Oil & Natural Gas and Power Plants Sectors State 111(d) Plans Public Information Session

December 3, 2024

Air Quality Rules and Planning

OKLAHOMA Environmental Quality

Agenda

- Opening remarks
- Presentations
  - Overview of the State 111(d) process
  - EGU sector
  - O&G sector
- Public Input: Questions and feedback
- Closing remarks

Public Input Reminders!

- This is being recorded and will be posted to the website
- Rename yourself on Zoom so we can call on you if you have questions
- All participants will be *muted* during the presentations
- All comments and questions must be appropriate; if there are any problems with this we reserve the right to remove participants
- If you have any technical issues with this meeting you may message the hosts and we will try to help

STATE PLAN ROADMAP

ROUTE 111(d)

Opportunities for YOUR Input

EPA FINAL RULE: 2024

STATE PLAN DUE: 2026

Public Information Session

OPPORTUNITY FOR PUBLIC INPUT: LATE 2024

DEQ Public Input Review

Public Meeting & Open Comment

OPPORTUNITY FOR PUBLIC INPUT: EARLY 2025

DEQ Rule Development

Council & Board Approval

OPPORTUNITY FOR PUBLIC INPUT: LATE 2025

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Clean Air Act Section 111(d) - 42 U.S.C. §7411(d)

(d) Standards of performance for existing sources; remaining useful life of source

(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority—

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410(c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

NSPS vs. EGs

- 40 CFR Part 60
  - New Source Performance Standards (NSPS)
    - New Sources (usually from date of proposed federal rule)
    - Affected Facilities
    - Applicable upon effective date (usually 30-60 days after publication of final federal rule)
  - Emission Guidelines (EG)
    - Existing Sources
    - Designated Facilities
    - Directs States/Tribes to address with plan
    - Effective date after plan is approved by EPA

NSPS vs. EGs

- 40 CFR Part 60
  - New Source Performance Standards (NSPS)
    - Subpart OOOOb for Oil & Gas (40 CFR §§ 60.5360b – 60.5432b)
    - Subpart TTTTa for Electric Generators (40 CFR §§ 60.5508a – 60.5580a)
  - Emission Guidelines (EG)
    - Subpart OOOOc for Oil & Gas (40 CFR §§ 60.5375c – 60.5430c)
    - Subpart UUUUb for Electric Generators (40 CFR §§ 60.5740b – 60.5880b)

Emission Guidelines

- Best System of Emission Reduction (BSER)
- Remaining Useful Life and Other Factors (RULOF)
- Model Rules

Emission Guideline Implementing Regulations

- 40 CFR Subpart Ba – Adoption and Submittal of State Plans for Designated Facilities
  - Sets 18 month deadline for state plan submission unless otherwise specified by applicable subpart
  - Includes requirements for contents of plan
  - Requires Meaningful Engagement
    - "…the timely engagement with pertinent stakeholders and/or their representatives in the plan development or plan revision process. Such engagement should not be disproportionate in favor of certain stakeholders and should be informed by available best practices." 40 CFR 60.21a(k)
  - Allows for Federal Plan if State/Tribe fails to submit or has uncorrected deficiencies

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Procedure

- Rulemaking
  - *Oklahoma Register* Notice of Rulemaking Intent (NRI)
  - 30-day comment period
  - Hearing at Air Quality Advisory Council (AQAC) meeting
  - Hearing at Environmental Quality Board (EQB) meeting
  - Legislative Review & Approval
  - Governor Review & Approval
- State Plan
  - Public notice on website
  - Public hearing

