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August 7, 2014

Joseph Hurt, Engineer  
Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

Re: Response of Southwestern Electric Power Company (SWEPCO)  
to Letter Dated July 9, 2014 Regarding EPA's "Clean Power Plan"

Dear Mr. Hurt:

Your letter of July 9, 2014, was sent by SWEPCO's President, Ms. Venita McCellon-Allen, to the Engineering Services Division and the Environmental Services Division of the American Electric Power Service Corporation (AEPSC). AEPSC is a service company that provides engineering, legal, accounting, environmental, human resources, and other services to all of the utility operating companies that are part of the American Electric Power (AEP) system, including SWEPCO. AEPSC is currently reviewing the proposed *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 79 Fed. Reg. 34829, (referred to hereinafter as the "Clean Power Plan" or CPP), published in the Federal Register on June 18, 2014, and will be preparing comments on behalf of the operating companies of the AEP system. The CPP is an extraordinary and expansive proposal, unlike any prior proposal ever issued by EPA. The comment period ends October 16, 2014, and our review and analysis of the proposal is not yet complete. However, we can provide some preliminary information and responses to the questions outlined in your letter. We reserve the right to supplement these as our review proceeds.

Specifically, your letter seeks information relevant to the feasibility of heat rate improvements at existing coal-fired units within the State of Arkansas, for purposes of commenting on EPA's proposal to use a 6% heat rate improvement target (or an alternate 4% heat rate improvement target) in calculating the overall emission rate goal for the state. You ask for information regarding the applicability of certain heat rate improvement strategies at SWEPCO's units, and the effectiveness of such strategies, including strategies identified in the 2009 Sargent & Lundy study, *Coal-Fired Power Plant Heat Rate Reductions* (January 22, 2009), referenced in EPA's technical support document for GHG Abatement Measures, Chapter 2. We have responded to that request in the attached Issue Paper: Building Block #1 - Heat Rate Improvements.

You have also requested 2012 and 2013 data on CO<sub>2</sub> emissions for SWEPCO's coal-fired electric generating facilities, the John W. Turk, Jr. Power Plant (Turk Plant) and the Flint Creek Power Plant (Flint Creek Plant). As you may be aware, the Turk Plant entered into commercial operation on December 21, 2012, so the operational data for this unit for 2012 is very limited. The table below shows total net generation, CO<sub>2</sub> emissions, and the CO<sub>2</sub> emission rate for each unit for 2012 and 2013.

| Facility          | Year | CO <sub>2</sub><br>(short tons) | Net Generation<br>(MWh) | CO <sub>2</sub> Rate<br>(lb CO <sub>2</sub> /MWh net) |
|-------------------|------|---------------------------------|-------------------------|---|
| Flint Creek       | 2012 | 4,150,944                       | 3,791,093               | 2,190   |
| Flint Creek       | 2013 | 3,329,490                       | 3,066,051               | 2,172   |
| John W. Turk, Jr. | 2012 | 188,786                         | ~194,006                | ~1,946  |
| John W. Turk, Jr. | 2013 | 3,687,004                       | 3,846,539               | 1,917   |

The use of a single year of data as the base year for EPA's state emission rate goals in the CPP is problematic and inconsistent with other long-term programs developed for this sector, since the performance of any individual unit in a single year may not be representative of "normal operation." For example, Turk Plant operated for a very short time during calendar year 2012, and will operate at much higher levels during the compliance period for the proposed CPP. Flint Creek Plant is in the process of making emission control improvements to achieve compliance with the Mercury and Air Toxics Standards Rule, so its 2012 data will not be representative of its operations in 2020 and beyond. The addition of the emission controls at Flint Creek will increase the auxiliary power demands on this unit, and therefore change the net CO<sub>2</sub> emission rate. We are uncertain of the exact change that will occur, but estimate that it may decrease net generation by 10 MW at full load.

If you have questions regarding any of the enclosures, or wish to discuss these matters in further detail, please contact John Hendricks of my staff at (614) 716-1238.

Very truly yours,

 for John McManus

John M. McManus  
Vice President  
Environmental Services Division

Enclosure

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c: Venita McCellon-Allen  
Brian Bond