

Exhibit No.:
Issue: Coal Combustion Residuals and
Effluent Limitations Guidelines
Regulations – Burns & McDonnell
Environmental Master Plan –
CCR/ELG Study
Witness: Paul M. Ling
Type of Exhibit: Direct Testimony
Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2016-0285
Date Testimony Prepared: July 1, 2016

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2016-0285

DIRECT TESTIMONY

OF

PAUL M. LING

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

**Kansas City, Missouri
July 2016**

DIRECT TESTIMONY

OF

PAUL M. LING

Case No. ER-2016-0285

1 **Q: Please state your name and business address.**

2 A: My name is Paul M. Ling. My business address is 1200 Main Street, Kansas City,
3 Missouri 64105.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company (“KCP&L” or “Company”) as
6 Senior Director of Compliance.

7 **Q: What are your responsibilities?**

8 A: My responsibilities include managing the environmental compliance, permitting, and
9 policies of KCP&L. In addition, I have responsibilities for other corporate compliance
10 activities.

11 **Q: Please describe your education, experience and employment history.**

12 A: I have a B.S. in Civil Engineering awarded in May 1992 from Iowa State University. I
13 have an M.S. in Civil Engineering awarded in December 1994 from the University of
14 Kansas. I have an M.B.A. awarded in May 1997 from the University of Kansas. I have a
15 J.D. awarded in August 2001 from the University of Kansas. I am a registered
16 professional engineer in Missouri and Kansas and was employed by Black and Veatch for
17 seven years designing generation facilities. I have been employed by KCP&L for the last
18 fourteen years. The first four years I was an attorney, member of the Missouri and
19 Kansas Bars, in the Legal Department. For approximately the next seven years I was

1 either the Manager or Senior Manager of Environmental Services with responsibilities to
2 manage the Environmental Department. For the last three years, I have been the Director
3 or Senior Director of Compliance with responsibilities managing the Environmental
4 Department as well as the Operations and Corporate Compliance Departments.

5 **Q: Have you previously testified in a proceeding before the Missouri Public Service**
6 **Commission (“Commission” or “MPSC”) or before any other utility regulatory**
7 **agency?**

8 A: I have testified before the MPSC, in Case No. ER-2014-0370 and EA-2015-0256. In
9 addition, I have testified before the Kansas Corporation Commission in the La Cygne
10 predetermination docket, Docket No. 11-KCPE-581-PRE.

11 **Q: What is the purpose of your testimony?**

12 A: This testimony describes the Environmental Protection Agency (“EPA’s”) Coal
13 Combustion Residuals (“CCR”) Rule and Effluent Limitations Guidelines (“ELG”)
14 regulations and the potential impacts on KCP&L.

15 **Q: To summarize your testimony, is it correct to say that the CCR and ELG rules may**
16 **have a significant impact on KCP&L; therefore, KCP&L selected Burns &**
17 **McDonnell (“BMcD”) to perform an Environmental Master Plan – CCR/ELG**
18 **Study for the coal fleet it operates?**

19 A: Yes. Environmental Master Plan – CCR/ELG Study was requested and completed to
20 assist KCP&L in developing a preliminary plan for complying with the CCR and ELG
21 rules and to develop planning level estimates that may be required for compliance.

1 **CCR and ELG Regulations**

2 **Q: What is the CCR rule?**

3 A: The final CCR rule was published on April 17, 2015. The regulations apply to KCP&L’s
4 new and existing CCR landfills, new and existing CCR surface impoundments, and any
5 lateral expansion of these facilities that engage in the disposal of CCR. In addition, the
6 rule applies to KCP&L’s inactive surface impoundments (units no longer receiving CCR
7 but still containing both CCR and water).

8 The CCR rule establishes a federal minimum standard for disposal of CCR
9 material in surface impoundments and landfills. The rule establishes a framework to
10 address risks of groundwater contamination, structural failures of CCR impoundments,
11 locational issues, and fugitive dust emissions. Any of these CCR units posing an
12 unacceptable risk are subject to closure.

13 The rule would allow KCP&L’s existing CCR impoundments to continue
14 operating for the remainder of their service life, provided that the following scenarios do
15 not apply:

- 16 • the impoundment fails to demonstrate the required factors of safety during the
17 stability analysis,
- 18 • the impoundment is found to be contaminating groundwater, or
- 19 • the impoundment fails to meet any of the five location restrictions.

20 The rule would allow KCP&L’s existing landfills to continue operating for the
21 remainder of their service life, provided that the following scenarios do not apply:

- 22 • the landfill fails to meet the unstable areas location restriction, or
- 23 • the landfill receives the known final receipt of waste.