Emission Guidelines for Non-turbine fossil fuel-fired Electric Generating Units

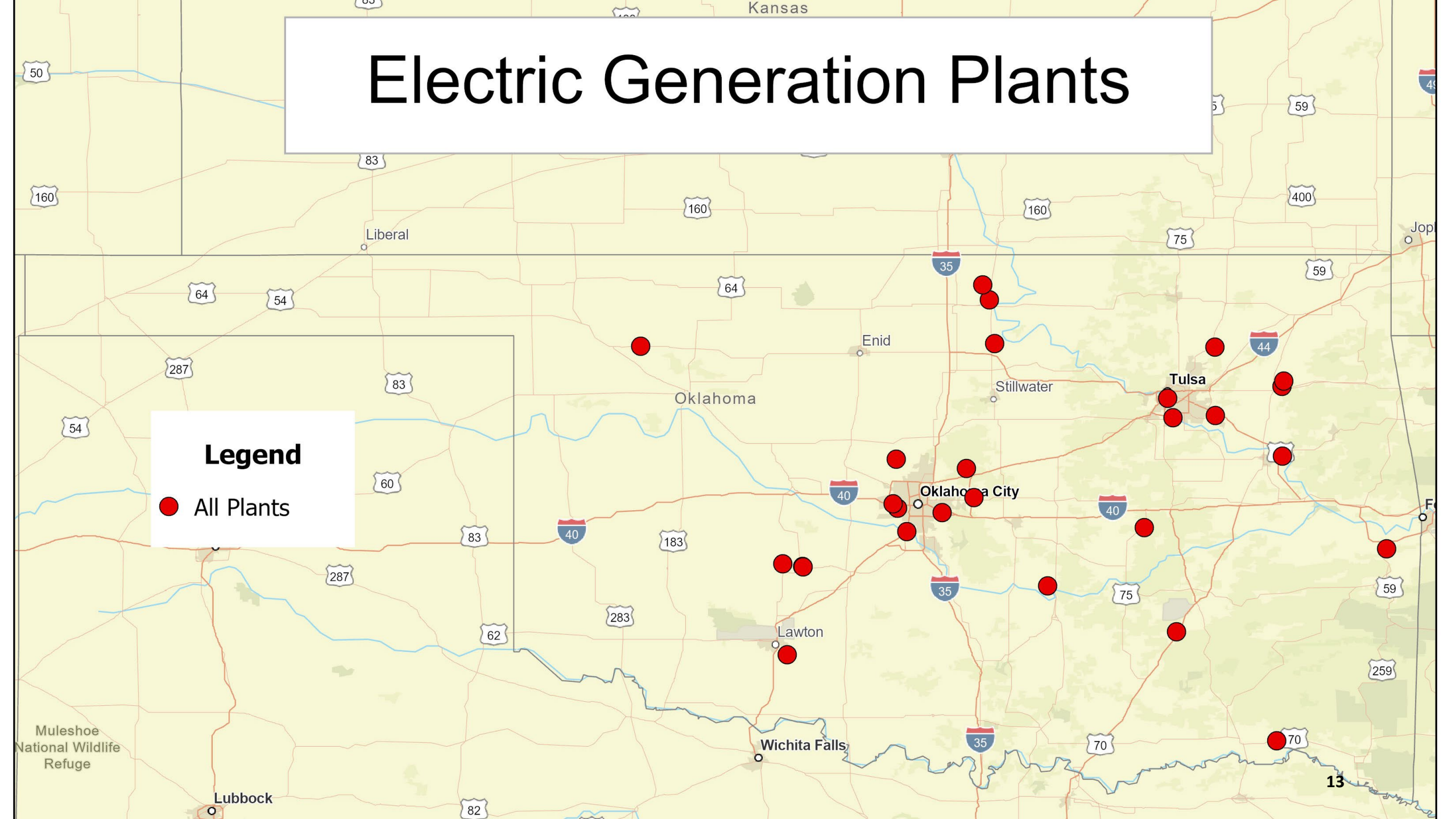
December 3rd 2024

Information Session

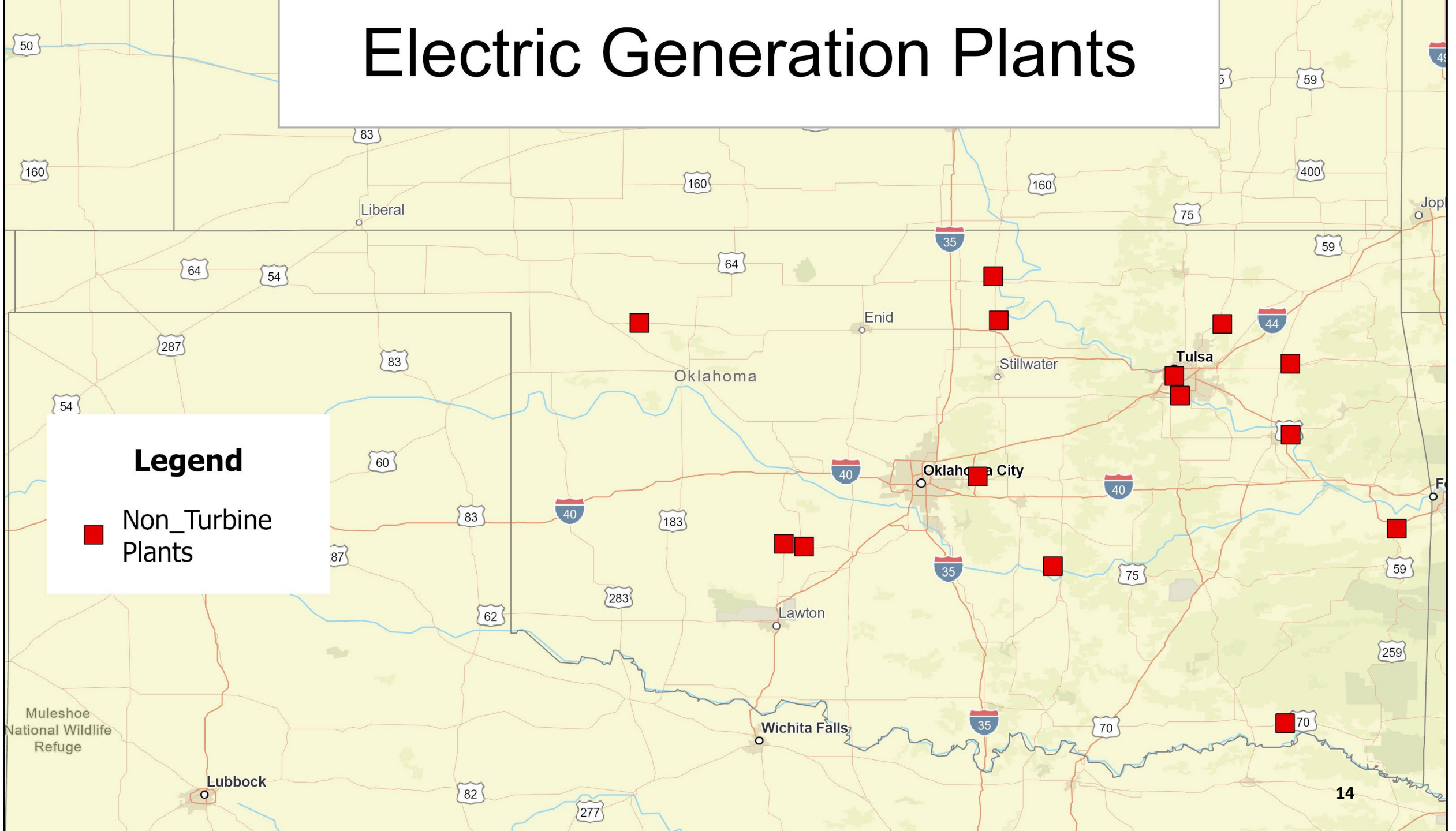
Leon Ashford

OKLAHOMA Environmental Quality

Electric Generation Plants



Electric Generation Plants



Designated Facilities

Owner	Facility	Fuel
GRDA	Chouteau	Coal
WFEC	Hugo	Coal
AEP/PSO	Oologah	Coal
OGE	Muskogee	Coal
OGE	Panama	Coal
OGE	Sooner	Coal

Owner	Facility	Fuel
WFEC	Anadarko	Gas
WFEC	Mooreland	Gas
AEP/PSO	Riverside-Tulsa	Gas
AEP/PSO	Southwestern-Washita	Gas
AEP/PSO	Tulsa	Gas
OGE	Horseshoe-Harrah	Gas
OGE	Seminole-Konawa	Gas

