

# Regulatory Activity in the Oil and Gas Sector

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# Presentation Overview

- History of air quality regulation in the oil and gas industry in Colorado
- New legislative provisions
  - SB 19-181
  - SB 19-096
  - HB 19-1261
- Proposed regulatory changes
  - Regulation 3
  - Regulation 7
- Planned rulemaking schedule

# History of Air Quality Regulation for the Oil and Gas Industry in Colorado

- Prior to early 2000's oil and gas exploration and production sites were considered insignificant emitters
- Analysis of storage tank flash emissions showed that these sites were the largest source of VOC emissions in the state
- Series of rulemakings to address emissions from oil and gas sources
  - 2004
    - Focused on reducing emissions from condensate tanks in non-attainment area
  - 2006
    - First state-wide oil and gas regulations
  - 2008
    - Expanded tank controls, first requirements for pneumatic controllers

# History of Air Quality Regulation for the Oil and Gas Industry in Colorado, cont.

- More rulemakings ...
  - 2014
    - Oil and gas methane regulations
    - Infra-red camera LDAR
    - Tank capture requirements
  - 2017
    - New and enhanced control requirements for ozone non-attainment area
    - Established State-Wide Hydrocarbon Emission Reduction (SHER) Team, and Pneumatic Controller Task Force to identify and evaluate state-wide emission reduction strategies and make recommendations to the AQCC in early 2020

# Current Air Quality Initiatives Impacting the Oil and Gas Sector

- Federal Regulatory Requirements
  - Bring the Front Range into compliance with health-based ozone standards
  - Address Regional Haze
  - Reduce nitrogen deposition in Rocky Mountain National Park
- Ambitious state legislative directives
  - Minimize air emissions from the oil and gas industry
  - Combat global climate change through greenhouse gas reductions
- These efforts will include multiple rulemakings before the AQCC

# Senate Bill 19-181 Air Quality Provisions

- Directs the AQCC to minimize emissions from oil and gas facilities
  - Includes exploration and production sites through the transmission sector
  - Includes methane (CH<sub>4</sub>), hydrocarbon, volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and nitrogen oxide (NO<sub>x</sub>) emissions
- Specifically directs the AQCC to consider:
  - Leak detection at exploration and production facilities
  - Inspection and maintenance requirements for transmission pipelines and compressor stations
  - Continuous methane monitoring at large emitting facilities, multi-well facilities, and facilities in close proximity to occupied dwellings
  - Pneumatic device emission reduction strategies
- Clarifies AQCC authority to regulate emissions from pre-production activities, drilling and completion

# Senate Bill 19-096 Highlights

Addresses greenhouse gas (GHG) emissions data

- GHGs defined as CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen tri-fluoride (NF<sub>3</sub>)
- Directs the Division (APCD) to update the statewide GHG inventory at least every 2 years
  - Establishes 2005 as the inventory baseline year
  - Include projections at 5-year increments from 2025 to 2045

# Senate Bill 19-096 Highlights, cont.

- Directs the Commission (AQCC) to adopt rules by June 1, 2020 requiring GHG-emitting entities to monitor and publicly report emissions
- Directs the Commission to propose rules by July 1, 2020 to implement measures that would allow the state to meet its GHG reduction goals



# House Bill 19-1261 Highlights

- Establishes statewide GHG reduction goals, relative to baseline year of 2005
  - 26% reduction by 2025
  - 50% reduction by 2030
  - 90% reduction by 2050
- Applies to anthropogenic emissions of GHGs, expressed as CO<sub>2</sub>e calculated using global warming potential factor deemed appropriate by the Commission (AQCC)

# House Bill 19-1261 Highlights, cont.

- Directs the Commission to:
  - Promulgate rules to ensure timely progress towards statewide reduction goals
  - Identify disproportionately impacted communities
  - Solicit input from other state agencies, stakeholders, and the public on mitigation measures
- Encourages clean energy plans that will reduce emissions caused by Colorado retail electricity sales by 80% by 2030 based on 2005 baseline
- The Commission may not dictate the mix of electric generating resources used by any public utility

