

Environmental Meeting

Expo & Conference Galveston, Texas August 20, 2021 TECHNICAL EXPERTISE Brought Into FOCUS by INDUSTRY LEADERS



New Mexico Ozone Rule

- Walk through of Direct Testimony & Witness Statements
- Rebuttal Testimony Options
- Next Steps

Colorado Update

- Information Resources

GCA Website

- Suggestions
- Environmental Committee Contact List /Pictures

Potential Speakers and Topics for 2022 Suggestions on Membership Generation





Resources

Proposal Document – submitted to committee via email

Rule Update Page – <u>https://www.env.nm.gov/air-quality/ozone-precursor-rule-hearing/</u>

EIB Pleadings

Step No.1 - https://www.env.nm.gov/environmental-improvement/main-2/

Step No. 2 - <u>https://www.env.nm.gov/environmental-improvement/eib-21-27-petition-for-regulatory-change/</u>



NMAC 20.2.50

Direct Testimony & Witness Statements

NMAC 20.2.50

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Direct Testimony



By Environmental Improvement Board at 2:22 pm, Jul 28, 2021

STATE OF NEW MEXICO BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF:

PROPOSED NEW REGULATION 20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants No. EIB 21-27 (R)

ENTRY OF APPEARANCE ON BEHALF OF THE GAS COMPRESSOR ASSOCIATION

Jeffrey Holmstead, Tim Wilkins and Whit Swift of Bracewell LLP and Stuart R. Butzier

and Christina C. Sheehan of Modrall, Sperling, Roehl, Harris & Sisk, P.A. hereby enter their

appearances in this matter on behalf of The Gas Compressor Association.

NMAC 20.2.50

Direct Testimony

Notice of Intent to Present Technical Testimony

GAT (1) GAS COMPRESSOR ASSOCIATION

Witness List

Vic Sheldon, MBA, PE GM Vsheldon Jeveritt Decisions, LLC John Dutton, President J-W Power Company Mark Copeland, Director of Operations, Archrock Raymond Carr, Engineering Pneumatics Expert, FW Murphy Brendan Filby, MBA CEO DCL America Randy Bartley CEO, B.enviroSAFE, LLC d/b/a BAIR

Supporting Documentation 2008 Ozone NAAQS Docket ID No. EPA-HQ-OAR-2015-0500 NMED ICE Reductions & Cost NO2-6-4-21 FW Murphy Scrubber Level System Gas Emissions Calculater FW Murphy Liquid Level Switches (LS200 Series) FW Murphy Liquid Level Control System Oil & Gas & Natural Gas Sector Pneumatic Devices, U.S. EPA Office of Air Quality Planning & Strategy (April 2014) New Mexico Air Quality Bureau, NSR & TV: IC Engine Monitoring Protocol Permit Template Language Note 3 (Version: 05/23/2016)

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Direct Testimony Summary of Non - Technical Testimony

1. Fiscal Implications of Proposed Rule

- Cost of New Mexico defined BAT standard
- Cost of maintenance & reporting

2. Need for Department to Add Definitions to 20.2.50 NMAC

- The Department Should Define "Credible Evidence" as used in 20.2.50.125.G NMAC
- The Department Should Define Reconstruction, Certified Engines, Portable Engines and Non- Road Engines
- 3. Request for Exemption of Certified Engines
- 4. Including PPM Values for Emissions Limits

5. Non-viability of certain proposed emissions standards for natural gas compressor engines due to the quality of wellhead and field natural gas found in the state of New Mexico.

NMED OZONE PRECURSOR RULE – EIB HEARING PREP

Bill Bowes and Mark Copeland August 9, 2021

CHRONOLOGY



Additional Details:

- July 28th = technical testimony filing deadline; filed i/n/o GCA
- Second Half of August = pre-hearing conference
- **September 6**th = filing deadline for rebuttal testimony
- Pre-Hearing September = potential advocacy sit-down with NMED
- September 20th = first day of hearing
- **Post-EIB Decisions:** 30 days to file petition with NM Appeals Court

CURRENT ACTIVITIES

Reviewing other petitioners' filings (> 50 filings):

- File written rebuttal re: any opposing testimony?
- Cross-examine any opposing witnesses?
- Anyone likely to cross-examine our witnesses?
- Other filing entities/experts include:
 - Industry: Oxy, NMOGA, IPANM, Kinder, Solar Turbines, EMA and a commercial disposal group
 - Enviros: NMED, EDF, National Parks Service, WildEarth, Clean Air Advocates and New Mexico Environmental Law Center

ISSUE 1 - Engine Emissions Standards: Change NOx Standard for LB Engines

Experts: Vic Sheldon and John Dutton



Table 1 - EMISSION STANDARDS FOR NATURAL GAS-FIRED SPARK-IGNITION ENGINES MANUFACTURED OR CONSTRUCTED, RECONSTRUCTED, OR INSTALLED BEFORE THE EFFECTIVE DATE OF 20.2.50 NMAC.

