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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO.: ER-2014-0370**

**DIRECT TESTIMONY**

**OF**

**PAUL M. LING**

**ON BEHALF OF**

**KANSAS CITY POWER & LIGHT COMPANY**

**Kansas City, Missouri  
October 2014**

KCP&L Exhibit No. 127  
Date 6.15.15 Reporter AT  
File No. ER-2014-0370

**DIRECT TESTIMONY**

**OF**

**PAUL M. LING**

**Case No. ER-2014-0370**

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 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 thirteen years. The first four years I was an attorney, member of the Missouri and Kansas  
19 Bars, in the Legal Department. For approximately the next seven years I was either the

1           Manager or Senior Manager of Environmental Services with responsibilities to manage  
2           the Environmental Department. For the last two years, I have been the Director of  
3           Compliance with responsibilities managing both the Environmental Department as well  
4           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 not previously testified in a proceeding before the MPSC, but I have testified  
9           before the Kansas Corporation Commission in the La Cygne predetermination docket,  
10           Docket No. 11-KCPE-581-PRE.

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

12 A: This testimony describes significant environmental regulations and related initiatives that  
13           formed the basis of the decision to install emission control equipment to reduce emissions  
14           from the La Cygne Generating Station. This includes the Regional Haze Agreement that  
15           KCP&L executed at the request of the Kansas Department of Health and Environment  
16           (“KDHE”) for inclusion in the Kansas Regional Haze State Implementation Plan  
17           (“Regional Haze SIP”) which requires the equipment be installed at the La Cygne  
18           Generating Station by no later than June 1, 2015. In addition, this testimony describes  
19           other significant environmental regulations that require the equipment be installed.

20 **Q: To summarize your testimony, is it correct to say that the emission control**  
21 **equipment for the La Cygne Generating Station under consideration in this docket**  
22 **is (a) currently required by existing regulations, and (b) in addition, will be required**

1 by other regulations finalized or proposed by the United States Environmental  
2 Protection Agency (“EPA”) and anticipated to soon be effective?

3 A: Yes. The emission control equipment currently is required to be installed pursuant to the  
4 Regional Haze Rule and the executed Regional Haze Agreement. The Mercury and Air  
5 Toxics Rule and the Cross-State Air Pollution Rule (“CSAPR”) also require the  
6 installation of the emission control equipment. In addition, as discussed throughout my  
7 testimony, there are various expected actions by the EPA of the designation and pending  
8 recommendations of National Ambient Air Quality Standards (“NAAQS”) non-  
9 attainment of the Kansas City area, that will require the installation of some or all of the  
10 emission control equipment in the near future in addition to the final rules listed above.

11 Q: Is it also correct to say that KDHE specifically requested an agreement from  
12 KCP&L to implement the environmental control equipment under consideration in  
13 this docket for compliance with the Regional Haze Rule on a specific schedule  
14 regardless of the statutes or outcome of other existing or proposed environmental  
15 regulations?

16 A: Yes. The resulting agreement, the Regional Haze Agreement with KDHE, is discussed in  
17 my testimony.

18 I. CURRENT ENVIRONMENTAL REGULATIONS

19 Q: What are the current environmental regulations that affect the La Cygne  
20 Generating Station?

21 A: There are multiple significant regulations currently affecting the La Cygne Generating  
22 Station: (1) the Regional Haze Rule, (2) the Mercury and Air Toxics Standards  
23 (“MATS”), (3) the CSAPR, (4) the NAAQS, and (5) the Acid Rain Program. In addition,

1 there are rules that impact the handling and disposal of the byproducts generated from the  
2 combustion and emission controls at La Cygne Generating Station.

3 A. **REGIONAL HAZE RULE**

4 **Q: What is the Regional Haze Rule?**

5 A: Under the 1999 Regional Haze Rule, states are required to set periodic goals for  
6 improving visibility in the 156 natural areas in the United States. As states work to reach  
7 these goals, they must develop Regional Haze implementation plans that contain  
8 enforceable measures and strategies for reducing visibility-impairing pollution.

9 The pollutants that reduce visibility include fine particulate matter (“PM<sub>2.5</sub>”), and  
10 compounds which contribute to PM<sub>2.5</sub> formation, such as nitrogen oxides (“NO<sub>x</sub>”), sulfur  
11 dioxide (“SO<sub>2</sub>”), and, under certain conditions, volatile organic carbons (“VOCs”) and  
12 ammonia.

13 States were to develop their implementation plans by December 2007. States  
14 were to identify the facilities that would have to reduce emissions under Best Available  
15 Retrofit Technology (“BART”) and then set BART emissions limits for those facilities.

16 In June 2005, the EPA finalized amendments (also referred to as the Best  
17 Available Retrofit Technology (BART) Rule) to the 1999 Regional Haze Rule. These  
18 amendments apply to the provisions of the Regional Haze Rule that require emission  
19 control equipment known as best available retrofit technology, or BART, be installed for  
20 industrial facilities emitting air pollutants that reduce visibility by causing or contributing  
21 to regional haze.

1           The BART requirements of the Regional Haze Rule apply to facilities built  
2 between 1962 and 1977 that have the potential to emit more than 250 tons a year of  
3 visibility-impairing pollution.

4 **Q: How does the Regional Haze Rule affect the La Cygne Generating Station?**

5 A: The Regional Haze Rule directs state air quality agencies (KDHE for Kansas) to identify  
6 whether visibility-reducing emissions from sources subject to BART are below limits set  
7 by the state or whether retrofit measures are needed to reduce emissions. It also directs  
8 these agencies to file Regional Haze SIPs with the EPA for approval.

9 **Q: Has KDHE complied with these requirements?**

10 A: Yes. KDHE determined La Cygne Generating Station Units 1 and 2 were BART-eligible  
11 units subject to BART requirements and required a full BART analysis be performed on  
12 these units. KCP&L timely submitted the BART analysis covering both units in August  
13 2007. From the BART analysis, KDHE determined both Units 1 and 2 complied with the  
14 presumptive BART limits based on KDHE's BART guidance.

15           KDHE determined to negotiate agreements with the owners of Kansas facilities  
16 subject to BART and approached KCP&L to negotiate an agreement regarding the  
17 La Cygne Generating Station. KCP&L and Westar each executed Regional Haze  
18 Agreements for their respective BART-eligible facilities at the request of KDHE.  
19 KCP&L as the operator of the La Cygne Generating Station, executed the agreement for  
20 that facility. The agreements contain the applicable emission limits, compliance  
21 schedules, and monitoring requirements. KDHE incorporated these executed Regional  
22 Haze Agreements into the Kansas Regional Haze SIP.

1           The KDHE held a hearing regarding the proposed Kansas Regional Haze SIP in  
2 August 2008. KDHE received comments and held a second hearing in August 2009.  
3 KDHE submitted the Regional Haze SIP for approval to the EPA in October 2009. The  
4 EPA approved the Kansas Regional Haze SIP in December 2011. Compliance with the  
5 Regional Haze SIP is required no later than five years after the date of the EPA approval,  
6 but as indicated in this testimony, the Regional Haze Agreement with KDHE requires  
7 KCP&L to install the emission control equipment at the La Cygne Generating Station no  
8 later than June 1, 2015.