# Fall 2019 Rulemaking

Scheduled for hearing before the Commission (AQCC)  
December 17-19, 2019

# Regulation 3 - Oil and Gas APEN and Permitting Revision Highlights

- Removes 90 day permitting deferral for new oil and gas exploration and production facilities
- New requirement for oil and gas well production facilities to submit a notice of startup to the Division at least 15 calendar days prior to any well completion activities
- Definition Revisions
  - Supplements definition of “Commencement of Operation”
  - Includes definition of “Well Production Facility” from Regulation 7

# Regulation 3 - Oil and Gas APEN and Permitting Revision Highlights, cont.

- Exemption Clarifications & Revisions
  - Clarifies existing APEN reporting and permitting exemption for emissions resulting from venting of natural gas lines for safety purposes - utility boiler fuel gas lines in a generation building
  - Revises APEN and permitting exemptions to no longer exclude oil and gas production wastewater impoundments that contain less than 1% by volume crude oil on an annual average
- Clarifications to notification/timing requirements and compliance responsibility related to transfer of ownership

# Regulation 7 Revisions - Oil and Gas Sector Highlights

- Storage Tanks
  - Controls in non-attainment area required for tanks  $\geq 4$  tpy by May 1, 2020
    - Replaces existing system-wide control program
    - Expanded to include crude and produced water tanks
  - Controls statewide required for tanks  $\geq 2$  tpy by March 1, 2021
  - Monitoring
  - Automatic gauging system required for new storage tanks or facilities
  - Requirement to control emissions from load-out of tanks to trucks

# Regulation 7 Revisions - Oil and Gas Sector Highlights, cont.

- Leak detection and repair (LDAR)
  - Semi-annual LDAR using an approved instrument monitoring method at well production facilities with VOC emissions >2 tpy
  - Semi-annual LDAR using an AIMM at natural gas compressor stations
  - Maintain existing quarterly and monthly LDAR requirements
  - Allow operators to utilize alternative program if they can establish it is at least as effective as the current LDAR program
    - Could include continuous monitoring devices or other methods such as aerial surveys

# Regulation 7 Revisions - Oil and Gas Sector Highlights, cont.

- Well emissions
  - Expand best management practices (BMP) requirement to include emissions during well plugging activities
  - Enhanced recordkeeping requirements
- Pneumatic controllers
  - Regulatory requirements based on strategy developed by SHER team
  - Requires inspection for proper operation at same frequency as LDAR inspections
  - Annual report



# Regulation 7 Revisions - Oil and Gas Sector Highlights, cont.

- Transmission segment
  - Requirements based on emission reduction program developed by SHER team
  - Requires companies to develop and implement company-specific best management practices statewide
    - Annual compliance certification
    - Annual company-wide emissions report
  - Establishes Steering Committee consisting of environmental/local government, industry, and division representatives
    - Develop system-wide emission intensity target, periodically evaluated with goal of on-going emission reduction improvements

# Regulation 7 Revisions - Oil and Gas Sector Highlights, cont.

- Annual inventory
  - Requires operators to provide an annual emission report for their oil and gas facilities in Colorado
  - Includes methane, ethane, VOC, carbon monoxide, NOx
  - Comprehensive inventory of emission points, including:
    - Drilling/fracking/completion, separator venting, flaring, storage tanks, dehydrators, engines, component leaks, pneumatic devices, equipment blow-downs, well unloading, produced water handling

# Planned Future Rulemakings the Could Impact Oil and Gas Sector

- Engines/ Regional Haze Part 1: December 2019 Request for Hearing, March 2020 Hearing
- Initial Rulemaking under SB19-096, February 2020 Request for Hearing, May 2020 Hearing
- Regional Haze Part 2, August 2020 Request for Hearing, November 2020 Hearing
- SB 19-181 Round 2, TBD/Fall 2020?
- Serious Ozone Non-Attainment State Implementation Plan, TBD

# Questions?

Additional information on the December rulemaking:

<https://www.colorado.gov/pacific/cdphe/aqcc>

Monthly materials link, 121019-21919 folder

Colorado Legislature, Bills from last session

<https://leg.colorado.gov/bills>