



EARTHWORKS

December 11, 2024

Earthworks appreciates the opportunity to provide comments on the proposed draft rules for the Produced Water Rulemaking.

Earthworks is a nonprofit organization committed to working with frontline communities to address the adverse impacts of mining and energy development on public health and the environment while promoting sustainable solutions. For more than 20 years, Earthworks staff have worked on the ground with local partners across the US and the world to expose harmful pollution and to engage local, state, and federal regulators and lawmakers to reform policies and adopt stricter rules that put the lives of people before the interests of industry. In Colorado, Earthworks' optical gas imaging (OGI) thermographers have conducted nearly 1900 surveys of oil and gas facilities using FLIR G-Series OGI cameras¹ designed to detect hydrocarbon gasses and have documented numerous leaks, equipment malfunctions, and other compliance issues that have been reported to compliance staff at the Air Pollution Control Division (APCD) as well as at the Energy and Carbon Management Commission (ECMC).

We will focus our comments on two aspects of the proposed rules:

- 1) Support for the provision in the proposed amendments to the 900 series rules that prohibits the siting of new centralized produced water storage or treatment facilities in disproportionately impacted communities (DICs).²
- 2) Discussion of statutory language in HB 23-1242³ requiring increased use of recycled or reused produced water without increased emissions.

Prohibition of new facilities in DICs

Earthworks strongly supports the proposed amendment to the 900 series rules that prohibits the siting of new centralized produced water storage or treatment facilities in DICs and urges the Commission to disregard arguments by industry stakeholders that are aiming to weaken this requirement.

Simply stated, HB 23-1242 provides a clear, statutory mandate for the Commission to adopt such a prohibition. Both Citizens for a Healthy Community⁴ and the Green House Connection Center⁵ have also made this clear in their rebuttal statements.

¹ <https://www.flir.com/products/flir-g-series/>

² <https://cdphe.colorado.gov/ej/learn>

³ <https://leg.colorado.gov/bills/hb23-1242>

⁴ https://drive.google.com/file/d/15k2oQnZKn0eZHwafxow-EJ9fkDb6mxWv/view?usp=drive_link

⁵ https://drive.google.com/file/d/1meW2iGmmak4Wgla3UswGetOggX6K2pS3/view?usp=drive_link

Dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

1612 K St. NW, Suite 904
Washington, DC 20006
202.887.1872

EARTHWORKS.ORG

 earthworksaction

 @earthworks

Additionally, our OGI survey findings serve to reinforce our stance on the necessity of this prohibition. While we primarily focus our attention on upstream oil and gas production facilities, we have also conducted OGI surveys of a limited number of produced water storage and disposal facilities that we selected either because nearby residents expressed concerns about them and/or due to their proximity to homes/neighborhoods.

To date in Colorado, Earthworks staff have conducted 45 OGI surveys of 18 produced water storage and disposal facilities.⁶ During 26 of those surveys at 15 of those facilities we observed emissions events.⁷ That means that on average we observed emissions events in more than half of our surveys of this type of facility and at almost every such facility we have ever surveyed.

24 of those 26 observations of emissions consisted of observations of uncontrolled hydrocarbon pollution from produced water storage tanks or basins.⁸ These findings are not unexpected. Storing large quantities of produced water on a facility necessarily means that there will be emissions unless control measures are in place to control those emissions.

Unfortunately, controls are not currently required for many of these storage tanks. In fact, after sharing 18 observations⁹ from 13 of the facilities in the form of OGI evidence with APCD,¹⁰ we learned that in many cases these facilities are not required to control emissions from the specific sources where we observed those emissions. In only 5 of those 18 reported observations were operators of facilities required to take corrective actions to address emissions.¹¹

All of this is pertinent to the proposed amendment because uncontrolled emissions from these facilities have the potential to negatively impact the health of those who live nearby. For this reason, it is necessary to highlight that 13 of the facilities that we surveyed and, most importantly, 11 of the 15 facilities where we observed emissions events are located in or immediately adjacent¹² to a census block designated as a DIC.¹³

The location of a facility in relation to census blocks designated as DICs has primarily not been a consideration in determining which facilities we survey.¹⁴ Still, selecting facilities based on community concerns and/or proximity to homes has resulted in the majority of our sample being

⁶ These surveys do not include surveys of produced water storage equipment associated with oil and gas production facilities

⁷ A number of facilities account for multiple, discrete observations of emissions events. We often prioritize repeat visits to facilities where we have previously observed emissions events

⁸ The other two observations were of emissions from unidentified sources

⁹ A variety of factors influence whether we share observations with regulatory agencies including quality of video/documented evidence, assessment of whether observation represents a potential compliance issue, etc.