9           KDHE is required to revise its Regional Haze SIP by 2018, and every ten years  
10 thereafter. Future regional haze progress goals in these revised Kansas Regional Haze  
11 SIPs could require further reductions in SO<sub>2</sub>, NO<sub>x</sub> and fine particulate matter emissions  
12 from the emission control equipment at the La Cygne Generating Station.

13 **Q: Please describe the Regional Haze Agreement executed by KCP&L and KDHE.**

14 **A:** KDHE requested the execution of Regional Haze Agreements for all the BART-eligible  
15 facilities in Kansas for inclusion in their Regional Haze SIP. KCP&L and KDHE  
16 executed a Regional Haze Agreement regarding the La Cygne Generating Station in  
17 November 2007 incorporating limits for stack PM emissions, as well as limits for NO<sub>x</sub>  
18 and SO<sub>2</sub> emissions that complied with the presumptive limits under BART. KCP&L  
19 further agreed to use its best efforts to install emission control equipment to reduce those  
20 emissions from the La Cygne Generating Station prior to the required compliance date  
21 under BART, but in no event later than June 1, 2015.

1 **Q: Why did KCP&L agree to execute the Regional Haze Agreement with KDHE?**

2 A: As described above, KDHE determined La Cygne Generating Station Units 1 and 2 were  
3 BART-eligible and required presumptive emission limits to be met by the units. KDHE  
4 approached KCP&L to negotiate and ultimately executed an agreement that contained the  
5 BART requirements for inclusion in their Regional Haze SIP.

6 **Q: What is the impact of the Collaboration Agreement that KCP&L executed on the**  
7 **Regional Haze Agreement?**

8 A: In March 2007, KCP&L, the Sierra Club and the Concerned Citizens of Platte County  
9 entered into a Collaboration Agreement. In the Collaboration Agreement, KCP&L  
10 agreed to seek a consent agreement, which it has done through the Regional Haze  
11 Agreement, with the KDHE incorporating limits for stack particulate matter (“PM”)  
12 emissions, as well as limits for NO<sub>x</sub> and SO<sub>2</sub> emissions at the La Cygne Generation  
13 Station that will be below the presumptive limits under BART. KCP&L further agreed to  
14 use its best efforts to install emission control equipment to reduce those emissions from  
15 its La Cygne Generating Station prior to the required compliance date under BART, but  
16 in any event no later than June 1, 2015.

17 **Q: What additional emission control equipment is required for the La Cygne**  
18 **Generating Station to comply with the Regional Haze Rule?**

19 A: KCP&L installed (1) low NO<sub>x</sub> burners and selective catalytic reduction technologies  
20 (“SCR”) on Unit 2 to remove NO<sub>x</sub>; (2) scrubbers on both Units 1 and 2 to remove SO<sub>2</sub>;  
21 (3) additional and/or upgraded particulate removal equipment and sorbent injection  
22 systems on both Units 1 and 2; and (4) along with various associated support equipment,  
23 including but not limited to, (i) new dual flue stack; (ii) induced draft fans; (iii)



1 emergency generator and pump; and (iv) ash, gypsum and limestone storage and handling  
2 equipment.

3 **B. THE MERCURY AND AIR TOXICS STANDARDS**

4 **Q: What was the EPA's proposed utility maximum achievable control technologies**  
5 **("MACT") rule?**

6 A: In December 2000, the EPA announced its finding that it was "appropriate and  
7 necessary" to regulate coal- and oil-fired electric utilities under the Clean Air Act  
8 ("CAA"). This finding, known as the Utility Air Toxics Determination, triggered a  
9 requirement for the EPA to propose regulations to control air toxics emissions, including  
10 mercury, from these facilities.

11 In January 2004, the EPA proposed a rule with two basic approaches for  
12 controlling mercury from power plants. One approach would require power plants to  
13 meet emissions standards reflecting the application of the MACT determined according  
14 to the procedure set forth in the CAA. A second approach proposed by the EPA would  
15 create a market-based cap and trade program.

16 The January 2004 rule also proposed to revise the EPA's December 2000 finding  
17 that it is "appropriate and necessary" to regulate utility hazardous air emissions using the  
18 MACT standards provisions in the CAA. This action would give the EPA the flexibility  
19 to consider a more efficient and more cost-effective way to control mercury emissions.

20 In March 2005, the EPA issued the final Clean Air Mercury Rule ("CAMR"),  
21 which builds on the EPA's Clean Air Interstate Rule ("CAIR") to significantly reduce  
22 mercury emissions from coal-fired power plants. When fully implemented, these rules

1 would reduce utility emissions of mercury from 48 tons a year to 15 tons, a reduction of  
2 nearly 70 percent.

3 The CAMR established “standards of performance” limiting mercury emissions  
4 from new and existing utilities and created a market-based cap-and-trade program that  
5 will reduce nationwide utility emissions of mercury in two distinct phases. In the first  
6 phase, due by 2010, emissions were to be reduced by taking advantage of “co-benefit”  
7 reductions – that is, mercury reductions achieved while reducing SO<sub>2</sub> and NO<sub>x</sub> under the  
8 CAIR. In the second phase, due in 2018, utilities will be subject to a second cap, which  
9 will reduce emissions to 15 tons upon full implementation.

10 In May 2006, the EPA issued its determination that regulation of electric utility  
11 steam generating units under the CAA was neither necessary nor appropriate.

12 In February 2008, the United States Court of Appeals for the D.C. Circuit (“D.C.  
13 Circuit”) vacated the EPA’s rule removing power plants from the CAA list of sources of  
14 hazardous air pollutants. At the same time, the court vacated the CAMR. In May 2008,  
15 petitions for rehearing of the matter by the full court were denied. In February 2009, an  
16 appeal to the Supreme Court was denied.

17 In December 2008, environmental groups filed a petition asking the D.C. Circuit  
18 to compel the EPA to promulgate final regulations to regulate hazardous air pollutants  
19 (“HAP”) under a MACT standard. In April 2010, in a court-approved settlement  
20 agreement, the EPA agreed to develop proposed MACT standards for mercury and  
21 potentially other hazardous air pollutant emissions by March 2011 and final standards by  
22 November 2011.

1 **Q: What was the anticipated potential impact of the EPA's proposed utility MACT rule**  
2 **on the La Cygne Generating Station?**

3 A: At the time of the decision to proceed with the proposed emission control equipment at  
4 the La Cygne Generating Station, the final rule was anticipated by November 2011 and  
5 would require implementation by about 2015 unless extensions were granted. The rule  
6 was anticipated to require emission limits associated with mercury but also could include  
7 other HAPs like hydrochloric acid, hydrogen fluoride, etc. It was anticipated the  
8 requirements of the final rule would require the emission control equipment proposed for  
9 the La Cygne Generating Station.

10 **Q: What is the Mercury and Air Toxics Standards?**

11 A: In December 2011, the EPA finalized the MATS rule. MATS applies to electric  
12 generating units ("EGUs") larger than 25 megawatts that burn coal or oil for the purpose  
13 of generating electricity for sale and distribution through the national electric grid to the  
14 public. For all existing and new coal-fired EGUs, the rule establishes numerical emission  
15 limits for mercury, PM (a surrogate for toxic non-mercury metals), and hydrochloric acid  
16 (a surrogate for all toxic acid gases). The standards set work practices, instead of  
17 numerical limits, to limit emissions of organic air toxics, including dioxin/furan, from  
18 existing and new coal- and oil-fired power plants. Because dioxins and furans form as a  
19 result of inefficient combustion, the work practice standards require an annual  
20 performance test program for each unit that includes inspection, adjustment, and/or  
21 maintenance and repairs to ensure optimal combustion.

