) In the event Station Two Bonds shall be Outstanding, the amount, if any, which the City is required under the applicable Bond Ordinance with respect to such Station Two Bonds to pay during such Monthly Billing Period into (i) the Station Two Account (Station Two O. & M. Account) in the Operation and Maintenance Fund, if any, so as to restore any minimum balance required to be maintained therein, and (ii) the Station Two Account (Station Two R. & R. Account) in the Renewals and Replacements Fund, if any, so as to restore any minimum balance required to be maintained therein, but in each case only if the applicable Bond Ordinance requiring such funding amounts had been approved by Big Rivers (and, as applicable, by WKE/LEM);
- (d) The amount, if any, required to be paid during such Monthly
  Billing Period by (i) the City and Big Rivers (or WKE/LEM, as Big Rivers'
  assignee) pursuant to Section 19.3(c) of the Power Sales Contract, (ii) the City
  and Big Rivers pursuant to Section 19.2 of the Power Sales Contract, and (iii) the
  City and WKE/LEM pursuant to Section 10.3(g) of the Station Two Agreement;

- (e) Costs of renewals, replacements and additions (when such additions are agreed to by Big Rivers (or WKE/LEM, as Big Rivers' assignce)) which are not provided for through (i) proceeds of insurance, or (ii) funds available from proceeds of Station Two Bonds.
- One-twelfth (1/12) of all costs of administration and general (f) expense for Station Two during such Contract Year, and including, but not limited to costs properly includible in FERC Accounts 920, 921, 923, 924, 925, 926, 928 and 930.
- Any amounts paid or payable to Big Rivers (or WKE/LEM as Big (g) Rivers' assignee) for such Monthly Billing Period under terms of the Construction and Operation Agreement (except any delayed payment penalties as therein provided) not included in the foregoing.
- Any other costs associated with Station Two which are not (h) included in paragraphs (a) through (g) hereof."

Section 6.7 of the Power Sales Contract is amended to read as Section 305 follows:

> "6.7 Fuel and Reagent Requirements: Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City shall each provide, at its own cost, the full replacement of all fuels consumed from the Station Two fuel reserve for the production of electric energy used by it during each month. If at any time during the term of the Power

Sales Contract, the Station Two coal reserve shall fall below a full thirty (30) days' supply, then upon written demand by either party, both parties shall increase their respective monthly additions to the coal reserve by five per cent (5%) until the coal reserve is restored to the amount specified in such demand, not to exceed forty-five (45) days' supply for Station Two. Fuel consumption by each party will be determined on the basis of measured quantities, adjusted for heat content, and attributed to the parties on the basis of their respective uses of electric energy from Station Two during each month. Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City shall each provide, at its own cost, the full replacement of all Reagents consumed for its own use, which in the case of lime for the Station Two Flue Gas Desulfurization System shall be based on the tonnage of coal supplied by such party to produce the electric energy it takes from Station Two and the sulfur and BTU content of such coal."

Section 305A The Power Sales Contract is amended by adding a new Section 6.8 to read as follows:

> "6.8 As an adjustment of payments otherwise due as provided in this Section 6 with respect to the SCR Catalyst Acquisition Costs of a Catalyst Layer, Big Rivers (or WKE/LEM, as Big Rivers' assignee) or the City, or both of such Parties, as applicable, shall make the Catalyst Refund Payment or Payments, if any, payable

with respect to a Catalyst Failure of such Catalyst Layer determined in accordance with the formula and related provisions set forth in Section IV and Section V of Exhibit E hereto, and, notwithstanding the provisions Sections 3, 6.1, 6.3 or 9.1 of the Power Sales Contract, each such Catalyst Refund Payment shall be due and payable within 60 days of the date of such determination pursuant to Exhibit E hereto."

Section 305B The Power Sales Contract is amended by adding a new Section 6.9 to read as follows:

> "6.9 The Parties agree that any proceeds received in connection with the sale or disposal of any catalyst layer (whether or not a "Catalyst Layer" as defined hereunder) permanently removed from the Station Two SCR System, shall be applied solely for the following: (i) to offset the SCR Catalyst Acquisition Costs for the relevant new Catalyst Layer (if any) as provided in the definition of "SCR Catalyst Acquisition Costs" (as added by the 2005 Amendments to Contracts), or (ii) if no new Catalyst Layer is then to be installed in place of such catalyst layer sold or disposed of, to defray the costs associated with the operation and maintenance of Station Two."

Section 306 Section 9.1 of the Power Sales Contract is amended to read as follows:

"9.1. On or before the twentieth (20th) day of each calendar month during each Contract Year Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall pay to the City of Henderson Utility Commission in payment for its allocated Station Two capacity during the current Monthly Billing Period all capacity charges due from Big Rivers (or WKE/LEM, as Big Rivers' assignee) for such Monthly Billing Period in accordance with Section 6 of the Power Sales Contract. Such payments shall be made on the basis of the Annual Budget in effect for the Contract Year that includes such Monthly Billing Period which, for purposes of calculating SCR Ammonia Costs and SCR Catalyst Acquisition Costs with respect to such Contract Year estimated for purposes of such Annual Budget to be allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) for such Monthly Billing Period in accordance with Section 6.2(a) and (b) of the Power Sales Contract, shall reflect the allocation of SCR Ammonia Costs and SCR Catalyst Acquisition Costs in accordance with the applicable formulae set forth in Exhibit D and Exhibit E hereto. Payments shall be deemed complete upon the posting thereof in the regular United States mail, properly addressed and affixed with postage or upon receipt by wire transfer by a bank designated by the City for such purpose."

Section 307 Section 9.3 of the Power Sales Contract is amended to read as follows:

"9.3 Off-Setting Accounts: Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall have the right to off-set accounts payable under this Agreement by any payments due it under Section 13.6 of the Construction and Operation Agreement and thereupon shall pay to the City of Henderson Utility Commission any remaining balance of the off-set account. Off-setting of accounts shall be employed in determining any delayed payment charges as provided herein."

Section 308 Section 9.4 of the Power Sales Contract is amended to read as follows:

"9.4 As quickly as is reasonably possible but in no event later than one hundred twenty (120) days after the end of each Contract Year Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall submit to the City a detailed statement of the actual capacity costs for all Monthly Billing Periods of such Contract Year, based on the annual audit of accounts provided for in Section 11 of the Power Sales Contract. If, on the basis of such statement, actual aggregate capacity costs for such Contract Year payable by Big Rivers (or WKE/LEM, as Big Rivers' assignee) exceed the estimates thereof in the Annual Budget on the basis of which Big Rivers (or

WKE/LEM, as Big Rivers' assignee) has made payments, Big Rivers (or WKE/LEM, as Big Rivers' assignee ) shall pay promptly to the City of Henderson Utility Commission the additional amount to which the City is entitled. If, on the basis of such statement, the actual aggregate capacity costs for such Contract Year payable by Big Rivers (or by WKE/LEM, as Big Rivers' assignee) are less than the estimates thereof in the Annual Budget on the basis of which Big Rivers (or WKE/LEM, as Big Rivers' assignee ) has made payments, such excess shall be credited against Big Rivers' (or, WKE/LEM, as Big Rivers' assignee) next monthly payment or payments hereunder, or paid to Big Rivers (or to WKE/LEM, as Big Rivers' assignee) if no such payments are due from Big Rivers (or WKE/LEM, as Big Rivers' assignee)."

Section 309 Section 11.1 of the Power Sales Contract is amended to read as follows:

> "11.1 There shall be an annual audit of the financial accounts of the City's Station Two by an independent certified public accountant or a firm of certified public accountants of recognized standing, selected by the City. Such audit shall be completed within 120 days after the close of each Contract Year and WKE and Big Rivers shall be entitled to receipt of copies of the annual audit report of such accountant or firm of accountants and the

accompanying financial statements within that 120-day period.

Such financial statements, accounts and reports shall be held and maintained by the City in confidence (and the City shall require its auditors to hold and maintain the same in confidence) for a period of five (5) years from the date of receipt, unless the same shall come into the public domain through no fault of the City or its auditors, or unless disclosure thereof is required by applicable laws or regulations pertaining to the City or its auditors or any debt with respect to its municipal electric system or any Station Two Bonds or required for the exercise by the City of any of its rights or remedies under the Agreements or the Station Two Agreement."

Section 310 Section 18.1 of the Power Sales Contract is amended to read as follows:

"18.1 In the event Station Two Bonds (as applicable, that have been consented to by Big Rivers and/or WKE/LEM as contemplated in the Power Sales Contract or the Construction and Operation Agreement) shall be at any time Outstanding, this Agreement shall be subject to the terms and provisions of the applicable Bond Ordinance. City and Big Rivers (and during the term of the Station Two Agreement, WKE and LEM) agree that they will not amend, modify or otherwise alter this Agreement in any manner that will impair or adversely affect the security afforded by the provisions of this Agreement to the holders of any

such Station Two Bonds, for the payment of principal, interest and premium, if any, thereon, so long as any of such Bonds are

Outstanding and unpaid, or until provision is irrevocably made for the payment thereof."

