

EPA Mandatory GHG Reporting Rule

Kindler Morgan

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Agenda

- Introduction
- Discussion of Key Issues
 - Subpart PP CO₂ Production
 - Subpart W Fugitive Emissions
 - Subpart NN Natural Gas Liquids
 - Subpart MM Petroleum Fuels Blending
 - Subpart KK Coal Terminals
- General Issues
- Conclusion

Overview of Kinder Morgan

- One of the largest energy transport companies in the Nation
 - 35,000 miles of pipeline (natural gas and petroleum products)
 - 170 terminals
 - CO₂ production & transportation for EOR
- Over 8,000 employees
- Operations in 40 states

Subpart PP — Suppliers of Carbon Dioxide

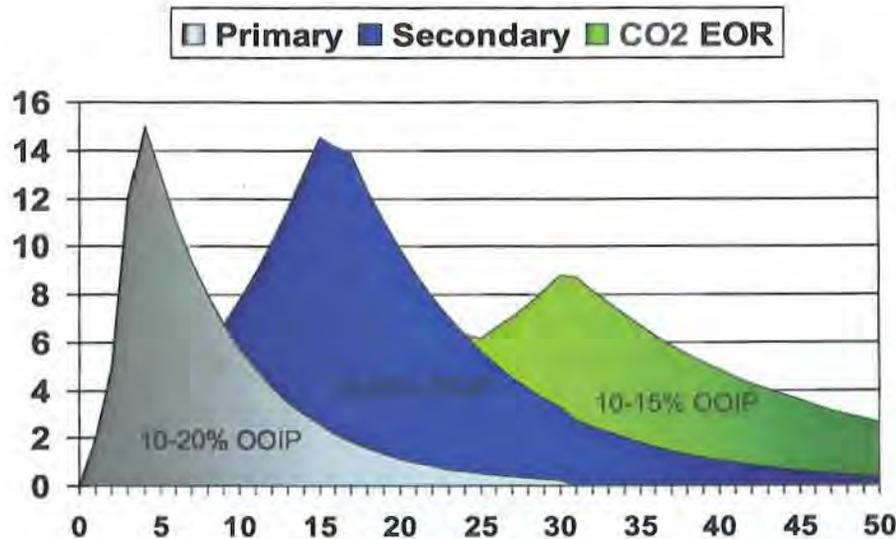
Primary concern:

- Proposal implies that all GHGs produced are emitted; not true of CO₂ for EOR
 - Reporting of CO₂ production should not be required because it is not an emission
 - 99.5% of CO₂ production is permanently stored at EOR sites
 - Reporting production could create misimpression that production wells are a large emissions source

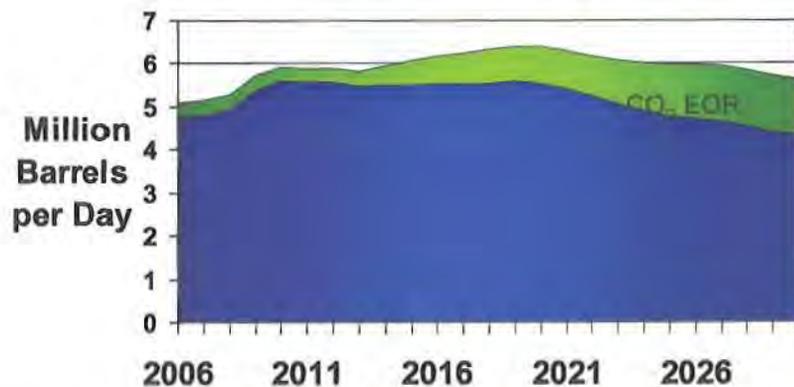
Recommended solution:

- Require reporting only of CO₂ actually emitted at EOR sites (beyond a reasonable threshold)

A Representative Oil Field Development Sequence



CO2 EOR Expected to be ~25% of US Oil Production by 2030



Source: AEO 2008

Domestic CO2 EOR Achievements

Over the past 30+ years, the oil and gas industry has:

