



**OKLAHOMA**  
**Environmental**  
**Quality**

**OKLAHOMA REGIONAL HAZE  
STATE IMPLEMENTATION PLAN  
PLANNING PERIOD 1, SECOND REVISION**

**DECEMBER 2025**

Oklahoma Department of Environmental Quality  
Air Quality Division  
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## I. Background

### A. Regional Haze SIP

The Oklahoma Department of Environmental Quality (“DEQ”) submitted its Regional Haze Implementation Plan Revision (“Regional Haze SIP” or “RH SIP”) in February 2010. The U.S. Environmental Protection Agency (“EPA”) approved core elements of the Regional Haze SIP effective January 27, 2012 (76 Fed. Reg. 81727, Dec. 28, 2011), codified at 40 C.F.R. § 52.1920). In the same action, EPA approved Oklahoma’s Best Available Retrofit Technology (“BART”) determinations for the majority of emissions units subject to BART but disapproved the sulfur dioxide (“SO<sub>2</sub>”) BART determinations for several emissions units (40 C.F.R. § 52.1928), and promulgated a Federal Implementation Plan (“FIP”) covering those units (40 C.F.R. § 52.1923). EPA also disapproved Oklahoma’s submitted Regional Haze Long Term Strategy because it relied in part on the BART limits in the disapproved determinations. Specifically, EPA disapproved the SO<sub>2</sub> BART determinations for Units 3 and 4 of the American Electric Power/Public Service Company of Oklahoma Northeastern Power Station in Rogers County (“AEP/PSO Northeastern Units 3 and 4”), including Section VI(E) of the determination, “Greater Reasonable Progress Alternative Determination” and the associated PSO Regional Haze Agreement, Case No. 10-025. The final action approved the Oklahoma Regional Haze SIP’s SO<sub>2</sub>, oxides of nitrogen (“NO<sub>x</sub>”), and particulate matter (“PM”) BART determinations for the AEP/PSO Northeastern Unit 2, and the NO<sub>x</sub> and PM BART determination for the AEP/PSO Northeastern Units 3 and 4.

After publishing the final FIP, AEP/PSO, DEQ, EPA, and the U.S. Department of Justice entered discussions on alternatives to the FIP requirements that would provide the necessary visibility improvements. Notice of the resulting proposed settlement agreement was published in the Federal Register on November 14, 2012.<sup>1</sup> The final settlement agreement outlined a strategy for AEP/PSO to meet its obligations under the visibility provisions of the Federal Clean Air Act. The final settlement agreement became effective with the signature of a U.S. Department of Justice representative on February 8, 2013.

In June 2013, the State of Oklahoma revised those portions of its Regional Haze SIP relevant to the SO<sub>2</sub> and NO<sub>x</sub> BART determinations for AEP/PSO’s Northeastern Units 3 and 4 consistent with the requirements of the settlement agreement. The revision of the Regional Haze SIP addressed the requirements of the visibility provisions of the Federal Clean Air Act, 42 U.S.C. § 7491, and EPA’s regional haze regulations, 40 C.F.R. § 51.308, as they related to AEP/PSO’s Northeastern Units 3 and 4. Moreover, the revision was intended to obviate the need for and replace the corresponding EPA-issued FIP, as it related to Northeastern Units 3 and 4. Specifically, the revision was intended to result in the removal of all references to Northeastern Units 3 and 4 in 40 C.F.R. §§ 52.1923 and 52.1928. On March 7, 2014, EPA published a notice in the Federal Register approving the SIP revision (79 FR 12944). A separate, simultaneously published notice withdrew the EPA-issued portions of the FIP related to AEP/PSO Northeastern (79 FR 12954).

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<sup>1</sup> 77 Fed. Reg. 67814 (Nov. 14, 2012). The Settlement Agreement for Public Service Company of Oklahoma’s (“PSO’s”) Petition for Review was entered into by PSO, the Oklahoma Secretary of the Environment, DEQ, EPA, and the Sierra Club.

In 2024, AEP/PSO notified DEQ that they would not be able to comply with the Southwest Power Pool's ("SPP") increasing electric generation demands if Northeastern Unit 3 is required to shut down on December 31, 2026 as stipulated in the settlement agreement. Therefore, to ensure reliable power in Oklahoma, AEP/PSO requested that Unit 3 be allowed to continue operations past this deadline but only as a natural gas-fired unit and removing the coal burning capability, drastically reducing Unit 3's SO<sub>2</sub> emissions. In addition, AEP/PSO committed to taking a NO<sub>x</sub> emission permit limit on Unit 3 and lowering the NO<sub>x</sub> emissions of Unit 2 to offset the NO<sub>x</sub> emissions from continued operation of Unit 3.

On August 2, 2024, the Sierra Club and PSO executed a new settlement agreement that would allow Northeastern Unit 3 to continue operating as discussed above, dependent upon DEQ developing a SIP revision and EPA approving said revision. Further, on May 14, 2025, DEQ and PSO executed the Second Amended Regional Haze Agreement, which amends portions of Case No. 10-025 to allow for the continued operation of Northeast Unit 3 as a natural-gas fired unit, while also requiring the offset limits for Northeastern Unit 2, dependent upon an EPA-approved SIP revision.