- Section 311 Section 19:1 of the Power Sales Contract is hereby deleted in its entirety.
- Section 312 Section 19.2 of the Power Sales Contract is hereby renumbered as Section 19.1 and amended to read as follows, provided that this Section 19.1 shall be and remain suspended as among the parties to the extent provided in and in accordance with Section 9.4(b)(1) and Section 10.3(g) of the Station Two Agreement:
  - "19.1 Big Rivers and the City agree as follows:
  - (a) Big Rivers shall remit and pay to the City by wire transfer, within two (2) business days following its receipt of a written request therefor from the City, immediately available funds in an amount not to exceed \$1,050,000 in the aggregate (the "Maximum Funding Limit"), for use by the City to fund one or more major renewals or replacements with respect to Station Two in order to keep Station Two in good operating condition (including without limitation, any such major renewals or replacements required to correct any unusual loss or damage with respect to Station Two). The City's use of the funds contemplated above shall be limited to those situations where a sufficient budget was not previously established in the then current Annual Budget for Station Two, but then only to the extent that the expenditure for such renewal or replacement is required on an



expedited basis and in advance of the time by which the Parties could otherwise meet to separately budget and fund the expenditure. The City's written request for funds contemplated above shall include a description of the major renewals or replacements for which the funds are requested, the reason for their expenditure, the amount of funds so requested, the City's good faith estimate of the actual cost of the relevant renewals or replacements, and the bank account of the City to which the funds are to be wire transferred (with appropriate wiring instructions).

- (b) The City shall be entitled from time to time, in its discretion, to submit multiple requests for funds from Big Rivers pursuant to this Section 19.1; provided, however, that the following additional conditions or limitations shall apply to the funding obligations of Big Rivers under this Section 19.1 for all purposes:
  - (i) the maximum amount of funds that Big Rivers shall be obligated to remit and pay to the City pursuant to this Section 19.1 during any consecutive twelve (12) month period (for all renewals and replacements, collectively, to be funded as contemplated in this Section 19.1) shall not exceed the Maximum Funding Limit;
  - the City may not request funds hereunder in increments of (ii) less than \$10,000;
  - Big Rivers shall not be required to remit or pay funds to the

City hereunder in excess of that portion of the cost of the relevant renewals or replacements corresponding with the share of the Total Capacity from Station Two then allocated for use by Big Rivers pursuant to Section 3 of the Power Sales Contract, except that, in the case of a renewal or replacement the cost of which constitutes a SCR Catalyst Acquisition Costs, the portion of such cost shall correspond with the allocation of such SCR Catalyst Acquisition Costs to Big Rivers as provided in Section 6.2 of the Power Sales Contract,

- the City shall not request funds in excess of its good faith estimate of the cost of such renewals or replacements, and hereby agrees to promptly repay to Big Rivers any amounts funded by Big Rivers in excess of the actual cost thereof plus any interest earned on such amounts, and
- the City shall also contemporaneously fund, out of its own resources, that portion of the cost of such renewals or replacements corresponding with the City's share of the Total Capacity of Station Two at that time reserved for the City pursuant to Section 3 of the Power Sales Contract (or, in the case of SCR Catalyst Acquisition Costs, corresponding with the City's share of such costs as contemplated in Section 6.2 of the Power Sales Contract).

Section 313 Section 19.3 of the Power Sales Contract is hereby renumbered as Section 19.2 and amended to read as follows:

## "19.2 Big Rivers and the City agree as follows:

- (a) Big Rivers shall continue the Big Rivers Station Two
  Operation and Maintenance Fund and shall have on
  deposit therein funds in the amount of \$400,000 (the
  "Big Rivers O&M Minimum Balance"). In the event
  an amount is withdrawn therefrom as hereinafter
  provided, Big Rivers agrees to make monthly levelized
  payments into the Big Rivers Station Two Operation
  and Maintenance Fund, so as to restore the Big Rivers
  O&M Minimum Balance within twelve months. All
  interest on such amounts shall be repaid to Big Rivers
  at the end of each calendar year, and all amounts in
  such Fund shall be paid to Big Rivers upon termination
  or expiration of the Power Sales Contract. Amounts
  from this Fund shall be withdrawn in accordance with
  Section 19.2(c) of this Power Sales Contract; and
- (b) The City shall continue the City Station Two Operation and Maintenance Fund and shall have on deposit therein funds in the amount of \$100,000 (the "City O&M Minimum Balance"). In the event an amount is withdrawn



therefrom as hereinafter provided, the City agrees to make monthly levelized payments into the City Station Two Operation and Maintenance Fund each month, so as to restore the City's O&M Minimum Balance within twelve months. All interest on such amounts shall be repaid to the City at the end of each calendar year, and all amounts in such Fund shall be paid to the City upon termination or expiration of the Power Sales Contract. Amounts from this Fund shall be withdrawn in accordance with Section 19.2(c) of the Power Sales Contract; and

(c) All required expenditures for operation and maintenance not otherwise provided for, other than with respect to SCR Ammonia Costs and SCR Catalyst Acquisition Costs, shall be paid from the Big Rivers Station Two Operation and Maintenance Fund and the City Station Two Operation and Maintenance Fund, respectively, and such payments shall be made in the same ratio as the then effective allocation of Station Two capacity between Big Rivers and the City in accordance with Section 3 of the Power Sales Contract. Required expenditures for operation and maintenance constituting SCR Ammonia Costs and SCR Catalyst Acquisition Costs not otherwise

provided for shall be paid from the Big Rivers Station

Two Operation and Maintenance Fund in an amount as provided in Section 6.2 of the Power Sales Contract for the allocation of SCR Ammonia Costs and SCR Catalyst Acquisition Costs to Big Rivers and the balance of such expenditures for SCR Ammonia Costs and SCR Catalyst Acquisition Costs shall be made from the City Station Two Operation and Maintenance Fund.

Big Rivers agrees that promptly following the expiration or termination of the Station Two Agreement and disbursement of amounts in the Big Rivers Station Two Operation and Maintenance Fund as provided in the Station Two Agreement, it will fund the Big Rivers Station Two Operation and Maintenance Fund to the same extent as would have initially been required of it under this Section 19.2 had such funding not been provided by WKE pursuant to Section 10.3(f) of the Station Two Agreement and Big Rivers agrees that it will comply thereafter with the provisions of this Section 19.2."

Section 314 A new Section 21.4 is added to the Power Sales Contract to read as follows:

"21.4 Since the City's Electric Light and Power Refunding

Revenue Bonds, Station Two Series, dated as of March 1, 1973, have been paid in accordance with their terms, the two county restriction provided for in the Internal Revenue Service Letter Ruling, dated January 26, 1971, shall no longer be applicable with respect to the operation of the Henderson-Daviess System and the City Electric System referred to in Section 21.1 above (or to the capacity or energy generated by Station Two), and, accordingly, the parties to the Power Sales Contract agree that the provisions of Section 21.1, 21.2 and 21.3 of this Power Sales Contract will no longer be applicable or have any force or effect with respect to the capacity and energy generated after the date of payment of such Bonds by Station Two or the City's Station One Power Plant."

#### IV. **BIG RIVERS ASSIGNMENT**

Section 37.1 of the Construction and Operation Agreement, Section 401 ion 24.1 of the Power Sales Contract and Section 15.1 of the Joint Facilities Agreement are each amended by adding the following:

> "Notwithstanding anything to the contrary contained in this Agreement or the other Agreements (as hereinafter defined) or the Station Two Agreement, in addition to the assignment of such Agreements by Big Rivers to the United States of America, Big Rivers may assign its rights and interests under the Agreements, including this Agreement, and the Station Two Agreement as security for, and may grant a security interest herein and therein

pursuant to the Mortgages (as hereinafter defined) as security for, any and all of its obligations to the other mortgagees or secured parties specifically identified in the Mortgages as being secured thereby; provided that in exercising any of its rights or remedies arising out of such assignment of rights and interests as security, no such mortgagee or secured party (other than WKE, LEM or Western Kentucky Energy Corp., or their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement)), shall itself have the right to occupy, operate or maintain Station Two or exercise any other right, remedy or interest so assigned, pledged or granted as aforesaid, unless it shall meet the requirements set forth in clauses (i) to (iii), inclusive, below, as if it were a transferee or assignee as provided therein (the aforementioned limitation not to be deemed to limit any foreclosure of the mortgage liens and security interests so long as upon foreclosure the transferee or assignee of such rights and interests, whether or not including the mortgagee or secured party, shall meet the requirements set forth in clauses (i) to (iii), inclusive); and each such mortgagee or secured party may transfer or assign the rights and interest(s) so

assigned, pledged or granted as security pursuant to a sale in foreclosure of the lien of any of the Mortgages, or a sale in lieu of a foreclosure of the lien of any of the Mortgages (or the exercise of power of sale); provided that, except in the case of WKE, LEM and Western Kentucky Energy Corp., and their respective successors or permitted assigns under Section 15 of the Station Two Agreement or under this Agreement or the other Agreements, in the exercise of any rights that they may have under or pursuant to any Agreement, the Station Two Agreement or any other "Operative Document" (as defined in the Station Two Agreement), the transferee or assignee shall be an electric utility. combination electric and gas utility or an Affiliate thereof (as hereinafter defined) and shall assume all of the duties and obligations of Big Rivers under the Agreements and the Station Two Agreement, including, without limitation, all other agreements that relate to the interest being transferred or assigned, (ii) such transferee or assignee that undertakes such duties and obligations of Big Rivers as aforesaid is authorized by all appropriate regulatory authorities and under applicable law to fulfill such duties and obligations, and (iii) such transferee or assignee is approved by the City, which approval shall not be unreasonably withheld, conditioned or delayed, and in its consideration of such approval it is understood that the City may

take into account, among other relevant matters, the experience and reputation of such transferee or assignee in operating and maintaining coal-fired electric generating facilities similar to Station Two, the creditworthiness of such transferee or assignee and whether the business or interest of such transferee or assignee (or its Affiliate) is in conflict with the interest of the City. For purposes of this Section the following terms as used in this Section shall be defined as follows:

