OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

IN THE MATTER OF:

Public Service Company of Oklahoma,
Comanche Power Station,
Southwestern Power Station,
Northeastern Power Station,

CASE NO. 10-025

FIRST AMENDED REGIONAL HAZE AGREEMENT

The parties to this Agreement, the Oklahoma Department of Environmental Quality ("DEQ") and the Public Service Company of Oklahoma ("PSO") hereby agree to the entry of this First Amended Regional Haze Agreement ("Amended RHA") in order to satisfy the Best Available Retrofit Technology ("BART") requirements associated with the SO_2 and NOx requirements for PSO's Northeastern Units 3 and 4 under the Regional Haze Rule, 40 C.F.R. Subpart P, and 40 C.F.R. Part 51, Appendix Y (incorporated by reference at OAC 252:100-8-72). On February 17, 2010, DEQ and PSO entered into a Regional Haze Agreement ("Original RHA"), DEQ Case No. 10-025. Pursuant to Paragraph 42 of the Original RHA, this Amended RHA eliminates and removes Paragraphs 13 and 14 of the Original RHA. In addition, this Amended RHA replaces and supersedes Paragraphs 12 and 26 of the Original RHA as they pertain to the SO_2 and NOx requirements for the coal-fired units at PSO's Northeastern Power Station (Units 3 and 4) as follows:

12. Based on an evaluation of potentially feasible retrofit control technologies, including an assessment of the costs and visibility improvements associated therewith, the following SO_2 and NOx control technologies and emission limits as described in the Revised BART Determination for the coal-fired units at PSO's Northeastern Power Station (Units 3 and 4) (attached as Exhibit C) have been determined to be BART and shall be implemented in accordance with the schedule set forth below and in amended Paragraph 26:

Northeastern Power Station –

By December 31, 2013	**Unit 3**	**Unit 4**
NO_X Control	LNB w Separated OFA	LNB w Separated OFA
Emission Rate (lb/mmBtu)	0.23 lb/mmBtu (30-day rolling average)	0.23 lb/mmBtu (30-day rolling average)
Emission Rate lb/hr	1,098 lb/hr (30-day rolling average)	1,098 lb/hr (30-day rolling average)
Emission Rate TPY	9,620 TPY (12-month rolling)	
By January 31, 2014	**Unit3**	**Unit 4**
SO_2 Control	Low Sulfur Coal	Low Sulfur Coal
Emission Rate (lb/mmBtu)[1]	0.65 lb/mmBtu (30-day rolling average)	0.65 lb/mmBtu (30-day rolling average)
Emission Rate lb/hr	3,104 lb/hr (30-day rolling average)	3,104 lb/hr (30-day rolling average)
By December 31, 2014	**Unit3**	**Unit 4**
SO_2 Control	Low Sulfur Coal	Low Sulfur Coal
Emission Rate (lb/mmBtu)	0.60 lb/mmBtu (12-month rolling average)	0.60 lb/mmBtu (12-month rolling average)
Emission Rate (TPY)	25,097 TPY	
BART Control with Unit Shutdown		
By April 16, 2016	**Remaining Unit**	
SO_2 Control	**Dry Sorbent Injection with Activated Carbon Injection**	
Emission Rate (lb/mmBtu)	0.4 lb/mmBtu (30-day rolling average)	
Emission Rate lb/hr	1,910 lb/hr (30-day rolling average)	
Emission Rate TPY	8,366 TPY	

[1] An alternative operating scenario is provided following this table that addresses potential service disruption of coal supplies during the time period from January 31, 2014 through April 16, 2016.

NOx Control	LNB w/ Separated OFA (Further Control System Tuning)	
Emission Rate (lb/mmBtu)	0.15 lb/mmBtu (30-day rolling average)	
Emission Rate (lb/hr)	716 lb/hr (30-day rolling average)	
Emission Rate TPY	3,136 TPY	
Further Reasonable Progress over Remaining Unit Life		
	NO_X	**SO_2**
January 1, 2021 70% Utilization	2,196 TPY	5,856 TPY
January 1, 2023 60% Utilization	1,882 TPY	5,019 TPY
January 1, 2025 50% Utilization	1,569 TPY	4,183 TPY
December 31, 2026	Unit Shutdown	

Alternative Operating Scenario for Coal Supply Disruptions:

During the period from January 31, 2014 through April 16, 2016, if PSO experiences interruptions in the delivery of coal supplies of suitable quality to assure compliance with the 30-day rolling average SO_2 emission rate of 0.65 lb/mmBtu, due to circumstances beyond its control, PSO shall promptly notify ODEQ of the nature of the interruption, the anticipated duration of the interruption, and the steps necessary to restore normal coal deliveries to the Northeastern Units. ODEQ shall determine whether the interruption is the result of circumstances beyond the reasonable control of PSO, and notify PSO of the determination within 15 days of receipt of that notice. In the event of such an interruption, PSO shall comply with the following alternative operating scenario for the duration of the interruption and 30 days following the restoration of normal coal deliveries to the Northeastern Units. During the period the alternative operating scenario is in effect, PSO shall continue to comply with the 3,104 lb/hour SO_2 emission rate, and the 25,097 tpy SO_2 emission limitation, but PSO shall exclude the period of the interruption and the 30 days thereafter from the calculation of any 30-day rolling

average or annual lb/mmBtu SO_2 emission rate. Additionally, during such a disruption, PSO shall seek to obtain replacement coal with the lowest sulfur content reasonably available.