Constructed over 3100 miles of CO₂ mainline pipeline systems

Produced in excess of 1.2 billion barrels of incremental oil

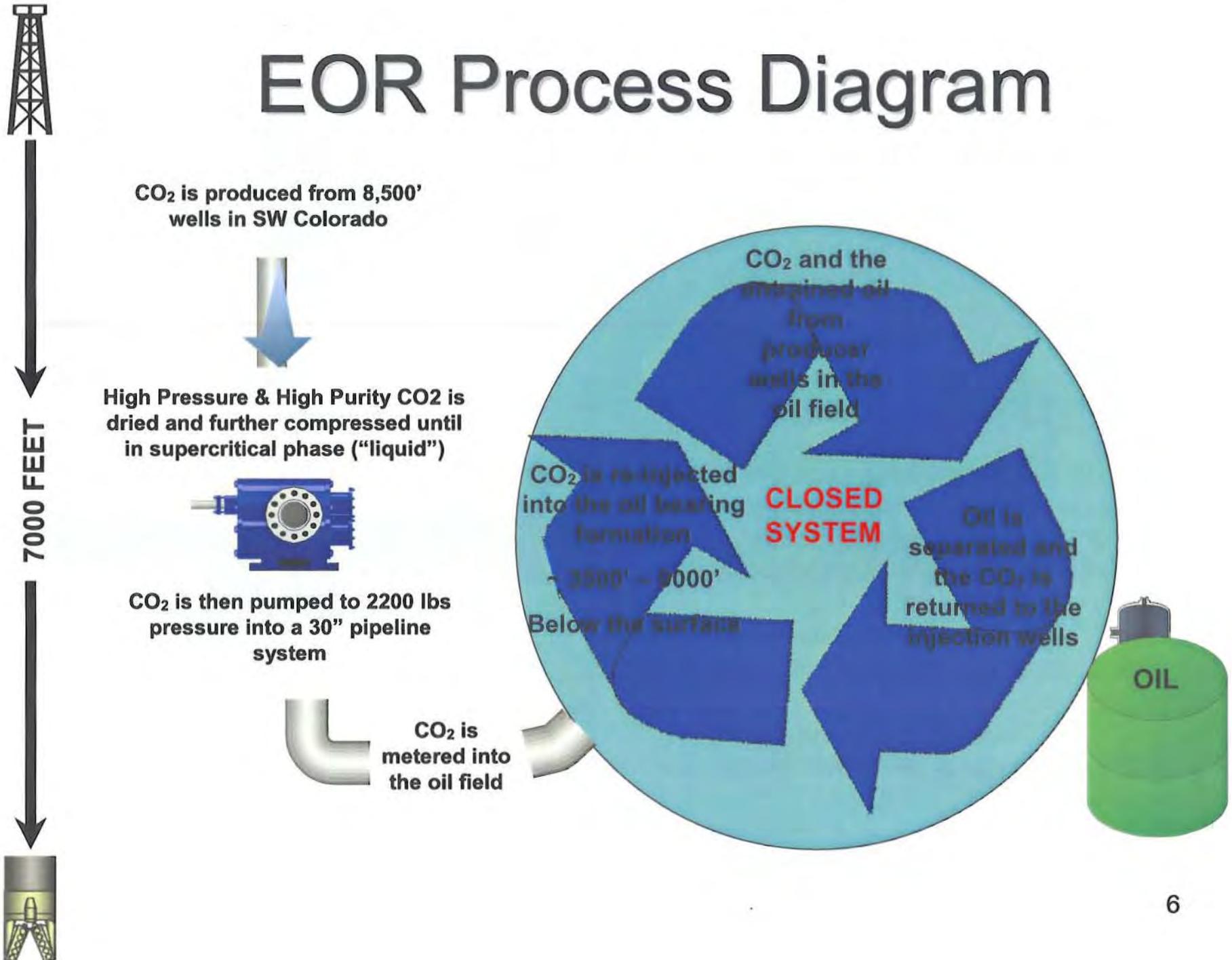
Produced and injected more than 10.8 TCF of CO₂ from 7 sources (1.2 TCF of which came from sources that otherwise would have been vented)