(1)The term "Mortgages" shall mean (i) the Restated Mortgage and Security Agreement, dated as of July 15, 1998, among Big Rivers, as mortgagor, and the United States of America acting through the Rural Utilities Service, Ambac Assurance Corporation and the National Rural Utilities Cooperative Finance Corporation (together, the "Original Mortgagees"), recorded in Mortgage Book 559, page 1, Office of the Henderson County Court Clerk, (ii) the Supplemental Mortgage and Security Agreement dated as of April 1, 2000, among the Big Rivers, as Mortgagor, and the Original Mortgagees, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust and Ambac Credit Products, LLC (together, the "Supplemental Mortgage Mortgagees"), recorded in Mortgage Book 621, page 285, Office of the Henderson County Court Clerk, (iii) the Second Restated Mortgage and Security

Agreement among Big Rivers, as mortgagor, and the Supplemental Mortgage Mortgagees and Credit Suisse First Boston, acting by and through its New York Branch (together, the "Second Restated Mortgage Mortgagees"), recorded in Mortgage Book 647, page 125, Office of the Henderson County Court Clerk, (iv) the Third Restated Mortgage and Security Agreement, dated as of August 1, 2001, among Big Rivers, as mortgagor, and the Second Restated Mortgage Mortgagees and U.S. Bank National Association, as Trustee, recorded in Mortgage Book 679, page 1, Office of the Henderson County Court Clerk, as amended by the First Amendment to Third Restated Mortgage and Security Agreement dated as of July 15, 2003, recorded in Mortgage Book 812, page 599, Office of the Henderson County Court Clerk, (v) the Mortgage and Security Agreement (LEM Mortgage), dated as of July 15, 1998, among Big Rivers, LG&E Energy Marketing Inc., Western Kentucky Energy Corp., LG&E Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 199, Office of the Henderson County Court Clerk, as amended by the First Amendment to Mortgage and Security Agreement (LEM Mortgage) dated as of August 22, 2002, recorded in Mortgage Book 749, page 805, Office of the Henderson County Court Clerk, (vi) the Mortgage and Security Agreement, dated as of July 15, 1998, among Big Rivers, Western Kentucky Energy Corp., LG&E

Energy Marketing Inc., WKE Station Two Inc., and WKE Corp. recorded in Mortgage Book 559, page 123, Office of the Henderson County Court Clerk, (vii) the Subordinated Mortgage and Security Agreement, dated as of April 1, 2000, among Big Rivers, PBR-1 Statutory Trust, PBR-2 Statutory Trust, PBR-3 Statutory Trust, FBR-1 Statutory Trust, FBR-2 Statutory Trust, PBR-1 OP Statutory Trust, PBR-2 OP Statutory Trust, PBR-3 OP Statutory Trust, FBR-1 OP Statutory Trust, FBR-2 OP Statutory Trust, Ambac Credit Products, LLC, AME Investments, LLC, Cobank, ACB, Bluegrass Leasing, Fleet Real Estate, Inc., AME Asset Funding, LLC, and Ambac Assurance Corporation, recorded in Mortgage Book 621, page 328, Office of the Henderson County Court Clerk, and (viii) any instrument or instruments that replace or are substituted for any of the foregoing instruments, in the case of (i) through (viii) above, as the same may be further amended or supplemented from time to time.

- (2) The term "Agreements" shall mean the Construction and Operation Agreement, the Power Sales Contract and the Joint Facilities Agreement, in each case as amended and supplemented from time to time.
- (3) The term "Affiliate" of any designated entity shall mean any entity that has a relationship with the designated entity whereby either of such entities directly or indirectly controls, is

controlled by, or is under common control with the other. For this purpose, the term "control" means the power, direct or indirect, of one entity to direct or cause the direction of the management or policies of another, whether by contract, through voting securities or otherwise.

### V. CONSENT AND AGREEMENT

Section 501 WKE and LEM, as assignees of certain of the rights, title and interests of Big Rivers under the Agreements and pursuant to their respective assumptions of certain of the obligations of Big Rivers under the Agreements, all pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, hereby consent and agree to the amendments to the Agreements contained in the 2005 Amendments to Contracts (subject to the conditions and limitations set forth in the 2005 Amendments to Contracts), and the Parties agree that under and pursuant to the Station Two Agreement and the Assignment and Assumption Agreement, WKE and LEM shall, as such assignees, be entitled (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) as aforesaid, to all the rights, title and interests of Big Rivers under the 2005 Amendments to Contracts and shall be bound (whether or not so specified in the Agreements and the 2005 Amendments to Contracts) to perform such obligations of Big Rivers under the 2005 Amendments to Contracts (other than Big Rivers' obligation pursuant to Section 201 or Section 401 thereof) that are assumed by WKE and LEM pursuant to the Station Two Agreement and the Assignment and Assumption Agreement and arise or otherwise exist during the term of the Station Two Agreement (except as otherwise provided, and subject to the limitations in the

Station Two Agreement), as well as bound by their respective obligations as Parties hereunder.

VI. REQUIRED APPROVALS; EFFECTIVE DATE; REPRESENTATIONS AND ACKNOWLEDGEMENTS; TERMINATION OF INTERIM AGREEMENTS; MISCELLANEOUS

Section 601 The Parties agree that:

- (a) Each Party shall use its commercially reasonable efforts to cooperate with the other Parties to obtain at the earliest practicable time all governmental regulatory approvals and any creditors' consents and approvals required for the Parties' respective execution, delivery and performance of the 2005 Amendments to Contracts, the Amendatory Station Two Agreement, the Guarantor's Consent and Acknowledgment, the Big Rivers' Creditors' Subordination Agreement and the Big Rivers' Easement, and each Party shall otherwise use its commercially reasonable efforts to satisfy for its part the conditions of the effectiveness of all provisions of the 2005 Amendments to Contracts applicable to it or for which it is responsible as set forth in subsection (b) of this Section 601.
- (b) Upon the execution and delivery of the 2005 Amendments to Contracts by the Parties this Section 601 shall become effective and, notwithstanding anything to the contrary set forth elsewhere herein, all other provisions of the 2005 Amendments to Contracts shall become effective only upon the date (based as to clauses (i), (ii) and (iii) below on certifications by the Parties as set forth in clause (iv) below) of the last of the following to occur:

(i) each Party shall have received all regulatory and other approvals, consents and authorizations required or necessary (A) for the effectiveness of all the provisions of the 2005 Amendments to Contracts with respect to all Parties thereto and the performance by the Parties of their respective duties and obligations hereunder, and for all the provisions of the 2005 Amendments to Contracts to become the legal obligation of all Parties thereto, (B) for the effectiveness of the Amendatory Station Two Agreement as to all parties thereto and the performance by all such parties of their respective duties and obligations thereunder, and for the Amendatory Station Two Agreement to become the legal and binding obligation of all parties thereto; (C) for the execution and delivery by all relevant parties of the Big Rivers' Easement and the Big Rivers' Creditors Subordination Agreement and the performance by such parties of their respective duties and obligations thereunder, and for the Big Rivers Easement and the Big Rivers Creditors' Subordination Agreement to become the legal obligation of all such parties, including in the case of subclauses (A) through (C) above, without limitation, any approvals, consents or authorizations that may be required from the Kentucky Public Service Commission, the Rural Utilities Service or any other creditor of Big Rivers that may hold one or more security interests in Big Rivers' interests in the Agreements or the

real property that is the subject of the Big Rivers' Easement;

- (ii) the Amendatory Station Two Agreement, the Big Rivers

  Easement and the Big Rivers' Creditors' Subordination Agreement
  shall have been executed and delivered by the respective parties
  thereto and all the provisions thereof shall, either before or
  contemporaneous with all provisions of the 2005 Amendments to

  Contracts, have become effective and binding on such parties; and
- (iii) LG&E Energy LLC shall have executed and delivered the Guarantor's Consent and Acknowledgement and received all regulatory and other approvals, consents and authorizations required therefor.
- (iv) Each Party shall have furnished to the other Parties a written certificate to the effect that for its part each of the conditions set forth in clauses (i), (ii) and (iii) above, has been satisfied.
- (v) The Parties shall have delivered each to the other, such opinions of counsel and other documentation in customary form and substance relating to the 2005 Amendments to Contracts and the other agreements referred to in this subsection (b) reasonably evidencing the due authorization, execution and delivery thereof the binding effect and enforceability thereof, the receipt of all required regulatory, creditor and other approvals thereof and

consents thereto and such other matters as reasonably requested by any Party;

- (c) in the event that all the provisions of the 2005 Amendments to Contracts shall not become fully effective as to all Parties in accordance with subsection (b) of this Section 601 on or prior to April 30, 2006 (or such later date as shall be agreed to by the Parties), the 2005 Amendments to Contracts shall forthwith terminate and shall no longer have any force or effect (except for a Party's obligations for a breach or default under this Section 601 occurring prior to such termination, which obligations shall survive such termination), provided, however, if prior to April 30, 2006, the Station Two Agreement shall terminate, the 2005 Amendments to Contracts shall terminate only as to WKE and LEM and in that event this Section 601 shall continue in effect as to Big Rivers and the City;
- (d) Notwithstanding anything to the contrary set forth elsewhere in the 2005 Amendments to Contracts, upon the effectiveness of all the provisions of the 2005 Amendments to Contracts as contemplated above, the 2005 Amendments to Contracts shall be deemed to have retroactive effectiveness to June 1, 2004 as among the Parties hereto.

