



# New Mexico Environment Department

**Ozone Precursor Rule – Initial Compliance Guidance**

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# Today's Discussion

General compliance only – does NOT include monitoring requirements or all emission standards for individual types of equipment and facilities

- ❑ Pollutants of Concern
- ❑ General Applicability and Scope
- ❑ General Requirements
- ❑ General Monitoring Requirements
- ❑ General Recordkeeping Requirements
- ❑ General Reporting Requirements
- ❑ Overview of Compliance Timelines

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# Pollutants of Concern

And rationale for the rule



# Pollutants of Concern

- Ozone formation, in general, forms when oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) react in the presence of sunlight.
- 20.2.50 NMAC (“Part 50”) is a result of the Department’s “Ozone Attainment Initiative” which was triggered by our statutory requirement to address ozone concentrations that reach or exceed 95% of the National Ambient Air Quality Standards (NAAQS) for ozone.
- The focus of Part 50 is on reducing NO<sub>x</sub> and VOC from the oil & gas industry – the biggest contributors in the areas of the State that have reached or exceeded 95% of the NAAQS.

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# General Applicability and Scope

Who and where?



# Who is subject to Part 50?

In general, the oil and gas industry in 8 counties\* that have contributed to ozone concentrations reaching 95% of the NAAQS

- Chaves
- Doña Ana
- Eddy
- Lea
- Rio Arriba
- Sandoval
- San Juan
- Valencia

\*Other counties may be added at a later date by amending the rule, if needed.





# Determining applicability

PTE is “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.”

- For each source that may be subject to Part 50, an applicability determination must be made.
- The only exit from applicability is to obtain a federally enforceable limit on potential to emit (PTE).
  - ▣ Permit from the Bureau
  - ▣ Federal requirement (accept applicability)



# Who/what in the oil & gas industry?

## O&G production and processing equipment at:

- ❑ Well sites
- ❑ Tank batteries
- ❑ Gathering/boosting stations
- ❑ Natural gas processing plants
- ❑ Transmission compressor stations

## Exclusions:

- ❑ Refineries
- ❑ Oil transmission pipelines
- ❑ Natural gas transmission pipelines (unless at a transmission compressor station)
- ❑ Saltwater disposal facilities
- ❑ Small business facilities are only subject to Sections 125 and 127 (with a few exceptions, found in Section 125)





# How can PTE be reduced?

- Federally enforceable requirement:
  - ▣ Install and operate air pollution control equipment
  - ▣ Restrict hours of operation
  - ▣ Restrict the types or amounts of materials:
    - Combustion
    - Processing
    - Storage
- To avoid a possible future compliance issue, for any source without a permit or claimed federal requirement to reduce emissions below the thresholds in each applicable section, owners/operators should assume applicability unless calculations of PTE are completed demonstrating the source is not subject to the specific requirement in question.

# General Requirements

Operations and maintenance, responding to the Department, modifications



# General requirements

Operate and maintain affected sources appropriately:

- Good air pollution control practices for minimizing emissions (including start-up, shutdown and malfunctions)
- Consistent with manufacturer specifications or good engineering and maintenance practices (as an alternative)
- Additional requirements:
  - For good cause, the Department may require third party verification with a report for implementing recommendations.
  - If modifying an existing source, applicability must be determined for the modified source – always.

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# General Monitoring Requirements

Monitoring, testing and inspections



# General Monitoring Requirements

“Monitoring” may include:

- Testing
- Monitoring
- Inspections

Units that are shut down are not required to restart only to perform required monitoring. Instead:

- Record the shutdown date and time range by equipment; and
- Test, monitor or inspect as soon as possible after the unit is restarted.