1 If any of these criteria for KCP&L’s impoundments or landfills cannot be met, the
2 impoundment or landfill must cease receiving CCR material and begin closure within six
3 months. Alternate closure schedules can be sought if groundwater or location restrictions
4 require closure; however, these extensions and the plan to continue operating an
5 impoundment or landfill that is either contaminating groundwater or in an unsafe location
6 will need to be demonstrated.

7 Unlike other regulations issued by the EPA, enforcement will be completed under
8 a citizen suit approach. The rule does not require permits, does not require states to adopt
9 or implement these requirements, and EPA cannot enforce the requirements. Instead
10 citizens, environmental groups, or states will enforce the requirements of the rule through
11 lawsuits. To facilitate enforcement, compliance documents are required to be posted on a
12 CCR website. Ultimately, the states will likely adopt the regulations into their solid
13 waste management plans and issue permits for new disposal facilities or closure of
14 existing facilities; however, the compliance requirements and schedules for the state
15 programs are currently unknown.

16 **Q: What is the ELG rule?**

17 A: On November 3, 2015, EPA published the final Steam Electric Effluent Limit Guidelines
18 that establishes new requirements for certain KCP&L facilities within the existing
19 regulation. The process wastewaters that will be regulated and the corresponding
20 treatment technology are as follows:

- 21 • Flue gas desulfurization (FGD) wastewater – Chemical precipitation +
22 biological treatment;
- 23 • Fly ash transport water – dry handling;

- 1 • Bottom ash transport water – dry handling or closed loop;
- 2 • Combustion residual leachate – Impoundment;
- 3 • Coal gasification wastewater – Evaporation;
- 4 • Flue gas mercury control (FGMC) waste water – Dry handling.

5 EPA expects compliance on or after the date established by the Missouri Department of
6 Natural Resources that is as soon as possible within the next permit cycle after November
7 1, 2018, and all units would have to comply no later than December 31, 2023.

8 **BMcD Environmental Master Plan – CCR/ELG Study**

9 **Q: What is the purpose of the BMcD Environmental Master Plan – CCR/ELG Study?**

10 A: BMcD identified alternatives that achieve compliance with the CCR and ELG rules at
11 KCP&L’s Hawthorn, Iatan, La Cygne, and Montrose Generating Stations. The
12 alternatives identified are based on the proposed ELG and final CCR rules as of June 30,
13 2015. Any changes to the regulations (for example, final issuance of ELG rule occurred
14 after the study completion) would impact the feasibility as well as the expected costs. As
15 the rules are updated, KCP&L will re-evaluate the expected compliance impacts.

16 **Q: What are the alternatives studied?**

17 A: The alternatives included in this study are separated between base case and upper bound
18 scenarios. The base case is intended to represent the expected scenario; if all things
19 proceed as planned, this would be the expected outcome. The upper bound alternatives
20 are intended to represent scenarios under less favorable conditions, or scenarios that
21 come at a greater cost. However, the upper bound scenarios are still confined by a sense
22 of feasibility. The study Tables 1-1, 1-2, 1-3, and 1-5 outline the compliance alternatives
23 and the scenarios investigated within the study. There were other options addressed in

1 the study that did not fall under the base case or upper bound scenarios, but instead
2 somewhere in between.

3 **Q: What are the alternatives estimates?**

4 A: The planning level capital cost estimates for these alternatives, as well as the estimated
5 annual costs for operations and maintenance with regards to groundwater monitoring
6 (which are in addition to KCP&L's current operations and maintenance costs), are
7 summarized in Table 1-7.

8 **Q: Does that conclude your testimony?**

9 A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light)
Company's Request for Authority to Implement) Case No. ER-2016-0285
A General Rate Increase for Electric Service)

AFFIDAVIT OF PAUL M. LING

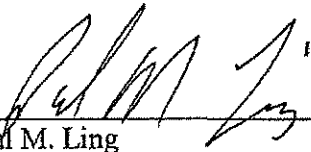
STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

Paul M. Ling, being first duly sworn on his oath, states:

1. My name is Paul M. Ling. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Senior Director of Compliance.

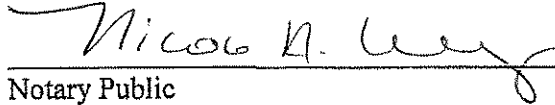
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Kansas City Power & Light Company consisting of Six (6) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.



Paul M. Ling

Subscribed and sworn before me this 15th day of July, 2016.



Notary Public

My commission expires: Feb. 4 2019

NICOLE A. WEHRY
Notary Public - Notary Seal
State of Missouri
Commissioned for Jackson County
My Commission Expires: February 04, 2019
Commission Number: 14391200