



Control Number: 46449



Item Number: 572

Addendum StartPage: 0

SOAH DOCKET NO. 473-17-1764

PUC DOCKET NO. 46449

RECEIVED  
2017 MAY 19 PM 3:27  
PUBLIC UTILITY COMMISSION  
FILING CLERK

PUBLIC UTILITY COMMISSION OF TEXAS

APPLICATION OF  
SOUTHWESTERN ELECTRIC POWER COMPANY  
FOR AUTHORITY TO CHANGE RATES

REBUTTAL TESTIMONY OF  
JOHN C. HENDRICKS  
FOR  
SOUTHWESTERN ELECTRIC POWER COMPANY

MAY 19, 2017

## TESTIMONY INDEX

<u>SECTION</u>	<u>PAGE</u>
I. INTRODUCTION .....	1
II. PURPOSE OF TESTIMONY.....	1
III. REBUTTAL ADDRESSING CARD WITNESS SCOTT NORWOOD .....	1
A. SO <sub>2</sub> Scrubbers at Welsh Plant.....	2
B. Additional SO <sub>2</sub> Reduction Requirements for Welsh Plant .....	4
C. NO <sub>x</sub> Reductions at the Welsh Units .....	6
D. Carbon Regulations.....	8
E. Summary of Environmental Rules SWEPCO Faced in Early 2011 .....	9
IV. REBUTTAL ADDRESSING SIERRA CLUB WITNESS RACHEL WILSON....	10
A. Pending Environmental Regulations SWEPCO Considered .....	10
B. Welsh Unit 1 & the Regional Haze Rule .....	13
C. Timing of MATS Retrofits .....	14
D. Retrofits to Meet Regional Haze Rule .....	15
E. Welsh Unit 1 Being Subject to BART and Installing SO <sub>2</sub> Controls.....	15
F. Attainment Status of the Dallas-Fort Worth Area .....	16
V. CONCLUSION.....	17

## TABLE INDEX

<u>TABLE</u>	<u>PAGE</u>
Table 1: Environmental Regulation Chart (as of mid-2011) .....	9
Table 2: Environmental Regulations Status (2011-2013).....	13

1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION IN THE  
3 COMPANY.

4 A. My name is John C. Hendricks. I am Director – Air Quality Services in the  
5 Environmental Services Division of American Electric Power Service Corporation  
6 (AEPSC), whose address is 1 Riverside Plaza, Columbus, Ohio. AEPSC provides  
7 engineering, financing, accounting, and similar planning and advisory services to the  
8 subsidiaries of the American Electric Power System (AEP), one of which is  
9 Southwestern Electric Power Company (SWEPCO or Company).

10 Q. DID YOU FILE DIRECT TESTIMONY IN THIS CASE?

11 A. Yes, I did.  
12

13 II. PURPOSE OF TESTIMONY

14 Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

15 A. The purpose of my rebuttal testimony is to respond to erroneous claims of Cities  
16 Advocating Reasonable Deregulation (CARD) witnesses Scott Norwood and Sierra  
17 Club witness Rachel Wilson regarding SWEPCO's knowledge and consideration of  
18 existing and developing environmental regulations at the time it performed its "unit  
19 disposition analyses" of its solid fuel generation facilities.  
20

21 III. REBUTTAL ADDRESSING CARD WITNESS SCOTT NORWOOD

22 Q. DO YOU HAVE ANY SUMMARY POINTS CONCERNING MR. NORWOOD'S  
23 TESTIMONY?

1 A. Yes, I do. Mr. Norwood's testimony centers on how SWEPCO considered various  
2 environmental regulations in its compliance strategy with respect to Welsh Plant. In  
3 so doing, Mr. Norwood either makes mistakes or provides an incomplete picture of  
4 the environmental imperatives SWEPCO faced in general and for Welsh Unit 2 in  
5 particular. In the testimony that follows, I will respond to what I believe are his  
6 major mistakes and provide a more complete picture of what SWEPCO confronted.

