

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 the City of Henderson, Kentucky, and Henderson Utility
Commission, d/b/a Henderson Municipal Power & Light'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

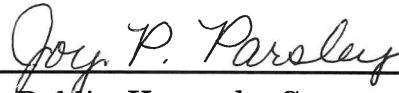
I, Michael T. ("Mike") Pullen, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Michael T. ("Mike") Pullen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Michael T. ("Mike") Pullen on this the 2nd day of November, 2020.



Notary Public, Kentucky State at Large

My Commission Expires _____

Notary Public, Kentucky State-At-Large
My 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

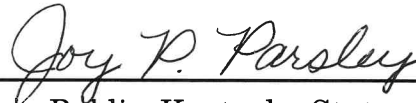
I, Paul G. Smith, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry,



Paul G. Smith

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

2nd SUBSCRIBED AND SWORN TO before me by Paul G. Smith on this the
day of November, 2020.



Notary Public, Kentucky State at Large

My Commission Expires _____

Notary Public, Kentucky State-At-Large
My 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 the City of Henderson, Kentucky, and Henderson Utility
Commission, d/b/a Henderson Municipal Power & Light's
Information Requests from the
October 22, 2020 Hearing**

November 3, 2020

1 **Item 1)** *Please provide copies of any and all communications exchanged*
2 *between Big Rivers and the Energy & Environment Cabinet referencing the*
3 *ownership of Station Two within the context of the Green Station Title V air*
4 *emission permit. Include copies of all applications, documents, or other*
5 *writings filed with the Division of Air Quality.*

6

7 **Response)** Attached to this data request response are the public comments filed by
8 Big Rivers related to the Green Station Title V air emission permit. Attached hereto
9 are:

- 10 1. E-mail dated February 21, 2020, from Big Rivers' manager, Environmental
11 Services, Mark Bertram;
- 12 2. FINAL Green V-19-020 Draft Permit Comments (AI#44411) (docx); and
- 13 3. FINAL Green V-19-020 Draft Permit Comments (AI#44411).

14

15

16 **Witness)** Michael T. Pullen

From: Bertram, Mark
Sent: Friday, February 21, 2020 2:45 PM
To: Shauna.Switzer [REDACTED]
Cc: Bittner, Zachary (EEC); Adams, Ashley (EEC) ([REDACTED]); Scott, Keith; Nichols, Melissa; Mike Zimmer
Subject: Green V-19-020 Draft Permit Comments (AI#44411)
Attachments: FINAL Green V-19-020 Draft Permit Comments (AI#44411).docx; FINAL Green V-19-020 Draft Permit Comments (AI#44411).pdf

Dear Ms. Switzer:

Big Rivers Electric Corporation (BREC) owns and operates the R. D. Green Generating Station (Green Station) in Webster County, Kentucky, which is regulated under Title V permit program per 401 KAR 52:020. On January 23, 2020, the Kentucky Division for Air Quality (KDAQ) issued their air quality permit notice requesting public comments for a period of 30 days regarding the Draft Title V Operating Permit Renewal V-19-020. As a result, BREC is submitting the attached comments to V-19-020 for KDAQ to consider before publishing a final version.

Best Regards,

Mark W. Bertram, CHMM
Manager, Environmental

[REDACTED]

Big Rivers Electric Corporation
[REDACTED]



201 Third Street
P.O. Box 24
Henderson, KY 42419-0024
270-827-2561
www.bigrivers.com

Via: [REDACTED]

February 21, 2020

Ms. Shauna Switzer
Permit Support Section Supervisor
Kentucky Division for Air Quality
[REDACTED]

Re: **Public Comments on the Draft Title V Operating Permit Renewal, V-19-020**
Big Rivers Electric Corporation, R.D. Green Station
Source ID# 21-233-00052; AI# 44411
Activity: APE20110001/APE20130002/APE20180002

Dear Ms. Switzer:

Big Rivers Electric Corporation (BREC) owns and operates the R. D. Green Generating Station (Green Station) in Webster County, Kentucky, which is regulated under Title V permit program per 401 KAR 52:020. On January 23, 2020, the Kentucky Division for Air Quality (KDAQ) issued their air quality permit notice requesting public comments for a period of 30 days regarding the Draft Title V Operating Permit Renewal V-19-020. As a result, BREC is submitting the following comments to V-19-020 for KDAQ to consider before publishing a final version.

UPDATES TO SECTION B

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

- **B-1** => After paragraph a)i)D) of **1 Operating Limitations** on page 3 of 72, please add the following requirement, which is also cited in Table 3 of MATS, “E) The permittee must collect monitoring data during startup periods, as specified in 40 CFR 63.10020(a) per Table 3, Item 3.d.”
- **B-2** => Following the last sentence in paragraph a)iii) of **1 Operating Limitations** on 3 of 72, please add the following regulatory justification, “[40 CFR 63.10000(a) and Table 3, Item 4.]”
- **B-3** => For the compliance demonstration supporting paragraph a) of **1 Operating Limitations** on page 4 of 72, please consider the following revision, “**Compliance Demonstration:** See **1. Operating Limitations:** ~~(g) and (h) (c) and (g), 4. Specific Monitoring Requirements: (n), 5. Specific Recordkeeping Requirements: (d), (o), (r), and (t) (b), (h), and (k) through (m).~~”

