



CDPHE Agency Update

Recent Oil & Gas activities and focus

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Air Quality Activities

Monitoring data at locations in Garfield and Weld Counties show significant reductions in ambient air levels of oil and gas related hydrocarbons

- Approximately 50% to 65% reduction in non-methane organic compounds (NMOC) from 2008-2016 at various Garfield County monitoring locations
- Approximately 25% NMOC reduction from 2012-2016 at Weld County monitoring location (approximately 250% increase in oil production during that period)

Update on Recent Air Quality Activities

- 2017 regulatory revisions to reduce volatile organic compound emissions from oil and gas operations in the Front Range ozone non-attainment area
- Completion of technical guidelines for best practices in designing, operating and maintaining oil storage tanks
- State-wide hydrocarbon emission reduction task force

Update on Recent Air Quality Activities

- Studies aimed at quantifying emissions from gas driven pneumatic devices and assessing the cost effectiveness of existing pneumatic device inspection and maintenance program
- Voluntary measures program for operators to identify and implement measures to reduce ozone precursor emissions during summertime ozone season

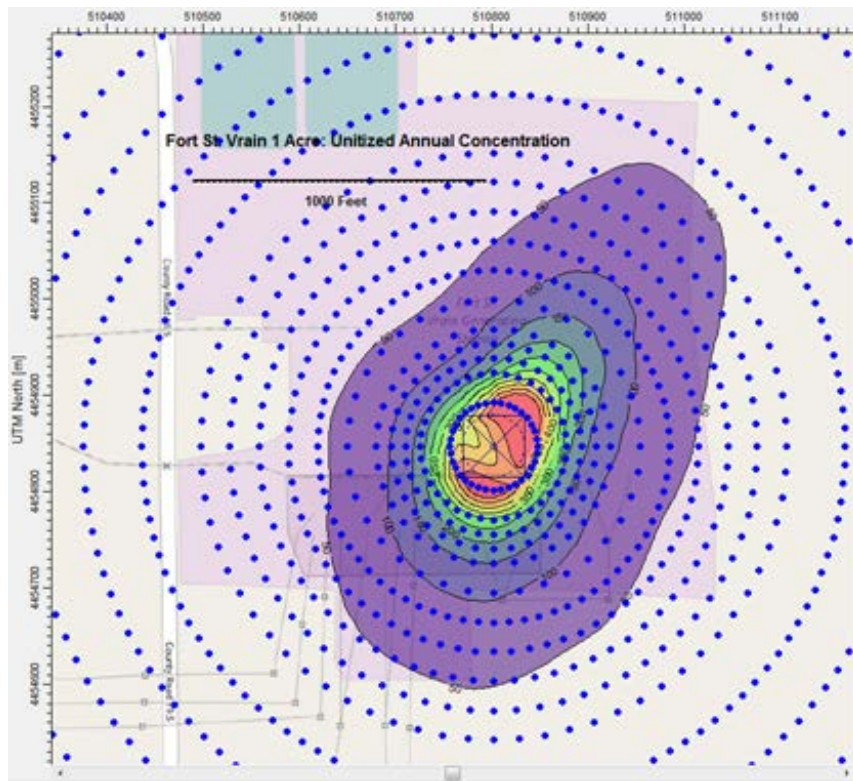
Oil and Gas Health Information and Response Activities

- Over 500 concerns reported to OGHIR since Oct 2015
- Northern Front Range counties account for 76% of reported concerns to the OGHIR Program
- 6 community exposure investigations, primarily in DJ basin
- Over 800 hours of air samples
- Four health risk evaluations of ongoing air monitoring in Battlement Mesa

To date, we have not found any elevated short or long-term health risks from the substances measured



Update on Oil and Gas Risk Assessment in Northern Front Range and Garfield County



- Using emission data from CSU studies (North Front Range and Garfield County)
- Dispersion model-based exposures
- Calculate potential health risk
 - By distance
 - By phase of operation
 - Directly attributable to oil and gas activities
- Findings will be submitted for peer-reviewed publication this summer

Water Quality Control Division

Pollution Prevention (Clean Water Act) Activities:

- WQCD issues permits and requires spill notifications for unpermitted discharges for all surface water discharges, and groundwater discharges when they are outside of the authority of COGCC including construction stormwater, hydrostatic testing for pipeline operations, and produced water discharges to surface water (if applicable).
- In 2017, the division began implementing a new compliance assistance and assurance strategy for the construction sector, including oil and gas construction sites, and increased total inspections by about 400%. The new strategy increases compliance assistance and decreases the percent of inspections resulting in formal enforcement.

Water Quality Control Division

Safe Drinking Water Protection Activities:

- The WQCD in coordination with COGCC works collaboratively to implement Rule 317B. This rule has effectively managed oil and gas operations in drinking water source water supply areas.
- COGCC Rule 306 allows the Local Government Designees (LGD) to request consultation with CDPHE for oil and gas operations that create concerns regarding public health, safety, welfare or the environment. CDPHE staff has participated in many consultations in coordination with COGCC staff to address local concerns and implement creative best management approaches.

Hazardous Materials and Waste Management Division

Management and Disposal of TENORM wastes

Challenge - Solid Waste Act prohibits disposal of radioactive materials in landfills unless they are specifically designated for that purpose. Radiation Control Act prohibits development of regulations for disposal of TENORM until US EPA does, and possession of radioactive materials requires a license from the department.

- November 7, 2017 - a notice was sent to landfills, O&G operators, and other stakeholders prohibiting disposal of E&P wastes with the potential for high concentrations of TENORM in landfills not specifically approved to take them until the waste is characterized and found to contain TENORM at less than levels of concern.

Hazardous Materials and Waste Management Division

- The wastes of concern are those that may accumulate higher concentrations of TENORM such as tank bottoms, filter socks and sludges. We are focusing on TENORM, not NORM - therefore drill cuttings are a lower priority.
- There is a bill currently under consideration by the legislature (HB 18-1215) that could give CDPHE the authority to develop regulations for the disposal of TENORM waste. While CDPHE does not have a position on the proposed legislation, we are monitoring it, and participating in the legislative process.



Thank you