Timeline

April 25, 2024	EPA announced final standards
May 9, 2024	Rule published in Federal Register
May 9, 2026	State Plan due
January 1, 2030	Compliance date for Gas units and Medium-Term coal units
January 1, 2032	Compliance date for Long-Term coal units
January 1, 2032	Coal units that cease operation before this date are not subject to emission guidelines

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BSER At-A-Glance

Coal-Fired Boilers	Natural Gas and Oil-Fired Boilers
Long-term subcategory: For units operating on or after January 1, 2039 **BSER**: CCS with 90 percent capture of CO_2 (88.4% reduction in emission rate lb/MWh-gross) by January 1, 2032	**BSER**: routine methods of operation and maintenance with associated degree of emission limitation: **Base load unit standard**: (annual capacity factors > 45%) 1,400 lb CO_2/MWh-gross **Intermediate load unit standard**: (annual capacity factors > 8% and ≤ 45%) 1,600 lb CO_2/MWh-gross. **Low load units**: (annual capacity factors < 8%) a uniform fuels BSER and a presumptive input-based standard of 170 lb CO_2/MMBtu for oil-fired sources and a presumptive standard of 130 lb CO_2/MMBtu for natural gas-fired sources. Compliance date of January 1, 2030
Medium-term subcategory: For units operating on or after Jan. 1, 2032, and demonstrating that they plan to permanently cease operating before January 1, 2039 **BSER**: co-firing 40% (by heat input) natural gas with emission limitation of a 16% reduction in emission rate (lb CO_2/MWh-gross basis) by January 1, 2030	
For units demonstrating that they plan to **permanently cease operating before January 1, 2032** Units are exempt from the rule. Cease operations dates finalized in state plans for exemption purposes are federally enforceable.	

Source: EPA

Increments of progress (IoPs) for medium-term and long-term coal units

- The lengthy planning and construction processes associated with the CCS and natural gas co-firing BSERs make IoPs an appropriate mechanism to assure steady progress toward compliance and to provide transparency on that progress.
- Each increment must be assigned a calendar date deadline, but states have discretion to set those dates based on the unique circumstances of each unit.
- Submittal of a final control plan to the air pollution control agency must be assigned the earliest deadline among the increments, and the IoP corresponding to final compliance must be assigned a date aligned with the compliance date for the subcategory.

Source: EPA

Reporting Obligations and Milestones for Affected EGUs That Plan to Permanently Cease Operations

- EPA's final emission guidelines retain reporting obligations and milestones for only the medium-term coal-fired subcategory and affected EGUs that invoke RULOF based on a unit's remaining useful life

- These sources must submit:
  - An Initial Milestone Report five years before the date it will permanently cease operations,
  - Annual Milestone Status Reports for each intervening year, and
  - A Final Milestone Status Report no later than six months following the committed closure date

Source: EPA

Support for Reliability

EPA developed a four-point plan to address reliability throughout the implementation period.

1) **Rule Structure**. EPA adjusted the compliance timeframe by 2 additional years for coal-fired units, to provide more time to install CCS, and streamlined the subcategories. The EPA is not regulating existing natural gas fired turbines at this time, which creates more time for a comprehensive approach, including for reliability.

2) **RULOF Provisions**. EPA articulated how states can use the Remaining Useful Life and Other Factors (RULOF) provisions to address reliability in state plans, as well as in state plan revisions, should circumstances change.

3) **Compliance Flexibilities**. Several important flexibilities are included: a flexible annual average compliance period, emissions trading/averaging, and mass-based compliance equivalency are allowed in circumstances that uphold the environmental integrity of the rule, and a 1-year compliance extension is available for new and existing units for implementation delays outside of the control the owner/operator.

4) **Reliability Mechanisms**. The final rule adds two optional reliability-related instruments as an additional layer of safeguards. A short-term mechanism to provide flexibility for units responding to grid emergencies and a reliability assurance mechanism for units with retirement dates with a documented and verified reliability need.

EPA completed analyses of the reliability and resource adequacy implications of these final rules, including high growth and combined regulation sensitivity analyses, that show these final rules can be implemented without adverse consequences for grid reliability. EPA will continue to engage extensively with all reliability related authorities.

Source: EPA

Remaining Useful Life and Other Factors (RULOF)

- As provided in subpart Ba, under certain circumstances, states may apply a less stringent standard to a particular source based on that source's remaining useful life and other factors. RULOF is intended as a limited variance from the EPA's determinations to address unusual circumstances at particular facilities.
- State plans may not apply less stringent standards if a designated facility can reasonably achieve the presumptive standard of performance using a technology other than the BSER
- Allows states to consider RULOF to apply a less stringent standard of performance for a designated facility or class of facilities if they demonstrate one of the three following circumstances:
- (1) unreasonable cost resulting from plant age, location, or basic process design;
- (2) physical impossibility of installing necessary control equipment; or
- (3) other factors specific to the facility that make application of a less stringent standard or final compliance time significantly more reasonable.

Source: EPA

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Email

aqd.electric.gen.state.111d.plan@deq.ok.gov

Webpage

https://www.deq.ok.gov/air-quality-division/air-quality-rules-planning/111d-plans/

signup to receive future notifications from GovDelivery about DEQs 111d activities

https://public.govdelivery.com/accounts/OKDEQ/subscriber/new?topic_id=OKDEQ_3

Emissions Guidelines for Greenhouse Gas Emissions From Existing Crude Oil and Natural Gas Facilities

Overview of the State 111(d) Plan Development Process

Information Session
December 3, 2024

OKLAHOMA Environmental Quality

Tom Richardson, P.E.
Rules & Planning Section
Air Quality Division
Oklahoma Department of Environmental Quality

Summary of topics for today's meeting

- EPA's Emission Guidelines (EGs), Subpart OOOOc
- Oklahoma oil and gas sector description and "designated facilities"
- EPA's model rule
- Policy options
- RULOF and the oil and gas sector
- Questions for stakeholders
- How to participate in the process

Emission Guidelines (EGs) Subpart OOOOc

16820 Federal Register / Vol. 89, No. 47 / Friday, March 8, 2024 / Rules and Regulations

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA–HQ–OAR–2021–0317; FRL–8510–01–OAR]

RIN 2060–AV16

Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is finalizing multiple actions to reduce air pollution emissions from the Crude Oil and Natural Gas source category. First, the EPA is finalizing revisions to the new source performance standards (NSPS) regulating greenhouse gases (GHGs) and volatile organic compounds (VOCs) emissions for the Crude Oil and Natural Gas source category pursuant to the Clean Air Act (CAA). Second, the EPA is finalizing emission guidelines (EG) under the CAA for states to follow in developing, submitting, and implementing state plans to establish performance standards to limit GHG emissions from existing sources (designated facilities) in the Crude Oil and Natural Gas source category. Third, the EPA is finalizing several related actions stemming from the joint

the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *https://www.regulations.gov/*.