7 A. SO<sub>2</sub> Scrubbers at Welsh Plant

8 Q. CARD WITNESS NORWOOD STATES (PAGE 11, LINES 9 – 11) THAT AT  
9 THE TIME OF THE EARLY-2011 UNIT DISPOSITION ANALYSES THERE  
10 WERE NO EXISTING OR EVOLVING ENVIRONMENTAL REGULATIONS  
11 THAT REQUIRED SWEPCO TO INSTALL SCRUBBERS ON ITS COAL  
12 PLANTS. DO YOU AGREE WITH THIS STATEMENT?

13 A. No I do not. The Environmental Protection Agency (EPA) may require plants to  
14 meet specified emission limits, or reduce emissions to a level such that modeled  
15 impacts are acceptable, but the agency rarely specifies a particular technology be  
16 installed for compliance.

17 At the time of the Early-2011 Analyses, EPA's final rule revising the SO<sub>2</sub>  
18 National Ambient Air Quality Standard (NAAQS) was already in effect. This rule  
19 clearly specified attainment with this revised NAAQS had to be achieved no later  
20 than August 2017. Welsh units were uncontrolled for SO<sub>2</sub>, and at that time,  
21 SWEPCO reasonably considered that the emissions reductions imposed on Welsh  
22 Unit 2 as a result of these rules could require the installation of scrubber technology.

1 Q. PLEASE SUMMARIZE THE KEY ASPECTS OF THE 2010 REVISED SO<sub>2</sub>  
2 NAAQS RULE.

3 A. The revised SO<sub>2</sub> NAAQS made compliance significantly more difficult by tightening  
4 the standard for SO<sub>2</sub> concentration in ambient air from 146 ppb as a 24-hour average  
5 to 75 ppb as a one-hour average. Significantly, EPA also required refined air quality  
6 modeling to be used in determining whether or not an area achieves attainment of the  
7 revised standard.

8 Q. WHAT DID THIS REVISED NAAQS MEAN FOR THE WELSH PLANT?

9 A. Preliminary modeling by AEPSC of the Welsh Plant's SO<sub>2</sub> emissions from the  
10 then-existing plant configuration showed significant exceedances of the revised  
11 standard. Significant reductions in SO<sub>2</sub> emissions would be needed to demonstrate  
12 compliance with the revised SO<sub>2</sub> NAAQS through modeling.

13 Q. WHAT WAS THE COMPLIANCE TIMEFRAME FOR THIS REVISED NAAQS?

14 A. In the June 2010 final rule revising the SO<sub>2</sub> NAAQS (75 FR 35520, June 22, 2010),  
15 EPA required states to submit state implementation plans (SIPs) by June 2013 that  
16 would demonstrate attainment and maintenance of the new SO<sub>2</sub> NAAQS by no later  
17 than August 2017 (75 FR 35577).

18 Q. DID EPA'S REQUIREMENTS AND TIMELINES FOR IMPLEMENTING THE  
19 REVISED SO<sub>2</sub> NAAQS CHANGE AFTER THE 2010 FINAL RULE?

20 A. Yes. EPA received significant negative feedback from industry and many states on  
21 its implementation program for the revised standard. However, it was not until June  
22 2012, well after the announced retirement of Welsh Unit 2 in June 2011, that EPA  
23 issued a notice of a one year delay in the designation schedule. In February 2013, the

1 agency released a strategy paper in which it described a more prolonged schedule for  
2 implementing the revised SO<sub>2</sub> NAAQS. It also stated that EPA would allow  
3 attainment designations to be based on either modeling or three years of monitoring  
4 data.

5 Q. AT THE TIME OF THE EARLY-2011 ANALYSES, WHAT WERE THE  
6 EXISTING REGULATORY REQUIREMENTS FOR IMPLEMENTATION OF  
7 THE REVISED SO<sub>2</sub> NAAQS?

8 A. At the time of the Early-2011 Analyses, the requirements included in EPA's June  
9 2010 final rule were unchanged and still in effect, meaning that SIPs demonstrating  
10 attainment were due from states by June 2013 and modeled attainment had to be  
11 demonstrated by August 2017.

12 Q. WHAT TECHNOLOGY DID AEP/SWEPCO PLAN TO INSTALL TO ACHIEVE  
13 THE SO<sub>2</sub> REDUCTIONS NECESSITATED BY THE REVISED SO<sub>2</sub> NAAQS?