With this submittal, the State of Oklahoma is revising those portions of its Regional Haze SIP that relate to the SO<sub>2</sub> and NO<sub>x</sub> BART determinations for AEP/PSO's Northeastern Units 2 and 3. This second revision of the Regional Haze SIP addresses the requirements of the visibility provisions of the Federal Clean Air Act, 42 U.S.C. § 7491, and EPA's regional haze regulations, 40 C.F.R. § 51.308, as they related to AEP/PSO's Northeastern Units 2 and 3. Specifically, this second revision is intended to result in a revision of all references to Northeastern Units 2 and 3 in 79 Fed. Reg. 12944 (March 7, 2014).

## **II. Best Available Retrofit Technology for AEP/PSO Northeastern Units 2, 3 and 4**

### **A. Source Description**

AEP/PSO Northeastern Power Station is located in Rogers County, Oklahoma. The station currently includes one (1) 495 MW gas-fired steam electric generating unit, designated as Northeastern Unit 2, and one (1) 490 MW steam electric generating unit that was designed to burn either coal or natural gas, designated as Northeastern Unit 3. AEP/PSO formerly operated a second 490 MW coal-fired steam electric generating unit designated as Northeastern Unit 4. This unit was retired, as scheduled, as of April 16, 2016. Notably, EPA approved the BART determination for Northeastern Unit 2 and the portion of the BART determination not related to SO<sub>2</sub> for Northeastern Units 3 and 4 in the original Regional Haze submittal. See 76 Fed. Reg. 81727 (Dec. 28, 2011). On March 7, 2014, EPA approved the SO<sub>2</sub> BART determination for Units 3 and 4 in the Regional Haze submittal revised in June 2013 (79 FR 12944). The facility is currently permitted to operate under DEQ Air Quality Permit No. 2019-0607-TVR3, issued on August 24, 2022.

## **B. Determination of BART Requirements**

Oklahoma's original Regional Haze SIP documented how DEQ conducted a case-by-case, five-factor BART analysis for each of the BART-subject units. In 2011, EPA approved DEQ's BART determinations for NO<sub>x</sub> and PM. However, EPA disapproved the determinations for SO<sub>2</sub> control for PSO Northeastern Units 3 and 4.

On November 20, 2012, AEP/PSO submitted to DEQ the Supplemental BART Determination Information, which proposed a revised BART plan. Based on this information, DEQ revised the SO<sub>2</sub> BART determination for AEP/PSO Northeastern Units 3 and 4. The Revised BART Determination, submitted as Appendix II in the first Regional Haze SIP Revision, provided that the facility would install and operate a dry sorbent injection ("DSI") system on one of the units (either Unit 3 or 4) to meet an SO<sub>2</sub> emission standard of 0.40 lb/MMBTU or less by April 16, 2016. DEQ entered into an enforceable administrative order (First Amended Regional Haze Agreement, Case No. 10-025) with AEP/PSO for Northeastern Units 3 and 4, requiring voluntary emission reductions provided in the Supplemental BART Determination Information, including retirement of one of the affected units—ultimately Unit 4—by April 16, 2016 and retirement of the remaining unit (Unit 3) by December 31, 2026. These requirements became enforceable through the First Amended Regional Haze Agreement and were incorporated into subsequent permits. Resultant emission reductions are documented in the Planning Period 1 RH SIP Revision as approved on March 7, 2014 (79 Fed. Reg. 12944, March 7, 2014).

DEQ is not undertaking a new BART determination for Northeastern in this second revision. The BART NO<sub>x</sub> limits previously approved in 2011, for Units 2 or 3, 0.28 and 0.15 lb/MMBtu respectively, will continue to be met by AEP/PSO. The SO<sub>2</sub> BART limit for Unit 3, previously set at 0.40 lb/MMBtu through the end of 2026, will be met by using pipeline-grade natural gas as the fuel. These emission limitations effectively equal the SO<sub>2</sub> and NO<sub>x</sub> emission reductions in the approved SIP to meet the BART requirements for the facility.

## **III. Reasonable Progress and Amended Long-term Strategy with Emission Reduction**

The long-term strategy described in Chapter VII of Oklahoma's original Regional Haze SIP submittal addresses visibility impairment at the Wichita Mountains Class I area and covers the period through 2018 in fulfillment of 40 C.F.R. § 51.308(d)(3). The long-term strategy includes issuance and enforcement of permits limiting emissions from major and minor sources in Oklahoma, adoption of state rules which specifically limit targeted emissions sources and categories, and several other ongoing air pollution control programs.

The emissions limitations and other requirements necessary to implement the BART requirements for AEP/PSO's Northeastern Units 3 and 4 were incorporated into required DEQ Air Quality Permits. AEP/PSO's Supplemental BART Determination Information and the First Amended Regional Haze Agreement also provided for reasonable progress through a schedule of NO<sub>x</sub> emissions reductions earlier than the schedule in the previously approved portion of the Regional Haze SIP. In addition, the agreement provided for incremental decreases in capacity

utilization from January 1, 2021 through December 31, 2026, when the remaining unit had been scheduled to be shut down.

The Second Amended Regional Haze Agreement provides for the remaining unit, Northeastern Unit 3, to continue to operate past December 31, 2026. However, Reasonable Progress is still being made through the reduction of over 4,000 tons of SO<sub>2</sub> per year from 2025 once Unit 3 uses natural gas as fuel. Unit 3 will also be limited to 300 TPY NO<sub>x</sub>, resulting in a decrease of over 1,000 tons of NO<sub>x</sub> from 2025. AEP/PSO has committed to fully retiring the unit by May 31, 2041. Although included in the SARHA, retirement of Unit 3 is not being submitted as part of this SIP revision.