- **B-4** => Pursuant to Federal Register / Vol. 83, No. 127 / Monday, July 2, 2018, page 30879 (<https://www.govinfo.gov/content/pkg/FR-2018-07-02/pdf/2018-14308.pdf>), please replace the date range specified in paragraph b)ix) of **1 Operating Limitations** on 6 of 72 with the following, "Report the dates of the initial and subsequent tune-ups in hard copy, as specified in 40 CFR 63.10031(f)(5), ~~until April 16, 2017. After April 16, 2017~~ 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)]".
- **B-5** => For the compliance demonstration supporting paragraph b) of **1 Operating Limitations** on page 6 of 72, please consider the following revision, "**Compliance Demonstration:** See **5. Specific Recordkeeping Requirements:** ~~(i) and (s)~~ **(d) and (h).**"
- **B-6** => Section 7 of 401 KAR 59:015 provides a pathway for BREC to comply with work practice standards in MATS, not the work practice standards in paragraph (1) of Section 7. Specifically, paragraph (2) in Section 7 of 401 KAR 59:015 states that an affected facility subject to 40 CFR 63.9991, shall meet the work practice standards established in 40 CFR Part 63, Table 3 to Subpart UUUUU (MATS).

Please consider removing the following statement in paragraph g) of **1 Operating Limitations** on page 7 of 72, "g) 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)]".

- **B-7** => For the compliance demonstration supporting paragraph d) of **2 Emissions Limitations:** on page 7 of 72, please consider the following revision, "**Compliance Demonstration:** See **4. Specific Monitoring Requirements:** **(c)** through **(f)** ~~and (j).~~"
- **B-8** => Both paragraphs f) and g) of **2 Emissions Limitations** on page 8 of 72 site the applicable emissions limit for filterable PM and HCl without mentioning the exemptions sited elsewhere for startup and shutdown. Per 40 CFR 63.10000(a), "You must be in compliance with the emission limits and operating limits in this subpart. These limits apply to you at all times except during periods of startup and shutdown; however, for coal-fired [...] EGUs, you are required to meet the work practice requirements, items 3 and 4, in Table 3 to this subpart during periods of startup or shutdown."

To account for the applicable requirement in 40 CFR 63.10000(a), as well as the updated compliance demonstration beneath it, BREC is requesting the following change to paragraph 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) and Table 2, Item 1.a, 40 CFR 63.10000(a)].

Compliance Demonstration: See **3. Testing Requirements:** **(b)** and **(e)** through ~~(i)~~ **(h)** and **(j)** and **6. Specific Reporting Requirements:** **(c).**"

Similarly, BREC is requesting the following change to paragraph g),

“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) and Table 2, Item 1.b., 40 CFR 63.10000(a)].

Compliance Demonstration: See 3. Testing Requirements: (c) and (e) through (j), 6. Specific Reporting Requirements: (c)”

- **B-9** => For the compliance demonstration supporting paragraph h) of **2 Emissions Limitations** on page 8 of 72, please consider the following revision, “**Compliance Demonstration: See 3. Testing Requirements: (d) and (e) through (j), 4. Specific Monitoring Requirements: ~~(i) and (j) and (e)~~(g) through (l). 5. Specific Recordkeeping Requirements: (f) and (g).”**
- **B-10** => In reference to paragraphs **k), k)i), k)ii), k)iv), and i.vi)** of **6 Specific Reporting Requirements** on pages 18 and 19 of 72, the referenced dates and slight wording changes were made to MATS as specified in Federal Register, Vol. 83, No. 127, Monday, July 2, 2018, Rules and Regulations, Page 30879 (<https://www.govinfo.gov/content/pkg/FR-2018-07-02/pdf/2018-14308.pdf>). Accordingly, please use the revised rule to update the wording in the following paragraphs,
 - **k)** which is based on 40 CFR 63.10031(f);
 - **k)i)** which is based on 40 CFR 63.10031(f)(1);
 - **k)ii)** which is based on 40 CFR 63.10031(f)(2);
 - **k)iv)** which is based on 40 CFR 63.10031(f)(4); and
 - **k)vi)** which is based on 40 CFR 63.10031(f)(6).
- **B-11** => For the compliance demonstration supporting paragraph d) of **7 Specific Control Equipment Operating Conditions** on page 20 of 72, please consider the following revision, “**Compliance Demonstration: See 4. Specific Monitoring Requirements: (b) and (i) through (k); 5. Specific Recordkeeping Requirements: ~~(a), (b), and (j) through (v)~~(a) through (c) and (j) through (n).**

Emissions Unit 03: Coal and Pet Coke Hauling and Storage Operations

- **B-12** => For the reasonable precautions taken to prevent PM from becoming airborne from fugitive sources, paragraph a)iii) of **2 Emissions Limitations** on page 21 of 72, lists the covering, at all times when in motion, open bodied trucks transporting materials per 401 KAR 63:010, Section 3(1)(d). While this is a reasonable precaution for smaller dump trucks and open-bodied vehicles, the large mining haul trucks that have filled weights between 60 and 155 tons/truck, are so tall and expansive, that it is not reasonable, accessible, or safe to have an employee cover them. As such, BREC is requesting that KDAQ consider removing paragraph iii) from a), “~~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)];~~”

In addition, please consider moving the entire reasonable precautions shown in paragraphs a) and c) from **2 Emissions Limitations** to **1 Operating Limitations**.