FOR FURTHER INFORMATION CONTACT: Ms. Amy Hambrick, Sector Policies and Programs Division (E143–05), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina, 27711; telephone number: (919) 541–0964; email address: *hambrick.amy@epa.gov*.

SUPPLEMENTARY INFORMATION: *Preamble acronyms and abbreviations.* Throughout this document the use of "we," "us," or "our" is intended to refer to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

AMEL alternative means of emission limitation
ANSI American National Standards Institute
API American Petroleum Institute
ARPA–E Advanced Research Projects Agency–Energy
ASME American Society of Mechanical Engineers
ASTM ASTM, International
AVO audible, visual, and olfactory
AWP alternative work practice
bbl barrels of crude oil
BLM Bureau of Land Management
boe barrels of oil equivalents
BOEM Bureau of Ocean Energy
FEAST Fugitive Emissions Abatement Simulation Toolkit
FR Federal Register
FrEDI EPA's Framework for Evaluating Damages and Impacts model
FRFA final regulatory flexibility analysis
g/hr grams per hour
GHG greenhouse gas
GHGI Inventory of U.S. Greenhouse Gas Emissions and Sinks
GHGRP Greenhouse Gas Reporting Program
GOR gas-to-oil ratio
H_2S hydrogen sulfide
HAP hazardous air pollutant(s)
ICR information collection request
IRFA initial regulatory flexibility analysis
IWG Interagency Working Group on the Social Cost of Greenhouse Gases
kg kilograms
kg/hr kilograms per hour
kt kilotons
lb/yr pounds per year
low-E low emission
LDAR leak detection and repair
LPE legally and practicably enforceable
Mcf thousand cubic feet
MW megawatt
NAAQS national ambient air quality standards
NAICS North American Industry Classification System
NDE no detectable emissions
NIE no identifiable emissions
NESHAP national emission standards for hazardous air pollutants
NGO non-governmental organization
NHV net heating value
NO_X nitrogen oxides
NSPS new source performance standards
NTTAA National Technology Transfer and Advancement Act
O_2 oxygen
OAQPS Office of Air Quality Planning and Standards
OGI optical gas imaging

EPA United States Environmental Protection Agency

Oil and Natural Gas Sources Covered by EPA's Final New Source Performance Standards (NSPS) and Emissions Guidelines, by Site

Location and Equipment or Process Covered	Required to or Would Be Required to Reduce Emissions under EPA Rules (if finalized as proposed)	Rules that Apply: 2012 NSPS for VOCs (OOOO)	2016 NSPS for Methane & VOCs (OOOOa)	2023 Final NSPS for Methane & VOCs (OOOOb)	2023 Final Emissions Guidelines for Methane (OOOOc)
Oil and Natural Gas Well Sites					
Completions of hydraulically fractured wells	✓	●	●	●	
Compressors at centralized tank batteries	✓			●	●
Fugitive emissions	✓		●	●	●
Liquids unloading	✓			●	●[1]
Pneumatic controllers	✓	●	●	●	●
Pneumatic pumps	✓		●	●	●
Storage vessels	✓	●	●[3]	●	●
Sweetening units	✓	●[2]	●[2]	●[2]	●[2]
Associated gas from oil wells	✓			●	●
Natural Gas Gathering and Boosting Compressor Stations					
Compressors	✓	●	●	●	●
Fugitive emissions	✓		●	●	●
Pneumatic controllers	✓	●	●	●	●
Pneumatic pumps	✓			●	●
Storage vessels	✓	●	●[1]	●	●
Sweetening units	✓	●[2]	●[2]	●[2]	●[2]
Natural Gas Processing Segment					
Compressors	✓	●	●	●	●
Fugitive emissions	✓		●	●	●
Pneumatic controllers	✓	●	●	●	●
Pneumatic pumps	✓		●	●	●
Storage vessels	✓	●	●[3]	●	●
Sweetening units	✓	●[2]	●[2]	●[2]	●[2]
Transmission and Storage Segment					
Compressors	✓		●	●	●
Fugitive emissions	✓		●	●	●
Pneumatic controllers	✓		●	●	●
Pneumatic pumps	✓			●	●
Storage vessels	✓	●	●[3]	●	●

All of the sources listed above are covered by EPA's Super Emitter Program

[1] Added in 2022 supplemental proposal

[2] Covered for SO_2 only

[3] Covered for VOCs only

Final Rule Published: March 8, 2024
Effective Date for Final Rule: May 7, 2024
State 111(d) Plan Submission: March 9, 2026
Compliance Date for State Rules: **March 9, 2029**

Summary of EG Subpart OOOOc Requirements

Part 60, Subpart OOOOc

- Establishes the requirement for states to develop rules and a 111(d) plan.
- Applies to **existing** sources that commenced construction, modification, or reconstruction *on or before* Dec. 6, 2022. (Sources constructed, reconstructed, or modified after that date are new sources.)
- Establishes emission guidelines and compliance schedules for the control of GHG emissions (in the form of methane) for designated facilities in the crude oil and natural gas source category.
- Designated facilities include[1]:

Designated Facility (Source of Emissions)	EG OOOOc Applicability (Summary)
Wells	Wells drilled for the purpose of producing oil or natural gas.
Centrifugal Compressors	Each centrifugal compressor. A centrifugal compressor located at a well site is not a designated facility. A centrifugal compressor located at a centralized production facility is a designated facility.