1 **Q: When is compliance required with the MATS?**

2 A: Compliance is required within three years or by April 16, 2015. Although, if an existing  
3 source is unable to comply within three years, a permitting authority (KDHE) has the  
4 discretion to grant such a source up to a 1-year extension, on a case-by-case basis, if such  
5 additional time is necessary for the installation of controls. In May 2012, KCP&L  
6 submitted a 1-year extension request to KDHE for the La Cygne Generating Station  
7 because the emission control equipment installation was anticipated to exceed April  
8 2015. In June 2012, KCP&L received the extension request until December 2015 for the  
9 La Cygne Generating Station.

10 **Q: What is the litigation status of the MATS?**

11 A: Industry and labor parties and 24 states challenged the MATS rule in the D.C. Circuit.  
12 The D.C. Circuit issued their decision in the MATS rule litigation on April 15, 2014. The  
13 court denied all petitions for review. A petition for certiorari of the D.C. Circuit's  
14 decision was filed. A severed case concerning the work practice standards applicable  
15 during startup and shutdown is being held in abeyance pending the EPA's completion of  
16 its reconsideration of those issues.

17 **Q: What is the impact of the MATS on the La Cygne Generating Station?**

18 A: While the decision to install the emission control equipment at the La Cygne Generating  
19 Station was primarily driven by the Regional Haze Rule requirements, the installed  
20 emission control equipment will also allow the station to comply with the MATS rule.

21 **C. THE CROSS-STATE AIR POLLUTION RULE**

22 **Q: What is the EPA's proposed Transport Rule which is to replace the Clean Air**  
23 **Interstate Rule?**

1 A: In March 2005, the EPA issued the CAIR which did not apply to Kansas. In July 2008,  
2 the D.C. Circuit vacated CAIR in its entirety and remanded the matter to the EPA to  
3 promulgate a new rule consistent with its opinion. The EPA and others sought rehearing  
4 of the court's decision. On December 23, 2008, the D.C. Circuit denied all petitions for  
5 rehearing and issued an order remanding the CAIR to the EPA to revise the rule  
6 consistent with its July 2008 order instead of vacating the rule.

7 In July 2010, the EPA proposed the Transport Rule to replace the CAIR. The  
8 Transport Rule, like CAIR, will require the states within its scope to reduce power plant  
9 SO<sub>2</sub> and NO<sub>x</sub> emissions that contribute to ozone and fine particle non-attainment in other  
10 states. The geographical scope of the Transport Rule is broader than CAIR, and includes  
11 Kansas in addition to Missouri and other states. The Transport Rule also would impose  
12 more stringent emissions limitations than CAIR and, unlike CAIR, would not utilize Acid  
13 Rain Program allowances for compliance. The EPA proposed a preferred approach and  
14 took comments on two alternatives. In the EPA's preferred approach, the EPA would set  
15 an emissions budget for each of the affected states. The preferred approach would allow  
16 limited interstate emissions allowance trading among power plants; however, it would not  
17 permit trading of SO<sub>2</sub> allowances between KCP&L's Kansas and Missouri power plants.  
18 In the first alternative, the EPA proposed to set an emissions budget for each state and  
19 allow emissions allowance trading only among power plants within a state. In the second  
20 alternative, the EPA proposed to set an emissions budget for each state, specify the  
21 allowable emission limit for each power plant and allow some averaging. Compliance  
22 with the Transport Rule was to begin in 2012, with additional reductions in SO<sub>2</sub>  
23 allowances allocable to KCP&L's Missouri power plants taking effect in 2014 pursuant

1 to the preferred approach. There is no such additional reduction in SO<sub>2</sub> allowances  
2 allocable to KCP&L's Kansas power plants.

3 In September 2010, October 2010, and January 2011, the EPA supplemented the  
4 record supporting the proposed Transport Rule. The EPA made available additional  
5 information relevant to the rulemaking, including, among other things, an updated  
6 version of the power sector modeling that the EPA proposes to use to support the final  
7 rule and two allowance allocation methods for EPA's preferred approach.

8 **Q: What was the potential impact of the EPA's proposed Transport Rule on the**  
9 **La Cygne Generating Station?**

10 **A:** The proposed Transport Rule was complex and contained alternative approaches. The  
11 EPA indicated they intended to issue the final Transport Rule in mid-2011. While  
12 KCP&L was making its decision on how to proceed with the proposed emission controls  
13 at the La Cygne Generating Station, it was unable to predict the actual requirements until  
14 the rule was finalized. Preliminary analysis of the Transport Rule had raised various  
15 questions regarding the emission allowances allocation to, and the allowable emission  
16 rates for, KCP&L's power plants pursuant to the preferred approach and alternatives.  
17 KCP&L projected that it may not be allocated sufficient SO<sub>2</sub> or NO<sub>x</sub> emissions  
18 allowances to cover the expected operations starting in 2012 pursuant to the preferred  
19 approach. Any shortfall in allocated allowances would need to be addressed through  
20 permissible allowance trading, installing additional emission control equipment, changes  
21 in plant operation, purchasing additional power in the wholesale market, or a combination  
22 of these and other alternatives. Based on the proposed rule it was likely that the

1 requirements of the final rule would require the proposed emission control equipment on  
2 the La Cygne Generating Station to comply with the rule.

3 **Q: What is the Cross-State Air Pollution Rule?**

4 A: In July 2011, the EPA finalized the CSAPR which the EPA had previously called the  
5 Transport Rule when proposed. The CSAPR replaces the EPA's 2005 CAIR. In order to  
6 replace CAIR as quickly as possible to address air pollution that is transported across  
7 state boundaries, the EPA adopted federal implementation plans, or FIPs, for each of the  
8 states covered by this rule. The CSAPR requires 27 states in the eastern half of the  
9 United States, including Kansas, to reduce power plant emissions that cross state lines  
10 and contribute to ground-level ozone and fine particle pollution in other states. At the  
11 same time, the EPA issued a supplemental proposal that would require six states (Iowa,  
12 Kansas, Michigan, Missouri, Oklahoma, and Wisconsin) to make summertime NOx  
13 reductions under the CSAPR ozone-season control program. Finalizing this  
14 supplemental proposal would bring the total number of covered states under the CSAPR  
15 to 28.

16 The final rule requires significant reductions in SO<sub>2</sub> and NOx emissions from  
17 power plants in the eastern half of the United States. These pollutants react in the  
18 atmosphere to form fine particulate matter ("PM<sub>2.5</sub>") and ground-level ozone and are  
19 transported long distances, making it difficult for a number of states to meet the national  
20 clean air standards. Emission reductions under the CSAPR were to take effect quickly.  
21 The first phase of compliance was to begin January 1, 2012 for SO<sub>2</sub> and annual NOx  
22 reductions and May 1, 2012 for ozone season NOx reductions. The second phase of SO<sub>2</sub>  
23 reductions was to begin January 1, 2014. By 2014, the CSAPR and other final state and

1 EPA actions were to have reduced power plant SO<sub>2</sub> emissions by 73 percent from 2005  
2 levels. Power plant NO<sub>x</sub> emissions were to drop by 54 percent.