<b>Further Reasonable Progress over Remaining Unit Life – Unit 3 Emissions during Incremental Decrease in Capacity Utilization and Fuel Switch</b>		
	<b>NO<sub>x</sub></b>	<b>SO<sub>2</sub></b>
January 1, 2025 - 50% Utilization	1,569 TPY	4,183 TPY
January 1, 2026 or upon approval of Second ARHA, if after January 1, 2026	300 TPY	2.34 TPY using pipeline grade natural gas
May 31, 2041 (Unit Retirement)	0	0

An additional reduction of 300 tons of NO<sub>x</sub> per year will be realized through a burner upgrade on Unit 2, effectively offsetting the additional NO<sub>x</sub> emitted from Unit 3 after its originally intended retirement date. Unit 2 will be subject to a new NO<sub>x</sub> emission rate limit of 0.22 lb/MMBtu compared to the current limit of 0.28 lb/MMBtu, as measured on a 30-day rolling average. In addition to the new rate limit, Unit 2 will take a 300 TPY reduction in its permitted annual limit, reducing allowed NO<sub>x</sub> emissions from 5,830 TPY to 5,530 TPY on a 12-month rolling basis.

Additional Federal measures, which affect emissions that impact visibility, have been promulgated, proposed, and/or planned since submission of Oklahoma's original Region Haze SIP submission. These additional measures include the 2016 Mercury and Air Toxics Standard ("MATS"), as well as other new or revised NESHAPs and NSPS. In addition, visibility improvements have resulted from implementation of NAAQS revisions, particularly the 2010 SO<sub>2</sub> NAAQS. Reductions in SO<sub>2</sub> and NO<sub>x</sub> emissions required under the Cross-State Air Pollution Rule ("CSAPR"), remain a critical part of Oklahoma's long-term visibility strategy.

#### **IV. Clean Air Act § 110(l)**

Section 110(l) of the Clean Air Act (CAA) ensures that EPA cannot approve SIP revisions that would interfere with any applicable requirement concerning attainment and reasonable further progress relative to the National Ambient Air Quality Standards (NAAQS), or any other applicable requirement of the CAA. Implementation of the Second Amended Regional Haze Agreement, Case No. 10-025, and the additional conditions described in Section III above, will result in reductions that effectively equal the SO<sub>2</sub> and NO<sub>x</sub> emission reductions approved in the 2013 Oklahoma Regional Haze Plan Revision (79 FR 12944) on an annual basis.



In the Second Amended Regional Haze Agreement, AEP/PSO committed to only using natural gas as fuel in Unit 3 no later than EPA's proposed approval of this Oklahoma Regional Haze Plan Planning Period 1, Second Revision. The use of pipeline grade natural gas will ensure Unit 3 operates well below the SO<sub>2</sub> BART limit of 0.4 lb/MMBtu at an emission rate of 0.0006 lb/MMBtu. As provided in the agreement, Unit 3 will also be subject to a 20 percent annual capacity factor in calendar year 2026 and beyond, based on a rated capacity of 420 MW (1,433 MMBtu/hr) using natural gas. AEP/PSO will demonstrate compliance with the SO<sub>2</sub> limit of 2.34 TPY for Unit 3 required in the SARHA by providing fuel usage records that ensure Unit 3 is only burning pipeline grade natural gas. Unit 3 will also be subject to a 300 TPY NO<sub>x</sub> limit.

Separate from the existing BART requirements, effective January 1, 2027, Unit 2 will be subject to a NO<sub>x</sub> emission rate limit of 0.22 lb/MMBtu, as measured on a 30-day rolling average. This limit is included in the SARHA and will also be incorporated into and enforceable through New Source Review (NSR) construction Permit No. 2019-0607-C (M-1). This emission rate limit represents a 20% reduction in baseline NO<sub>x</sub> emissions at full load and will result in a NO<sub>x</sub> reduction of at least 300 tons per 12-month period to offset the continuing NO<sub>x</sub> emissions from Unit 3. The SARHA includes an annual limit for Unit 2 of 5,530 TPY of NO<sub>x</sub> on a 12-month rolling basis, which is a 300 TPY decrease from AEP/PSO's current permit limit of 5,830 TPY of NO<sub>x</sub>, provided in the original February 17, 2010 RHA between PSO and DEQ.

AEP/PSO will continue to maintain NO<sub>x</sub> Continuous Emissions Monitoring Systems (CEMS) on Units 2 and 3, ensuring compliance with the new permit limits. AEP/PSO will also be required to continue to follow applicable CEMS requirements in 40 CFR 60.7(c) and (d) and 40 CFR Part 75 and to report to the publicly accessible Clean Air Markets Program Data system.

As such, the current level of emissions will be reduced due to the provisions of this second SIP revision. Further, the emissions reductions at Northeastern Unit 2 will offset the future projected emissions of Northeastern Unit 3 when compared to a zero-emission baseline if the unit were to be retired pursuant to the first SIP revision. Therefore, the provisions of this second revision do not interfere with attainment or maintenance of the NAAQS as required by Section 110(l) of the CAA.

## **V. Review, Consultations, and Comments**

### **A. EPA Review**

The State of Oklahoma worked with EPA Region 6 throughout the process of revising the Regional Haze SIP. DEQ submitted the proposed Regional Haze SIP Second Revision, in electronic form, for formal EPA review on December 18, 2025. At that time, the State also submitted a copy of the draft notice of public hearing and opportunity for comment, prepared in accordance with 40 C.F.R. § 51.102. [If any were received, comments from EPA have been considered and are included in Appendix IV. Responses to EPA's comments are included in the Summary of Comments and Responses document in Appendix VI.]



