LEGAL AND REGULATORY ISSUES OF CARBON SEQUESTRATION

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QUESTIONS?

- What is the material being sequestered?
- How can we move it?
- How will sequestration be regulated?
- Who owns the storage space?
- Who owns the carbon?
- Where does the carbon go?
- How will we pay for long term storage?
- What about trespass?
- What other liabilities may arise?

What is it?

- Disposal of a waste
  - or storage of a resource?

  - Implications of who will regulate

    - EOR, Storage of a resource - likely regulated by O&G authority
    - Waste disposal - likely regulated by waste management authority (like RCRA, CERCLA)

How can we move it?

- Is CO_2 covered under existing pipeline regulation?
  - House Bill 102 (2007 Regular Session) amended KRS 353.750 to include carbon dioxide within the definition of “gas” for purposes of Kentucky Gas Pipeline Authority.
  - PSC? FERC?

How will sequestration be regulated?

- EOR sequestration currently regulated as Class II Wells under the Safe Drinking Water Act's UIC Program.
- Research injection may be regulated as Class V Wells.
- EPA expects draft rules out this summer.
- Problem: If regulated under Safe Drinking Water Act – leads to waste designation, regulation similar to RCRA or CERCLA, not resource management.

Who Owns The Storage Space?

- Depends on where it goes and where you are.
  - Storage in mineral bearing strata relies on mineral law.
  - Storage in saline aquifer relies on water law.

Who Owns The Storage Space?

- Mineral Strata
  - English Rule – Mineral owner controls the mineral bearing strata.
    - Central Kentucky Natural Gas v. Smallwood 252 SW 2nd 866 (KY 1952)
  - American Rule – Mineral owner owns only the mineral, not the carrying strata. Mineral owner controls the carrying strata until all mineral is depleted.

Who Owns The Storage Space?

- If storage is in saline aquifer
  - Kentucky follows the “reasonable use” rule which allows taking of groundwater provided the use is connected to the beneficial enjoyment of the land from which it comes.

Who Owns The Storage Space?

- As a practical matter, no mineral is fully depleted, therefore, you will have to deal with the mineral owner regardless of the rule.

- Surface access rights must be sought if the surface is to be impacted.

Cost for Long Term Storage?

- Storage lease? Results in a perpetual lease payment.
- Purchase storage space?
- State owns storage space?

Who Owns The Carbon?

- If injected into the subsurface, does ownership of CO_2 change?

- Central Kentucky Natural Gas Co., 255 SW 2nd 204 (KY. 1934), held natural gas to be like a wild animal that could escape ownership.

- Texas American Energy Corporation v. Citizens Fidelity Bank & Trust, 736 SW 2nd 25 (1987), if the reservoir can be defined with certainty, the original owner retains title.

Where Does It Go?

- Carbon dioxide is a gas at surface pressures and temperatures.
- At depth, it behaves like a liquid.
- In certain kinds of strata it binds with the surrounding material.
- It does not respect boundaries.
- Current research is attempting to better predict the movement of CO2.

Where Does It Go?

- Sequestered CO_2 can cross state and international boundaries.
- Triggers treaties, interstate commerce clause, etc.

Where Does It Go?

- If the CO2 moves, you have the potential for trespass, comingling of goods.
- CO2 storage will require an agreed-upon system similar to pooling arrangements for O&G production.
- Or . . . .

LEGISLATION

Controlling the Storage Space

- Eminent Domain
  - Federal and state legislative action will be required.
  - Federal action required if in interstate commerce or substantial effect on interstate commerce.
  - Natural Gas Act – enables eminent domain for pipeline routes.
  - Extended to natural gas storage in Columbia Gas Transmission Corp v. An Exclusive Gas Storage Easement, 776 F2nd 125 (6th Cir. 1985).

What About Trespass?

- Unlawful interference with another's person, property or rights.
  - Lack of consent
  - Actual harm
  - Intentional?
- Requires some damage – loss of value resulting from the trespass.
- Common law tort.
- Often codified as a nuisance, misdemeanor, civil wrong.

Could You Obtain Storage Space By Adverse Possession?

- Actual possession and use
- Open and notorious
- Adverse

- Can only be terminated by actual ouster or

  constructive ouster (injunction)

What Other Liabilities May Arise?

- Property Damage
  - Risk of leakage
  - Migration to other areas
  - Induced seismic activity
- Commercial or regulatory damage
  - Loss of carbon sequestration credits.

Proposed Legislative Approach

- IOGCC
  - The states are best able to address the property aspects of carbon storage.
  - Regulate as storage of a resource to allow and encourage beneficial reuse.
  - Control of the storage space is critical and eminent domain rights are necessary based on public policy and public good.
  - Two stage closure period.
    - Developer monitors for 10 years
    - State assumes liability and responsibility after 10 years.
    - Funded by state trust fund.

State Legislation

- 35 +/- states are or have considered legislation.
- Setting up boards, commissions to study and recommend.
- Adopting alternative energy requirements for utilities.
- Providing incentives for projects and funding research.
- Illinois and Texas passed laws aimed at FutureGen.
- Wyoming recent action addresses pore space.
- Ohio and Oklahoma proposed legislation.
- Pennsylvania Study

Texas

- House Bill 149 – adopted.
- Provides that the Texas Railroad Commission takes title to all CO2 captured by a clean coal project.
- Texas can sell the CO2 for EOR and deposit funds in general revenue fund.
- Created especially for FutureGen.

Illinois

- Clean Coal Project Indemnification Act – HB 5825
  - Attorney General must defend operator for escaped CO2 in civil suit.
  - State indemnifies except for intentional, willful or wanton misconduct.
  - Adopted specifically for FutureGen project.

Wyoming

- House Bill 89 – adopted
  - Ownership of pore spaces vested in surface owners
  - Pore spaces may be explicitly severed and conveyed
- House Bill 90 – adopted
  - Establishes the regulation of CO2 storage – does not apply to EOR
  - Oil and Gas Commission is the regulatory authority
  - State geologist and Water Quality Division have significant input

Ohio

- Senate Bill 221 passed both houses, awaiting signature
- Does not address carbon capture or storage
- Establishes alternative energy benchmarks for utilities
- Requires GHG emissions reporting and CO2 control planning
- Example of legislation states feel comfortable passing

Oklahoma

- Senate Bill 1765
- As introduced, followed the IOGCC model, provided that 10 years after completion of a sequestration project, the state would assume ownership of the sequestered CO2.
- House amendment has substituted a bill forming a study group instead.
- Study Group version passed 5/22/2008; report due 12/1/2008.

Pennsylvania Carbon Management Team Report

- Published May 2008
- Recommends the possibility of storing CO_2 under state-owned forest lands.

Potential Federal Legislation

- Will create a cap and trade program
  - Lieberman-Warner Climate Security Act
    - Reported favorably from committee
    - Expected to be debated by the Senate as a whole
  - Numerous other bills introduced or rumored. None passed yet.

Next Steps! (Opinion)

- Kentucky cannot wait for 20 – 50 years to develop the common law relating to carbon storage.
- States need to act in concert with regard to carbon storage.
- Significant policy decisions are needed now – can't wait for the tide to push us along.