3 The rule allows air-quality-assured allowance trading among covered sources,  
4 utilizing an allowance market infrastructure based on existing, successful allowance  
5 trading programs. The final CSAPR allows sources to trade emissions allowances with  
6 other sources within the same program (e.g., ozone season NO<sub>x</sub>) in the same or different  
7 states, while firmly constraining any emissions shifting that may occur by requiring a  
8 strict emission ceiling in each state (the budget plus variability limit). It also includes  
9 assurance provisions that ensure each state will make the emission reductions necessary  
10 to fulfill the “good neighbor” provision of the CAA.

11 The EPA initiated three additional CSAPR-related rulemakings revising the terms  
12 of the final rule. The first of the subsequent rules added certain states to the list of those  
13 subject to CSAPR’s ozone-season NO<sub>x</sub> program (excluding Kansas); the other two  
14 corrected errors in the final rule, resulting in revisions to several states’ CSAPR emission  
15 budgets, and extended the date on which certain restrictions on use of traded and banked  
16 emission allowances under the CSAPR program would take effect.

17 **Q: What is the litigation status of the CSAPR?**

18 A: In the late summer and early fall of 2011, dozens of parties filed petitions for review of  
19 CSAPR in the D.C. Circuit. In total, 45 petitions for review of CSAPR were filed.  
20 Others also filed petitions for review of the three CSAPR-related rules described above  
21 that the EPA published after it published the final CSAPR. Those cases were held in  
22 abeyance at the request of the parties pending final resolution of the CSAPR litigation.



1           Several petitioners filed motions to stay CSAPR. On December 30, 2011, the last  
2 business day before CSAPR was scheduled to take effect, the D.C. Circuit granted the  
3 motions to stay CSAPR. The Court’s order stayed the effectiveness of CSAPR pending  
4 the Court’s resolution of the petitions for review and stated that the EPA “is expected to  
5 continue administering” CAIR during the period of the stay. The Court ordered an  
6 expedited briefing schedule on the merits.

7           In August 2012, the D.C. Circuit issued a decision vacating CSAPR in its entirety  
8 and remanding it to the EPA, and directed the EPA to continue administering CAIR  
9 pending promulgation of a “valid replacement” rule. In March 2013, the EPA and  
10 environmental groups filed petitions for a writ of certiorari with the U.S. Supreme Court,  
11 requesting review by that court of the D.C. Circuit’s decision.

12           The Supreme Court issued its decision in April 2014, reversing the D.C. Circuit’s  
13 August 2012 judgment and remanding the case to the D.C. Circuit for additional  
14 litigation proceedings consistent with the Supreme Court’s opinion. The Supreme Court  
15 concluded that “wholesale invalidation” of CSAPR was not justified on the basis of the  
16 D.C. Circuit’s rationale. The Supreme Court explained that challenges to CSAPR could  
17 proceed, after remand of the case to the D.C. Circuit, on any grounds on which  
18 application of CSAPR might be arbitrary or otherwise improper.

19           In addition, the Supreme Court recognized that issues that petitioners had briefed  
20 in the D.C. Circuit in their challenges to CSAPR, but that the D.C. Circuit did not address  
21 in its 2012 decision, because it had no need to address them given its conclusion that  
22 CSAPR was invalid on other grounds, remain available to be pursued by petitioners in  
23 remand proceedings in the D.C. Circuit.

1           The EPA and environmental groups filed motions with the D.C. Circuit to lift the  
2 stay of CSAPR. If CSAPR is ultimately to go into effect, additional EPA rulemakings  
3 may first be necessary to amend the rule's compliance dates and perhaps to make other  
4 changes necessary to account for the passage of time since the EPA promulgated the rule  
5 three years ago.

6 **Q: What is the impact of the CSAPR on the La Cygne Generating Station?**

7 A: While the decision to install the emission control equipment at the La Cygne Generating  
8 Station was primarily driven by the Regional Haze Rule requirements, the installed  
9 emission control equipment will also allow the station to comply with the CSAPR if it  
10 becomes effective.

11 **D. NATIONAL AMBIENT AIR QUALITY STANDARDS**

12 **Q: What are the NAAQS?**

13 A: The CAA requires the EPA to establish NAAQS for six common air pollutants. These  
14 commonly found air pollutants (also known as "criteria" pollutants) are (1) particulate  
15 matter; (2) ground-level ozone; (3) nitrogen dioxide ("NO<sub>2</sub>") ; (4) SO<sub>2</sub>; (5) lead; and (6)  
16 carbon monoxide ("CO"). The EPA calls these pollutants "criteria" air pollutants  
17 because it regulates them by developing human health-based and/or environmentally-  
18 based criteria (science-based guidelines) for setting permissible levels. The set of limits  
19 based on human health is called the primary standard. Another set of limits intended to  
20 prevent environmental and property damage is called the secondary standard. Based on  
21 information and recommendations supplied by the states, the EPA classifies areas of the  
22 country as (i) "attainment" areas (*i.e.*, locations in which air quality is in compliance with  
23 NAAQS), and (ii) "non-attainment" areas (*i.e.*, locations where air quality fails to meet

1 the standard for one or more criteria air pollutants). A finding that an area is in non-  
2 attainment requires development of a plan, called a Maintenance Plan, to bring the area  
3 into compliance with the NAAQS. The CAA delegates to the states the responsibility for  
4 developing and implementing compliance plans.

5 **(1) PARTICULATE MATTER NAAQS**

6 **Q: What is the PM NAAQS?**

7 A: The EPA revised the air quality standards for PM in 2006. The 2006 standards tightened  
8 the 24-hour fine particulate matter (“PM<sub>2.5</sub>”) emission standard from 65 micrograms per  
9 cubic meter (“µg/m<sup>3</sup>”) to 35 µg/m<sup>3</sup>, and retained the annual fine particulate matter  
10 emission standard at 15 µg/m<sup>3</sup>. The EPA retained the existing 24-hour coarse particle  
11 (“PM<sub>10</sub>”) standard of 150 µg/m<sup>3</sup> but revoked the annual PM<sub>10</sub> standard. Ambient air  
12 particulate particles are currently measured by a state operated monitoring network with  
13 monitors across the state. In February 2009, the D.C. Circuit granted petitions for review  
14 of the revised primary and secondary annual fine particulate matter standards and  
15 remanded the matter to the EPA for reconsideration.

16 The EPA issued a revised PM standard in 2013. The standards reduced the  
17 annual primary PM<sub>2.5</sub> NAAQS to 12 µg/m<sup>3</sup>. The rule also adopted requirements for  
18 near-road PM<sub>2.5</sub> monitoring. The rule did not, however, add a new, separate secondary  
19 standard. In May 2014, the D.C. Circuit upheld legal challenges for most aspects of the  
20 2013 PM NAAQS rule.

21 **Q: Is the Kansas City area currently in attainment of the particulate matter NAAQS?**

22 A: Yes. The Kansas City area is currently in attainment of the 2013 PM NAAQS. No  
23 additional emission control equipment is currently needed at the La Cygne Generating

1 Station to comply with this standard. It is not known whether the Kansas City area will  
2 remain in attainment of a future revision of the standard.