14 A. At the time of the Early 2011 unit disposition analyses, leading up to the time of the  
15 June 2011 announcement to retire Welsh Unit 2, scrubbers were the SO<sub>2</sub> reduction  
16 technology that AEPSC and SWEPCO had identified to achieve reliable, significant  
17 SO<sub>2</sub> reductions, of the magnitude required by the revised NAAQs standard, on an  
18 ongoing basis and over a reasonable range of coal sulfur content.

19 B. Additional SO<sub>2</sub> Reduction Requirements for Welsh Plant

20 Q. MR. NORWOOD POINTS TO YOUR DIRECT TESTIMONY THAT THE WELSH  
21 UNITS ARE NOT PRESENTLY UNDER ANY RISK OF NEEDING TO ADD  
22 ENVIRONMENTAL CONTROLS TO MEET SO<sub>2</sub> REMOVAL REQUIREMENTS

1 OF THE REGIONAL HAZE RULE (RHR). DO YOU HAVE ANY UPDATES  
2 THAT ARE PERTINENT TO THIS STATEMENT?

3 A. Mr. Norwood is correct that, at the time of submittal of my direct testimony, the  
4 Welsh units were not under any imminent risk of needing to add environmental  
5 controls to meet the Regional Haze Rule (RHR) SO<sub>2</sub> removal requirements.  
6 However, as I have already explained above, as well as in my direct testimony, the  
7 environmental compliance investments anticipated for the Welsh units were in  
8 response to EPA regulations other than RHR.

9 In addition, shortly after the filing of my direct testimony with the  
10 Commission, on January 4, 2017, the EPA proposed an RHR Federal Implementation  
11 Plan (FIP) for Texas that would require that Welsh Unit 1 meet a very stringent SO<sub>2</sub>  
12 emission limit of 0.04 lb/MMBtu. That limit is based on the expectation that it can be  
13 met only by installation of a wet scrubber.

14 Q. WHAT IS THE STATUS OF THE PROPOSED RHR FIP FOR TEXAS?

15 A. AEP/SWEPCO, as well as many of the other affected utilities, submitted extensive  
16 comments to EPA by the May 5, 2017 comment deadline. No response from EPA  
17 has been received to-date, nor has the agency issued a final rule.

18 Q. ARE THERE ANY OTHER RHR CONSIDERATIONS THAT COULD REQUIRE  
19 SO<sub>2</sub> EMISSIONS REDUCTIONS AT THE WELSH UNITS?

20 A. Yes, the RHR regulations require that in the next planning period (2019 – 2028),  
21 affected States must show reasonable progress towards meeting the ultimate RHR  
22 goal of reaching natural background visibility impairment by 2064. EPA has already  
23 attempted to use this aspect of the RHR to require significant SO<sub>2</sub> reductions for some



1 Texas and Arkansas plants. Large sources that are uncontrolled for SO<sub>2</sub>, such as  
2 Welsh Unit 1 and Unit 3, will continue to be at risk of having to make significant SO<sub>2</sub>  
3 emission reductions to satisfy the reasonable progress requirement in the RHR.

4 Q. ARE THERE ANY OTHER ENVIRONMENTAL REGULATIONS THAT MIGHT  
5 REQUIRE SO<sub>2</sub> REDUCTIONS AT THE WELSH PLANT?

6 A. Yes. The EPA is required by the Clean Air Act to review and, if necessary, revise the  
7 NAAQS every five years. In fact, the EPA is presently in the process of re-evaluating  
8 the SO<sub>2</sub> NAAQS again. Any revisions to the SO<sub>2</sub> and/or fine particulate (PM<sub>2.5</sub>)  
9 NAAQS making them more stringent will result in a risk that additional SO<sub>2</sub>  
10 reduction requirements will be imposed at uncontrolled plants such as the Welsh  
11 plant.