Engine Type	Rated bhp	NOx	со	NMNEHC (as propane)
Lean-burn	> 1,000	0.50<u>2.0</u> g/bhp-hr	47 ppmvd @ 15% O ₂ or 93% reduction	0.70 g/bhp-hr
Rich-burn	> 1,000	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

Table 2 - EMISSION STANDARDS FOR NATURAL GAS-FIRED SPARK-IGNITION ENGINES <u>MANUFACTURED OR CONSTRUCTED</u>, RECONSTRUCTED, OR INSTALLED AFTER THE EFFECTIVE DATE OF 20.2.50 NMAC.

Engine Type	Rated bhp	NOx	со	NMNEHC (as propane)
Lean-burn	>500 - < 1000<u>1,875</u>	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Lean-burn	<u>> 10001,875</u>	0.30 g/bhp-hr uncontrolled or	0.60 g/bhp-hr	0.70 g/bhp-hr
		0.05 g/bhp-hr with control		
Rich-burn	> 500	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

ISSUE 2 – Engine Maintenance Schedule

- Expert: Mark Copeland
- <u>Ask</u>: Replicate NESHAP ZZZZ's language:

Proposed 20.2.50.113.C(1)

C. Monitoring requirements:

(1) Maintenance and repair for a spark-ignition engine, compression-ignition engine, and stationary combustion turbine shall <u>meet be consistent with</u> the minimum manufacturer recommended maintenance schedule or a schedule developed by the owner or operator that must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The following maintenance, adjustment, replacement, or repair events for engines and turbines shall be documented as they occur:

(a) routine maintenance that takes a unit out of service for more than two hours during any 24-hour period; and

(b) unscheduled repairs that require a unit to be taken out of service for more than two hours during any 24-hour period.

ISSUE 3 – Pneumatic Controller Emission Standards

- <u>Expert</u>: Raymond Carr (FW Murphy)
- <u>Ask</u>: Allow Intermittent Pneumatic Controllers instead of just Zero Bleed:
 - 20.2.50.7 DEFINITIONS

<u>"Intermittent pneumatic controller</u>" means a pneumatic controller that is not designed to have a continuous bleed rate, but is designed to only release natural gas to the atmosphere as part of the actuation cycle.

Table 1 – WELLHEAD SITES, TANK BATTERIES, GATHERING AND BOOSTING FACILITIES

Total Historic	Total Required	Total Required	Total Required
Percentage of Non-	Percentage of Non-	Percentage of Non-	Percentage of Non-
Emitting Controllers or	Emitting Controllers or	Emitting Controllers or	Emitting Controllers or
Intermittent Pneumatic	Intermittent Pneumatic	Intermittent Pneumatic	Intermittent Pneumatic
Controllers	Controllers by January	Controllers by January	Controllers by January
	1,2024	1,2027	1,2030
> 75%	80%	85%	90%
> 60-75%	80%	85%	90%
>40-60%	65%	70%	80%
> 20-40%	45%	70%	80%
0-20%	25%	65%	80%

ISSUE 4 – Inspection Requirements for Control Devices

- Expert: Brendan Filby (CEO at DCL America)
- <u>Ask</u>: Provide alternative to monthly requirement:

Proposed 20.2.50.115.B(4)

(4) The owner or operator shall inspect control devices used to comply with this Part at least monthly to ensure proper maintenance and operation at least monthly or on a schedule developed by the owner or operator that must provide to the extent practicable for the maintenance and operation of the control device in a manner consistent with good air pollution control practice for minimizing emissions, unless a different schedule is specified in the Section applicable to that control device. Prior to an inspection or monitoring event, the owner or operator shall scan the EMT and the required monitoring data shall be electronically captured in accordance with this Part.

Proposed 20.2.50.113.C(2) [maintenance/inspections of catalytic converters and AFR controllers]

C. Monitoring requirements:

(2) Catalytic converters (oxidative, selective, and non-selective) and AFR controllers shall be <u>inspected and</u> maintained according to manufacturer or supplier recommended maintenance schedules, including replacement of oxygen sensors as necessary for oxygen-based controllers. During periods of catalytic converter or AFR controller maintenance, the owner or operator shall shut down the engine or turbine until the catalytic converter or AFR controller can be replaced with a functionally equivalent spare to allow the engine or turbine to return to operation.