Section 602 As of the date on which all of the provisions of the 2005

Amendments to Contracts shall be fully effective, each Party represents and warrants to each of the other Parties that:

(a) Such Party is duly organized and validly existing under applicable law and

has full power and authority to conduct its business as presently conducted, and to execute, deliver and perform the 2005 Amendments to Contracts.

- (b) The execution, delivery and performance of the 2005 Amendments to

  Contracts have been duly authorized by all necessary action on the part of such Party and do not
  require approval or consent of, or notice to, any creditor or any trustee or holder of any
  indebtedness or other obligations of such Party or any indebtedness entitled to any security
  interest in any property, rights or interests of such Party, other than such approvals, consents and
  other action as have been duly obtained or taken.
- (c) Neither the execution, delivery or performance by such Party of the 2005

  Amendments to Contracts, nor the consummation by such Party of the transactions contemplated thereby, will conflict with or result in any violation of or constitute a default under any terms of any material agreement, mortgage, contract, indenture, lease or other instrument, or any applicable law, by which such Party or its properties or assets are bound.
- (d) The execution, delivery or performance by such Party of any provision of the 2005 Amendments to Contracts, do not require the consent or approval of, the giving of notice to, the registration with, or the taking of any other action in respect of, any government authority or agency, including any judicial body, other than such consents, approvals, notices, registration or other action which have been duly obtained, given, sent or taken.
- (e) These 2005 Amendments to Contracts have been duly executed and delivered by such Party and constitute the legal, valid and binding obligation of such Party enforceable against such Party in accordance with its terms, except as such enforcement may be

limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the rights of creditors generally and by general principles of equity, regardless of whether enforcement is sought in a proceeding in equity or at law.

There are no pending or to the actual knowledge of such Party, threatened (f) actions or proceedings by or before any court or administrative agency that, either individually or in the aggregate, are reasonably likely materially and adversely to affect the ability of such Party to perform its obligations under these 2005 Amendments to Contracts.

Each of the Parties acknowledges that WKE and the City have Section 603 heretofore funded SCR Capital Costs and other costs of the Station Two SCR System, as well as SCR Ammonia Costs, and have otherwise performed certain obligations and undertaken certain activities with respect to the Station Two SCR System or the design, acquisition, construction, installation, start-up and testing thereof, in each case pursuant to the Interim Funding Agreement, and the Parties hereby agree that provision of such funding, the performance of such obligations and the undertaking of such activities shall be deemed to have been authorized, undertaken and accomplished consistent and in accordance with the Parties' respective obligations under the provisions of the Agreements (as amended hereby) and the Station Two Agreement. The acknowledgements and agreements of the Parties pursuant to this Section 603 shall apply with respect to all such fundings, performance and undertaking through the effective date of all provisions of the 2005 Amendments to Contracts.

Section 604 The Parties agree that upon all provisions of these 2005 Amendments to Contracts becoming fully effective as provided in Section 601, any amounts remaining in the Interim SCR Account held by the City under the Interim Funding Agreement shall be paid into the SCR Account established under the Construction and Operation Agreement; and the Interim Funding Agreement and the Interim SCR Account shall each terminate in accordance with their respective terms. To the extent a Party has funded a share of SCR Capital Costs prior to all provisions of the 2005 Amendments to Contracts becoming fully effective that is greater than or less than the share of such costs required to be funded by that Party in accordance with the 2005 Amendments to Contracts (including without limitation, any SCR Capital Costs funded by the City, WKE or LEM pursuant to the Interim Funding Agreement), the other relevant Party or Parties agree to promptly reimburse that Party (in the case of an over funding), or that Party agrees to promptly reimburse the other relevant Party or Parties (in the case of an under funding), in each case, in an amount necessary to reflect the Parties' respective funding obligations for SCR Capital Costs under the 2005 Amendments to Contracts, without set-off, deduction or counterclaim. As used in the Interim Funding Agreement, references to the 2002 Amendments to Contracts shall mean the 2005 Amendments to Contracts. The Parties agree that notwithstanding the provisions of Section 8 of the Interim Funding Agreement to the contrary, neither Western Kentucky Energy Corp. nor WKE Corp. are required to be parties to the 2005 Amendments to Contracts as a condition to the Interim Funding Agreement becoming immediately null and void as contemplated in that Section 8.

Section 605 Except as amended by the 2005 Amendments to Contracts, each of the Agreements shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have executed the 2005 Amendments to Contracts in multiple counterparts as of the date first written above.

Filed 20-CL-000 EXH: 000116 of 000137

ACTIEST:

Acting City Clerk
(City Seal)

ATTEST:

Land Secretary

City of Henderson, Kentucky

By:

Title: Mayor

City of Henderson Utility Commission

By: William L. Smill

Title: Chairman

WKE Station Two, Inc.

By: Total President

LG&E Energy Marketing Inc.

Title: Residont

Big Rivers Electric Corporation

By:\_\_\_\_\_\_

Title: President

**NOT ORIGINAL DOCUMENT** 05/20/2020 03:45:09 PM gregory.mayes@bigrivers.com

EXHIBIT A1 to the Power Sales Contract and the Construction and Operation Agreement

# LOCATION OF STATION TWO AND STATION TWO SCR SYSTEM

Presiding Judge: HON. C. RENE' WILLIAMS (605230)

EXH: 000118 of 000137

## EXHIBIT A2 to the Power Sales Contract and the Construction and Operation Agreement

## STATION TWO SCR SYSTEM BASE COAL SPECIFICATIONS

## <u>Ultimate Analysis - Weight % as received except as noted:</u>

	Design	Range
% Carbon	61.0	60.0 - 65.0
Hydrogen	4.2	3.5 - 5.0
% Nitrogen	1.3	1.1 – 1.5
% Chlorine	0.10	0.03 - 0.25
% Sulfur	3.6	2.5 - 4.0
% Oxygen	7.8	N/A
% Moisture	9.0	7.0 - 12.0
% Ash	13.0	5.0 - 22.0
BTU	11,200	10,800 - 12,000
SO <sub>2</sub> (in lbs per mmBTU)	6.27	4.0 - 7.0

## Coal Ash Analysis - Weight % as received except as noted:

Silica, SiO <sub>2</sub> Ferric Oxide, Fe <sub>2</sub> O <sub>3</sub>	45.6	43.1 - 51.0
Ferric Oxide, Fe <sub>2</sub> O <sub>3</sub>	20.0	
	20.0	15.0 - 28.3
Alumina, Al <sub>2</sub> O <sub>3</sub>	21.9	18.5 - 23.7
Titania, TiO <sub>2</sub>	1.0	0.4 - 1.93
Calcium Oxide, CaO	2.6	1.6 - 5.2
Magnesium Oxide, MgO	3.8	0.6 - 4.5
Potassium Oxide, K <sub>2</sub> O	2.5	0.8 - 3.0
Sodium Oxide, Na <sub>2</sub> O	0.6	0.3 - 0.9
Undetermined		remainder

## Trace Elements (dry basis g/g)

	Design	Range
Arsenic, As	10	2 - 30
Vanadium, V	86	50 - 200

EXHIBIT B to the Power Sales Contract and the Construction and Operation Agreement

### COMPONENTS OF STATION TWO SCR SYSTEM

### SCR SYSTEM

The SCR system for each of the units is located between the boiler economizer outlet and the air heater inlet. The catalyst modules are located in one vertical down flow reactor for each boiler.

The SCR reactors are of an outdoors design.

During periods of operation, flue gas from the boilers after the economizer sections will pass through the SCR and then through the air heaters. When the SCR is not in service, the flue gas will by-pass the SCR system. The ammonia injection system will use anhydrous ammonia from a storage facility. Two layers of catalyst will be employed initially to attain required performance. A third layer will be added, when necessary after the guarantee period, to maintain continued performance.

## Ammonia System

The purpose of the ammonia injection system is to ensure that there is a correct amount of ammonia and an even distribution of NH<sub>3</sub>/NO<sub>x</sub> ratio at the first catalyst layer. The ammonia injection process involves moving the liquid anhydrous ammonia from the storage tanks to the vaporizer skid, where it is vaporized, and then moved to the reactor area where it is mixed with heated dilution air. The ammonia air mixture is then injected into the flue gas duct ahead of the SCR reactor through a specially designed injection grid.