- **B-13** => If fugitive emissions are being generated in a manner that causes a nuisance or crosses the property boundary, per paragraph b) in **4 Specific Monitoring Requirements**, BREC is required to suppress the fugitive emissions using water or another wetting agent. Within this draft renewal permit, KDAQ added an associated recordkeeping requirement to maintain a daily log of when any wetting material applied [see paragraph b) of **5 Specific Recordkeeping Requirements** on page 22 of 72]. As written, BREC must keep every record of when wetting is applied during normal operations, as well as during events that causes a nuisance or crosses the property boundary. To be consistent with the monitoring requirement and to avoid the recordkeeping burden of tracking every time proactive wetting occurs during normal operations, please consider the following edit to paragraph b) of **5 Specific Recordkeeping Requirements** on page 22 of 72,
 - b) The permittee shall maintain records of the daily visual observations performed ~~and any wetting agent applied~~ and, if necessary, records of when water or other wetting agents were used to suppress fugitive emissions as noted in paragraph b) of **4. Specific Monitoring Requirements**. [401 KAR 52:020, Section 10]

Please make similar changes to

- 1) EU 04B => paragraph b) of **5 Specific Recordkeeping Requirements** on page 27 of 72
- 2) EU 06 => paragraph b) of **5 Specific Recordkeeping Requirements** on page 31 of 72
- 3) EU 07A => paragraph b) of **5 Specific Recordkeeping Requirements** on page 33 of 72

Emissions Unit 08: Two Cooling Towers

- **B-17** => In this Draft Title V Renewal Permit, V-19-020, the applicable requirement for the cooling towers now references 401 KAR 59:010, New Process Operations. Yet, within every previous Title V Permit issued by KDAQ (e.g., V-12-014, V-05-031, V-99-067, etc.), the applicable requirement for EU 08 Cooling Towers has been 401 KAR 63:010, which applies to *fugitive emissions*.

We understand that the provisions of 401 KAR 59:010 in Section 1.(1), shall apply to each *affected facility* or *affected source*, associated with a *process operation*, which is not subject to another emission standard with respect to particulates in this chapter, commenced on or after the classification date.

Where, Section 2 of 401 KAR 59:010 provides the following definition:

- (1) "Process operation" means any method, form, action, operation, or treatment of manufacturing or processing, and shall include any storage or handling of materials or products, before, during, or after manufacturing or processing.
- (2) "Process weight" means the total weight of all materials introduced into any *affected facility* which may cause any emission of particulate matter, but does not include liquid and gaseous fuels charged, combustion air, or uncombined water.
- (4) "Affected facility" as related to *process operations* means the last operation preceding the emission of air contaminants which results:
 - (a) In the separation of the air contaminant from the process materials; or
 - (b) In the conversion of the process materials into air contaminants, but does not include an air pollution abatement operation.

PM emissions are only generated from the low levels of total dissolved solids (TDS) that originate from the cooling water itself and that remain in the water droplets as it is emitted to the atmosphere. Given the definitions shown above, it is unclear how TDS in cooling water is considered a *process operation*.

Based on the discussions above on page 36 of 72, please consider retaining the historical applicability of 401 KAR 63:010 to these cooling towers, as referenced in earlier versions of the Green Station Title V permits).

Emissions Unit 10: Diesel Fired Emergency Generator

- **B-18** => The draft permit contains notification/reporting requirements to submit an initial notification; however, the specifically cited requirements only apply to limited use non-emergency stationary RICE, whereas no initial notifications exist for emergency use engines. As a result, please remove all of paragraph a) from **1 Operating Limitations** on page 40 of 72 and paragraph a) from **6 Specific Reporting Requirements** on page 42 of 72.

UPDATES TO SECTION K

- **K-1** => The CAIR section of the permit seems to be irrelevant now that CSAPR has replaced CAIR. It seems that the information on page 58 of 72 contains statements of facts rather than any applicable operational restrictions or emissions limitations. Please consider the following options:
 - 1) Removing this Section K altogether and placing this information in the statement of basis.
 - 2) Remove parts 1, 2, 3, and 4 and leave the last sentence of in **4 Summary of Actions**, “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.”
- **K-2** => Upon clicking on the website links shown on pages 59 and 60, you are directed to a general section on EPA’s website, specifically => <https://www.epa.gov/airmarkets>

Please update the hyperlink in paragraph 2 on page 59 of 72, as follows,
“<http://www.epa.gov/airmarkets/emissions/monitoringplans.html>” to
“<https://www.epa.gov/airmarkets/monitoring-plans-part-75-sources#>.”

Please update the hyperlink in paragraph 3 on page 60 of 72, as follows,
“<http://www.epa.gov/airmarkets/emissions/petitions.html>” to
“<https://www.epa.gov/airmarkets/petition-preparation-help>.”

Please update the hyperlink in paragraph 4 on page 60 of 72, as follows,
“<http://www.epa.gov/airmarkets/emissions/petitions.html>” to
“<https://www.epa.gov/airmarkets/petition-preparation-help>.”

UPDATES TO SUMMARY AND STATEMENT OF BASIS

Both the Summary and Statement of Basis mention the following statement,

On June 1, 2019 the City of Henderson will become both the owner and sole operator of the Henderson Station II whereby BREC will no longer have common control over the City’s stationary sources.