[1] From Table 1 of EPA's Summary of Requirements for Clean Air Act Section 111(d) State Plans Crude Oil and Natural Gas Source Category: Emissions Guidelines for Existing Sources 40 CFR Part 60, Subpart OOOOc, August 2024.

Table of Designated Facilities (continued)

Designated Facility (Source of Emissions)	EG OOOOc Applicability (Summary)
Reciprocating Compressors	Each reciprocating compressor. A reciprocal compressor located at a well site is not a designated facility. A reciprocating compressor located at a centralized production facility is a designated facility.
Process Controller	Process controller designated facilities are defined as the collection of natural gas-driven process controllers at a well site, centralized production facility, onshore natural gas processing plant, or a compressor station. Natural gas-driven process controllers that function as emergency shutdown devices and process controllers that are not driven by natural gas are exempt.
Pumps	The collection of natural gas-driven diaphragm and piston pumps at a well site, centralized production facility, onshore natural gas processing plant, or a compressor station. Pumps that are not driven by natural gas and that are not in operation 90 days or more per calendar year are not included in the pump designated facility.

Summary of EG Subpart OOOOc Requirements

Table of Designated Facilities (continued)

Designated Facility (Source of Emissions)	EG OOOOc Applicability (Summary)
Storage Vessels	Each tank battery (one or more tanks) with potential methane emissions equal to or greater than 20 tons per year as calculated using methods specified in the rule.
Fugitive Emissions Components	The collection of fugitive emissions components at a well site, centralized production facility, or a compressor station.
Process Unit Equipment	The group of all equipment within a process unit at an onshore natural gas processing plant is a designated facility. Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by 40 CFR §§ 60.5400c, 60.5401c, 60.5402c, 60.5421c, and 60.5422c if it is located at an onshore natural gas processing plant.

The Oil and Natural Gas Sector in Oklahoma

Oklahoma Oil and Gas Industry [2]

234,390 plugged wells
38,199 inactive or abandoned wells
569,411 known wells drilled in Oklahoma history
2,447 active oil and gas well operators
47,150 miles of pipelines
(gathering/transmission/distribution)
258 pipeline operators

Active Wells:

Oil: 76,403
Natural Gas: 47,883
Injection/Disposal: 10,525
Other: 37,666

Total: 172,477

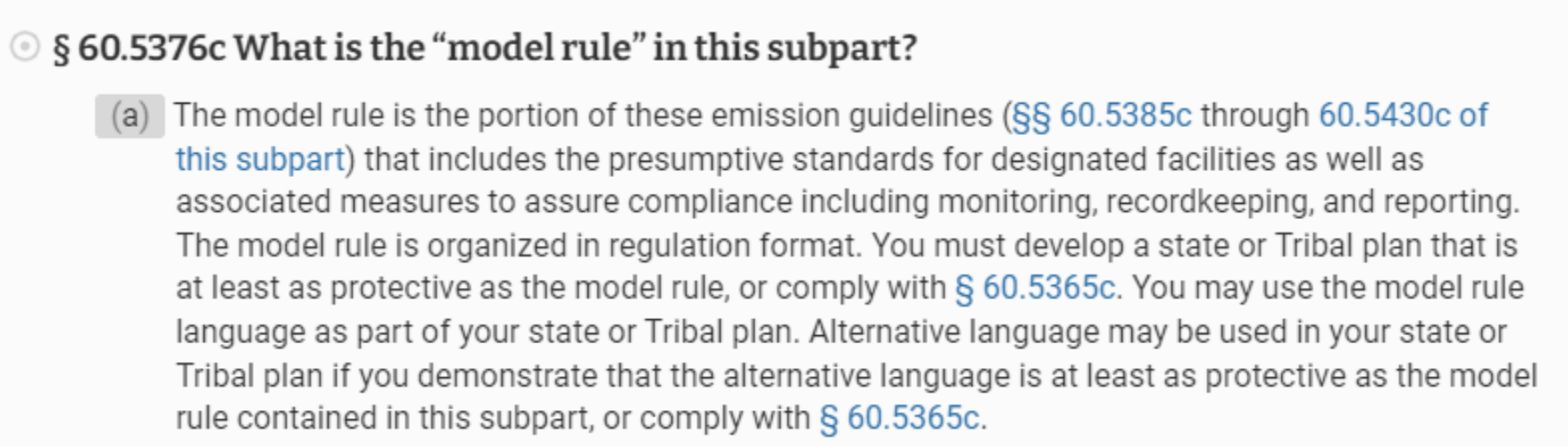
[2] Information provided by the Oklahoma Corporation Commission on June 20, 2024.

The Model Rule

Brief overview of requirements and links to the rule and to more detailed descriptions of the requirements established under the model rule.

Model rule in the Electronic CFR:

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-OOOOc#60.5376c



§ 60.5376c What is the "model rule" in this subpart?

(a) The model rule is the portion of these emission guidelines (§§ 60.5385c through 60.5430c of this subpart) that includes the presumptive standards for designated facilities as well as associated measures to assure compliance including monitoring, recordkeeping, and reporting. The model rule is organized in regulation format. You must develop a state or Tribal plan that is at least as protective as the model rule, or comply with § 60.5365c. You may use the model rule language as part of your state or Tribal plan. Alternative language may be used in your state or Tribal plan if you demonstrate that the alternative language is at least as protective as the model rule contained in this subpart, or comply with § 60.5365c.

The Model Rule

§ 60.5378c What are the principal components of the model rule?

The model rule contains the nine major components listed in paragraphs (a) through (i) of this section.

(a) Increments of progress toward compliance.
(b) Operator training and qualification.
(c) Emission limits, emission standards, and operating limits.
(d) Initial compliance requirements.
(e) Continuous compliance requirements.
(f) Performance testing, monitoring, and calibration requirements.
(g) Recordkeeping and reporting.
(h) Definitions.
(i) Tables.