¹⁰ We report our observations to APCD as non-health related air quality concerns via the Oil and Gas Health Information and Response program: https://oag-health.colorado.gov/OAG_Prod/

¹¹ These corrective actions consisted of repairing pressure relief valves, hatches, and gaskets on storage tanks

¹² Within a mile of the census block boundary

¹³ Based on EnviroScreen 2.0 (<https://www.cohealthmaps.dphe.state.co.us/DICCommunity/>)

¹⁴ Due in part to the fact that DIC designations only came about after the passage of HB 21-1266 and have more recently changed due to additional legislation

located in or near a DIC. Correspondingly, these facilities in or near DICs accounted for around three fourths of our observations of emissions events (20 of the 26) and of those observations that were reported to APCD (13 of the 18).

In other words, our OGI survey findings demonstrate that there are already a significant number of preexisting produced water storage and disposal facilities located in or near DICs and these facilities are often the source of frequent, uncontrolled hydrocarbon emissions.

Even if HB 23-1242 did not provide a clear mandate to enact a prohibition on the siting of additional produced water storage and treatment facilities in DICs, we would urge the Commission to consider such a measure based on our findings and the State's obligation to provide additional protections for these communities following the passage of the EJ Act in 2021.¹⁵



OGI image highlighting uncontrolled hydrocarbon emissions from produced water storage tanks on a produced water storage and disposal facility located in a DIC¹⁶ and adjacent to the New Vision mobile home community. These emissions are not in violation of APCD regulations

Unclear how proposed rules will be implemented without increasing emissions

Along with the mandated prohibition on siting new produced water storage and treatment facilities in DICs, HB 23-1242 also states that the ECMC “must:”

Require for each oil and gas production basin an iterative and consistent increase in the use of recycled or reused produced water without increasing emissions associated with oil and gas operations¹⁷

¹⁵ <https://leg.colorado.gov/bills/hb21-1266>

¹⁶ Census block 081230019111

¹⁷ C.R.S. § 34-60-135(3)(e)(I)(A)

Larimer County and the City of Longmont, in their prehearing statement,¹⁸ offer that without additional measures the proposed rules may not meet these requirements of the legislation. This is because, as we have discussed, the storage of large quantities of produced water often results in emissions, especially since these emissions are not necessarily required to be controlled.

For this reason, we share Larimer County and the City of Longmont's concerns about the proposed rules. We cannot discount the potential impact that increased emissions from the recycling and reuse of produced water will have on ozone formation in the Denver Metro/North Front Range Nonattainment Area (DMNFRNA) area, which was recently classified as in Severe nonattainment for the 2008 Ozone National Ambient Air Quality Standards¹⁹ and ranked as the 6th worst metropolitan area in the nation for ozone pollution by the American Lung Association.²⁰

Indeed, returning briefly to our OGI observations of pre-existing produced water storage and disposal facilities, there are undoubtedly already impacts on air quality in the DMNFRNA area due to uncontrolled emissions from the centralized storage of large quantities of produced water.

Two thirds of the aforementioned facilities we surveyed and of the facilities where we observed emissions are located in the DMNFRNA. These facilities accounted for around half of our observed emissions events (16 of 26) and of those emissions events we reported to APCD (8 of 18).

Most importantly, none of these facilities were required to control the emissions we observed. All of the facilities where operators were required to take corrective actions to address emissions due to our reported observations were located outside of the DMNFR.

The text of HB 23-1242 is clear that while the ECMC has the responsibility to adopt rules that increase the use of recycled or reused produced water, it also has a responsibility to achieve this goal without further contributing to air quality issues. Relatedly, Governor Polis has acknowledged that ECMC has as much a role to play in addressing ozone pollution as AQCC, and the Commission must therefore consider whether the proposed rules will further contribute to ozone nonattainment.



Andrew Klooster
Colorado Field Advocate

¹⁸ https://drive.google.com/file/d/1j_5ijOKmiB7CyC1_8nMgCMgi1TEwHw17/view?usp=drive_link

¹⁹ https://raqc.egnyte.com/dl/dMZr3PcfjW/Finalized_Severe_2008_NAAQS.pdf

²⁰ <https://www.lung.org/research/sota/key-findings/ozone-pollution>