Please revised the statement as follows:

Prior to February 1, 2019, BREC operated the City of Henderson’s Station II generating station as an independent contractor on behalf of the City. BREC ceased operating the station on February 1, 2019, when the City retired the station. Therefore, as of that date, the City of Henderson became solely responsible for the Henderson Station II facility whereby BREC no longer has common control over the City’s stationary sources.

~~~~~

If upon your review, you determine that any additional information is needed or if you have any questions regarding our comments, please do not hesitate to contact me at [REDACTED] or Ms. Melissa Nichols at [REDACTED].

Sincerely,

Mark W. Bertram, CHMM  
Manager, Environmental Services  
Big Rivers Electric Corporation

cc: Zach Bittner, KDAQ, [REDACTED]  
Ashley Adams, KDAQ, [REDACTED]  
Keith Scott, BREC  
Melissa Nichols, BREC  
Mike Zimmer, Trinity Consultants



201 Third Street  
P.O. Box 24  
Henderson, KY 42419-0024  
270-827-2561  
www.bigrivers.com

Via: [REDACTED]

February 21, 2020

Ms. Shauna Switzer  
Permit Support Section Supervisor  
Kentucky Division for Air Quality  
[REDACTED]  
[REDACTED]

Re: **Public Comments on the Draft Title V Operating Permit Renewal, V-19-020**  
**Big Rivers Electric Corporation, R.D. Green Station**  
**Source ID# 21-233-00052; AI# 44411**  
**Activity: APE20110001/APE20130002/APE20180002**

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## UPDATES TO SECTION B

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

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- **B-3** => For the compliance demonstration supporting paragraph a) of **1 Operating Limitations** on page 4 of 72, please consider the following revision, “**Compliance Demonstration:** See **1. Operating Limitations:** ~~(g) and (h)~~ **(c) and (g)**, **4. Specific Monitoring Requirements:** ~~(n)~~, **5. Specific Recordkeeping Requirements:** ~~(d), (o), (r), and (t)~~ **(b), (h), and (k) through (m).**”

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- **B-5** => For the compliance demonstration supporting paragraph b) of **1 Operating Limitations** on page 6 of 72, please consider the following revision, "**Compliance Demonstration:** See 5. **Specific Recordkeeping Requirements:** ~~(i) and (s)~~ **(d) and (h).**"
- **B-6** => Section 7 of 401 KAR 59:015 provides a pathway for BREC to comply with work practice standards in MATS, not the work practice standards in paragraph (1) of Section 7. Specifically, paragraph (2) in Section 7 of 401 KAR 59:015 states that an affected facility subject to 40 CFR 63.9991, shall meet the work practice standards established in 40 CFR Part 63, Table 3 to Subpart UUUUU (MATS).

Please consider removing the following statement in paragraph g) of **1 Operating Limitations** on page 7 of 72, "g) 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)]".

- **B-7** => For the compliance demonstration supporting paragraph d) of **2 Emissions Limitations:** on page 7 of 72, please consider the following revision, "**Compliance Demonstration:** See 4. **Specific Monitoring Requirements:** (c) through (f) ~~and (j).~~"
- **B-8** => Both paragraphs f) and g) of **2 Emissions Limitations** on page 8 of 72 site the applicable emissions limit for filterable PM and HCl without mentioning the exemptions sited elsewhere for startup and shutdown. Per 40 CFR 63.10000(a), "You must be in compliance with the emission limits and operating limits in this subpart. These limits apply to you at all times except during periods of startup and shutdown; however, for coal-fired [...] EGUs, you are required to meet the work practice requirements, items 3 and 4, in Table 3 to this subpart during periods of startup or shutdown."

To account for the applicable requirement in 40 CFR 63.10000(a), as well as the updated compliance demonstration beneath it, BREC is requesting the following change to paragraph 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) and Table 2, Item 1.a, 40 CFR 63.10000(a)].

**Compliance Demonstration:** See 3. **Testing Requirements:** (b) and (e) through ~~(i)~~ **(h) and (j)** and 6. **Specific Reporting Requirements:** (c)."

Similarly, BREC is requesting the following change to paragraph g),

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  - k) which is based on 40 CFR 63.10031(f);
  - k)i) which is based on 40 CFR 63.10031(f)(1);
  - k)ii) which is based on 40 CFR 63.10031(f)(2);
  - k)iv) which is based on 40 CFR 63.10031(f)(4); and
  - k)vi) which is based on 40 CFR 63.10031(f)(6).
- **B-11** => For the compliance demonstration supporting paragraph d) of 7 Specific Control Equipment Operating Conditions on page 20 of 72, please consider the following revision, “**Compliance Demonstration:** See 4. Specific Monitoring Requirements: (b) and (i) through (k); 5. Specific Recordkeeping Requirements: ~~(a), (b), and (j) through (v)~~(a) through (c) and (j) through (n).”

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

- **B-12** => For the reasonable precautions taken to prevent PM from becoming airborne from fugitive sources, paragraph a)iii) of 2 Emissions Limitations on page 21 of 72, lists the covering, at all times when in motion, open bodied trucks transporting materials per 401 KAR 63:010, Section 3(1)(d). While this is a reasonable precaution for smaller dump trucks and open-bodied vehicles, the large mining haul trucks that have filled weights between 60 and 155 tons/truck, are so tall and expansive, that it is not reasonable, accessible, or safe to have an employee cover them. As such, BREC is requesting that KDAQ consider removing paragraph iii) from a), “~~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)];~~”

In addition, please consider moving the entire reasonable precautions shown in paragraphs a) and c) from 2 Emissions Limitations to 1 Operating Limitations.



- **B-13** => If fugitive emissions are being generated in a manner that causes a nuisance or crosses the property boundary, per paragraph b) in **4 Specific Monitoring Requirements**, BREC is required to suppress the fugitive emissions using water or another wetting agent. Within this draft renewal permit, KDAQ added an associated recordkeeping requirement to maintain a daily log of when any wetting material applied [see paragraph b) of **5 Specific Recordkeeping Requirements** on page 22 of 72]. As written, BREC must keep every record of when wetting is applied during normal operations, as well as during events that causes a nuisance or crosses the property boundary. To be consistent with the monitoring requirement and to avoid the recordkeeping burden of tracking every time proactive wetting occurs during normal operations, please consider the following edit to paragraph b) of **5 Specific Recordkeeping Requirements** on page 22 of 72,
  - b) The permittee shall maintain records of the daily visual observations performed ~~and any wetting agent applied~~ and, if necessary, records of when water or other wetting agents were used to suppress fugitive emissions as noted in paragraph b) of **4. Specific Monitoring Requirements**. [401 KAR 52:020, Section 10]