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# General Recordkeeping Requirements

Maintenance of records





# General Recordkeeping Requirements

Electronic records of all monitoring events must be maintained by the owner or operator for 5 years

- Companies are responsible for setting up a database system that can handle the data collected.
- Time/date/location stamp requirements:
  - Starting August 5, 2024 – must use approved technology:
    - By August 5, 2023, the Department will publish an “approved technology” list for this purpose.
    - Prior to August 5, 2024, date, time and location may be entered manually.
- An annual compliance database report (CDR) must be generated and maintained for 5 years.

# General Reporting Requirements

Submitting information to the Department



# General Reporting Requirements

Upon  
request  
from the  
Department

- ❑ Owners/operators must submit a response within 3 business days (for a single facility). Additional time will be granted if the request is for multiple facilities.
- ❑ Response must include the CDR correlated with the information request.
- ❑ Response must be uploaded to the Department's Secure Extranet Portal.
- ❑ No other regular reporting is required.

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# Compliance Timelines

An overview



# Compliance Timelines - Overview

- Effective date of the rule – August 5, 2022
- Beginning immediately:
  - Method 22 observations when visible emissions are observed from flares or enclosed combustion devices (ECD). (Section 115)
  - Use best management practices to minimize emissions at well workovers. (Section 124)
  - Conduct weekly AVO inspections for some (larger\*) well sites, tank batteries, gathering/boosting stations, natural gas processing plants and transmission compressor stations. (Section 116)
  - Conduct monthly AVO inspections for smaller facilities\*. (Section 116)
  - Inspect control devices visually (or with federally approved methods). (Section 115)
  - Conduct monthly OGI or EPA Method 21 inspections at gathering/boosting stations with PTE greater than or equal to 25 tpy VOC. (Section 116)
- New sites have different timelines – requirements generally begin upon start-up. These are noted in each section where applicable.



# Compliance Timelines Overview

2022

## □ November

- Determine applicability for existing well sites. (Section 116) New well sites' applicability determinations must be completed within 30 days of construction.
- Perform quarterly Method 22 observations for flares or ECDs. (Section 115)
- Conduct quarterly OGI or EPA Method 21 inspections at gathering/boosting stations with PTE less than 25 tpy VOC. (Section 116)
- Conduct quarterly OGI or EPA Method 21 inspections at transmission compressor stations OR in compliance with NSPS Subpart OOOOa. (Section 116)
- Conduct quarterly OGI or EPA Method 21 inspections at well sites within 1,000 feet of an occupied area\*. (Section 116)





# Compliance Timelines Overview

2023

- January
  - ▣ Inventory of all existing natural gas-fired spark ignition engines with schedule for assuring compliance for existing engines. (Section 113). New engines must meet standard upon startup.
- February
  - ▣ Initial engine and turbine compliance tests if operated 500 hours per year or more. (Section 113) Periodic testing required annually. If installed more than 180 days after effective date, initial test required within 60 days of maximum production (but no later than 180 days after startup).
  - ▣ OGI or EPA Method 21 inspection of inactive well sites (as of 8/5/2022) or within 30 days of well becoming inactive. (Section 116) Annual inspections required thereafter.
  - ▣ Produced water management units (and associated storage vessels) must meet emission standards. (Section 126)



# Compliance Timelines Overview

2023

## □ July

- Inventory of all existing affected turbines and a schedule for meeting emission standards. (Section 113). New turbines must meet standard upon startup.
- Determine total pneumatic controller count subject to each table (Section 122) at all affected facilities that commenced construction before August 5, 2022.



# Compliance Timelines Overview

2024

- January
  - 30% of existing natural gas-fired turbines meet standard. (Section 113)
  - OGI or EPA Method 21 inspections of 30% of existing wellhead-only facilities completed. Annual inspections thereafter. (Section 116)
  - 25-80% of (previously) natural gas-driven pneumatic controllers must be converted to non-emitting controllers. (Section 122, Tables 1 and 2) Percentage depends on total historic percentage and type of facility. New pneumatic controllers must be non-emitting starting August 5, 2022.
- July
  - Generate first CDR on all assets under owner/operator's control. (Section 112) Annual CDR generation required.