ISSUE 5 – Inspection Requirements for Sources Subject to Emissions Standards & Monitoring

Expert: Mark Copeland

Ask: Require NMED to reply to plan within 90 days:

Proposed 20.2.50.112.B(1)

B. Monitoring requirements:

(1) Sources subject to emission standards and monitoring (e.g. inspection, testing, parametric monitoring) requirements under this Part shall be inspected monthly to ensure proper maintenance and operation, unless a different schedule is specified in the Section applicable to that source type. If the equipment is shut down at the time of required periodic testing, monitoring, or inspection, the owner or operator shall not be required to restart the unit for the sole purpose of performing the testing, monitoring, or inspection, but shall note the shut down in the records kept for that equipment for that monitoring event.

(2) An owner or operator may submit for the department's review and approval an equally effective, enforceable, and equivalent alternative monitoring strategy. Such requests shall be made on an application form provided by the department. The department shall issue a letter approving or denying the requested alternative monitoring strategy within a reasonable time not more than 90 days after receipt of the request. An owner or operator shall comply with the default monitoring requirements required under the applicable Section and shall not operate under an alternative monitoring strategy until it has been approved by the department.

ISSUE 6 – CO as Surrogate of NMNEHC When Testing w/ Portable Analyzers

- Expert: Randy Bartley (BAIR Enviro Consulting & Testing)
- <u>Ask</u>: Allow CO as surrogate when portable analyzers allowed:

Proposed 20.2.50.113(C)(3)

C. Monitoring requirements:

(3) For equipment operated for 500 hours per year or more, compliance with the emission standards in Subsection B of 20.2.50.113 NMAC shall be demonstrated by performing an initial emissions test, followed by annual tests, for NOx, CO, and non-methane non-ethane hydrocarbons (NMNEHC) using a portable analyzer or U.S. EPA reference method. For units with g/hp-hr emission standards, the engine load shall be calculated using the following equations:

* * *

(i) For emissions tests using a portable analyzer, the results of emissions testing demonstrating compliance with the emissions standards for CO may be used as a surrogate to demonstrate compliance with the emissions standards for NMNEHC.

ISSUE 7 – Added Time to Tag Leaks Discovered by AVO Inspections

Expert: Mark Copeland

<u>Ask</u>: Change "calendar days" to "business days":

Proposed 20.2.50.116.C(1)(e)

(1) The owner or operator of a facility with an annual average daily production of greater than 10 barrels of oil per day or an average daily production of greater than 60,000 standard cubic feet per day of natural gas shall, at least weekly, conduct audio, visual, and olfactory (AVO) inspections of thief hatches, closed vent systems, pumps, compressors, pressure relief devices, open-ended valves or lines, valves, flanges, connectors, piping, and associated equipment to identify defects and leaking components as follows:

(a) conduct a visual inspection for: cracks, holes, or gaps in piping or covers; loose connections; liquid leaks; broken or missing caps; broken, cracked or otherwise damaged seals or gaskets; broken or missing hatches; or broken or open access covers or other closure or bypass devices;

(b) conduct an audio inspection for pressure leaks and liquid leaks;

(c) conduct an olfactory inspection for unusual or strong odors;

(d) any positive detection during the AVO inspection shall be considered a leak;

and

(e) a leak discovered by an AVO inspection shall be tagged with a visible tag and reported to management or their designee within three <u>calendar business</u> days

ISSUE 8 – Equipment Monitoring Tags and Compliance Database

Expert: Mark Copeland

Ask: Entirely do away with this burdensome requirement: (3) Within two years of the effective date of this Part, owners and operator requirement for the effective date of this Part, owners and operator requirement.

(3) Within two years of the effective date of this Part, owners and operators of a source requiring an Equipment Monitoring Tag (EMT) shall physically tag each unit with an EMT, the format of which shall be either RFID, QR, or bar code such that, when scanned it provides a unique identifier of the source. This unique identifier shall act as an index to the source's record of the data required by this Part. The EMT shall be maintained by the owner or operator, and data in the EMT shall provide at a minimum, the following information:

unique unit identification number;

b) location of the source;

(c) type of source (e.g., tank, VRU, dehydrator, pneumatic controller, etc.);

(d) for each source, the VOC (and NOx, if applicable) PTE in lbs./hr. and tpy;

(e) for a control device, the controlled VOC and NOx PTE in lbs./hr. and tpy;

f) make, model, and serial number; and

(g) a link to the manufacturer's maintenance schedule or repair

recommendations

(4) The EMT shall be installed and maintained by the owner or operator of the facility.

(5) The EMT shall be of a format scannable by an owner or operator's authorized representatives and, upon scanning, shall provide unique identifier that shall index the source's record of the data required by this Part.

(6) The owner or operator shall manage the source's record of data in a database that is able to generate a Compliance Database Report (CDR). The CDR is an electronic report generated by the owner or operator's database and submitted to the department upon request. The format of the CDR shall be determined by the department.