## **B. Federal Land Manager Consultation**

As part of the development of this implementation plan revision, DEQ consulted with the Federal Land Managers (FLMs) in accordance with the provisions of 40 C.F.R. § 51.308(i)(2). DEQ provided the FLMs a draft copy of this proposed Regional Haze SIP Revision via email on November 13, 2025. A consultation meeting was held virtually on December 16, 2025, between DEQ and the U.S. Forest Service and the National Park Service. A separate consultation phone call was held with the U.S. Fish & Wildlife Service on December 16, 2025. None of the agencies had any comments on the revision or requested further consultation. Documentation of the virtual meeting and phone record are included in Appendix II.

DEQ also provided the FLMs with notice of the opening of the public comment period on December 18, 2025, and the public hearing scheduled for January 22, 2026.

## **C. Consultation with States**

Oklahoma consulted with states with Class I Areas whose visibility is potentially affected by Oklahoma emissions during the original Regional Haze SIP development and submittal process. On December 18, 2025, DEQ notified electronically the appropriate clean air agency staff for bordering/potentially affected states that were consulted previously (Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, New Mexico, and Texas) on this proposed Regional Haze SIP Revision and provided them with electronic access to the revision and related documents. DEQ also notified the state agency staff of the public hearing scheduled for January 22, 2026. [Comments, if received, from State agency staff have been considered and are included in Appendix IV. Responses to State comments are included in the Summary of Comments and Responses document in Appendix VI. The State Contact List is included in Appendix VII.]

## **D. Notification to Tribal Partners**

On December 18, 2025, DEQ notified its Tribal Partners of this proposed Regional Haze SIP Revision electronically or by hard copy. DEQ provided them with electronic access to the revision and related documents. DEQ also notified its Tribal Partners of the public hearing scheduled for January 22, 2026. [Any comments received from the Tribes have been considered and are included in Appendix IV. Responses to Tribal comments are included in the Summary of Comments and Responses document in Appendix VI. The Tribal Contact List is included in Appendix VII.]

## **E. Public Comment Period and Hearing**

DEQ provided notice of a public hearing and opportunity to comment on the proposed Regional Haze SIP Revision at least 30 days in advance of the scheduled public hearing, as required by 40 C.F.R. §51.102. DEQ held a public hearing regarding the implementation plan revision on January 22, 2026, at the DEQ offices in Oklahoma City, Oklahoma. Notice was posted on the DEQ Regional Haze webpage beginning on December 18, 2025. Notice was also provided via e-mail to those persons who have expressed an interest in receiving Air Quality Public Notices and have supplied their e-mail addresses.

The notice included information on the availability of the proposed Regional Haze SIP Second Revision for public inspection at 707 N. Robinson Ave, Oklahoma City, OK, 73102, and through the DEQ Regional Haze webpage:

<https://oklahoma.gov/deq/divisions/air-quality/rules-planning/regional-haze.html>.

[Both written and oral comments were received by DEQ from the public. Electronic copies of the written comments have been posted on the DEQ Regional Haze web site, along with a copy of the hearing transcript. Copies of written comments received are included in Appendix IV, and DEQ's Summary of Comments and Responses document is included in Appendix VI. Appendix III contains copies of the notice, and Appendix V contains copies of the hearing transcript, sign-in sheet(s) and hearing certification.]

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# Appendices

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# Appendix I

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*Second Amended Regional Haze Agreement*

*DEQ Case No. 10-025*

*(May 14, 2025)*

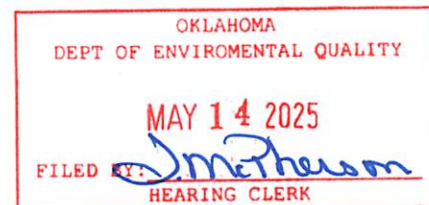
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**STATE OF OKLAHOMA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

**IN THE MATTER OF:**

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

Case No. 10-025



**SECOND 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 Second Amended Regional Haze Agreement ("SARHA") in order to satisfy the Best Available Retrofit Technology ("BART") requirements associated with the SO<sub>2</sub> and NO<sub>x</sub> requirements for PSO's Northeastern Unit 3 under the Regional Haze Rule, 40 CFR Part 51 Subpart P, and 40 CFR 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, the Original RHA was amended in 2013 by the First Amended Regional Haze Agreement ("FARHA"). The FARHA eliminated certain requirements of the Original RHA and amended other requirements of the Original RHA by deleting, replacing, and superseding certain Paragraphs of the Original RHA as they pertained to the SO<sub>2</sub> and NO<sub>x</sub> requirements for the coal-fired units at PSO's Northeastern Power Station (Units 3 and 4). Pursuant to the terms of the FARHA, Unit 4 retired in 2016 and Unit 3 has been subject to a set of decreasing emission limitations and allowable annual capacity factors culminating in PSO's agreement to shutdown Unit 3 by December 31, 2026, as an alternative to installing SO<sub>2</sub> controls as a means to satisfy BART for SO<sub>2</sub>.

Since then, retirements of fossil generation across the country, coupled with load growth and reduced capacity accreditation for renewable generation resources has led the Southwest Power Pool, the Regional Transmission Operator for Oklahoma, to predict capacity shortfalls in the near future. PSO has engaged in extensive discussions with the DEQ and US EPA about these capacity concerns and PSO's duty to provide reliable, dispatchable and affordable electricity to its customers, pursuant to its obligations as a public utility subject to Oklahoma Public Service Commission and as a load serving entity in the Southwest Power Pool.