# Compliance Timelines Overview

2024

## □ August

- Centrifugal compressor with wet seals control VOC emissions from fluid degassing system by at least 95%. (Section 114) New compressors control upon startup.
- Existing well sites or standalone tank batteries: conduct OGI or EPA Method 21 inspections. (Section 116) Periodic inspections may be required annually, semi-annually or quarterly, depending on PTE.
- Implement best management practices at natural gas wells with liquid unloading operations that result in venting. (Section 117)



# Compliance Timelines Overview

2024

- August
  - Existing glycol dehydrators with PTE greater than 2 tpy VOC: achieve capture / control efficiency of 95% or better. (Section 118) New glycol dehydrators achieve this efficiency upon startup.
  - Hydrocarbon liquid transfers at certain existing facilities control VOC emissions by at least 95% during transfer. (Section 120) New transfer facilities control upon startup. Transfers at existing gathering/boosting stations without controlled storage vessels comply per schedule in Section 123.
  - Pig launching and receiving operations reduce VOC emissions by at least 95%. (Section 121)
  - Existing produced water management units control per Section 123 requirements or submit VOC minimization plan to the Department. (Section 126) New units control upon startup.



# Compliance Timelines Overview

2025

## □ January

- 30% of existing natural gas-fired spark ignition engines meet emission standard. (Section 113)
- 65% of existing wellhead-only facilities must be OGI or EPA Method 21 inspected. Annual inspections thereafter. (Section 116)
- 30% of existing storage vessels (by company) have capture/control efficiency of 95% or greater. (Section 123) New storage vessels meet efficiency requirements upon startup.





# Compliance Timelines Overview

2025

## □ August

- Existing closed vent systems (CVS) assessed and certified. (Section 115) New CVS assessed and certified within 90 days of startup.
- Uninstall backup control device or redundant VRU at sites that already have VRU installed as of August 5, 2022. (Section 115)
- Existing natural gas-fired heaters comply with emission standards for NOx and CO. (Section 119) New heaters comply upon startup.
- 100% of existing natural gas-driven pneumatic pumps comply with emission standards. (Section 122) New controllers or pumps comply upon startup.



# Compliance Timelines Overview

2026

- January
  - 100% of existing wellhead-only facilities OGI or EPA Method 21 inspected. (Section 116) Annual inspections thereafter.
  - 65% of existing natural gas-fired turbines meet standard. (Section 113)
  - Well recompletions and new wells at existing wellhead sites collect and control emissions from flowback vessels. (Section 127) New wells at new wellhead sites subject to these requirements as of August 5, 2022 or when completed/recompleted.



# Compliance Timelines Overview

2027

## □ January

- 65% of existing natural gas-fired spark ignition engines meet standard. (Section 113)
- 65-95% of (previously) natural gas-driven pneumatic controllers converted to non-emitting controllers. (Section 122, Tables 1 and 2)
- 65% of company's existing storage vessels have combined capture/control efficiency of 95%. (Section 123)



# Compliance Timelines Overview

2028

- January
  - 100% of existing natural gas-fired turbines meet standard. (Section 113)

2029

- January
  - 100% of existing natural gas-fired engines meet standard. (Section 113)
  - 100% of existing storage vessels meet 95% capture/control efficiency. (Section 123)



# Compliance Timelines Overview

2030

## □ January

- 80-98% of (previously) natural gas-driven pneumatic controllers must be converted to non-emitting controllers. (Section 122, Tables 1 and 2)

For more specific information, please see individual sections in the rule.

Also, more information may be found in the “General Compliance Guidelines” document or in the “Compliance Timelines” matrix. Both are available here and will be published on the NMED website. Also available is an FAQ document based on questions already received and answered by NMED.

## Coming soon

Additional, more focused compliance guidance based on equipment/facility types.





**Thank you for your participation in  
today's meeting.**

**Questions?**