12 C. NO<sub>x</sub> Reductions at the Welsh Units

13 Q. CARD WITNESS NORWOOD STATES ON PAGE 11 OF HIS TESTIMONY  
14 THAT, AT THE TIME OF THE EARLY-2011 ANALYSES, THERE WERE NO  
15 EXISTING OR EVOLVING ENVIRONMENTAL REGULATIONS THAT  
16 REQUIRED THE INSTALLATION OF SCR ON THE WELSH UNITS. WHAT IS  
17 YOUR RESPONSE TO THIS STATEMENT?

18 A. As noted above, EPA regulations typically do not require the installation of a specific  
19 control technology for air emissions, but instead specify emission limits or require  
20 reductions to meet air quality modeling goals. This is also true concerning NO<sub>x</sub>  
21 reductions associated with environmental regulations that were evolving throughout  
22 the time period the Early-2011 analyses were conducted. At that time, AEPSC and  
23 SWEPCO reasonably anticipated future EPA regulations concerning NO<sub>x</sub> reductions

1 could well require SCR installation. Therefore, I disagree with Norwood's contention  
2 that there were no evolving regulations that would necessitate NOx reductions at the  
3 Welsh units.

4 Q. PLEASE PROVIDE FURTHER INFORMATION TO SUPPORT YOUR  
5 STATEMENT THAT THERE WERE EVOLVING REGULATIONS THAT  
6 COULD WELL RESULT IN A REQUIREMENT TO REDUCE NOx EMISSIONS  
7 AT THE WELSH UNITS.

8 A. In 2010, the EPA had proposed a rule to address a revision to the ozone NAAQS (75  
9 FR 2938, January 19, 2010). In this proposal, EPA indicated it was looking to  
10 significantly reduce the existing ozone standard. The standard at that time was 75  
11 ppb, and EPA was seeking comment on revising the standard anywhere from 60 – 70  
12 ppb. The agency had indicated it planned to issue a final rule in 2011. The final rule  
13 was not issued until October 2015 (80 FR 65292).

14 Q. PLEASE EXPLAIN THE SIGNIFICANCE OF THE PROPOSED OZONE NAAQS  
15 REVISION AS IT PERTAINS TO THE EARLY-2011 ANALYSES.

16 A. A revision of the ozone NAAQS to a level in the lower range being contemplated by  
17 the EPA would have resulted in a significant increase in the number of areas  
18 throughout the country that would be exceeding the revised standard and thus  
19 classified as nonattainment areas. Even if the Welsh units were not located in an area  
20 designated as non-attainment, previous EPA analyses had identified power plants in  
21 upwind states as contributors to non-attainment areas in downwind states. Under the  
22 "Good Neighbor" provision of the Clean Air Act, the upwind states then would be  
23 required to develop implementation plans to reduce ozone precursors (NOx and

VOCs) from large sources such that the nonattainment areas would be brought back into attainment. The Cross State Air Pollution Rule (CSAPR) originally finalized in 2011 is an example of a rule that implements the “Good Neighbor” provision, and addressed transport of ozone precursors to downwind areas that were not attaining the 1997 ozone NAAQS. The EPA had indicated it would pursue additional transport rules under the revised, more stringent, ozone NAAQS to address upwind sources impacting any additional downwind areas not in attainment.

#### Summary Conclusion on SO<sub>2</sub> and NO<sub>x</sub> Reductions

Q. IN YOUR OPINION, WAS SWEPCO REASONABLE IN INCLUDING SCRUBBERS AND SCR IN ITS EARLY-2011 ANALYSES?

A. Yes, given the existing requirements and timeframe for the revised SO<sub>2</sub> NAAQS, as well as the already proposed, potentially very significant revision to the ozone NAAQS by EPA, SWEPCO acted reasonably in evaluating the controls that could very likely be needed to meet the SO<sub>2</sub> and NO<sub>x</sub> reductions necessitated by these regulations.

#### D. Carbon Regulations

Q. CARD WITNESS NORWOOD STATES ON PAGE 16 OF HIS TESTIMONY THAT THE EARLY-2011 ANALYSES ASSUMED CARBON REGULATIONS WOULD BE IMPOSED BEGINNING IN 2014, WHEN NO SUCH REGULATIONS EXISTED. WHAT IS YOUR RESPONSE?