Please make similar changes to

- 1) EU 04B => paragraph b) of **5 Specific Recordkeeping Requirements** on page 27 of 72
- 2) EU 06 => paragraph b) of **5 Specific Recordkeeping Requirements** on page 31 of 72
- 3) EU 07A => paragraph b) of **5 Specific Recordkeeping Requirements** on page 33 of 72

#### Emissions Unit 08: Two Cooling Towers

- **B-17** => In this Draft Title V Renewal Permit, V-19-020, the applicable requirement for the cooling towers now references 401 KAR 59:010, New Process Operations. Yet, within every previous Title V Permit issued by KDAQ (e.g., V-12-014, V-05-031, V-99-067, etc.), the applicable requirement for EU 08 Cooling Towers has been 401 KAR 63:010, which applies to *fugitive emissions*.

We understand that the provisions of 401 KAR 59:010 in Section 1.(1), shall apply to each *affected facility* or *affected source*, associated with a *process operation*, which is not subject to another emission standard with respect to particulates in this chapter, commenced on or after the classification date.

Where, Section 2 of 401 KAR 59:010 provides the following definition:

- (1) "Process operation" means any method, form, action, operation, or treatment of manufacturing or processing, and shall include any storage or handling of materials or products, before, during, or after manufacturing or processing.
- (2) "Process weight" means the total weight of all materials introduced into any *affected facility* which may cause any emission of particulate matter, but does not include liquid and gaseous fuels charged, combustion air, or uncombined water.
- (4) "Affected facility" as related to *process operations* means the last operation preceding the emission of air contaminants which results:
  - (a) In the separation of the air contaminant from the process materials; or
  - (b) In the conversion of the process materials into air contaminants, but does not include an air pollution abatement operation.

PM emissions are only generated from the low levels of total dissolved solids (TDS) that originate from the cooling water itself and that remain in the water droplets as it is emitted to the atmosphere. Given the definitions shown above, it is unclear how TDS in cooling water is considered a *process operation*.

Based on the discussions above on page 36 of 72, please consider retaining the historical applicability of 401 KAR 63:010 to these cooling towers, as referenced in earlier versions of the Green Station Title V permits).

#### Emissions Unit 10: Diesel Fired Emergency Generator

- **B-18** => The draft permit contains notification/reporting requirements to submit an initial notification; however, the specifically cited requirements only apply to limited use non-emergency stationary RICE, whereas no initial notifications exist for emergency use engines. As a result, please remove all of paragraph a) from **1 Operating Limitations** on page 40 of 72 and paragraph a) from **6 Specific Reporting Requirements** on page 42 of 72.

## UPDATES TO SECTION K

- **K-1** => The CAIR section of the permit seems to be irrelevant now that CSAPR has replaced CAIR. It seems that the information on page 58 of 72 contains statements of facts rather than any applicable operational restrictions or emissions limitations. Please consider the following options:
  - 1) Removing this Section K altogether and placing this information in the statement of basis.
  - 2) Remove parts 1, 2, 3, and 4 and leave the last sentence of in **4 Summary of Actions**, “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.”
- **K-2** => Upon clicking on the website links shown on pages 59 and 60, you are directed to a general section on EPA’s website, specifically => <https://www.epa.gov/airmarkets>

Please update the hyperlink in paragraph 2 on page 59 of 72, as follows,  
“<http://www.epa.gov/airmarkets/emissions/monitoringplans.htm>” to  
“<https://www.epa.gov/airmarkets/monitoring-plans-part-75-sources#>.”

Please update the hyperlink in paragraph 3 on page 60 of 72, as follows,  
“<http://www.epa.gov/airmarkets/emissions/petitions.htm>” to  
“<https://www.epa.gov/airmarkets/petition-preparation-help>.”



Please update the hyperlink in paragraph 4 on page 60 of 72, as follows,  
“<http://www.epa.gov/airmarkets/emissions/petitions.html>” to  
“<https://www.epa.gov/airmarkets/petition-preparation-help>.”

## UPDATES TO SUMMARY AND STATEMENT OF BASIS

Both the Summary and Statement of Basis mention the following statement,

On June 1, 2019 the City of Henderson will become both the owner and sole operator of the Henderson Station II whereby BREC will no longer have common control over the City's stationary sources.

Please revised the statement as follows:

Prior to February 1, 2019, BREC operated the City of Henderson's Station II generating station as an independent contractor on behalf of the City. BREC ceased operating the station on February 1, 2019, when the City retired the station. Therefore, as of that date, the City of Henderson became solely responsible for the Henderson Station II facility whereby BREC no longer has common control over the City's stationary sources.

\*\*\*\*\*

If upon your review, you determine that any additional information is needed or if you have any questions regarding our comments, please do not hesitate to contact me at [REDACTED] or Ms. Melissa Nichols at [REDACTED]

Sincerely,



Mark W. Bertram, CHMM  
Manager, Environmental Services  
Big Rivers Electric Corporation

cc: Zach Bittner, KDAQ, [REDACTED]  
Ashley Adams, KDAQ, [REDACTED]  
Keith Scott, BREC  
Melissa Nichols, BREC  
Mike Zimmer, Trinity Consultants

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

**Response to the City of Henderson, Kentucky, and Henderson Utility  
Commission, d/b/a Henderson Municipal Power & Light's  
Information Requests from the  
October 22, 2020 Hearing**

**November 3, 2020**

1 **Item 2)**      *Pursuant to the hearing testimony of Mike Pullen at 11:00'00, in*  
2 *which Mr. Pullen updated his written testimony and Big Rivers' response to*  
3 *Henderson data request 1-63, please provide Big Rivers' revised calculations*  
4 *reflecting the total tonnage of waste ever deposited into the Green Landfill,*  
5 *the total number of tons attributable to Station Two, and the total number of*  
6 *Station Two tons attributable to Henderson. Include in your calculations the*  
7 *percentage of total waste you contend is attributable to Henderson for*  
8 *purposes of calculating the percentage of Green Landfill decommissioning*  
9 *costs you expect Henderson to pay.*

10

11 **Response)** Attachment 1 hereto shows the calculation of waste deposited in the  
12 Green Landfill. Big Rivers provided this information to Henderson on October 20,  
13 2020, prior to the October 22, 2020, Hearing. The information was in an e-mail,  
14 Attachment 2 hereto, from Robert W. Berry, Big Rivers' President and Chief  
15 Executive Officer, to Christopher Heimgartner, Henderson Municipal Power and  
16 Light's General Manager.

**BIG RIVERS ELECTRIC CORPORATION**  
**ELECTRONIC APPLICATION OF**  
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October 22, 2020 Hearing**