3 **(2) OZONE NAAQS**

4 **Q: What is the Ozone NAAQS?**

5 A: Ground-level ozone is not emitted directly into the air, but is created by chemical  
6 reactions between NO<sub>x</sub> and volatile organic compounds in the presence of sunlight.  
7 Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline  
8 vapors, and chemical solvents are some of the major sources of NO<sub>x</sub> and VOCs.  
9 Ground-level ozone is measured at various monitoring stations in and around the Kansas  
10 City metropolitan area to determine compliance with this standard.

11 In March 2008, the EPA significantly strengthened the NAAQS for ground-level  
12 ozone. The EPA's final rule revised both ozone standards: the primary standard,  
13 designed to protect human health; and the secondary standard, designed to protect  
14 welfare (such as vegetation and crops). The EPA set the primary standard to a level of 75  
15 parts per billion ("ppb"). The EPA also strengthened the secondary 8-hour ozone  
16 standard to the level of 75 ppb making it identical to the revised primary standard.

17 In January 2010, the EPA proposed to strengthen the 2008 NAAQS for ground-  
18 level ozone yet again. The EPA proposed to strengthen the 8-hour "primary" ozone  
19 standard, designed to protect public health, to a level within the range of 60-70 ppb. The  
20 EPA also proposed to establish a distinct cumulative, seasonal "secondary" standard,  
21 designed to protect sensitive vegetation and ecosystems, including forests, parks, wildlife  
22 refuges and wilderness areas. The EPA proposed to set the level of the secondary  
23 standard within the range of 7-15 parts per million- ("ppm") hours. The proposed

1 revisions result from a reconsideration of the identical primary and secondary ozone  
2 standards set at 75 ppb in 2008. In September 2011, President Obama asked the EPA to  
3 withdraw the proposed rule. The EPA withdrew the rule and announced that it would  
4 continue to address the ozone NAAQS as part of its periodic review of the NAAQS,  
5 already underway. Thereafter, litigation concerning the 2008 ozone NAAQS revisions  
6 resumed. In July 2013, the D.C. Circuit issued its opinion, upholding the revisions to the  
7 primary standard, but remanding the secondary NAAQS to the EPA.

8 The statutory deadline for the EPA to complete its review of the 2008 NAAQS  
9 standards was March 2013. The EPA did not meet that deadline. Several environmental  
10 groups filed suit seeking an order that the EPA complete the review. In April 2014, the  
11 court adopted the plaintiffs' proposed schedule. Thus, the EPA must issue a proposal by  
12 December 2014 and a final rule no later than October 2015. The EPA staff have  
13 recommended that the Administrator consider reducing the level of the 8-hour primary  
14 NAAQS from 75 ppb to within the range of 60 to 70 ppb and replacing the 75 ppb  
15 secondary standard with a secondary standard within the range of 7 to 15 ppm-hrs.

16 **Q: Is the Kansas City area currently in attainment of the Ozone NAAQS?**

17 **A:** Yes. The Kansas City area is currently in attainment of the 1997 Ozone NAAQS;  
18 however, ambient air monitors indicate the Kansas City area could be placed in non-  
19 attainment of the 2008 Ozone NAAQS but the EPA has not yet acted. In addition, until  
20 the 2015 Ozone NAAQS is finalized and designations determined, it is unknown if the  
21 Kansas City area will be in attainment of the 2015 Ozone NAAQS. Currently, no  
22 additional emission control equipment is needed at the La Cygne Generating Station to  
23 comply with the 2008 Ozone NAAQS, but if additional phases of the 1997 Ozone

1 NAAQS Maintenance Plan are triggered, or if a non-attainment designation of the 2008  
2 or 2015 Ozone NAAQS is determined, additional emission control equipment could be  
3 required.

4 **Q: Please explain.**

5 A: In June 2007, monitor data indicated that the Kansas City area violated the primary  
6 8-hour 1997 Ozone NAAQS. Missouri and Kansas implemented the Phase 1 responses  
7 established in their respective Maintenance Plans for control of ozone. Kansas has not  
8 yet implemented Phase 2 of the Maintenance Plan which could require NO<sub>x</sub> reduction at  
9 additional sources yet to be identified. The EPA has various options over and above the  
10 implementation of the Maintenance Plans for control of ozone to address the violation but  
11 has not yet acted to impose any additional options.

12 In 2008, KDHE released a proposed recommendation that the Kansas City area  
13 violated the 2008 8-hour Ozone NAAQS based on the 2006-2008 ozone monitoring data.  
14 The proposed boundaries for the 8-hour ozone non-attainment areas in Kansas City  
15 include the following Kansas counties: Johnson and Wyandotte. KDHE accepted  
16 comments on the recommendation, and then submitted its recommendation to the EPA in  
17 March 2009. The EPA has not yet acted on KDHE's recommendation. The Kansas City  
18 area is considered in attainment unless and until the EPA confirms KDHE's  
19 recommendation or a subsequent designation recommendation.

20 **(3) NO<sub>2</sub> NAAQS**

21 **Q: What is the NO<sub>2</sub> NAAQS?**

22 A: In January 2010, the EPA strengthened the health-based NAAQS for NO<sub>2</sub>. The EPA set  
23 a new one-hour NO<sub>2</sub> standard at the level of 100 ppb. EPA retained, with no change, the

1 current annual average NO<sub>2</sub> standard of 53 ppb. All areas of the country presently meet  
2 the current standard. The annual average NO<sub>2</sub> concentrations range from approximately  
3 10-20 ppb across the country.

4 To determine compliance with the new standard, the EPA is establishing new  
5 ambient air monitoring and reporting requirements for NO<sub>2</sub>. In urban areas, monitors are  
6 required near major roads as well as in other locations where maximum concentrations  
7 are expected. New NO<sub>2</sub> monitors began operating in January 2013. These changes will  
8 not affect the secondary NO<sub>2</sub> standard, set to protect public welfare. The EPA is  
9 considering the need for changes to the secondary standard under a separate review.

10 **Q: Is the Kansas City area currently in attainment of the NO<sub>2</sub> NAAQS?**

11 A: Yes. The Kansas City area is currently in attainment of the NO<sub>2</sub> NAAQS. It is not yet  
12 known whether the Kansas City area will remain in attainment of a future NO<sub>2</sub> NAAQS  
13 revised standard.

14 **(4) SO<sub>2</sub> NAAQS**

15 **Q: What is the SO<sub>2</sub> NAAQS?**

16 A: In June 2010, the EPA strengthened the primary NAAQS for SO<sub>2</sub>. The EPA revised the  
17 primary SO<sub>2</sub> standard, designed to protect public health, to 75 ppb measured over one  
18 hour. The EPA revoked the two existing primary standards of 140 ppb measured over  
19 24 hours, and 30 ppb measured over an entire year. The EPA is also considering the need  
20 for changes to the secondary standard under a separate review.

21 States and industries requested reconsideration, that was denied, filed suit in the  
22 D.C. Circuit seeking judicial review of both the final rule. In July 2012, the D.C. Circuit  
23 upheld the rule. Although litigation over the standard is over, questions over its

1 implementation remain far from settled. The intense opposition by many states and  
2 industries to the novel modeling-based implementation approach led the EPA in April  
3 2012 to send letters to the states making it clear that the EPA no longer expected the  
4 states' SIPs to include any modeling or attainment demonstrations.

5 In August 2012, the EPA published notice that it needed more time to make its  
6 final designations. The EPA said it intended to use the additional year permitted by the  
7 CAA for it to make designations until June 2013.