The Model Rule – Storage Vessels

§ 60.5396c What GHG standards apply to storage vessel designated facilities?

Each storage vessel designated facility must comply with the GHG standards in this section, except as provided in paragraph (e) of this section.

(a) *General requirements.* You must comply with the requirements of paragraphs (a)(1) and (2) of this section. After 12 consecutive months of compliance with paragraph (a)(2) of this section, you may continue to comply with paragraph (a)(2) of this section, or you may comply with paragraph (a)(3) of this section, if applicable. If you choose to meet the requirements of paragraph (a)(3) of this section, you are not required to comply with the requirements of paragraph (a)(2) of this section except as provided in paragraphs (a)(3)(i) and (ii) of this section.

(1) Determine the potential for methane emissions in accordance with § 60.5386c(e)(2).

(2) Reduce methane emissions by 95.0 percent.

(3) Maintain the uncontrolled actual methane emissions from the storage vessel designated facility at less than 14 tpy without considering control in accordance with paragraphs (a)(3)(i) and (ii) of this section. Prior to using the uncontrolled actual methane emission rates for compliance purposes, you must demonstrate that the uncontrolled actual methane emissions have remained less than 14 tpy as determined monthly for 12 consecutive months. After such demonstration, you must determine the uncontrolled actual rolling 12-month determination methane emissions rates each month. The uncontrolled actual methane emissions must be calculated using a generally accepted model or calculation methodology which account for flashing, working, and breathing losses, and the calculations must be based on the actual average throughput, temperature, and separator pressure for the month. You may no longer comply with this paragraph and must instead comply with paragraph (a)(2) of this section if your storage vessel designated facility meets the conditions specified in paragraphs (a)(3)(i) or (ii) of this section.

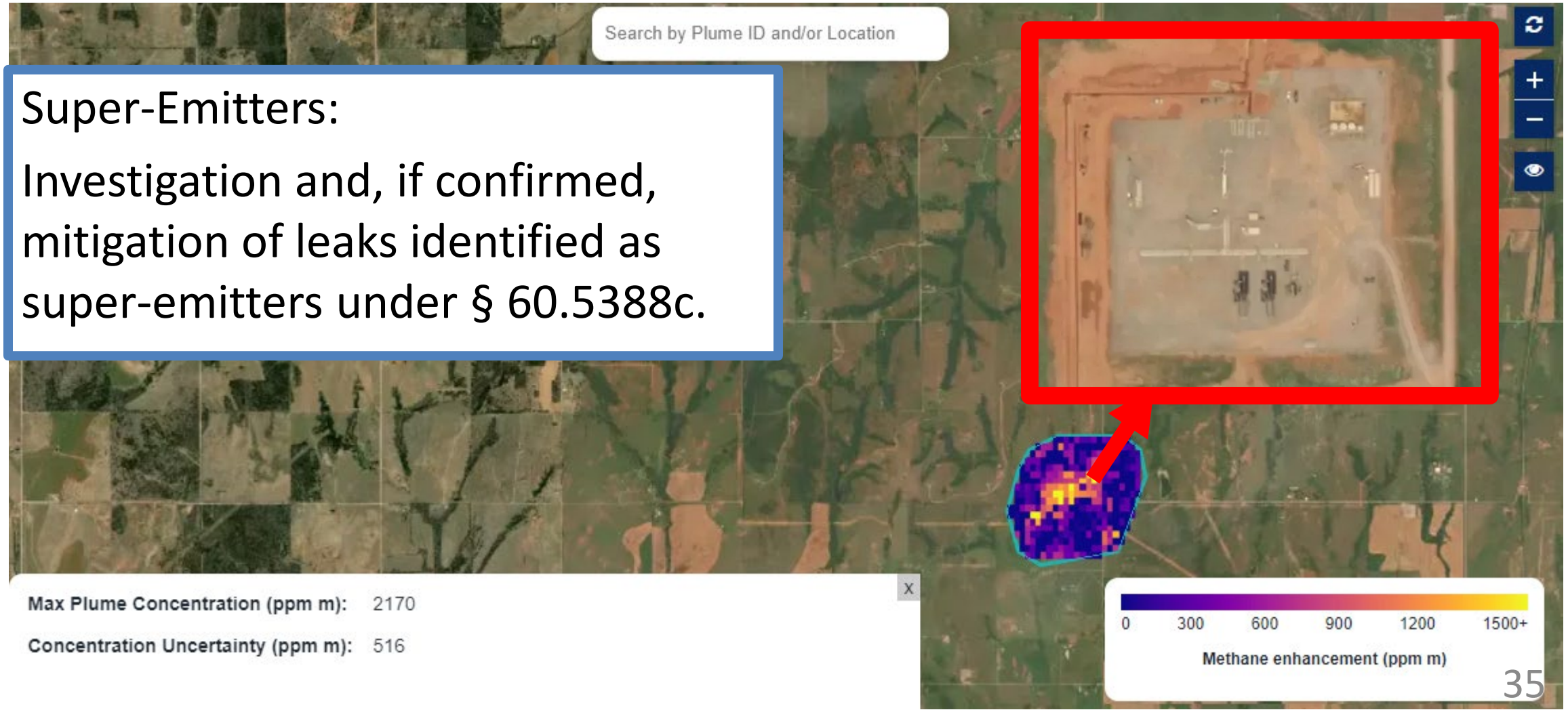
Designated Facility	Presumptive Standards in the Emissions Guidelines
Storage Vessels: Tank Battery with PTE of 20 tons per year (tpy) or more of methane.	95 percent reduction of methane

The Model Rule – Super-Emitters

Source: NASA EMIT Methane Point Source Plume Complexes

Super-Emitters:

Investigation and, if confirmed, mitigation of leaks identified as super-emitters under § 60.5388c.