**November 3, 2020**

1

2

3 **Witness)** Michael T. Pullen

4

**Big Rivers Electric Corporation**

**Case No. 2019-00269**

**Poz-O-Tec Summary Sheet for Sebree Station (Estimated October 20, 2020)**

| YEAR                             | Station<br>(a)    | Poz-O-Tec<br>Hauled<br>Off-Site<br>(b) | Green<br>(c)      | Green<br>(%)<br>(d)<br>= (c) / (a) | HMP&L<br>(e)     | HMP&L<br>(%)<br>(f)<br>= (e) / (a) | HMP'L<br>(Big Rivers)<br>(g) | HMP'L<br>(%)<br>(h)<br>= (g) / (e) | HMP'L<br>(City)<br>(i) | HMP'L<br>(City %)<br>(j)<br>= (i) / (e) | HMP'L<br>(City %)<br>Total Station<br>(k)<br>= (i) / (a) | Station<br>(l)<br>= $\sum$ (c) (g) (i) | Reid<br>(m) | Reid<br>(n) =<br>(m) / (a) |
|----------------------------------|-------------------|----------------------------------------|-------------------|------------------------------------|------------------|------------------------------------|------------------------------|------------------------------------|------------------------|-----------------------------------------|----------------------------------------------------------|----------------------------------------|-------------|----------------------------|
| 2019                             | 462,280           |                                        | 460,461           | 100%                               | 1,819            | 0%                                 | 82                           | 5%                                 | 1737                   | 95%                                     | 0.38%                                                    | 462,280                                |             |                            |
| 2018                             | 696,506           |                                        | 573,318           | 82%                                | 123,188          | 18%                                | 34,761                       | 28%                                | 88,427                 | 72%                                     | 12.70%                                                   | 696,506                                |             |                            |
| 2017                             | 666,378           |                                        | 447,963           | 67%                                | 218,415          | 33%                                | 71,080                       | 33%                                | 147,335                | 67%                                     | 22.11%                                                   | 666,378                                |             |                            |
| 2016                             | 841,945           |                                        | 505,944           | 60%                                | 336,001          | 40%                                | 183,023                      | 54%                                | 152,978                | 46%                                     | 18.17%                                                   | 841,945                                |             |                            |
| 2015                             | 749,019           |                                        | 413,306           | 55%                                | 335,713          | 45%                                | 200,598                      | 60%                                | 135,115                | 40%                                     | 18.04%                                                   | 749,019                                |             |                            |
| 2014                             | 1,032,187         |                                        | 603,851           | 59%                                | 428,336          | 41%                                | 304,910                      | 71%                                | 123,426                | 29%                                     | 11.96%                                                   | 1,032,187                              |             |                            |
| 2013                             | 989,410           |                                        | 598,703           | 61%                                | 390,707          | 39%                                | 272,891                      | 70%                                | 117,816                | 30%                                     | 11.91%                                                   | 989,410                                |             |                            |
| 2012                             | 899,440           | 99,981                                 | 505,372           | 56%                                | 394,068          | 44%                                | 273,107                      | 69%                                | 120,961                | 31%                                     | 13.45%                                                   | 899,440                                |             |                            |
| 2011                             | 1,042,952         | 30,139                                 | 601,138           | 58%                                | 441,814          | 42%                                | 326,384                      | 74%                                | 115,430                | 26%                                     | 11.07%                                                   | 1,042,952                              |             |                            |
| 2010                             | 1,067,894         |                                        | 600,306           | 56%                                | 467,588          | 44%                                | 339,797                      | 73%                                | 127,791                | 27%                                     | 11.97%                                                   | 1,067,894                              |             |                            |
| 2009                             | 989,816           |                                        | 578,128           | 58%                                | 411,688          | 42%                                | 306,339                      | 74%                                | 105,349                | 26%                                     | 10.64%                                                   | 989,816                                |             |                            |
| 2008                             | 1,044,589         |                                        | 680,703           | 65%                                | 363,886          | 35%                                | 255,506                      | 70%                                | 108,380                | 30%                                     | 10.38%                                                   | 1,044,589                              |             |                            |