8 In February 2013, the EPA announced a comment period on its proposed  
9 responses to the designations that it had received from states. The EPA indicated that in  
10 June 2013, it would not be promulgating designations for all areas. Instead, the EPA said  
11 it intended to promulgate designations only for areas with monitoring data showing non-  
12 attainment. The EPA indicated that it planned to release for public comment draft  
13 technical assistance documents for modeling and monitoring, followed in later 2013 by a  
14 proposed rule on data requirements for determining attainment of the SO<sub>2</sub> NAAQS. The  
15 EPA indicated that by 2015, states would have to identify where they would use SO<sub>2</sub>  
16 monitoring data in NAAQS implementation and where they would want to use air quality  
17 modeling in NAAQS implementation. In 2016, states would have to provide new  
18 monitoring plans and modeling protocols. Further designations based on modeling would  
19 be made in December 2017 and those based on monitoring would be made in December  
20 2020. In addition, the document indicates that states will have the option to submit by  
21 December 2017 SIPs that contain source-specific enforceable emission limits to avoid  
22 non-attainment designations.



1           In August 2013, the EPA published a final rule that designated as non-attainment  
2 29 areas in 16 states including an area in Kansas City. States must submit control  
3 strategy SIPs for these areas within 18 months of those designations. Based on the  
4 October 2013 effective date of these designations, the EPA expects these SIPs no later  
5 than April 2015. In April 2014, the EPA issued guidance for the preparation of these  
6 SIPs.

7           A case was filed in federal district court alleging that the EPA had failed to make  
8 designations for the rest of the country by the statutory deadline of June 2013. In May  
9 2014, the EPA and the environmental group petitioners lodged a consent decree with the  
10 court over the objections of the state intervenors. Under the consent decree, within 16  
11 months after its entry, the EPA would have to make designations for (1) any area that had  
12 monitored a violation of the one-hour NAAQS in the preceding three years, and (2) for  
13 any area with a source included in EPA's Clean Air Markets Database that, in 2012,  
14 emitted more than 16,000 tons of SO<sub>2</sub> or emitted at least 2,600 tons of SO<sub>2</sub> and had an  
15 annual average emission rate of at least 0.45 lbs/mmBtu unless that source has announced  
16 it will cease burning coal. Then, by December 31, 2017, the EPA would have to sign a  
17 rule making designations for any area not previously designated and that had not begun  
18 operating a new SO<sub>2</sub> monitoring network meeting the EPA specifications. Finally, by  
19 December 31, 2020, the EPA would have to sign a rule making designations for all  
20 remaining areas.

21           In May 2014, just prior to lodging the consent decree on designations, the EPA  
22 proposed an SO<sub>2</sub> Data Requirements Rule. This proposed rule largely implements the  
23 approach to designations that the EPA had outlined in its February 2013 strategy

1 document. It gives states the option of using either new monitoring or modeling as the  
2 basis for designations. Consistent with the schedule in the consent decree, the proposal is  
3 for designations based on modeling to be made by December 31, 2017, and those based  
4 on monitoring to be made by December 31, 2020. The EPA has also released draft  
5 technical assistance documents to provide more information on the monitoring or  
6 modeling to be used for designations.

7 **Q: Is the Kansas City area currently in attainment of the SO<sub>2</sub> NAAQS?**

8 A: No. An area of Jackson County in the Kansas City area has been designated non-  
9 attainment of the SO<sub>2</sub> NAAQS. As indicated above, the Missouri Department of Natural  
10 Resources ("MDNR") is preparing a non-attainment area maintenance plan to return the  
11 area to compliance with the 2010 SO<sub>2</sub> NAAQS. Currently, no additional emission  
12 control equipment is needed at the La Cygne Generating Station to comply with this non-  
13 attainment designation, but the emission control equipment installed as part of the  
14 environmental upgrades to the La Cygne Generating Station under consideration in this  
15 docket may be necessary in the future to comply with the consent agreement and Data  
16 Requirements Rule which have not yet been finalized. In addition, it is not yet known  
17 whether the Kansas City area will remain in attainment of a future SO<sub>2</sub> NAAQS revised  
18 standard.

19 **(5) LEAD NAAQS**

20 **Q: What is the Lead NAAQS?**

21 A: In October 2008, the EPA substantially strengthened the NAAQS for lead. The EPA  
22 revised the level of the primary standard from 1.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), to

1 0.15 µg/m<sup>3</sup>, measured as total suspended particulates. The EPA revised the secondary  
2 standard to be identical in all respects to the primary standard.

3 **Q: Is the Kansas City area currently in attainment of the Lead NAAQS?**

4 A: Yes. The Kansas City area is currently in attainment of the Lead NAAQS based on  
5 existing ambient air monitoring. Currently, no additional emission control equipment is  
6 needed at the La Cygne Generating Station to comply with this standard. It is not known  
7 whether the Kansas City area will remain in attainment of a future revision of the  
8 standard.

9 **(6) CO NAAQS**

10 **Q: What is the CO NAAQS?**

11 A: In August 2011, the EPA issued a decision to retain the existing NAAQS for CO.

12 **Q: Is the Kansas City area currently in attainment of the CO NAAQS?**

13 A: Yes. The Kansas City area is currently in attainment of the CO NAAQS. Currently, no  
14 additional emission control equipment is needed at the La Cygne Generating Station to  
15 comply with this standard. It is not known whether the Kansas City area will remain in  
16 attainment of a future revision of the standard.

17 **Q: How does NAAQS affect the La Cygne Generating Station?**

18 A: A finding that an area is in non-attainment requires development of a plan to bring the  
19 area into compliance with the NAAQS standards. For the Kansas City areas in Kansas  
20 deemed in non-attainment, KDHE has responsibility for development of such a plan. As  
21 part of the plan, KDHE may require the installation of emission control equipment on  
22 certain power plants such as the La Cygne Generating Station or other emission sources if  
23 such equipment is not already in place. Currently, the counties in KCP&L's Kansas and

1 Missouri service territories are all in attainment of the NAAQS with the exception of the  
2 SO<sub>2</sub> standard. Notably, a violation and non-attainment designation has been  
3 recommended regarding ozone, but currently no action has been taken by the EPA.

4 **Q: How does the ozone NAAQS violation affect the La Cygne Generating Station?**

5 A: The Maintenance Plans for the Control of Ozone for the Kansas City area were submitted  
6 by KDHE and MDNR and approved by the EPA in July 2007. The plans cover both  
7 Missouri and Kansas sources affecting the Kansas City metropolitan area and include  
8 contingency control measures that go into effect if associated triggers (such as a violation  
9 of the 8-hour ozone standard) occur.

10 In June 2007, the Kansas City area violated the 8-hour ozone NAAQS. Missouri  
11 has implemented the Phase I contingency measures established in its Maintenance Plan  
12 for control of ozone. The Phase I trigger required early implementation of CAIR NO<sub>x</sub>  
13 controls at Iatan Unit 1 and the Sibley Station units. The installation of the NO<sub>x</sub> controls  
14 at these units is complete and the controls are in operation.

15 If Phase II of the Kansas Maintenance Plan is triggered by continued high ozone  
16 values, it would require additional emission controls to be implemented within two years  
17 following the end of the ozone season that triggered the Phase II contingency measure.  
18 The consequence of the Phase II trigger of the Kansas Maintenance Plan is additional  
19 NO<sub>x</sub> controls at La Cygne Unit 2. Phase II has not yet been triggered.