PSO has proposed that, in lieu of retiring Unit 3 by December 31, 2026 to meet SO<sub>2</sub> BART requirements, as required by the FARHA, Unit 3 instead be allowed to continue to operate on natural gas only, in order to provide reliable, dispatchable and affordable electric capacity. PSO has proposed to limit operation of Unit 3 such that annual NO<sub>x</sub> emissions would be capped at 300 tons of NO<sub>x</sub> per year. Sulfur dioxide emissions from Unit 3 as a natural gas-fired unit would be negligible.

The Original RHA agreement evaluated NO<sub>x</sub> emissions from Northeastern Units 3 and 4 combined, and concluded that a NO<sub>x</sub> emissions rate of 0.15 lbs/mmBtu constitutes BART. In light of this prior demonstration, and the significantly reduced overall annual NO<sub>x</sub> emissions from Unit 3 (300 TPY NO<sub>x</sub> compared to 6,274 TPY NO<sub>x</sub> from Units 3 and 4 combined in the Original RHA), ODEQ has concluded that additional BART evaluation of NO<sub>x</sub> emissions from Northeastern Unit 3, operating as a natural-gas fired unit subject to an annual emissions cap of 300 tons per year, is not necessary. PSO will continue to meet the existing 0.15 lbs/mmBtu NO<sub>x</sub> BART limit for Unit 3.

In order that the SIP revision be approvable by US EPA, it must not "interfere with any applicable requirement concerning attainment and reasonable further progress, or any other

applicable requirement of this Act.” See 42 USC 7410(l)(2). To ensure that this SARHA satisfies Section 7410(l)(2) of the Clean Air Act, PSO has agreed to make certain improvements to Northeastern Power Station Unit 2, which will serve to reduce the NOx emission rate – and therefore, the annual NOx actual emissions – from that unit. The NOx emission reductions from Unit 2 will serve to offset NOx emissions attributable to the continued operation of Unit 3, thereby maintaining the status quo. This is detailed in the amended paragraph 26(D) below.

Based on the foregoing, and pursuant to Paragraph 42 of the Original RHA, this SARHA supersedes and replaces paragraphs 12 and 26 as they pertain to the SO2 and NOx requirements for PSO’s Northeastern Power Station Unit 3, and as first amended in the FARHA. The following control technologies and emission limits for PSO’s Northeastern Power Station Unit 3 have been determined to be BART and shall be implemented in accordance with the schedule set forth below and in amended Paragraph 26:

12. Northeastern Power Station Unit 3—

<b>By April 16, 2016</b>		
<b>SO2 Control</b>	<b>Dry Sorbent Injection with Activated Carbon Injection</b>	
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	
<b>NOx Control</b>	<b>LNB w/ Separated OFA (Further Control System Tuning)</b>	
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	
<b>Further Reasonable Progress</b>	<b>NOx</b>	<b>SO2</b>
January 1, 2023 (60% utilization)	1,882 TPY	5,109 TPY



January 1, 2025 (50% utilization)	1,569 TPY	4,183 TPY
January 1, 2026 or upon approval of Second ARHA, if after January 1, 2026	300 TPY	No Coal Combustion; 2.34 TPY using pipeline grade natural gas
May 31, 2041 (Unit Retirement)	0	0

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

A. 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 Northeastern Station Unit 3 will be reduced as follows:

- i. to no more than 60 percent in calendar years 2023 and 2024; and
- ii. to no more than 50 percent in calendar years 2025.
- iii. to no more than 20 percent in calendar year 2026 and beyond to comply with the 300 TPY limit after ceasing coal combustion (based on rated capacity of 420 MW using natural gas).

B. Upon US EPA's proposed approval of Oklahoma's State Implementation Plan revision to remove the FARHA's December 31, 2026, retirement obligation for Unit 3 and to replace it with the terms of this SARHA, but in any event no sooner than January 1, 2026, PSO will cease coal-fired generation from Unit 3 at Northeastern Power Station and shall operate Unit 3 as a natural gas fired unit subject to a 300 TPY NOx limit, on a rolling 12-month basis. Any NOx emissions attributable to coal fired operation from Northeastern Unit 3 prior to the switch shall not count towards the 300 TPY NOx limit.

C. PSO shall obtain all necessary permits from the DEQ imposing enforceable limitations on coal combustion and the 300 TPY NOx limit established by this SARHA.

D. Separate from BART requirements, effective January 1, 2027, Northeastern Power Station Unit 2 shall be subject to a NO<sub>x</sub> emission rate limit of 0.22 lb/mmBtu, as measured on a 30-day rolling average, which shall be incorporated into and enforceable through an NSR construction permit. The 0.22 lb/mmBtu NO<sub>x</sub> emission rate represents a 20% reduction in baseline NO<sub>x</sub> emissions at full load and would result in NO<sub>x</sub> reductions of at least 300 tons of NO<sub>x</sub> per 12-month period, assuming operation consistent with the highest 24 consecutive months of recent operation. This 300 ton annual reduction will also be reflected in a lowering of the annual NO<sub>x</sub> emission rate of Unit 2 from 5,830 TPY (as listed in the Original RHA) to 5,530 TPY on a 12-month rolling basis.