| 2007                             | 1,064,959         |                                        | 672,990           | 63%                                | 391,969          | 37%                                | 284,767                      | 73%                                | 107,202                | 27%                                     | 10.07%                                                   | 1,064,959                              |             |                            |
| 2006                             | 1,270,139         |                                        | 862,073           | 68%                                | 408,066          | 32%                                | 307,093                      | 75%                                | 100,973                | 25%                                     | 7.95%                                                    | 1,270,139                              |             |                            |
| 2005                             | 1,170,810         |                                        | 733,392           | 63%                                | 437,418          | 37%                                | 308,437                      | 71%                                | 128,981                | 29%                                     | 11.02%                                                   | 1,170,810                              |             |                            |
| 2004                             | 989,737           |                                        | 570,581           | 58%                                | 419,156          | 42%                                | 297,269                      | 71%                                | 121,887                | 29%                                     | 12.32%                                                   | 989,737                                |             |                            |
| 2003                             | 1,038,562         |                                        | 667,209           | 64%                                | 371,353          | 36%                                | 263,486                      | 71%                                | 107,867                | 29%                                     | 10.39%                                                   | 1,038,562                              |             |                            |
| 2002                             | 1,024,930         | 2,513                                  | 623,021           | 61%                                | 401,909          | 39%                                | 281,502                      | 70%                                | 120,407                | 30%                                     | 11.75%                                                   | 1,024,930                              |             |                            |
| 2001                             | 989,284           |                                        | 550,789           | 56%                                | 438,495          | 44%                                | 327,569                      | 75%                                | 110,926                | 25%                                     | 11.21%                                                   | 989,284                                |             |                            |
| 2000                             | 944,493           |                                        | 551,668           | 58%                                | 392,825          | 42%                                | 267,528                      | 68%                                | 125,297                | 32%                                     | 13.27%                                                   | 944,493                                |             |                            |
| 1999                             | 935,221           |                                        | 585,049           | 63%                                | 350,172          | 37%                                | 251,900                      | 72%                                | 98,271                 | 28%                                     | 10.51%                                                   | 935,221                                |             |                            |
| 1998                             | 1,022,393         |                                        | 653,348           | 64%                                | 369,044          | 36%                                | 281,998                      | 76%                                | 87,046                 | 24%                                     | 8.51%                                                    | 1,022,393                              |             |                            |
| 1997                             | 933,671           |                                        | 605,801           | 65%                                | 327,870          | 35%                                | 251,901                      | 77%                                | 75,969                 | 23%                                     | 8.14%                                                    | 933,671                                |             |                            |
| 1996                             | 977,317           |                                        | 664,139           | 68%                                | 313,178          | 32%                                | 242,046                      | 77%                                | 71,132                 | 23%                                     | 7.28%                                                    | 977,317                                |             |                            |
| 1995                             | 563,085           |                                        | 410,110           | 73%                                | 152,975          | 27%                                | 120,089                      | 79%                                | 32,886                 | 21%                                     | 5.84%                                                    | 563,085                                |             |                            |
|                                  | 23,407,017        | 132,633                                | 14,719,363        |                                    | 8,687,653        |                                    | 6,054,064                    |                                    | 2,633,589              |                                         |                                                          |                                        |             |                            |
|                                  |                   | 0.57%                                  | 62.88%            |                                    | 37.12%           |                                    | 25.86%                       |                                    | 11.25%                 |                                         |                                                          |                                        |             |                            |