A. In a narrow way, Mr. Norwood is correct in that no carbon regulations existed that would regulate emissions of carbon dioxide (CO<sub>2</sub>) or greenhouse gasses (GHGs) from existing electric generating units (EGUs) at the time of the Early-2011 analyses.

However, EPA had entered into a settlement agreement with several states and environmental groups in December 2010 agreeing to implement performance standards concerning regulation of GHG emissions. In this settlement agreement, EPA had agreed to propose EGU performance standards applicable to existing and new sources by July 2011 and finalize them by May 2012. This regulatory activity by EPA concerning GHG emissions commenced well before the time of the Early-2011 Analyses, and therefore SWEPCO reasonably included carbon regulation in its Early-2011 Analyses.

E. Summary of Environmental Rules SWEPCO Faced in Early 2011

Q. PLEASE SUMMARIZE THE PERTINENT TIMELINES FOR THE KEY ENVIRONMENTAL REGULATIONS SWEPCO WAS FACING IN EARLY 2011.

A. The following chart provides a summary of the key environmental regulations, their proposal dates, the dates a final rule was issued, and the compliance deadlines for these regulations, if known. These dates reflect what was known as of mid-2011.

Table 1: Environmental Regulation Chart (as of mid-2011)

Environmental Regulation	Proposal Date	Final Rule Date	Compliance Deadline
MATS	May 3, 2011  March 16, 2011 – pre-Federal Register (FR) version released	February 16, 2012 - FR version  December 21, 2011 – pre-FR version	April 16, 2015 or up to April 16, 2016 if state grants up to 1 year extension.
NAAQS – SO <sub>2</sub>	December 2009	June 2010	All areas to be in attainment by August 2017
NAAQS - Ozone	January 2010	Expected July 2011	Beginning in 2014 and ending in 2031 depending on the severity of pollution.
CSAPR	July 2010	July 2011	In effect January 2012
GHG	Expected July 2011 per settlement with several states & NGOs	Expected May 2012 per settlement agreement	Uncertain in mid-2011 as to when EPA would require state compliance plans. Final rule to provide compliance deadline details.

1 Q. DOES THE FACT THAT THE COMPLIANCE DEADLINE FOR SOME OF THE  
2 LISTED REGULATIONS WAS NOT KNOWN AT THE TIME OF THE EARLY  
3 2011 ANALYSES MEAN IT WAS UNREASONABLE FOR THE COMPANY TO  
4 CONSIDER THEIR COMPLIANCE COSTS IN THOSE ANALYSES?

5 A. No, it does not. Though the specific timeline was still uncertain, specific EPA  
6 pronouncements on the rules, or specific settlement agreements, as listed in the chart  
7 above, made it reasonable for SWEPCO to consider that those rules would be  
8 developed that could require the installation of new environmental controls to achieve  
9 compliance.

10 IV. REBUTTAL ADDRESSING SIERRA CLUB WITNESS RACHEL WILSON

11 Q. WHAT ARE YOUR OVERALL COMMENTS ON MS. WILSON'S TESTIMONY?

12 A. Ms. Wilson's testimony contains numerous factual errors as well as claims that are  
13 too categorical. My rebuttal to her testimony, therefore, consists largely of  
14 identifying these mistakes or omissions so that the record is set straight.

15 A. Pending Environmental Regulations SWEPCO Considered

16 Q. AT SEVERAL PLACES IN HER TESTIMONY, MS. WILSON CLAIMS THAT  
17 SWEPCO FAILED TO EVALUATE PENDING ENVIRONMENTAL  
18 REGULATIONS WHEN CONSIDERING ENVIRONMENTAL COMPLIANCE  
19 OPTIONS FOR ITS SOLID FUEL GENERATION PLANTS DURING THE 2011 –  
20 2013 PERIOD. DO YOU AGREE?

21 A. No. The Company conducted a thorough assessment of known, proposed and  
22 developing Federal and State environmental requirements in this time frame. The  
23 Environmental Services group closely monitors regulations and the regulatory climate

1 and advises SWEPCO accordingly. Because solutions must be customized to each  
2 generating unit and can require long lead times to implement, potential requirements  
3 are considered in addition to those that are proposed, final, included in permit  
4 conditions, and even those held up in litigation. Without such a comprehensive  
5 approach, the Company would not be able to assess the financial burden of the real  
6 cost of compliance and exposure to risk of future financial commitments.