## SCR, Ductwork and Support System:

Pile Foundations

Grade Beams

Slabs on Grade

**Equipment Pads** 

SCR and Ductwork Support Steel

Access Platforms and Stairs to Grade

2 SCR Reactor Vessels

SCR Inlet and Outlet Ductwork

SCR and Ductwork Insulation and Lagging

**Ductwork Expansion Joints** 

SCR and Ductwork Access Doors

Pipe Supports

### **Buildings and Enclosures:**

Electrical Building Extension

NOx Analyzer Shelter

2 Dilution Air Fan Skid Enclosures

## Mechanical Equipment, SCR System:

- 4 Diverter Dampers
- 6 Diverter Damper Seal Air Fans
- 6 Damper Seal Air Fan Intake Silencers
- 2 Seal Air Heaters

SCR Catalyst Modules

Catalyst Handling Equipment; Carts, Air Powered Hoists, and Crane Beams

- 16 Sonic Air Horns
- 2 Air Filters
- 2 Air Compressors
- 1 Regenerative Air Dryer Skid
- 1 Air Receiver

- 6 Ash Hoppers
- 6 Hopper Ash Handling Valves

## Mechanical Equipment, Ammonia System:

- 2 Ammonia Storage Tanks
- 2 Ammonia Leak Detection System
- 3 Ammonia Vaporizers
- 4 Dilution Air Fans
- 4 Dilution Air Intake Silencers
- 4 Dilution Air Heaters
- 1 Mixing Chamber
- 2 Air Filters

Ammonia Piping

- 2 Ammonia Injection Grids and Associated Nozzles, etc.
- 3 Ammonia Area Eye Wash Stations

Nitrogen Bottles for Purging

## Electrical Equipment:

- 2 SCR Control Systems
- 2 Motor Control Centers
- 2 Gas Analyzers & Monitoring System

### Air Preheater Refurbishment

Air Heater Baskets

4 Air Heater Rotors

Seals and Stay Plates

Multi-media Cleaning System

1 Air Heater Water Wash Skid

### EXHIBIT D

### SCR AMMONIA COST SHARE

#### I. DEFINITIONS

In addition to the terms used in this Exhibit that are defined in Section 2 of the Power Sales Contract, capitalized terms used in this Exhibit shall have the meanings set forth in Section VI of this Exhibit.

#### П. SCR AMMONIA COST ALLOCATION FORMULA

The SCR Ammonia Costs allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) pursuant to Section 6.2(a) of the Power Sales Contract for a particular Monthly Billing Period shall be determined, subject to adjustment as provided in Sections IV and V of this Exhibit, as follows:

$$AC = [C \times \underline{G}] \times MB$$

Where:

- The amount of SCR Ammonia Costs allocated to Big Rivers (or AC WKE/LEM, as Big Rivers' assignee) for such Monthly Billing Period
- The total amount of SCR Ammonia Costs for the Contract Year C that includes such Monthly Billing Period.
- G The Actual Station Two Generation Share of Big Rivers (or

WKE/LEM, as Big Rivers' assignee) for the NOx Season or portions of the NOx Seasons within the Contract Year that includes such Monthly Billing Period

- TG The Actual Net Station Two Generation for the NOx Season or portions of the NOx Seasons within the Contract Year that includes such Monthly Billing Period
- MB 1/12, or in the case where the Contract Year that includes such Monthly Billing Period embraces fewer than 12 months, a greater fraction the numerator of which is 1 and the denominator of which is the number of months in such Contract Year.

#### Ш. MONITORING OPERATING PERFORMANCE

Monitoring of the operating performance of the Station Two SCR System by Big Rivers (or WKE as Big Rivers' assignee) under the Construction and Operation Agreement, shall include the following:

- (A) Boiler Efficiency
- (B) Performance under vendor warranties:
  - (i) Operation of NOx duct inlet and outlet monitors
  - (ii) Actual NOx removal
  - (iii) Actual ammonia consumption and ammonia slip
- (C) NOx burner performance
- (D) Unit turndown

## IV. Two Year Revisit of SCR Ammonia Cost Allocation Formula

Within 60 days following the end of the 2005 NOx Season (September 30, 2005), the

Parties shall revisit the SCR Ammonia Cost Allocation Formula for the purpose of determining
whether there is to be an adjustment of the SCR Ammonia Cost Allocation Formula as follows:

- (A) Selection of an SCR Ammonia Consultant (that may be an affiliate of a Party) by agreement of all the Parties to advise and assist the Parties in making such determination.
- (B) Review of data derived from the monitoring of operating performance under Section III of this Exhibit.
- (C) Consideration of whether a Correction Factor is needed to adjust the SCR Ammonia Cost Allocation Formula in light of the operating performance data.
- (D) Determination by agreement of all the Parties of whether (and the extent to which) (i) the SCR Ammonia Cost Allocation Formula shall be adjusted by a Correction Factor approved by all the Parties; or (ii) the SCR Ammonia Cost Allocation Formula shall continue without adjustment.
- (E) If the Parties are not able to agree as set forth in (D) above within 60 days following the end of the 2005 NOx Season, then at the request of any Party made within ten days thereafter, there shall be an Ammonia Dispute Resolution Procedure to commence 20 days after the date of such request for the purpose of determining whether or not the SCR Ammonia Cost Allocation Formula shall be adjusted, and if so, a determination as to the Correction Factor for the adjustment. The Parties shall be bound by the determinations made pursuant to the Ammonia Dispute Resolution Procedure.
  - (F) If a Correction Factor shall be determined pursuant to (D) or (E) above, this

Exhibit shall be revised to reflect the adjustment of the Ammonia Cost Allocation Formula by such Correction Factor.

The costs of the Ammonia Dispute Resolution Procedure shall be treated as capacity costs of Station Two and constitute general and administrative expenses thereof under Section 6,3 of the Power Sales Contract.

#### Other Adjustments of SCR Ammonia Cost Allocation Formula V.

Based on a review by the Parties of the data developed from the monitoring of operating performance pursuant to Section III of this Exhibit, the SCR Ammonia Cost Allocation Formula may be adjusted at any time by a Correction Factor approved by all the Parties, and this Exhibit shall be revised to reflect the adjustment of the SCR Ammonia Cost Allocation Formula by such Correction Factor.

#### Certain Definitions VI.

Certain terms used in this Exhibit are defined as follows:

"Ammonia Dispute Resolution Procedure" shall mean, with respect to a determination pursuant to this Exhibit as to whether or not the SCR Ammonia Allocation formula shall be adjusted by a Correction Factor, the following procedures and actions:

The appointment of members of a committee (the 'Dispute Resolution (i) Committee") consisting of three SCR Consultants. One SCR Consultant shall be appointed by Big Rivers (or WKE/LEM, as Big Rivers' assignce) and one appointed by the City, and each of such SCR Consultants may be affiliated with the Party that appointed it. Each such Party shall notify the other as to the identity of its appointee within 15 days of the commencement of the Ammonia Dispute Resolution Procedure. The third SCR Consultant shall be appointed by the

two SCR Consultants appointed by the Parties as above provided, which appointment shall be made within 30 days from the commencement of the Ammonia Dispute Resolution Procedure.

The third SCR Consultant shall not be affiliated with any Party and shall be the Chair of the Dispute Resolution Committee:

- (ii) The Dispute Resolution Committee shall be furnished by Big Rivers (or WKE as Big Rivers' assignee) with the monitoring data obtained pursuant to Section III of this Exhibit and upon request of any member, the Dispute Resolution Committee shall be furnished by a Party with other available information in that Party's possession or control relating to this Exhibit or the Station Two SCR System.
- (iii) Both Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City shall furnish to the Dispute Resolution Committee statements as to their respective positions with respect to the determination in dispute, together with such other information that such Party deems relevant. Each such Party may be assisted by an advisor and by counsel of its choice, each of which shall be at the expense of that Party.
- (iv) The Dispute Resolution Committee shall establish by majority vote of its members such procedures for its deliberations as it deems appropriate.
- (v) The determination by the Dispute Resolution Committee as to whether the SCR Ammonia Cost Allocation Formula should be adjusted by a Correction Factor and, if so, the determination of such Correction Factor shall be made by a majority vote of its members.
- (vi) The Dispute Resolution Committee shall issue a written decision as to its determinations stating the reasons upon which such determinations are based. The determinations by the Dispute Resolution Committee shall be made within 60 days of the

commencement of the Ammonia Dispute Resolution Procedure (or by such later date as the Parties shall approve). Such determination by the Dispute Resolution Committee shall be conclusive for the purposes of the Power Sales Contract and shall be final and binding on the Parties.

"Correction Factor" shall mean the correction factor considered and, as applicable, determined pursuant to Section IV or Section V of this Exhibit which shall constitute an adjustment of the SCR Ammonia Cost Allocation Formula.

"SCR Consultant" shall mean the engineering or consulting firm having a favorable reputation for knowledge and experience with respect to the operation and performance of selective catalytic reduction systems installed in coal-fired electric power plants.

### EXHIBIT E To the Power Sales Contract

# SCR CATALYST AND COST SHARE AND CATALYST REFUND PAYMENT

#### I. **Definitions**

In addition to the terms used in this Exhibit that are defined in Section 2 of the Power Sales Contract, capitalized terms used in this Exhibit shall have the meanings set forth in Section VI of this Exhibit.

#### II. SCR Catalyst Cost Allocation Formula

The SCR Catalyst Acquisition Costs with respect to a Catalyst Layer allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) pursuant to Section 6.2(b) of the Power Sales Contract for a particular Monthly Billing Period shall be calculated in accordance with the following formula:

$$X = \underbrace{[(CC - AF) \times CS] + BAF}_{MB}$$

Where:

- X The amount of the SCR Catalyst Acquisition Costs with respect to such Catalyst Layer allocated to Big Rivers (or WKE/LEM, as Big Rivers' assignee) for such Monthly Billing Period
- CC The amount of the SCR Catalyst Acquisition Costs with respect to such Catalyst Layer for the Contract Year that includes such Monthly Billing

### Period

- AF = The amount of any Alternate Fuel Differential Amount with
  respect to such Catalyst Layer as set forth in the successful bid by the vendor of
  such Catalyst Layer based on the designation of Alternate Fuel by either or both
  Parties with respect to such Catalyst Layer
- MB = 12, or in the case where the Contract Year that includes such

  Monthly Billing Period embraces fewer than 12 months, the number of months in
  such Contract Year
- CS = The share (expressed as a decimal) of the Total Capacity

  (determined as provided in Section 3 of the Power Sales Contract) of Big Rivers

  (or WKE/LEM, as Big Rivers' assignee) for the Contract Year that includes such

  Monthly Billing Period
- BAF = The amount of the Alternate Fuel Differential Amount, if any, attributable to the designation by Big Rivers, (or WKE/LEM, as Big Rivers' assignce) of its use of Alternate Fuel with respect to such Catalyst Layer

## III. Certain Requirements for Vendor's Bid

The bid terms for the purchase by a vendor of a Catalyst Layer shall require, among others, that:

- (A) The vendor's bid with respect to the Catalyst Layer shall set forth (i) the purchase price with respect to such Catalyst Layer as designed for Base Coal;
- (B) If either Big Rivers (or WKE/LEM, as Big Rivers' assignce) or the City shall designate its use of Alternate Fuel with respect to such Catalyst Layer, the vendor's bid with

respect to such Catalyst Layer shall set forth in addition to the amount of the purchase price of the Catalyst Layer as if designed for Base Coal, any adjustment in the amount of the purchase price attributable to such designation of the use of Alternate Fuel.