26. Based on the above paragraphs, PSO and the DEQ agree, and it is ordered by the Executive Director as follows:

A. No later than December 31, 2013, PSO will complete installation of low NOx combustion technologies and achieve a nitrogen oxide ("NOx") emission rate of 0.23 lb/MMBtu on a 30-day rolling average at each of the two coal-fired generating units at PSO's Northeastern Power Station (Units 3 and 4).

B. Beginning on January 31, 2014, PSO will comply with a new sulfur dioxide ("SO_2") emission rate at Northeastern Units 3 and 4 of 0.65 lb/MMBtu on a 30-day rolling average, and beginning on December 31, 2014, PSO will comply with a new SO_2 emission rate of 0.60 lb/MMBtu on a 12-month rolling average at Northeastern Units 3 and 4, or comply with the alternative operating scenario set forth in Paragraph 12 during disruptions in the delivery of coal supplies. PSO will maintain those emission rates until controls are installed at one unit as provided in subparagraph 26(D), and the other unit is retired as provided in subparagraph 26(C).

C. PSO will seek all necessary regulatory approvals, and will retire one of the coal-fired generating units at Northeastern Power Station by April 16, 2016.

D. PSO will seek all necessary regulatory approvals, and install and operate a dry-sorbent injection ("DSI") system, activated carbon injection system, and a fabric filter baghouse, and secure further NOx emission reductions by April 16, 2016 on the coal-fired generating unit at Northeastern Power Station that will continue to operate. By April 16, 2016, PSO will achieve a 0.15 lb/MMBtu emission rate for NOx on a 30-day rolling average basis, and a 0.40 lb/MMBtu emission rate for SO_2 on a 30-day rolling average basis.

E. During the first year of operation of the controls required under subparagraph 26(D), PSO will develop and propose a monitoring program to test various operating profiles and other measures, to determine whether increased SO_2 removal efficiencies can be achieved during normal operations. PSO will submit the monitoring program to EPA and ODEQ for review and will implement the monitoring program during the second and third years of operation of the DSI system. PSO will evaluate and report the results of the monitoring program to EPA and ODEQ.[2]

[2] If the evaluation demonstrates that the technology is capable of sustainably achieving an emission rate of less than 0.37 lbs/MMBtu on a 30-day rolling average basis without (i) altering the unit's fuel supply, (ii) incurring additional capital costs, (iii) increasing operating expenses

F. Beginning in calendar year 2021, the Annual Capacity Factor (calculated for each calendar year as a percentage of MWH based on a rated capacity of 470 MW (net) times 8760 hours) for the operating coal-fired generating unit at Northeastern Station will be reduced as follows:
   i. to no more than 70 percent in calendar years 2021 and 2022;
   ii. to no more than 60 percent in calendar years 2023 and 2024; and
   iii. to no more than 50 percent in calendar years 2025 and 2026.

G. No later than December 31, 2026, PSO will retire the remaining operating coal-fired generating unit at Northeastern Power Station. However, in calendar year 2021, PSO will evaluate whether the projected generation from that unit can be replaced at lower or equal total projected costs from natural gas or renewable resources. PSO will provide a copy of the evaluation to EPA and ODEQ. If power is available from such resources at a lower projected total cost (including consideration of PSO's need to recover its remaining investment in the units), then the operating unit will retire no later than December 31, 2025.

Paragraphs 12 and 26 are only amended as they pertain to the SO_2 and NOx emissions for the coal-fired units at PSO's Northeastern Power Station (Units 3 and 4). The remaining portions of these paragraphs and all other provisions of the Original RHA that are not specifically removed, replaced, or superseded by this Amended RHA shall remain in full force and effect.

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by more than a negligible amount, and/or (iv) adversely impacting overall unit operations, ODEQ will propose to revise the emission rate in the Amended RHA by 60 percent of the difference between 0.40 and the demonstrated emission rate. Upon adoption after notice and opportunity for hearing, Oklahoma, through the Secretary of Environment, will submit a Regional Haze SIP revision to EPA for approval. If the demonstrated emission rate is 0.37 lbs/MMbtu or greater, no adjustment will be made to the Amended RHA, and the emission rate from the operating Northeastern Power Station coal-fired generating unit in the Amended RHA will remain 0.40 lbs/MMBtu.

The individuals signing this Agreement certify that they are authorized to sign it and to legally bind the parties they represent. This Agreement becomes effective on the date of the later of the two signatures below.

Date: 3/20/13

FOR THE PUBLIC SERVICE COMPANY OF OKLAHOMA:

STUART SOLOMON
PRESIDENT and CHIEF OPERATING OFFICER

Date: 3-26-13

FOR THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY:

STEVEN A. THOMPSON
EXECUTIVE DIRECTOR