CO2 EOR = Insignificant Emissions

Kinder Morgan CO₂ EOR source operations emitted 0.004% of the volume produced in 2008, mainly due to routine maintenance

Reportable emissions on Kinder Morgan's 1300 miles of pipe in 2008 was 0.000035% (equivalent to emissions from 2 vehicles during the same time frame)

EOR Process Diagram



Subpart W — Oil and Natural Gas Systems

Primary concerns:

- Relies on untested new methods for direct measurement of fugitive emissions from millions of trivial components
- Direct measurement methods would impose an inequitably high and disproportionate compliance cost on the industry, while yielding data that is not superior to that reasonably obtained through traditional methods -- \$3.5 million per year for Kinder Morgan alone
- Subpart W is overly prescriptive, inflexible, and will hamper innovation

Recommended solutions:

- Provide industry sufficient time to prepare for a new measurement methods
- Allow the use of emission factors, mass balance quantification or focused monitoring of the most critical fugitive emissions points based upon established techniques
 - Provide a screening mechanism to determine whether a facility meets the threshold
 - Reduce list of components to be measured
 - Subpart W requires measurement of 1000's of small components
 - List should include only “major emitters” above *de minimis* size
 - Allow Missing Data procedures
 - Develop consensus standards for measurement
 - Allow engineering estimates for storage tanks
 - Flares are not fugitives; treat flares as Subpart C combustion emissions

Subpart NN—Suppliers of Natural Gas and Natural Gas Liquids

Primary concerns:

- Double-counts NGLs on the supply chain
- Counts non-combustive use of NGLs as “emissions”

Recommended solution:

- Exclude bulk NGLs from reporting requirement by shifting point of reporting to fractionators
 - Individual NGLs usually have known end-uses
 - Report only finished products
- New alternative suggestion would be to shift point of reporting to the “final fuel” stage
 - “Final fuel” could be defined as a fuel that undergoes no further physical or chemical changes before application in a combustive use

Subpart MM – Suppliers of Petroleum Products

Primary concerns:

- Inclusion of blenders in the importer/exporter definitions is problematic because there are numerous blenders and double counting
- Inclusion of natural-gas derived NGL products by importers/exporters under Subpart MM

Recommended solutions:

- Explicitly exclude blending and related transfer activities from the importer/exporter definition
 - This is consistent with the Preamble, which states that blenders will not be required to report
- Delete all references in Subpart MM to NGLs (except those used as a feedstock by refiners) to clarify that NGL reporting is under Subpart NN, not both Subparts NN & MM

Subpart KK—Suppliers of Coal

Primary concern:

- Proposed Rule requires reporting of coal production by facilities defined as “coal mines” by MSHA
 - This definition includes KM coal terminals that merely store, handle coal
 - Risk of double-counting

Recommended solution:

- Subpart KK should exclude reporting of post-mining operations

General Comments on the Proposed Rule

- Timing of Implementation
 - Defer Rule by 1 year
 - Personnel & equipment in short supply
 - Quality control / data mgmt must be developed
 - Allow for consensus techniques for fugitives
 - Alternative: defer implementation of Subpart W
- Annual Reporting Deadline
 - June 30, not March 31 to be more consistent with other environmental reporting programs
- “Once in, always in”
 - “Once in, always in” discourages emission reductions, creates undue burden for small facilities
 - Alternative: cease reporting after 2 consecutive years below threshold
- State-Level Implementation
 - KM supports exclusive EPA implementation of Rule
 - State involvement could introduce logistical problems, inconsistencies in methods/procedures
- Designated Representative
 - Clarify new owners are only liable after change in ownership

Wrap Up

- Thank you for your time and consideration
- Kinder Morgan is willing to provide further data/comments, if requested