7 Q. WHAT REGULATIONS DOES MS. WILSON SAY THE COMPANY FAILED TO  
8 CONSIDER?

9 A. Ms. Wilson's position is far from clear. She acknowledges that the Company  
10 rightfully considered the Mercury and Air Toxics Standards (MATS) Rule and the  
11 CSAPR and, at page 10 line 3, names the Coal Combustion Residuals Rule (CCR),  
12 the Effluent Limitations Guidelines Rule (ELG) and NAAQS as the "additional  
13 proposed regulations that may have impacted SWEPCO facilities in 2011-2013."  
14 However, later in her testimony she credits SWEPCO with including CCR in its  
15 evaluation (at page 20 line 10 and at page 26 line 12).

16 Her testimony also is contradictory on whether the Company evaluated the  
17 impacts of the RHR (at page 26 line 12 and by omission at pages 10-12) or failed to  
18 consider RHR (by omission at page 20 line 10).

19 So it appears that her list of regulations that SWEPCO should have considered  
20 but did not consider includes CCR, ELG, NAAQS, and RHR. In fact, SWEPCO  
21 appropriately considered all of these regulations consistent with the timing of the  
22 proposal and development of the rules.

1 Q. HAVE YOU PREVIOUSLY ADDRESSED SWEPCO'S EVALUATION OF THE  
2 IMPACTS OF CCR, ELG, AND NAAQS ON ITS COAL-FIRED GENERATING  
3 UNITS IN THE 2011-2013 TIMEFRAME?

4 A. Yes. In my direct testimony (at page 20 beginning at line 9), I discussed and included  
5 a timeline for several environmental regulations that "were anticipated to have an  
6 impact on coal fired plants." This discussion includes CCR, ELG, 316(b) (or Cooling  
7 Water Intake rule), and NAAQS.

8 Q. WHAT WAS THE STATUS OF THESE RULES IN THE 2011-2013  
9 TIMEFRAME?

10 A. The table below provides a summary of the environmental regulations Sierra Club  
11 witness Wilson contends SWEPCO did not consider in its analyses in the 2011- 2013  
12 timeframe. A brief summary of the status of each rule as SWEPCO understood it at  
13 the time is also included, along with a discussion on the potential requirements of  
14 each rule as well as what actions, if any, might be necessary for compliance.  
15 SWEPCO witness Mark Becker's rebuttal testimony addresses Ms. Wilson's  
16 allegations that SWEPCO did not evaluate these environmental regulations in its unit  
17 disposition analyses. SWEPCO witness Michael Nasi also addresses the impact of  
18 environmental regulations on the utility industry in the early 2011 time period.

Table 2: Environmental Regulations Status (2011-2013)

Environmental Regulation	Status in 2011-2013 Timeframe	Impacts Considered
Coal Combustion Residuals Rule (CCR)	Proposed Rule – June 2010	Proposed rule contained sufficient detail to estimate several activities would likely be required, such as: <ul style="list-style-type: none"> <li>• Pond Closure</li> <li>• Bottom Ash Conversion</li> <li>• Bottom Ash Ancillary</li> <li>• Landfill</li> <li>• Wastewater Treatment</li> </ul>
Cooling Water Intake Rule (316 (b))	Proposed – April 2011	Uncertain under the proposed rule. It was not clear if Welsh, Pirkey and/or Flint Creek Plants would be impacted, given they have cooling water lakes.
Effluent Limitations Guideline Rule (ELG)	Proposed – June 2013	This rule was not proposed until 2 years <u>after</u> the Early 2011 analyses were completed. SWEPCO could not reasonably have anticipated the need for compliance with this rule prior to June 2013. Following proposal of the rule, initial evaluations of the impacts indicated that conversion to dry bottom ash systems and a potential wastewater treatment system are likely required.
SO <sub>2</sub> NAAQS Revision	Final - June 2010	The existing SO <sub>2</sub> NAAQS revision rule in effect in 2011 required attainment demonstrations by August 2017 and required air quality modeling to be used as the basis for attainment designations. Preliminary modeling showed significant SO <sub>2</sub> reductions from Welsh Plant would be necessary to model attainment.
Ozone NAAQS Revision	Final 2008 revision	EPA was in the process of implementing the 2008 ozone standard in 2011. No NO <sub>x</sub> reductions were required of any SWEPCO plants from this rule.
Ozone NAAQS Revision	Proposed 2010	EPA proposed to revise the final 2008 standard making it significantly more stringent.