The Model Rule – Fugitive Emissions (1/3)

Designated Facility	Presumptive Standards in the Emissions Guidelines
Fugitive Emissions: Single Wellhead Only Well Sites and Small Well Sites	Quarterly audible, visual and olfactory (AVO) monitoring surveys. First attempt at repair within 15 days after detecting fugitive emissions. Final repair within 15 days after first attempt. Fugitive monitoring continues for all well sites until the site has been closed, including plugging the wells at the site and submitting a well closure report.
Fugitive Emissions: Multi-wellhead only Well Sites (2 or more wellheads)	Quarterly AVO monitoring surveys. First attempt at repair within 15 days after detecting fugitive emissions. Final repair within 15 days after first attempt. Semiannual optical gas imaging (OGI) monitoring (Optional semiannual EPA Method 21 monitoring with 500 parts per million (ppm) defined as a leak). First attempt at repair within 30 days after detecting fugitive emissions. Final repair within 30 days after first attempt. Fugitive monitoring continues for all well sites until the site has been closed, including plugging the wells at the site and submitting a well closure report.

The Model Rule – Fugitive Emissions (2/3)

Designated Facility	Presumptive Standards in the Emissions Guidelines
Fugitive Emissions: Well Sites and Centralized Production Facilities	Bimonthly AVO monitoring surveys. First attempt at repair within 15 days after detecting fugitive emissions. Final repair within 15 days after first attempt. Quarterly OGI monitoring. (Optional quarterly EPA Method 21 monitoring with 500 ppm defined as a leak). First attempt at repair within 30 days after detecting fugitive emissions. Final repair within 30 days after first attempt. Fugitive monitoring continues for all well sites until the site has been closed, including plugging the wells at the site and submitting a well closure report.

The Model Rule – Fugitive Emissions (3/3)

Designated Facility	Presumptive Standards in the Emissions Guidelines
Fugitive Emissions: Compressor Stations	Monthly AVO monitoring surveys. First attempt at repair within 15 days after detecting fugitive emissions. Final repair within 15 days after first attempt. AND Quarterly OGI monitoring. (Optional quarterly EPA Method 21 monitoring with 500 ppm defined as a leak). First attempt at repair within 30 days after detecting fugitive emissions. Final repair within 30 days after first attempt.

The Model Rule – Links to Additional Information

EPA's web page for the Oil and Natural Gas Methane Rule:
https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-operations/epas-final-rule-oil-and-natural-gas

EPA's summary of key requirements table (NSPS and EGs):
https://www.epa.gov/system/files/documents/2023-12/summary-of-key-requirements-table.pdf

Summary of Requirements for Clean Air Act Section 111(d) State Plans, Crude Oil and Natural gas Source Category:
https://www.epa.gov/system/files/documents/2024-08/ooooc-summary-of-requirements-for-state-plans-final-8-23-2024.pdf

EPA's Methane Supper Emitter Program web page:
https://www.epa.gov/compliance/methane-super-emitter-program

More Information on RULOF

42 U.S.C.
United States Code, 2013 Edition
Title 42 - THE PUBLIC HEALTH AND WELFARE
CHAPTER 85 - AIR POLLUTION PREVENTION AND CONTROL
SUBCHAPTER I - PROGRAMS AND ACTIVITIES
Part A - Air Quality and Emission Limitations
Sec. 7411 - Standards of performance for new stationary sources
From the U.S. Government Publishing Office, www.gpo.gov
https://www.govinfo.gov/content/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapI-partA-sec7411.htm

§7411. Standards of performance for new stationary sources

(d) Standards of performance for existing sources; remaining useful life of source

(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority—

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410(c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

Fact Sheet: EPA's Supplemental Proposal to Reduce Pollution from Oil and Natural Gas Operations to Fight the Climate Crisis and Protect Public Health: State Planning Process

Requirements for Applying a Less-Stringent Standard to a Source

- State plans for implementing Emissions Guidelines must include standards that generally are as stringent as EPA's presumptive standards. However, the Clean Air Act allows states to apply a less-stringent standard to a particular existing source or class of existing sources based on the source's remaining useful life and other factors.
- EPA is proposing to allow states to apply a less-stringent standard to an existing source or class of existing sources, if they can demonstrate:
    - The cost of control is unreasonable because of a facility's age, location or basic process design;
    - It is physically impossible or technically impossible to install necessary emissions controls; or
    - Factors specific to the facility are fundamentally different than factors EPA considered in determining the best system of emission reduction, or "BSER."
- The supplemental proposal includes requirements for information that states must include in those demonstrations.
- EPA is proposing to require states to consider communities most affected by and vulnerable to the impacts of a particular facility in evaluating whether to apply a less-stringent standard to that source. State plans would have to identify where and how a less-stringent standard would affect communities and describe the impacts the standard would have. States also would have to provide any feedback the state received on the less-stringent standard during meaningful engagement on development of its state plan.
- In addition, EPA is proposing to allow states, at their discretion, to apply a standard that is more stringent than the presumptive standards in the proposed Emissions Guidelines.

Policy Options

- Adoption of the model rule
- Exclude some classes facilities altogether
- Delay requirements for some classes of facilities
- Focus on specific emission units for exclusions or delays
- Exclusions or delays based on:
  - Age of the facility
  - Emissions from the facility
  - Production-based exclusions
  - Other criteria

Targeted Stakeholder Questions

Industry stakeholder information requested:

1. Number of facilities that fall into the different categories
    a. Well sites.
    b. Central tank batteries.
    c. Compressor stations.
    d. Other facility types.
2. Feedback on the type of equipment found at model facilities.
3. Estimated methane emissions from model facilities that fall into the different categories.
4. Sum emissions from different categories.
5. Economic impact of rules.
    a. How many facility closures expected?
    b. Loss of jobs?
    c. Loss of revenue?
6. Additional information that would help inform our rule development and state 111(d) plan.