E. *Testing and Monitoring.* PSO shall continue to calibrate, maintain and operate Continuous Emissions Monitoring Systems (CEMS) for NO<sub>x</sub> on Northeastern Power Station Units 2 and 3 in accordance with 40 C.F.R. § 60.8 and 60.13(e), (f), and (h), and Appendix B of Part 60, and shall comply with the quality assurance procedures for CEMS found in 40 C.F.R. Part 75. Compliance with the emission limits for NO<sub>x</sub> shall be determined by using data from a CEMS.

i. Continuous emissions monitoring shall apply during all periods of operation of Northeastern Power Station Units 2 and 3, including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments. Continuous monitoring systems for measuring NO<sub>x</sub> and diluent gas shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Hourly averages shall be computed using at least one data point in each fifteen-minute quadrant of an hour. Notwithstanding this requirement, an hourly average may be

computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant in an hour) if data are unavailable as a result of performance of calibration, quality assurance, preventive maintenance activities, or backups of data from data acquisition and handling system, and recertification events. When valid NOx pounds per hour, or NOx pounds per million Btu emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks, or zero and span adjustments, emission data must be obtained by using other monitoring systems approved by the EPA to provide emission data for a minimum of 18 hours in each 24 hour period and at least 22 out of 30 successive boiler operating days.

*F. Reporting and Recordkeeping Requirements.* Unless otherwise stated all requests, reports, submittals, notifications, and other communications required by this Agreement shall be submitted in accordance with reporting requirements applicable to Units 2 and 3 in the facility's existing operating permit or superseding requirements in subsequent permit(s). For each unit subject to the emissions limitations in this Agreement, PSO shall comply with the following requirements:

- i. For each emissions limit in this section, comply with the notification, reporting, and recordkeeping requirements for CEMS compliance monitoring in 40 C.F.R. § 60.7(c) and (d), and 40 CFR Part 75. (This includes reporting to the Clean Air Markets Program Data system for public accessibility.)
- ii. Unit 2 shall be limited to use only pipeline grade natural gas, as defined in 40 CFR 72.2, which has an equivalent SO<sub>2</sub> emission rate of .0006 lb/mmbtu. Compliance will be demonstrated by fuel records.

Paragraphs 12 and 26 are only amended as they pertain to emissions for PSO's Northeastern Power Station Unit 2 and 3. The remaining portions of these paragraphs and all other provisions of the Original RHA that are not specifically removed, replaced, or superseded by this SARHA shall remain in full force and effect.

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: April 25, 2025

**PUBLIC SERVICE COMPANY  
OF OKLAHOMA**

Leigh Anne Strahler  
Leigh Anne Strahler  
President and Chief Operating Officer

Date: May 14, 2025

**OKLAHOMA DEPARTMENT OF  
ENVIRONMENTAL QUALITY**

Robert Singletary  
Robert Singletary  
Executive Director

## Appendix II

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### *Federal Land Manager Consultation*

DRAFT

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**FLM Consultation on Oklahoma's RH Round 1 SIP, Second Revision**

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**From** Melanie Foster <melanie.foster@deq.ok.gov>

**Date** Thu 11/13/2025 12:36 PM

**To** Copeland, Scott (Scott.Copeland@colostate.edu) <Scott.Copeland@colostate.edu>; Deal, Jacob - FS <jacob.deal@usda.gov>; Peters, Melanie <melanie\_peters@nps.gov>; Tim Allen <tim\_allen@fws.gov>; alexia.prosperi@usda.gov <alexia.prosperi@usda.gov>; andrea\_stacy@nps.gov <andrea\_stacy@nps.gov>; ashley.jackie@epa.gov <ashley.jackie@epa.gov>; avey.lance@epa.gov <avey.lance@epa.gov>; david\_pohlman@nps.gov <david\_pohlman@nps.gov>; Debra\_Miller@nps.gov <Debra\_Miller@nps.gov>; Don\_Shepherd@nps.gov <Don\_Shepherd@nps.gov>; ghazal.majidi-weese@usda.gov <ghazal.majidi-weese@usda.gov>; jeff.sorkin@usda.gov <jeff.sorkin@usda.gov>; Kirsten\_King@nps.gov <Kirsten\_King@nps.gov>; mike\_barna@nps.gov <mike\_barna@nps.gov>; Pitrolo, Melanie -FS <melanie.pitrolo@usda.gov>; trent.wickman@usda.gov <trent.wickman@usda.gov>

**Cc** Caitlin Henry <Caitlin.Henry@deq.ok.gov>

 1 attachment (187 KB)

Draft RH Round 1 Revision 2 FLM Consultation.docx;

Dear Federal Land Managers:

Per 40 CFR § 51.308(i)(2), Oklahoma would like to offer consultation to our Federal Land Manager partners on the attached draft Second Revision to Oklahoma's Regional Haze Round 1 SIP. The main purpose of the revision is to allow Unit 3 at the AEP/PSO Northeastern facility to switch from burning coal to burning natural gas in order to continue operations past its original shutdown date of December 31, 2026. AEP/PSO will offset the NOx from Unit 3's continued operations through a comparable decrease in NOx at Unit 2 as set forth in the attached SIP revision. Oklahoma expects no impact on visibility at the Wichita Mountains Wilderness Area due to this change.

Oklahoma is offering this consultation at least 60 days prior to a public hearing on the SIP revision, which is tentatively scheduled for January 22, 2026. Oklahoma would like to schedule an MS Teams meeting to discuss this revision and any questions or concerns that the FLMs may have after reviewing the draft revision. Please respond to this Doodle Poll by Friday, November 21, 2025 with all the meeting times you are available: <https://doodle.com/group-poll/participate/eZXQQqRb>. Once a date and time for the virtual meeting is selected, an MS Teams invitation will be emailed. If there are others in your agency that should receive this information and/or participate in the meeting, please feel free to forward this message as appropriate.