## IV. Catalyst Failure and Catalyst Refund Payment

The amount of SCR Catalyst Acquisition Costs allocated pursuant to the SCR Catalyst

Cost Allocation Formula set forth in Section II of this Exhibit or paid by the City shall be
adjusted by a Catalyst Refund Payment in the event of a Catalyst Failure as follows:

- (A) In the event of a Catalyst Failure, the Party (either Big Rivers (or WKE/LEM, as Big Rivers' assignee) or the City, as the case may be) whose fuel is responsible for the Catalyst Failure shall make a Catalyst Refund Payment to the other Party as an adjustment of the payments by the Parties of their respective amounts of SCR Catalyst Acquisition Costs, or in the case where both Big Rivers' (or WKE/LEM's, as Big Rivers' assignee) and the City's fuel characteristics are responsible for the Catalyst Failure, such Parties shall pay, each to the other, a Catalyst Refund Payment in proportion to the relative responsibility of its fuel for the Catalyst Failure.
- (B) Unless determined by agreement of all the Parties, the determination of whether a Catalyst Failure shall have occurred and, if so, the characteristics of a Party's fuel responsible therefor, or, if both Parties' fuel shall be responsible, the percentage with respect to the proportionate responsibility of each Party therefor as contemplated in (A) above, shall be made within 90 days following the occurrence of such Catalyst Failure (or by such later date as approved by all the Parties) by a Catalyst Analysis Organization (which may be an affiliate of a Party) acceptable to all the Parties based upon the data obtained through the fuel sampling and analysis methodology provided for in Section V of this Exhibit.

- (C) In the event the Parties are not able to reach a determination as to a Catalyst

  Failure and its cause by mutual acquiescence and are not able to select a Catalyst Analysis

  Organization mutually acceptable to all the Parties within 20 days of the occurrence of the

  Catalyst Failure, at the request of any Party made within 10 days thereafter, there shall be a

  Catalyst Dispute Resolution Procedure which shall commence within 15 days of the date of such
  request for the purpose of selecting a Catalyst Analysis Organization to make the determination
  as to the Catalyst Failure, its cause and the fuel characteristic responsible, as set forth in (B)

  above.
- (D) The cost of the Catalyst Analysis Organization, together with costs of any attendant Catalyst Dispute Resolution Procedure, shall constitute capacity costs of Station Two and operation and maintenance costs thereof under Section 6.3 of the Power Sales Contract, provided that, in the case where the determination by the Catalyst Analysis Organization of a Catalyst Failure with respect to a Catalyst Layer results in a Catalyst Refund Payment, such costs shall be included in the SCR Catalyst Acquisition Costs for such Catalyst Layer for the purposes of the calculation of the amount of any Catalyst Refund Payment pursuant to (F) below.
- (E) In the event of a Catalyst Failure where neither the Parties nor any Catalyst Analysis Organization shall be able to determine the responsibility for the Catalyst Failure based on the respective fuel characteristics of the Parties' fuel, no Catalyst Refund Payment shall be payable by any Party.
- (F) The amount of a Catalyst Refund Payment with respect to a Catalyst Layer to be made by a Party (either Big Rivers (or WKE/LEM, as Big Rivers' assignee) or the City) whose fuel shall be responsible for the Catalyst Failure, or made by each of such Parties in the case where the fuel of both such Parties shall be responsible for the Catalyst Failure, based on a

determination made pursuant to (B) above or (C) above, shall be calculated with respect to a Party in accordance with the following formula:

$$Z = \underbrace{(AC - AF) \times (GL - AL) \times PS}_{GL} \times CS$$

Where:

Z = The amount of the Catalyst Refund Payment to be made by such
Party

AC = The SCR Catalyst Acquisition Costs with respect to such Catalyst

Layer

AF = The Alternate Fuel Differential Amount, if any, with respect to such Catalyst Layer

GL = The Guaranteed Life Cycle with respect to such Catalyst Layer

AL = The total number of hours of the actual operating life of such

Catalyst Layer

CS = The share (expressed as a decimal) of the Total Capacity

(determined as provided in Section 3 of the Power Sales Contract) of such Party

for the Contract Year for which the SCR Catalyst Acquisition Costs with respect
to such Catalyst Layer was payable pursuant to Section 6 of the Power Sales

Contract

PS = If the characteristics of both Parties' fuel shall be responsible for the Catalyst Failure, the percentage (expressed as a decimal) of the proportionate responsibility of such Party's fuel therefor as determined pursuant to (B) or (C) above or, if only such Party's fuel is responsible, PS shall equal 1

#### V. Fuel sampling and Analysis Methodology

Fuel sampling and analysis methodology shall be conducted for each NOx Season for purposes of making determinations as to any Catalyst Failure as set forth in Section IV of this Exhibit and to identify and evaluate any issues as to the warranties under the catalyst vendor's contract with respect to each Catalyst Layer as follows:

- (A) Big Rivers (or WKE/LEM, as Big Rivers' assignee) shall perform monthly composite sampling to obtain ultimate, trace element and mineral ash analyses of the as-received fuel purchased by it from the fuel supplier, which sampling shall be performed at its own cost.
- (B) The City shall perform monthly composite sampling to obtain ultimate, trace element and mineral ash analyses of the as-received fuel purchased by it from the fuel supplier which sampling shall be performed at its own cost.
- (C) Big Rivers (or WKE as Big Rivers' assignee) will perform daily into weekly composite ultimate and trace element analyses of as-fired fuel under the Construction and Operation Agreement, and the costs thereof shall be treated as capacity costs of Station Two and constitute operation and maintenance costs thereof under Section 6.3 of the Power Sales Contract.
- (D) Big Rivers (or WKE as Big Rivers' assignee) will perform monthly composite sampling and obtain mineral ash analysis of fly ash samples under the Construction and Operation Agreement, and the cost thereof shall be treated as capacity costs of Station Two and

constitute operation and maintenance costs thereof under Section 6.3 of the Power Sales Contract.

#### VI. Certain Definitions:

"Catalyst Analysis Organization" shall mean a laboratory or engineering firm having a favorable reputation for skill and experience with respect to conducting tests, analyses and studies in connection with the use of catalyst in the operation of selective catalytic reduction systems installed in coal fired electric power plants.

"Catalyst Dispute Resolution Procedure" shall mean, with respect to determinations
pursuant to Section IV(C) of this Exhibit as to a Catalyst Failure, its cause and the fuel
characteristics responsible therefor, the following procedures and actions:

- (i) The appointment of members of a committee (the "Selection Committee") consisting of three SCR Consultants. One SCR Consultant shall be appointed by Big Rivers (or WKE/LEM, as Big Rivers' assignee) and one appointed by the City, and each of such SCR Consultants may be affiliated with the Party that appointed it. Each such Party shall notify the other as to the identity of its appointee within 15 days of the commencement of the Catalyst Dispute Resolution Procedure. The third SCR Consultant shall be appointed by the two SCR Consultants appointed by the Parties as above provided, which appointment shall be made within 30 days from the commencement of the Catalyst Dispute Resolution Procedure. The third SCR Consultant shall not be affiliated with any Party and shall be the Chair of the Selection Committee.
- (ii) The Selection Committee shall by a majority vote of its members select an independent Catalyst Analysis Organization which shall not be affiliated with any of the Parties

that will accept the assignment to make the determinations for which the Catalyst Dispute Resolution Procedure was required by Section IV (C) of this Exhibit.

- (iii) Such Catalyst Analysis Organization shall be furnished by Big Rivers (or WKE as Big Rivers' assignee) with the fuel sampling and analyses methodology data obtained pursuant to Section V of this Exhibit and upon its request shall be furnished by a Party with other available information in the possession or control of that Party relating to this Exhibit or the Station Two SCR System.
- (iv) Big Rivers (or WKE/LEM, as Big Rivers' assignee) and the City may each furnish to the Catalyst Analysis Organization any statements as to their respective positions with respect to the determination in dispute, together with such other information that such Party deems relevant. Each such Party may be assisted by an advisor and by counsel of its choice, each of which shall be at the expense of that Party.
- (v) The determination shall be made by the Catalyst Analysis Organization as to whether a Catalyst Failure occurred and, if so, its cause and the fuel characteristics of the Party responsible therefor, or, in the case where the fuel of both such Parties shall be responsible. the percentage of the proportionate responsibility of the fuel of each such Party (or, if the Catalyst Analysis Organization is not able to determine such proportionate responsibility, it shall state that it is unable to do so).
- (vi) The Catalyst Analysis Organization shall issue a written decision as to its determinations (or inability to make the same) stating the basis therefor. Such decision by the

Catalyst Analysis Organization shall be made within 60 days of the commencement of the Catalyst Dispute Resolution Procedure or by such later date as the Parties shall approve. Such decision by the Catalyst Analysis Organization shall be conclusive for the purposes of the Power Sales Contract and shall be final and binding on the Parties.