1 **Q: How does the Ozone NAAQS recommended non-attainment designation affect the**  
2 **La Cygne Generating Station?**

3 A: In March 2009, both KDHE and MDNR made non-attainment recommendations for  
4 Ozone NAAQS for Kansas City metropolitan counties. The EPA is expected to propose  
5 to strengthen the NAAQS for ground-level ozone.

6 In consideration of the above, the Kansas City metropolitan area is likely to be in  
7 non-attainment for ozone within the next few years. In developing compliance plans, the  
8 largest emission sources are usually targeted for reductions first because of the economic  
9 advantage of such additional emission controls. Therefore, non-attainment will likely  
10 make the La Cygne Generating Station subject to more stringent NOx emission  
11 requirements. Such requirements will likely require the NOx emission control equipment  
12 installed as part of the environmental upgrades to the La Cygne Generating Station under  
13 consideration in this docket.

14 **E. ACID RAIN PROGRAM**

15 **Q: What is the Acid Rain Program?**

16 A: Acid rain occurs when SO<sub>2</sub> and NO<sub>x</sub>, emissions are transformed in the atmosphere to  
17 acids and are returned to the ground in the form of rain and dust. The Acid Rain Program  
18 was established in Title IV of the 1990 amendments to the CAA to reduce emissions that  
19 cause this phenomenon. Title IV establishes a nationwide cap on electric utility SO<sub>2</sub>  
20 emissions, implemented through an emission trading system.

21 Under this system, the EPA annually assigns a specified number of SO<sub>2</sub>  
22 allowances to each emitter that can be used that year or any year thereafter. For each  
23 such allowance, the allowance holder has the right to emit one ton of SO<sub>2</sub>. Allowances

1 are like land, there is a fixed quantity available, but they are tradable and there is a  
2 secondary market for them.

3 At the end of each year, each emitting unit must have enough allowances to cover  
4 its emissions for that year. Operators of units that are anticipated to emit SO<sub>2</sub> in excess of  
5 their allowances must acquire additional allowances to meet the excess or pay a penalty  
6 to the EPA.

7 In addition to the cap on SO<sub>2</sub> emissions, the Acid Rain Program requires  
8 extensive monitoring and reporting of plant emissions, requires Acid Rain Permits,  
9 establishes a system-wide NO<sub>x</sub> emission rate limit for coal-fired generating units, and  
10 requires the installation, operation, calibration, and annual certification of continuous  
11 emission monitors.

12 **Q: How does the Acid Rain Program affect the La Cygne Generating Station?**

13 A: The La Cygne Generating Station will need to continue to maintain Acid Rain Program  
14 allowances for SO<sub>2</sub> emissions. KCP&L and Westar must each provide sufficient  
15 allowances annually for their individual shares of generation from the La Cygne  
16 Generating Station. The environmental control investment under consideration in this  
17 docket includes stack monitoring costs required by the Acid Rain Program.

18 **II. OTHER EPA RULEMAKINGS**

19 **Q: What other EPA initiatives may ultimately require the proposed emission controls  
20 at the KCP&L La Cygne Generating Station?**

21 A: Other EPA rulemaking initiatives may ultimately require the proposed emission controls  
22 at the La Cygne Generating Station including those that address utility water and waste  
23 regulations.

1 A. **EFFLUENT LIMITATION GUIDELINES**

2 Q: **What are the proposed effluent limitation guidelines for the steam electric power**  
3 **plants?**

4 A: In April 2013, the EPA proposed to revise the technology-based effluent limitations  
5 guidelines and standards that would strengthen the existing controls on discharges from  
6 steam electric power plants. The proposal sets the federal limits on the levels of toxic  
7 metals in wastewater that can be discharged from power plants, based on technology  
8 improvements in the steam electric power industry over the last three decades.

9 Generally, the proposed rule would establish new or additional requirements for  
10 wastewater streams from the following processes and byproducts associated with steam  
11 electric power generation: flue gas desulfurization, fly ash, bottom ash, flue gas mercury  
12 control, and gasification of fuels such as coal and petroleum coke.

13 The EPA is considering several options in this rulemaking and has identified four  
14 preferred alternatives for regulation of discharges from existing sources. These four  
15 proposed options differ in the number of waste streams covered the size of the units  
16 controlled, and the stringency of the controls that would be imposed. The EPA also  
17 projects different levels of pollutant reduction and cost associated with these alternatives.

18 Q: **What is the potential impact of the EPA's proposed effluent limitation guidelines on**  
19 **the La Cygne Generating Station?**

20 A: KCP&L cannot determine the impacts of the EPA's proposed effluent limitation  
21 guidelines until an option is selected by the EPA and the final regulation is enacted.  
22 Currently, the La Cygne Generating Station Unit 1 scrubber discharges slurry to a surface  
23 impoundment. The requirements of the final rule may require the installed emission

1 controls, which include dry handling of coal combustion products (“CCPs”) from the  
2 scrubbers, on the La Cygne Generating Station.

3 **B. UTILITY WASTE REGULATIONS**

4 **Q: How do the utility waste regulations affect the La Cygne Generating Station?**

5 A: KCP&L generates utility waste known as CCPs from the generation of electricity. The  
6 proposed emission control equipment collects the CCPs. While the regulations define  
7 CCPs as waste, many CCPs have beneficial and productive uses.

8 **Q: What is the EPA’s proposed coal combustion residuals rule?**

9 A: In May 2010, the EPA proposed to regulate coal combustion residuals (“CCRs”) under  
10 the Resource Conservation and Recovery Act (“RCRA”) to address the risks from the  
11 disposal of CCRs generated from the combustion of coal at electric generating facilities.  
12 The EPA is considering two options in this proposal. Under the first proposal, the EPA  
13 would regulate CCRs as special wastes subject to regulation under subtitle C of RCRA,  
14 when they are destined for disposal in landfills or surface impoundments. Under the  
15 second proposal, the EPA would regulate disposal of CCRs under subtitle D of RCRA.

16 **Q: What is the potential impact of the EPA’s proposed CCRs rule on the La Cygne  
17 Generating Station?**

18 A: KCP&L cannot determine the impacts of the EPA’s proposed CCRs rule until an option  
19 is selected by the EPA and the final regulation is enacted. Both the subtitle C and D  
20 regulatory options proposed would require: (i) liner systems for new landfills and surface  
21 impoundments; (ii) surface impoundment design, operation, and inspection programs;  
22 (iii) location restrictions for disposal facilities; and (iv) groundwater monitoring. Under  
23 both options, existing surface impoundments would need to be retrofitted with a liner or



1 close within seven years. To close the surface impoundments would require the  
2 conversion from wet handling to dry handling of CCRs for disposal in a dry landfill.  
3 Currently, the La Cygne Generating Station Unit 1 scrubber discharges slurry to a surface  
4 impoundment. The requirements of the final rule may require the installed emission  
5 controls, which include dry handling of CCRs from the scrubbers, on the La Cygne  
6 Generating Station.

7 **C. PRESIDENT'S CLIMATE ACTION PLAN**

8 **Q: What is the President's Climate Action Plan?**

9 A: In 2007 the Supreme Court's decision in *Massachusetts v. EPA*, held that greenhouse  
10 gases ("GHG") meet the definition of air pollutant in the CAA and that the EPA therefore  
11 has authority to regulate those emissions under the act to address climate change if the  
12 EPA makes certain findings that are prerequisites to regulation.