(7) The CDR is a report distinct from the owner or operator's database. The department does not require access to the owner or operator's database, only the CDR.

(8) If read by the owner or operator's authorized representative, the EMT shall access the owner or operator's database record for that source.

(9) The owner or operator shall contemporaneously track each compliance event for each source subject to emission standards and monitoring under the EMT requirements of this Part, and shall comply with the following:



State of Colorado Information Resources information Resources

advice tise



The Regional Haze rulemaking is now transitioning into the more formal process. As a result, the Division's proposal and supporting documents have been submitted to Air Quality Control Commission and can be found on their website, under the August 18-19 meeting link: https://cdphe.colorado.gov/aqcc

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Comments on the August 10, 2021 meeting presentation may be submitted to the Air Pollution Control Division technical staff here:

cdphe.commentsapcd@state.co.us Subject: Regional Haze

Should the Air Quality Control Commission grant the request for hearing at its August 18, 2021 meeting, information on how to participate in the hearing and provide input to the Commission can be found by clicking on the public participation and hearing guidance link at the following website: <u>https://cdphe.colorado.gov/aqcc</u>

Additional References: EPA's website on Regional Haze: https://www.epa.gov/visibility/regional-haze-program

Office of the Air Quality Control Commission's Public Participation Workshop Video link: <u>tps://drive.google.com/file/d/15gAfazlVOl7hs3--pjKRn1xNoMXsvPy8/view</u>

0 & G GHG Stakeholder Meetings

The next O&G GHG rulemaking public stakeholder meeting is on either (or both) August 16, 2021 or August 31, 2021. At these meetings, feedback is requested on: •<u>Draft rule language</u> for O&G specific GHG reduction programs, and

•Information shared at the <u>July 7, 2021</u> <u>stakeholder meeting</u>

Materials for these meetings are in the folder below, with Zoom links in the <u>agenda</u>. These meetings will be recorded and available in this folder as well (once available). You can also find draft rule language in this folder, and remember that rule language is continually being added as it is drafted. Check back often.

August 16 and 31, 2021 Public Meeting Materials... Point of Contact: Stefanie Rucker Supervisor Office of Innovations in Planning



COLORADO Air Pollution Control Division Department of Public Health & Environment

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Pronouns: she/her/hers

Emissions & Regulatory Workbook Update

The Air Pollution Control Division published today the revised Oil and Gas Industry Emissions Calculation & Regulatory Analysis Workbook and associated guidance document on our website. The Emissions Calculation & Regulatory Analysis Workbook is intended to assist operators applying for permits to follow approved emissions calculation methods and also support regulatory requirement determinations. The workbook includes emission calculations and regulatory analyses for the following oil and gas equipment: condensate storage tanks, produced water tanks, crude oil tanks, glycol dehydrators, amine units, hydrocarbon loadout, separator venting and natural gas heaters.

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The revisions include new features/functionality, updated regulatory citations, as well as new emission calculations and regulatory analyses worksheets for fugitive component leaks, and natural gas-fired reciprocating internal combustion engines.

Use of this workbook is voluntary but highly encouraged in order to facilitate the permit application review process. In addition, the regulatory analysis tools should help companies to ensure facilities are designed and constructed according to state regulations.

A copy of the workbook and guidance document may be found online at:

https://cdphe.colorado.gov/index-of-forms-and-guidance-for-oil-gas

If you have any questions regarding this communication, please contact Bradley Eades at 303-692-3142.

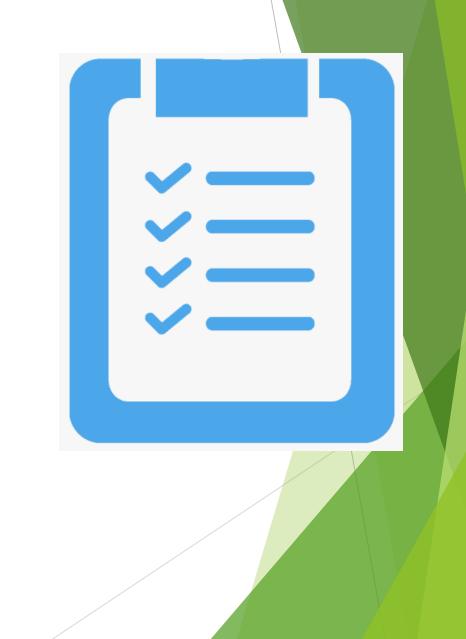


GCA Website

- Suggestions for tools or additional items
- Environmental Committee Contact List /Pictures

Potential Speakers and Topics for 2022

Suggestions on Membership Generation





Questions?

Please contact

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