"Guaranteed Life Cycle" shall mean, with respect to a particular Catalyst Layer, the number of hours of operation of such Catalyst Layer consistent with its design capability guaranteed or warranted by the vendor of such Catalyst Layer based on compliance with the operation and maintenance procedures and fuel specifications provided in the contract with such vendor.

"SCR Consultant" shall mean, with respect to a particular Catalyst Layer, an engineering or consulting firm having a favorable reputation for skill and experience in connection with the operation of selective catalytic reduction systems installed in coal fired electric power plants.

May 10, 2018

Mr. Paul Smith
Big Rivers Electric Corporation
PO Box 24
Henderson, KY 42420

RE:

City of Henderson Utility Commission

Henderson Municipal Power & Light - Power Station Two

Capacity Reservations and Allocations

Dear Mr. Smith:

In accordance with Section 3.3 of the Power Sales Contract, HMP&L hereby reserves capacity from Station Two and allocates the remaining surplus capacity to Big Rivers Electric Corporation for the following periods:

	RESERVED TO	ALLOCATED TO	NET RATED
<b>CONTRACT YEAR</b>	HMP&L	BREC	CAPACITY
June 1, 2018 – May 31, 2019	115 MW	197 MW	312 MW
June 1, 2019 – May 31, 2020	110 MW	202 MW	312 MW
June 1, 2020 – May 31, 2021	110 MW	202 MW	312 MW
June 1, 2021 – May 31, 2022	110 MW	202 MW	312 MW
June 1, 2022 – May 31, 2023	110 MW	202 MW	312 MW

The above reservations and allocations of capacity are made on the basis of Station Two net rated capacity being 312 MW. However, HMP&L is concerned that the Station Two capacity of 312 MW shown above may not be correct. Therefore, as provided in the Power Sales Contract, in the near future HMP&L my request capacity tests on both units at Henderson Station Two. If you have any questions, please let me know.

Sincerely,

Chris Heimgartner General Manager

Cc: Ken Brooks

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Ircuit (	(605230)
ster C	SMAI
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Janet C	ONOF
5	Judge:
0707	Presiding
3	

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TION TWO CAPACITY	SPLITS						
		STATION TWO					
		CAPACITY RESERVA	ATION				
Fiscal Year	Big Rivers' Share	City's Share	Total Station Two	Reid	BREC	City	Total
6/01/73 - 5/31/74	162	13	175	65	227	13	
6/01/74 - 5/31/75	283	17	300	65	348	17	
6/01/75 - 5/31/76	271	18	289	65	336	18	
6/01/76 - 5/31/77	267	22	289	65	332	22	
6/01/77 - 5/31/78	262	27	289	65	327	27	
6/01/78 - 5/31/79	262	34	296	65	327	34	
6/01/79 - 5/31/80	256	41	297	65	321	41	
6/01/80 - 5/31/81	256	40	296	65	321	40	
6/01/81 - 5/31/82	253	43	296	65	318	43	
6/01/82 - 5/31/83	253	43	296	65	318	43	
6/01/83 - 5/31/84	270	45	315	65	335	45	
6/01/84 - 5/31/85	268	47	315	65	333	47	
6/01/85 - 5/31/86	271	44	315	65	336	44	
6/01/86 - 5/31/87	271	44	315	65	336	44	
6/01/87 - 5/31/88	270	45	315	65	335	45	
6/01/88 - 5/31/89	269	46	315	65	334	46	
6/01/89 - 5/31/90	264	51	315	65	329	51	
6/01/90 - 5/31/91	264	51	315	65	329	51	
6/01/91 - 5/31/92	263	52	315	65	328	52	
6/01/92 - 5/31/93	262	53	315	65	327	53	
6/01/93 - 5/31/94	261	54	315	65	326	54	
6/01/94 - 5/31/95	258	57	315	65	323	57	
6/01/95 - 5/31/96	250	62	312	65	315	62	
6/01/96 - 5/31/97	250	62	312	65	315	62	
6/01/97 - 5/31/98	247	65	312	65	312	65	
6/01/98 - 5/31/99	246	66	312	65	311	66	
6/01/99 - 5/31/00	232	80	312	65	297	80	
6/01/00 - 5/31/01	225	87	312	65	290	87	
6/01/01 - 5/31/02	220	92	312	65	285	92	
6/01/02 - 5/31/03	217	95	312	65	282	95	
6/01/03 - 5/31/04	217	95	312	65	282	95	
6/01/04 - 5/31/05	217	95	312	65	282	95	-
6/01/05 - 5/31/06	217	95	312	65	282	95	
6/01/06 - 5/31/07	217	95	312	65	282	95	
6/01/07 - 5/31/08	217	95	312	65	282	95	
6/01/08 - 5/31/09	217	95	312	65	282	95	
6/01/09 - 5/31/10	212	100	312	65	277	100	
6/01/10 - 5/31/11	207	105	312	65	272	105	
6/01/11 - 5/31/12	202	110	312	65	267	110	
6/01/12 - 5/31/13	197	115	312	65	262	115	
6/01/13 - 5/31/14	197	115	312	65	262	115	
6/01/14 - 5/31/15	197	115	312	65	262	115	
6/01/15 - 5/31/16	197	115	312	65	262	115	
6/01/16 - 5/31/17	197	115	312	65	197	115	
6/01/17 - 5/31/18	197	115	312		197		
6/01/18 - 5/31/19 <sup>1</sup>	197	115	312			115	
	137	110	312		197	115	
Total	10,905	3,186	14,091	2,795	13,700	3,186	16,
% Allocation	77.39%	22.61%		*	81.13%	18.87%	
Y19 split was 187/125	77.32%	22.68%					

05/12/2020

Filed: 20-CI-00073 EXH: 000001 of 000001

#### **BIG RIVERS ELECTRIC CORPORATION**

#### ELECTRONIC APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS CASE NO. 2019-00269

# Response to Commission Staff's Information Requests from the October 22, 2020 Hearing

#### November 3, 2020

1	Suppler	mental Item 1) Please provide updates to the exhibits previously
2	filed in	with Paul G. Smith's Rebuttal Testimony filed on August 25, 2020, in
3	this pro	ceeding.
4		
5	Respons	se) Attached hereto are the revised exhibits reflecting the change discussed
6	in Big Ri	vers' response to Item 2 of the City of Henderson, Kentucky, and Henderson
7	Utility (	Commission, d/b/a Henderson Municipal Power & Light's (collectively,
8	"Henders	son") Information Requests from the October 22, 2020, hearing ("the October
9	hearing"	), and Big Rivers' updated response to Item 63 of Henderson's First Request
10	for Infor	mation in this proceeding, per Michael T. Pullen's testimony at the October
11	hearing.	The revised exhibits include:
12	1.	Updated and Revised Exhibit Smith-1;
13	2.	Updated and Revised Exhibit Smith-1b;
14	3.	Updated and Revised Exhibit Smith-5;
15	4.	Updated and Revised Exhibit Smith-5b;
16	5.	Revised Rebuttal Exhibit Smith-2;
17	6.	Revised Rebuttal Exhibit Smith-2b.

#### **BIG RIVERS ELECTRIC CORPORATION**

#### ELECTRONIC APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS CASE NO. 2019-00269

# Response to Commission Staff's Information Requests from the October 22, 2020 Hearing

November 3, 2020

1
2
3 Witness) Paul G. Smith
4

Witness: Paul G. Smith

Page 2 of 2

#### Big Rivers Electric Corporation Interim Accounting Summary Amounts Due (To) / From Henderson <u>Updated through</u> June 30, 2020 <u>Revised as of</u> November 2, 2020

Description	Reference	Amount (\$) Due (To)/From	Interest (\$)
Excess Henderson Energy	Exhibit Smith-2	(3,310,482)	(439,052)
Henderson Native Load	Exhibit Smith-3	4,693,587	838,054
Other Operating Costs	Exhibit Smith-4	(941,581)	450,843
Decommissioning Costs	Exhibit Smith-5	933,995	41,532
Subtotal		1,375,519	891,377
Interest		891,377	
Total		2,266,896	

# Big Rivers Electric Corporation Interim Accounting Summary Assuming Retirement In Place Amounts Due (To) / From Henderson <u>Updated through</u> June 30, 2020 <u>Revised as of</u> November 2, 2020

Description	Reference	Amount (\$) Due (To)/From	Interest (\$)
Excess Henderson Energy	Exhibit Smith-2	(3,310,482)	(439,052)
		, , , ,	, ,
Henderson Native Load	Exhibit Smith-3	4,693,587	838,054
Other Operating Costs	Exhibit Smith-4	(941,581)	450,843
Retirement In Place	Exhibit Smith-5b	2,812,353	137,558
Subtotal		3,253,877	987,403
Interest		987,403	
Total		4,241,280	

# Big Rivers Electric Corporation Amounts Due (To) / From Henderson Decommissioning Costs <u>Updated through</u> June 30, 2020 <u>Revised as of November 2, 2020</u>

Description	Amount (\$) Due (To)/From
<u>Decommissioning Costs</u>	
January 2019 - June 2020	933,995
Subtotal	933,995
Interest	41,532
Total Decommissioning Costs	975,527