| Poz-O-Tec Hauled<br>Off-Site     | 132,633           |                                        | 83,405            |                                    | 49,228           |                                    | 34,305                       |                                    | 14,923                 |                                         |                                                          |                                        |             |                            |
| <b>Poz-O-Tec<br/>In Landfill</b> | <b>23,274,384</b> |                                        | <b>14,635,958</b> |                                    | <b>8,638,426</b> |                                    | <b>6,019,759</b>             |                                    | <b>2,618,667</b>       |                                         |                                                          |                                        |             |                            |

**Big Rivers Electric Corporation**  
**Case No. 2019-00269**  
**Poz-O-Tec Summary Sheet for Sebree Station (Estimated October 20, 2020)**

|                                                   | Green     | HMP'L<br>(Big Rivers) | HMP'L<br>(City) | Reid    |
|---------------------------------------------------|-----------|-----------------------|-----------------|---------|
| <b>Calculated Values</b>                          |           |                       |                 |         |
| Prior to 1982 (stored in Station Two ash pond)    |           | 637,271               | 74,097          | 192,703 |
| 1982 to 1994 (flyash to Green IUCS)               |           | 704,465               | 128,239         | 90,138  |
| 1982 to 1994 (bottom ash to Station Two ash pond) |           | 176,116               | 32,060          | 22,535  |
| 1979 to 1994 Green Ash Produced                   | 3,530,690 |                       |                 |         |

|                        | Landfill<br>Total | Green<br>Total    | Green<br>Percent of<br>Landfill<br>Total | Station Two<br>Waste<br>attributable<br>to<br>Big Rivers | Station Two/<br>Big Rivers<br>Percent<br>of<br>Total | Station Two<br>Waste<br>attributable<br>to<br>Henderson | Station Two/<br>Henderson<br>Percent<br>of<br>Total | Reid<br>Total  | Reid<br>Percent<br>of<br>Total |
|------------------------|-------------------|-------------------|------------------------------------------|----------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------|----------------|--------------------------------|
| <b>GRAND<br/>TOTAL</b> | <b>28,862,697</b> | <b>18,166,648</b> | <b>62.94%</b>                            | <b>7,537,612</b>                                         | <b>26.12%</b>                                        | <b>2,853,063</b>                                        | <b>9.88%</b>                                        | <b>305,375</b> | <b>1.06%</b>                   |

**Assumptions for the Calculated Values**

Prior to 1982 all ash (bottom and fly ash) from Station Two and Reid went to the Station Two ash pond.  
Starting in 1982 Reid 1 and Station Two fly ash went to the Green IUCS to make poz-o-tec from the Green scrubbers.  
Starting in 1982 Reid 1 and Station Two bottom ash went to the Station Two ash pond  
Big Rivers has poz-o-tec records for the years 1995 to the present. The breakdown between HMPL and Big Rivers is based on the monthly split memos.  
To calculate the ash production prior to 1995, Big Rivers used the actual annual fuel consumed for each unit and the fuel ash content based on available fuel quality records.  
It is assumed all bottom ash that was placed in the ash ponds was eventually dredged and stored in the Green landfill.  
It is assumed that the flyash/bottom ash split is 80% fly ash and 20% bottom ash.  
The Station Two ash breakdown between HMPL and Big Rivers is based on the actual generation that each party took from Station Two on an annual basis.  
For some of the years, the ash content in the fuel is not available. Big Rivers assumed the ash content in the fuel for the missing years was the same as the ash content for the year following the missing data.

Archived: Thursday, October 29, 2020 3:22:46 PM

**From:**

**To:**

**Subject:** Fwd: Landfill percentages

**Sensitivity:** Normal

**Attachments:**

[Landfill Decommission Percentages \(estimated\) 10-10-20-2020 .xlsx](#)

---

Chris, per our conversation please see the updated calculations regarding the Green Landfill. Please feel free to call if you have any questions. I am on the road so I have not reviewed this yet.

Bob

Begin forwarded message:

**From:** "Pullen, Mike" [REDACTED]  
**Date:** October 20, 2020 at 1:54:06 PM CDT  
**To:** "Berry, Bob" [REDACTED]  
**Subject:** Landfill percentages

\u-257 ?

Bob,

See attached for the revised file to include the assumptions.

The tab "Summary Sheet est 10-20-20" contains the calculated values for fly ash and bottom ash prior to 1995.

Here are the assumptions that were used for the calculations.

| <b>Assumptions for the Calculated Values</b>                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prior to 1982 all ash (bottom and fly ash) from Station Two and Reid went to the Station Two ash pond.                                                                                                             |
| Starting in 1982 Reid 1 and Station Two fly ash went to the Green IUCS to make poz-o-tec from the Green scrubbers.                                                                                                 |
| Starting in 1982 Reid 1 and Station Two bottom ash went to the Station Two ash pond                                                                                                                                |
| Big Rivers has poz-o-tec records for the years 1995 to the present. The breakdown between HMPL and Big Rivers is based on the monthly split memos.                                                                 |
| To calculate the ash production prior to 1995, Big Rivers used the actual annual fuel consumed for each unit and the fuel ash content based on available fuel quality records.                                     |
| It is assumed all bottom ash that was placed in the ash ponds was eventually dredged and stored in the Green landfill.                                                                                             |
| It is assumed that the flyash/bottom ash split is 80% fly ash and 20% bottom ash.                                                                                                                                  |
| The Station Two ash breakdown between HMPL and Big Rivers is based on the actual generation that each party took from Station Two on an annual basis.                                                              |
| For some of the years, the ash content in the fuel is not available. Big Rivers assumed the ash content in the fuel for the missing years was the same as the ash content for the year following the missing data. |