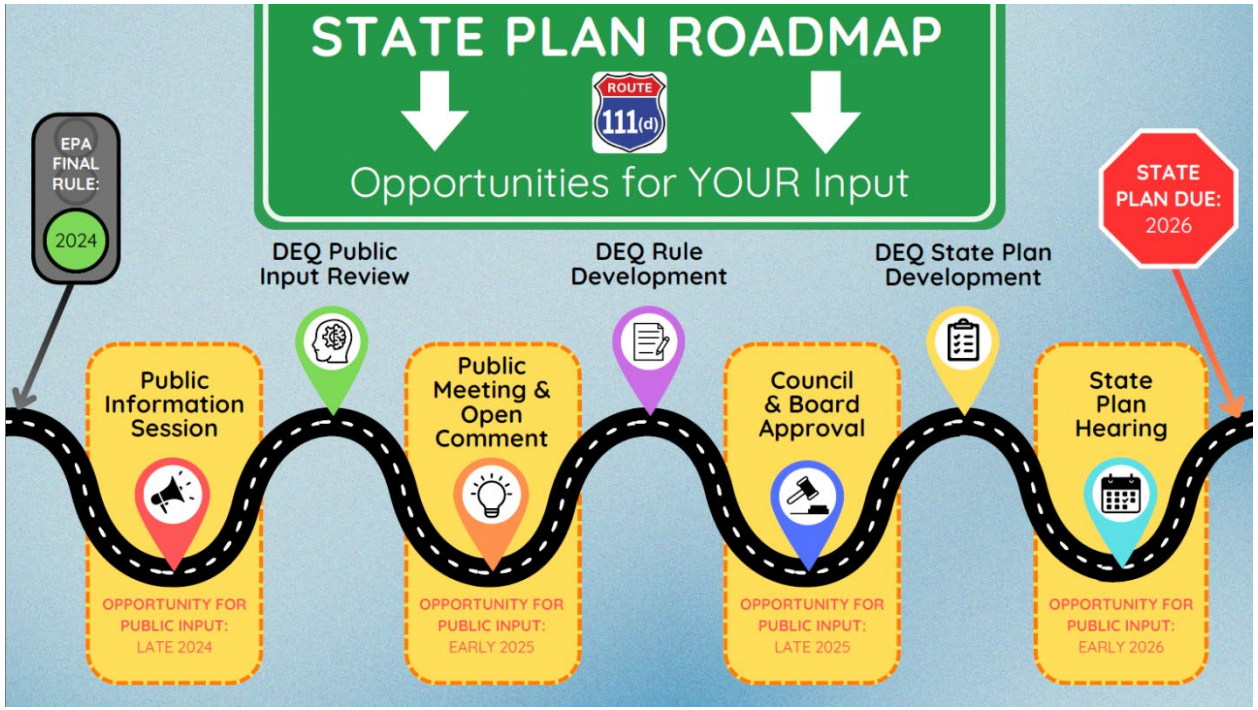
Targeted Stakeholder Questions

Community stakeholder information requested:

1. Proximity of facilities to homes, schools, work.
2. Designated facility impacts.
    a. Health effects.
    b. Environmental effects.
3. Economic impacts.
    a. Employment.
    b. Community spillover effects.
4. Other concerns.

Additional Outreach and Requests for Feedback

- The Oklahoma DEQ will request additional feedback from stakeholders to help develop the broad policy approach that will be shared during the next major milestone.
- Opportunities for additional engagement during the 60-day information feedback period are available.
- Engagement is encouraged!



How to Participate in the Process

Check for updates on the AQD's 111(d) webpage: https://www.deq.ok.gov/air-quality-division/air-quality-rules-planning/111d-plans/

Sign up to receive future notifications from GovDelivery about DEQ's 111(d) activities by subscribing to the "Air Quality Public Notices" list here: https://public.govdelivery.com/accounts/OKDEQ/subscriber/new?topic_id=OKDEQ_3

Submit questions and feedback to the state 111(d) plan email address:

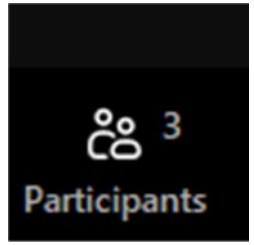
aqd.oil.and.gas.state.111d.plan@deq.ok.gov

We are soliciting feedback on policy options through **February 3, 2025**.

Questions and Feedback

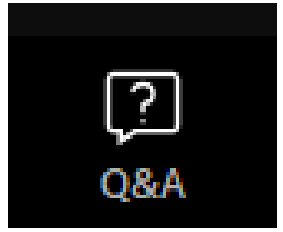
OKLAHOMA Environmental Quality

Public Input Reminders!



- This is being recorded and will be posted to the website
- **Rename** yourself on Zoom so we can call on you if you have questions
- All comments and questions must be appropriate; if there are any problems with this we reserve the right to remove participants
- If you have any technical issues with this meeting you may message the hosts and we will try to help

Questions & Feedback



- If you wish to make a comment, click the **Raise Hand** feature on your device at the bottom of the Participants list (may show as "…") or use *9 on your phone keypad.
  - The Q&A feature is enabled for non-verbal input and host questions
- You will be called on by name or the last four digits of your phone number when it is your turn to speak and then I will unmute your line.
  - You may also have to unmute yourself using the microphone symbol or *6 on your phone keypad.
- Please state your **name** and **affiliation** for the record.
- You will have approximately 3 minutes to make a comment.

15 Minute Break

Minutes remaining

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

- If you wish to make a comment, click the **Raise Hand** feature on your device at the bottom of the Participants list (may show as "…") or use *9 on your phone keypad.

Wrap-Up & Next Steps

- This presentation and meeting recording will be available on our website
  - https://www.deq.ok.gov/air-quality-division/air-quality-rules-planning/111d-plans/
- Submit questions and feedback to the state 111(d) plan email addresses:
  - aqd.oil.and.gas.state.111d.plan@deq.ok.gov
  - aqd.electric.gen.state.111d.plan@deq.ok.gov
- Sign up for DEQ's 111(d) activities by subscribing to the "Air Quality Public Notices" list:
  - https://public.govdelivery.com/accounts/OKDEQ/subscriber/new?topic_id=OKDEQ_3

State 111(d) Plans Web Page
www.deq.ok.gov/air-quality-division/air-quality-rules-planning/111d-plans/

Sign up for Air Quality Public Notices (email or text) Notifications
public.govdelivery.com/accounts/OKDEQ/subscriber/new?topic_id=OKDEQ_3

Thank you!

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