#### Big Rivers Electric Corporation Amounts Due (To) / From Henderson Retirement In Place <u>Updated through</u> June 30, 2020 <u>Revised as of</u> November 2, 2020

Description	Amount (\$) Due (To)/From
Retirement In Place	
January 2019 - June 2020	2,812,353
Subtotal	2,812,353
Interest	137,558
Total Retirement In Place Costs	2,949,911

#### Big Rivers Electric Corporation Case No. 2019-00269

# Station Two Decommissioning Cost Report

June 30, 2020 (Revised)

	Dec	Total ommissioning Costs		Henderson Share
Current Month		<u></u>		<u> </u>
Ramp-Down Costs				
Station Two	\$	154,350.66	\$	35,130.21
CCR Incremental Costs		5,157.29		1,173.80
Ash Pond Closure		-		-
Auxiliary Power		3,400.75		774.01
Total		162,908.70		37,078.02
Landfill				
Slurry Wall		31,736.06		3,135.52
Leachate		(264.00)		(26.08)
Total		31,472.06		3,109.44
Other		-		
<b>Total Current Month</b>	\$	194,380.76	\$	40,187.46
Project-to-Date				
Total Project To Date	\$	6,380,471.33	\$	943,722.63
Payments Received	<del></del>	, ,	•	(9,727.84)
Subtotal				933,994.79
Interest				41,532.00
Balance Due			\$	975,526.79
Submitted By:				
Title:			<u>-</u>	
Date Submitted:			•	

### Big Rivers Electric Corporation Case No. 2019-00269

## Station Two Decommissioning Cost Report June 30, 2020 (Revised)

					Ramp-Down				Landfill		Other	Total	Henderson Ba	lance Due
				CCR	Ash									
			Station	Incremental	Pond	Auxiliary		Slurry			Transmission		Payments	Balance
		<u>Month</u>	<u>Two</u>	<u>Costs</u>	<u>Closure</u>	<u>Power</u>	<u>Total</u>	<u>Wall</u>	<u>Leachate</u>	<u>Total</u>	<u>Assets</u>	<u>Amount</u>	<u>Received</u>	<u>Due</u>
	20	January February March April May June	\$ 47,196.52 133,746.94 118,959.12 126,358.03 67,995.09 54,745.97	\$ - - - 18,857.61 10,800.00	\$ - - - - -	\$ - 20,523.60 13,730.35 8,770.55 5,265.19 4,649.23	\$ 47,196.52 154,270.54 132,689.47 135,128.58 92,117.89 70,195.20	\$ - - - - -	\$ - - - - -	\$ - - - - -	\$ - - - - -	\$ 47,196.52 154,270.54 132,689.47 135,128.58 92,117.89 70,195.20	\$ - (4,640.39) (3,104.43) (1,983.02) -	
	2019	July	21,060.19	21,003.30	-	5,471.11	47,534.60	-	-	-	-	47,534.60	-	
		August September	303,045.45 96,559.69	12,897.08 2,361.41	-	4,767.14 5,022.21	320,709.67 103,943.31	-	-	-	-	320,709.67 103,943.31		
		October	101,889.69	3,939.50	-	5,525.23	111,354.42	-	-	-	-	111,354.42	-	
		November	104,642.25	5,355.21	-	7,558.70	117,556.16	-	-	-	-	117,556.16	-	
		December	120,948.15	9,133.68	175,230.93	6,176.31	311,489.07	1,677,517.68	1,255,561.43	2,933,079.11	-	3,244,568.18	-	
		January	137,619.15	-	-	6,284.43	143,903.58	65,936.28	146,359.16	212,295.44	122.31	356,321.33	-	
	<b>N</b> •	February	105,443.69	-	-	5,305.93	110,749.62	82,943.60	(1,481.76)	81,461.84	-	192,211.46	-	
	2020	March	79,120.73	6,368.45	-	4,834.20	90,323.38	134,150.20	1,157.55	135,307.75	-	225,631.13	-	
	20	April	147,440.85	(7,057.14)	-	4,071.32	144,455.03	243,716.56	7,664.03	251,380.59	-	395,835.62	-	
		May	126,539.98	4,470.79	-	4,310.06	135,320.83	276,618.58	26,887.08	303,505.66	-	438,826.49	-	
L		June	154,350.66	5,157.29	-	3,400.75	162,908.70	31,736.06	(264.00)	31,472.06	-	194,380.76	-	
		Total	\$ 2,047,662.15	\$ 93,287.18	\$ 175,230.93	\$ 115,666.31	\$ 2,431,846.57	\$ 2,512,618.96	\$ 1,435,883.49	\$ 3,948,502.45	\$ 122.31	\$ 6,380,471.33	\$ (9,727.84)	
		Henderson Share	 <u> </u>											
		Percentage	22.76%	22.76%	22.76%	22.76%		9.88%	9.88%		100.00%			
		Amount	\$ 466,047.91	\$ 21,232.16	\$ 39,882.56	\$ 26,325.65	\$ 553,488.28	\$ 248,246.75	\$ 141,865.29	\$ 390,112.04	\$ 122.31	\$ 943,722.63	\$ (9,727.84) \$	933,994.79

#### Big Rivers Electric Corporation Case No. 2019-00269

### Station Two Decommissioning Cost Report

#### Retirement-In-Place

June 30, 2020 (Revised)

Current Month	Dec	Total commissioning <u>Costs</u>		Henderson <u>Share</u>
Ramp-Down Costs				
Station Two	\$	154,350.66	\$	154,350.66
CCR Incremental Costs	ψ	5,157.29	ψ	5,157.29
Ash Pond Closure		5,157.25		0,107.29
		2 400 75		2 400 75
Auxiliary Power		3,400.75		3,400.75
Total		162,908.70		162,908.70
Landfill				
Slurry Wall		31,736.06		3,135.52
Leachate		(264.00)		(26.08)
Total	-	31,472.06		3,109.44
10001		01,11 <b>2.</b> 00		3,100.11
Other		-		-
<b>Total Current Month</b>	\$	194,380.76	\$	166,018.14
Project-to-Date	Ф	6 900 471 99	Ф	2 222 222 22
Total Project To Date	<u>\$</u>	6,380,471.33	\$	2,822,080.92
Payments Received				(9,727.84)
Subtotal				2,812,353.08
Interest				137,558.00
Balance Due			\$	2,949,911.08
Submitted By:			_	
Title:			_	
Date Submitted:			_	

# Big Rivers Electric Corporation Case No. 2019-00269 On Two Decommissioning Cost Re

# Station Two Decommissioning Cost Report

# Retirement-In-Place

June 30, 2020 (Revised)

				Ramp-Down				Landfill		Other	Total	Henderson Ba	alance Due
	<u>Month</u>	Station <u>Two</u>	CCR Incremental <u>Costs</u>	Ash Pond <u>Closure</u>	Auxiliary <u>Power</u>	<u>Total</u>	Slurry <u>Wall</u>	<u>Leachate</u>	<u>Total</u>	Transmission <u>Assets</u>	Amount	Payments <u>Received</u>	Balance <u>Due</u>
2019 2020	June July August September October November December January February March April May June	\$ 47,196.52 133,746.94 118,959.12 126,358.03 67,995.09 54,745.97 21,060.19 303,045.45 96,559.69 101,889.69 104,642.25 120,948.15 137,619.15 105,443.69 79,120.73 147,440.85 126,539.98 154,350.66	18,857.61 10,800.00 21,003.30 12,897.08 2,361.41 3,939.50 5,355.21 9,133.68 - - 6,368.45 (7,057.14) 4,470.79 5,157.29	\$ - - - - - - - 175,230.93	\$ - 20,523.60 13,730.35 8,770.55 5,265.19 4,649.23 5,471.11 4,767.14 5,022.21 5,525.23 7,558.70 6,176.31 6,284.43 5,305.93 4,834.20 4,071.32 4,310.06 3,400.75	\$ 47,196.52 154,270.54 132,689.47 135,128.58 92,117.89 70,195.20 47,534.60 320,709.67 103,943.31 111,354.42 117,556.16 311,489.07 143,903.58 110,749.62 90,323.38 144,455.03 135,320.83 162,908.70	- - - - - - - 1,677,517.68 65,936.28 82,943.60 134,150.20 243,716.56 276,618.58 31,736.06	\$	\$ - - - - - - - 2,933,079.11 212,295.44 81,461.84 135,307.75 251,380.59 303,505.66 31,472.06	\$ - - - - - - - 122.31 - - -	\$ 47,196.52 154,270.54 132,689.47 135,128.58 92,117.89 70,195.20 47,534.60 320,709.67 103,943.31 111,354.42 117,556.16 3,244,568.18 356,321.33 192,211.46 225,631.13 395,835.62 438,826.49 194,380.76	\$ - (4,640.39) (3,104.43) (1,983.02)	
	Total  Henderson Share	\$ 2,047,662.15	\$ 93,287.18	\$ 175,230.93	\$ 115,666.31	\$ 2,431,846.57	\$ 2,512,618.96	\$ 1,435,883.49	\$ 3,948,502.45	\$ 122.31	\$ 6,380,471.33	\$ (9,727.84)	
	Percentage	100.00%	100.00%	100.00%	100.00%		9.88%	9.88%		100.00%			
	Amount	\$ 2,047,662.15				\$ 2,431,846.57			\$ 390,112.04		\$ 2,822,080.92	\$ (9,727.84) \$	2,812,353.08

Case No. 2019-00269
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