If you have any questions or concerns, please do not hesitate to let me know.

Thanks,

**Melanie Foster**

**Rules & Planning Section**

**Air Quality Division**

**p:** (405) 702-4218

**a:** 707 N. Robinson Ave., PO Box 1677  
Oklahoma City, OK 73101-1677





1. Summary

	Oklahoma-FLM
	Consultation on Second
	Revision to RH Planning
Meeting title	Period 1 SIP
Attended participants	15
Start time	12/16/25, 9:55:17 AM
End time	12/16/25, 11:35:18 AM
Meeting duration	1h 40m 1s
Average attendance time	31m 42s

2. Participants

Name	First Join	Last Leave	In-Meeting Duration	Email	Participant ID (UPN)	Role
Melanie Foster	12/16/25, 9:55:26 AM	12/16/25, 10:25:53 AM	30m 26s	melanie.foster@deq.ok.gov	melanie.foster@deq.ok.gov	Organizer
Alexander Teets	12/16/25, 9:55:20 AM	12/16/25, 10:25:54 AM	30m 34s	Alexander.Teets@deq.ok.gov	Alexander.Teets@deq.ok.gov	Presenter
Cheryl Bradley	12/16/25, 9:55:35 AM	12/16/25, 10:25:52 AM	30m 17s	Cheryl.Bradley@deq.ok.gov	Cheryl.Bradley@deq.ok.gov	Presenter
Thomas Richardson	12/16/25, 9:55:45 AM	12/16/25, 10:25:54 AM	30m 9s	Tom.Richardson@deq.ok.gov	Tom.Richardson@deq.ok.gov	Presenter
Kendal Stegmann	12/16/25, 9:56:01 AM	12/16/25, 10:25:51 AM	29m 50s	Kendal.Stegmann@deq.ok.gov	kendal.stegmann@deq.ok.gov	Presenter
Travis Couch	12/16/25, 9:57:15 AM	12/16/25, 10:25:50 AM	28m 34s	travis.couch@deq.ok.gov	travis.couch@deq.ok.gov	Presenter
Jared Milano	12/16/25, 9:59:44 AM	12/16/25, 10:25:55 AM	26m 10s	Jared.Milano@deq.ok.gov	Jared.Milano@deq.ok.gov	Presenter
Peters, Melanie	12/16/25, 9:59:47 AM	12/16/25, 10:25:54 AM	26m 7s	Melanie_Peters@nps.gov	MVPeters@nps.gov	Presenter
Beverly Botchlet-Smith	12/16/25, 10:00:17 AM	12/16/25, 10:25:52 AM	25m 34s	Beverly.Botchlet-Smith@deq.ok.gov	Beverly.Botchlet-Smith@deq.ok.gov	Presenter
Ghazal Majidi-Weese - FS, Asheville - FS, NC	12/16/25, 10:00:28 AM	12/16/25, 10:25:50 AM	25m 22s	ghazal.majidi-weese@usda.gov	ghazal.majidi-weese@usda.gov	Presenter
Stacy, Andrea	12/16/25, 10:00:43 AM	12/16/25, 10:25:52 AM	25m 8s	Andrea_Stacy@nps.gov	ASTacy@nps.gov	Presenter
Ruan-Lei, Karolina	12/16/25, 10:00:51 AM	12/16/25, 10:25:53 AM	25m 2s	ruan-lei.karolina@epa.gov	Ruan-Lei.Karolina@epa.gov	Presenter
Jacob Petre	12/16/25, 10:01:00 AM	12/16/25, 11:35:18 AM	1h 34m 17s	Jacob.Petre@deq.ok.gov	Jacob.Petre@deq.ok.gov	Presenter
Feldman, Michael	12/16/25, 10:01:19 AM	12/16/25, 10:25:58 AM	24m 38s	Feldman.Michael@epa.gov	Feldman.Michael@epa.gov	Presenter
Pitrolo, Melanie - FS, NC	12/16/25, 10:02:26 AM	12/16/25, 10:25:52 AM	23m 25s	melanie.pitrolo@usda.gov	melanie.pitrolo@usda.gov	Presenter