B. Welsh Unit 1 & the Regional Haze Rule

Q. ON PAGE 9, LINES 1-2, MS. WILSON STATES THAT WELSH UNIT 1 HAS EMISSION OBLIGATIONS UNDER THE REGIONAL HAZE RULE (RHR). DO YOU AGREE WITH THIS ASSERTION?



1 A. No I do not. Welsh Unit 1 was not under any emission obligations related to the RHR  
2 during the 2011 – 2013 period, because the state had proposed to rely on CSAPR's  
3 predecessor, the Clean Air Interstate Rule, to satisfy the BART requirements. In  
4 January 2017, EPA for the first time proposed a Federal Implementation Plan (FIP)  
5 for BART-eligible units in Texas, which included Welsh Unit 1. If finalized in its  
6 current form, this proposed rule would require Welsh Unit 1, and several other  
7 BART-eligible Texas units, to meet extremely stringent SO<sub>2</sub> emission limits based on  
8 installation of a wet scrubber. However, this is an example of Ms. Wilson's use of  
9 hindsight in attempting to fault the Company for not accounting for rules not even  
10 proposed in the decision timeframe of 2011-2013.

11 C. Timing of MATS Retrofits

12 Q. IS MS. WILSON CORRECT IN HER ASSERTION THAT THE COMPANY DID  
13 NOT APPLY PROPER TIMING OF THE MATS RETROFITS IN THE EARLY  
14 2011 DISPOSITION ANALYSES?

15 A. No. As explained earlier in my testimony, at the time the Early 2011 Analyses were  
16 conducted, the requirements of the proposed MATS rule were known but the  
17 compliance dates of MATS were uncertain due the fact that the Company was  
18 evaluating a proposed versus a final rule. To model the anticipated impacts and costs,  
19 the Company made assumptions about compliance timeframes. Company witness  
20 Mark Becker explains how the Company evaluated two different compliance  
21 timeframe scenarios because of this uncertainty. Actual compliance dates were not  
22 certain until the MATS Rule was final and published in February 2012 (77 FR 9304,  
23 February 16, 2012).

D. Retrofits to Meet Regional Haze Rule

Q. MS. WILSON CLAIMS (AT PAGE 20, LINE 17), THAT BOTH MATS AND CSAPR LED TO SWEPCO EMISSIONS INVESTMENTS AT WELSH 1 AND 3 AND THAT RHR DROVE EMISSIONS CONTROL INVESTMENTS AT WELSH UNIT 1. IS SHE CORRECT?

A. No. The emissions control investments included in this filing at Welsh 1 and 3 have been made only as a result of the MATS Rule. However, SWEPCO reasonably evaluated impacts to its solid fuel generation fleet from other regulations as discussed earlier in this testimony.

Q. IS MS. WILSON CORRECT IN HER CLAIM THAT SWEPCO DID NOT INSTALL ANY EMISSION CONTROL EQUIPMENT ON WELSH UNIT 1 AND UNIT 3 SPECIFICALLY FOR REGIONAL HAZE COMPLIANCE?

A. She is correct. However, there was no basis for SWEPCO to assume the need for such investments since there were no Regional Haze requirements, in effect or proposed, that would have necessitated installation of any control equipment at Welsh Unit 1 or Unit 3.