13 In June 2013, the President announced a series of actions to reduce carbon  
14 pollution, prepare the country for the impacts of climate change, and lead international  
15 efforts to address global climate change. One component of the plan was to reduce  
16 carbon pollution from existing power plants.

17 The President's Climate Action Plan specifically directed the EPA to issue  
18 proposed carbon pollution standards, regulations, or guidelines, as appropriate, for  
19 modified, reconstructed, and existing power plants by no later than June 1, 2014; issue  
20 final standards, regulations, or guidelines, as appropriate, for modified, reconstructed, and  
21 existing power plants by no later than June 1, 2015; and require states to submit section  
22 111(d) plans by no later than June 30, 2016.

1 **Q: What are the proposed existing power plant carbon standards?**

2 A: Section 111(d) of the CAA governs the regulation of emissions from existing sources of  
3 air pollutants that are not listed as criteria air pollutants pursuant to section 108 of the  
4 CAA or listed as hazardous air pollutants under CAA section 112. Regulation of existing  
5 sources under this provision rarely occurs. Section 111(d) does not directly authorize the  
6 EPA to establish standards of performance for existing sources. Rather, that section of  
7 the CAA directs the EPA to issue regulations governing the procedure by which states are  
8 to submit plans to the EPA regarding how the states will regulate existing sources within  
9 their borders. The EPA's regulations set forth a process that is much like the one used by  
10 states to develop their SIPs.

11 On June 2, 2014, the EPA issued its proposed rule regarding regulation of carbon  
12 dioxide ("CO<sub>2</sub>") emissions from existing power plants under section 111(d), which the  
13 EPA calls the Clean Power Plan. The Clean Power Plan would require each state with  
14 fossil fuel-fired generation to meet state-specific emission rate-based CO<sub>2</sub> goals by 2030.  
15 Each state's rate is calculated using a basic formula: CO<sub>2</sub> emissions from fossil fuel-fired  
16 power plants in pounds divided by state electricity generation from fossil fuel-fired power  
17 plants and certain low- or zero-emitting power sources in megawatt hours. State- and  
18 regional-specific information (such as the state's fuel mix and its electricity market) is  
19 plugged into the formula, and the result of the equation is the state-specific goal that must  
20 be met by 2030. In addition to the 2030 final goal, the EPA assigned each state an  
21 interim reduction target, which is an average emission rate that must be met over the  
22 period 2020 to 2029.

1           The EPA says that these state-specific goals reflect its consideration of best  
2 system of emission reduction (“BSER”), which is determined based on four building  
3 blocks: (1) reducing the carbon intensity of generation at EGUs through heat rate  
4 improvements; (2) reducing CO<sub>2</sub> emissions by substituting generation at carbon-intensive  
5 EGUs with generation from less carbon-intensive generation (*i.e.*, environmental  
6 dispatch); (3) reducing CO<sub>2</sub> emissions by substituting generation at fossil fuel-fired  
7 EGUs with expanded low- or zero-carbon generation (*i.e.*, increased renewable  
8 generating capacity, increased nuclear generation); and (4) reducing CO<sub>2</sub> emissions  
9 through the use of demand-side energy efficiency programs. In the proposed rule, the  
10 EPA says that states can adopt any mix of these building block policies or any other  
11 measures to achieve the state-specific emission reduction goals the EPA has identified,  
12 including entering into multi-state emission allowance trading programs or using the  
13 portfolio approach, which the EPA describes as plan components where full  
14 responsibility for actions achieving reductions is not placed entirely upon emitting EGUs;  
15 instead, state plans could include measures and policies (*e.g.*, demand-side energy  
16 efficiency programs and renewable portfolio standards) for which the state itself is  
17 responsible.

18           The proposed rule also contains guidelines to assist states in the development,  
19 submission, and implementation of state plans, including approvability criteria,  
20 requirements for state plan components, the process and timing for state plan submittal,  
21 and the process and timing for demonstrating achievement of the CO<sub>2</sub> emission  
22 performance level in each state plan. The EPA proposes to evaluate the approvability of  
23 state plans based on four general criteria: (1) enforceable measures that reduce CO<sub>2</sub>

1 emissions from EGUs; (2) projected achievement of emission performance equivalent to  
2 the goals established by the EPA, on a timeline equivalent to that in the emission  
3 guidelines; (3) quantifiable and verifiable emission reductions; and (4) a process for  
4 biennial reporting on plan implementation, progress toward achieving CO<sub>2</sub> goals, and  
5 implementation of corrective actions, if necessary. Each state must submit a plan to the  
6 EPA by June 30, 2016, but if a state needs additional time, it can submit an initial plan by  
7 June 30, 2016, that documents the reasons why the state needs more time and includes  
8 commitments for concrete steps that will ensure that the state will submit a complete plan  
9 by June 30, 2017 (for plans based on single-state programs), or by June 30, 2018 (for  
10 plans based on multi-state programs). The EPA also proposes to extend from four  
11 months to twelve months the period for the EPA to review and approve or disapprove the  
12 state plans.

13 **Q: What is the potential impact of the proposed existing power plant carbon standards**  
14 **on the La Cygne Generating Station?**

15 A: KCP&L cannot determine the impacts of the EPA's proposed existing power plant  
16 carbon standards until the EPA determines how to proceed based on comments received  
17 and when the final regulation is enacted. While KCP&L has not analyzed Missouri's  
18 ability to meet the EPA established statewide goals, KCP&L anticipates being able to  
19 meet an equivalent goal for KCP&L assuming reasonable assumptions become part of the  
20 final rule. This equivalent goal is based on KCP&L meeting the same percentage  
21 reduction in emission rates as the EPA established reduction for the state.

1 **III. SELECTION OF PROPOSED EMISSION CONTROL EQUIPMENT**

2 **Q: What input did you provide in the selection of the proposed emission control**  
3 **equipment for the La Cygne Generating Station?**

4 A: I provided some of the selection decision parameters including existing permit emission  
5 limits and conditions. In addition, I provided the emission limits for compliance with the  
6 Regional Haze Rule that are documented in our Regional Haze Agreement. I also  
7 provided potential emission limits and requirements due to the other rulemakings  
8 discussed in this testimony. All of these parameters were inputs into the decision of  
9 which control equipment was viable for compliance with the near-term emission  
10 requirement along with the ability to potentially comply with reasonably foreseeable  
11 future emission requirements.

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

13 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-2014-0370  
A General Rate Increase for Electric Service )

AFFIDAVIT OF PAUL M. LING

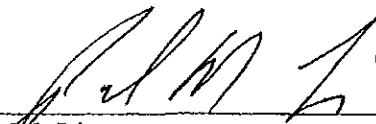
STATE OF MISSOURI )  
 ) ss  
COUNTY OF JACKSON )

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

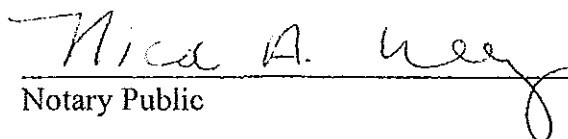
1. My name is Paul M. Ling. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Director of Compliance.

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 thirty-six (36) 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 30<sup>th</sup> day of October, 2014.

  
\_\_\_\_\_  
Notary Public

My commission expires: Feb. 4, 2015