3. In-Meeting Activities

Name	Join Time	Leave Time	Duration	Email	Role
Melanie Foster	12/16/25, 9:55:26 AM	12/16/25, 10:25:53 AM	30m 26s	melanie.foster@deq.ok.gov	Organizer
Alexander Teets	12/16/25, 9:55:20 AM	12/16/25, 10:25:54 AM	30m 34s	Alexander.Teets@deq.ok.gov	Presenter
Cheryl Bradley	12/16/25, 9:55:35 AM	12/16/25, 10:25:52 AM	30m 17s	Cheryl.Bradley@deq.ok.gov	Presenter
Thomas Richardson	12/16/25, 9:55:45 AM	12/16/25, 10:25:54 AM	30m 9s	Tom.Richardson@deq.ok.gov	Presenter
Kendal Stegmann	12/16/25, 9:56:01 AM	12/16/25, 10:25:51 AM	29m 50s	Kendal.Stegmann@deq.ok.gov	Presenter
Travis Couch	12/16/25, 9:57:15 AM	12/16/25, 10:25:50 AM	28m 34s	travis.couch@deq.ok.gov	Presenter
Jared Milano	12/16/25, 9:59:44 AM	12/16/25, 10:25:55 AM	26m 10s	Jared.Milano@deq.ok.gov	Presenter
Peters, Melanie	12/16/25, 9:59:47 AM	12/16/25, 10:25:54 AM	26m 7s	Melanie_Peters@nps.gov	Presenter
Beverly Botchlet-Smith	12/16/25, 10:00:17 AM	12/16/25, 10:25:52 AM	25m 34s	Beverly.Botchlet-Smith@deq.ok.gov	Presenter
Ghazal Majidi-Weese - FS, Asheville - FS, NC	12/16/25, 10:00:28 AM	12/16/25, 10:25:50 AM	25m 22s	ghazal.majidi-weese@usda.gov	Presenter
Stacy, Andrea	12/16/25, 10:00:43 AM	12/16/25, 10:25:52 AM	25m 8s	Andrea_Stacy@nps.gov	Presenter
Ruan-Lei, Karolina	12/16/25, 10:00:51 AM	12/16/25, 10:25:53 AM	25m 2s	ruan-lei.karolina@epa.gov	Presenter

Jacob Petre	12/16/25, 10:01:00 AM	12/16/25, 11:35:18 AM	1h 34m 17s	Jacob.Petre@deq.ok.gov	Presenter
Feldman, Michael	12/16/25, 10:01:19 AM	12/16/25, 10:25:58 AM	24m 38s	Feldman.Michael@epa.gov	Presenter
Pitrolo, Melanie - FS, NC	12/16/25, 10:02:26 AM	12/16/25, 10:25:52 AM	23m 25s	melanie.pitrolo@usda.gov	Presenter

## **Phone Record**

**Date:** December 16, 2025

**To:** Regional Haze Files

**From:** Melanie Foster, Rules & Planning Section, Air Quality Division, DEQ

**Subject:** U.S. Fish & Wildlife Service Consultation

Tim Allen, Air Program representative for the U.S. Fish & Wildlife Service, called me on December 16, 2025, to discuss the draft second revision to Oklahoma's Regional Haze Planning Period 1 State Implementation Plan (SIP). I had emailed him a draft of the document on November 13, 2025. During the phone call, I gave him an overview of the changes being made at the AEP/PSO Northeastern facility. Specifically, we discussed that Unit 3 was planning to begin running on natural gas instead of burning coal as part of an agreement to allow Unit 3 to continue operations past its required shutdown date of December 31, 2026. Continued operations of Unit 3 will result in 300 TPY of NO<sub>x</sub>. AEP/PSO will offset this increase through 300 TPY reductions at Unit 2. SO<sub>2</sub> emissions will be minimal due to using pipeline grade natural gas. After the brief discussion, Tim Allen said that he did not have any comments on the Regional Haze SIP revision or concerns with beginning the public comment period.

## Appendix III

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### *Notice of Public Hearing and Opportunity to Comment*

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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY  
Notice of Public Comment Period  
for  
Regional Haze Planning Period 1 State Implementation Plan Revision 2

The Oklahoma Department of Environmental Quality (DEQ) has posted a draft second revision to the Oklahoma Regional Haze Planning Period 1 State Implementation Plan (SIP) on its website for a 30-day public comment period from December 18, 2025, through January 22, 2026. DEQ prepared the second revision to the Regional Haze Planning Period 1 SIP to comply with the requirements contained in the federal Clean Air Act and 40 C.F.R. Part 51, Subpart P, Protection of Visibility. All persons interested in these matters are invited to submit written comments. Written comments on the draft second revision to the Regional Haze Planning Period 1 SIP will be accepted through 4:30 pm on January 22, 2026.

A public hearing will be held on January 22, 2026, beginning at 3:00 p.m. and ending either 15 minutes after the last member of the public has spoken or at 4:00 p.m., whichever time is earlier. The hearing will take place in the 1st Floor Multipurpose Room of the DEQ Headquarters, 707 North Robinson Avenue, Oklahoma City, OK 73102. Verbal comments will be accepted in person at the hearing. Interested parties may attend in person or view a non-participatory stream of the hearing online. A link to view the public hearing online will be posted to the website at least 24 hours prior to the public hearing. In the event of inclement weather, the public comment period will be extended through January 28, 2026, and the hearing will be rescheduled to 3:00 p.m. on January 28, 2026. Notice of any postponement will be announced on the website at least 24 hours prior to the hearing.

The draft second revision to the Regional Haze Planning Period 1 SIP is available on the DEQ website at <https://oklahoma.gov/deq/divisions/air-quality/rules-planning/regional-haze.html>. Copies may also be obtained from the DEQ by contacting Melanie Foster, Rules & Planning Section Manager, at (405) 702-4100 or [melanie.foster@deq.ok.gov](mailto:melanie.foster@deq.ok.gov).

Please send written comments regarding the draft second revision to the Regional Haze Planning Period 1 SIP by email to [AQDSIPComments@deq.ok.gov](mailto:AQDSIPComments@deq.ok.gov) or by mail to Department of Environmental Quality, Air Quality Division, P.O. Box 1677, Oklahoma City, Oklahoma 73101-1677, ATTN: Melanie Foster.

## Appendix IV

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### *Comments Received*

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## Appendix V

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*Hearing Transcript, Sign-in Sheets, and  
Hearing Certification*

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## Appendix VI

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### *Summary of Comments and Responses*

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## Appendix VII

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### *Other Submittal Documents*

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