E. Welsh Unit 1 Being Subject to BART and Installing SO<sub>2</sub> Controls

Q. IF THERE WERE NO REGIONAL HAZE REQUIREMENTS FOR WELSH 1 AND 3, WHAT DO YOU MAKE OF MS. WILSON'S ASSERTION THAT SWEPCO SHOULD HAVE KNOWN THAT WELSH UNIT 1 WOULD BE SUBJECT TO BART AND REQUIRED TO INSTALL SO<sub>2</sub> CONTROLS?

A. Ms. Wilson once again is practicing acute hindsight. Of course, SWEPCO was aware that Welsh 1 was BART-eligible, per the Texas Commission on Environmental

1 Quality's (TCEQ) BART submittal to the EPA in 2009. However, contrary to her  
2 complete mis-representation of the definition of BART, being "subject to BART" did  
3 not mean that the Company would be "required to install an emission limitation," first  
4 because a limitation is not something that can be installed, and second because the  
5 TCEQ submittal relied on EPA's policy that compliance with the Clean Air Interstate  
6 Rule (CAIR) (and subsequently CSAPR) is more than sufficient to meet the state's  
7 BART obligations. The idea that SWEPCO should have known in 2011 that EPA, in  
8 late 2016, would propose to remove Texas from the CSAPR program and then  
9 propose a BART Federal Implementation Plan in early 2017 that would require  
10 installation of a wet scrubber at Welsh Unit 1 is nonsensical.

11 As Ms. Wilson notes at page 27 lines 17-23, the EPA has proposed, in January  
12 2017, an SO<sub>2</sub> emission limit obligation for Welsh 1 that would require installation of  
13 a wet FGD. However, this proposal obviously was not known or knowable by  
14 SWEPCO in 2011-2013 and Ms. Wilson's opinions are accordingly rife with  
15 hindsight. Moreover, the proposed rule is based on numerous faulty analyses and  
16 assumptions by EPA that have been identified by the affected utilities as well as the  
17 TCEQ in comments to EPA. No action has yet been taken by EPA as of the submittal  
18 date of this testimony.

19 F. Attainment Status of the Dallas-Fort Worth Area

20 Q. MS. WILSON DESCRIBES THE ATTAINMENT STATUS OF THE  
21 DALLAS-FORT WORTH AREA CONCERNING THE CURRENT AND PRIOR  
22 OZONE NAAQS, AND SPECULATES THAT IF THE WELSH PLANT WERE  
23 FOUND TO CONTRIBUTE TO THE NON-ATTAINMENT, NO<sub>x</sub> REDUCTIONS

1 MAY BE REQUIRED AT WELSH AS A RESULT. WHAT IS YOUR  
2 REACTION?

3 A. First, Ms. Wilson's position again is based on the unreasonable use of hindsight. She  
4 discusses the attainment status of Dallas, and some related modeling, from 2015, as  
5 proof that SWEPCO should have been aware of the associated risks of non-attainment  
6 in 2011.

7 Second, she ignores the Welsh Plant's current actual status in favor of  
8 speculation about currently non-existent scenarios that might hypothetically require  
9 additional environmental controls at even later dates. In fact, the current Texas SIP to  
10 address the DFW area's 2008 ozone nonattainment designation does not require  
11 Welsh Plant to reduce its NOx emissions. Ms. Wilson's speculations  
12 notwithstanding, implementation of the 2015 ozone standard is not yet completed, so  
13 it is not certain at all if the Welsh plant will be required to install NOx emission  
14 controls to address this standard. SWEPCO witness Mark Becker addresses in his  
15 rebuttal testimony how selective catalytic reduction (SCR) retrofits at Welsh Plant  
16 were modeled in his economic analyses.

17  
18 V. CONCLUSION

19 Q. DO YOU HAVE ANY CONCLUDING COMMENTS

20 A. Yes. As shown in the Early-2011 Analyses discussed by SWEPCO witness Becker,  
21 AEP and SWEPCO did reasonably consider pertinent final and proposed regulations  
22 in formulating its environmental compliance plans for SWEPCO's solid fuel  
23 generating units. The impacts of environmental requirements on plant operations and

1           Company financial resources must be anticipated and assessed well in advance of a  
2           final requirement to allow adequate time to evaluate options and direct resources to  
3           meet the respective compliance deadlines.

4    Q.     DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

5    A.     Yes, it does.