NAVIGATING OHIO’S SHALE OIL & GAS LEGISLATION
UTICA SHALE ISSUES IN LAW, PRACTICE AND POLICY
CLEVELAND METROPOLITAN BAR ASSOCIATION
SEPTEMBER 14, 2012 | HULL & ASSOCIATES, INC. | CRAIG KAPSER, CEO, MARK BONIFAS
AGENDA

- Agencies that Regulate
- History of Ohio’s Requirements and Rulemaking
- Senate Bill 315
  - New Rules for Exploration and Productions
  - New Rules for Midstream
- Other Regulations
- Discussion
OHIO AND PENNSYLVANIA: A STRONG OIL AND GAS HISTORY AND A STRONG FUTURE

PENNSYLVANIA
- 1859 – Drake Well
- > 350,000 wells in 33/67 counties
- ~ 70,000 in production
- Unconventional
  - ~11,000 permits issued
  - ~5,000 wells drilled

OHIO
- > 270,000 wells in 76/88 counties
- ~ 65,000 in production
- Unconventional
  - ~ 356 permits issued
  - ~ 131 wells drilled
AGENCIES THAT REGULATE IN OHIO

- Ohio Department of Natural Resources (ODNR)
- Ohio Environmental Protection Agency (Ohio EPA)
- Department of Commerce
- Public Utilities Commission of Ohio (PUCO)
HISTORY OF OHIO REQUIREMENTS AND RULEMAKING

- SB 165 effective June 30, 2010
  - Didn’t focus on horizontal wells and midstream infrastructure
- Rules
  - Well Construction Rules effective August 1, 2012
  - Five year rule review addresses language cleanup and “compact and contiguous” definitions
- SPCC
HISTORY OF OHIO REQUIREMENTS AND RULEMAKING

- SB 315 effective September 10, 2012
  - Rules and Best Management Practices
    - Well pad design, certification and construction
    - Design standards for centralized fresh water impoundments
    - Development of Best Management Practices for pre-drill sampling
  - Governor’s Executive Order 2012-09K
    - Emergency rule regulating underground injection wells and brine transportation
    - Effective July 11, 2012
    - Final rules to be promulgated within 90 days of effective date
NEW DEFINITIONS

- **Horizontal well** - a well that is drilled for the production of oil or gas in which the wellbore reaches a horizontal or near horizontal position in the Point Pleasant, Utica, or Marcellus formation and the well is stimulated.

- **Well pad** - means the area that is cleared or prepared for the drilling of one or more horizontal wells.

- **Condensate** – adds liquid hydrocarbons separated at or near well head or along gathering system prior to gas processing. Former definition included liquid hydrocarbons originally in the gaseous phase.

- Several new definitions for midstream components.
NONAPPLICABILITY OF ADMINISTRATIVE PROCEDURES ACT

- Order to issue, deny or modify a permit to drill a horizontal well is not subject to Ohio’s Administrative Act
- Removes public comment and timeframes associated with the Act
APPLICATION REQUIREMENTS FOR DRILLING PERMITS

- Copy of an executed Road Use Management Agreement (RUMA)
  - All applicable local governments
  - Can submit an affidavit that a good faith attempt was used to execute RUMA

- Identification of each source of groundwater and surface water used for production
  - Include withdrawal rate, volume and watershed

- Estimated volume of recycled water if applicable
APPLICATION REQUIREMENTS FOR DRILLING PERMITS

- Other site-specific terms required by ODNR for wells located in the 100-year floodplain or within the 5-year time of travel from a public drinking supply well
- Detail on casing and cementing
- Will be submitted electronically
- All other information as required before September 10, 2012
Results of pre-drill sampling

- Results have to be posted “prior to” drilling but do not have to be included on the initial applications
- 300 feet radius in urban areas unless ODNR establishes a different distance
- 1,500 feet radius in non-urban areas unless ODNR establishes a different distance
- Sampling in accordance with the current “Best Management Practices for Pre-drilling Water Sampling”
  - ODNR developing a certified sampler and laboratory standard
NOTIFICATION, SITE REVIEW & PERMIT POSTING

- Owner must notify the ODNR inspector within 24 hours or a time “specified time” prior to well pad construction.
- ODNR must conduct a site review:
  - Prior to issuing a permit
  - Prior to well pad construction
- Post approved permits on ODNR website within 2 days after approval.
INSURANCE COVERAGE & STATEMENT OF PRODUCTION

- Owner must obtain $5 million of liability insurance for potential damages
- Policy must include a “reasonable level” of coverage as an environmental endorsement
WELL COMPLETION RECORD

- Submitted within 60 days after well is completed
  - Purpose for the well
  - Character, depth and thickness of the geological units encountered
  - Dates drilling was commenced and completed
  - Length and size of casing
  - Information relating to cementing
  - Material Safety Data Sheets
WELL COMPLETION RECORD

- Drilling fluids
  - The trade name and total volume of all products, fluids and substance used to facilitate any portion of the well
  - A Chemical Abstracts Number if applicable
  - A brief description of the purpose for each additive
  - Excludes cement and its constituents
WELL COMPLETION RECORD

- **Stimulation fluids**
  - The trade name and total volume of all products, fluids and substances and the supplier of each product
  - The Chemical Abstracts Number if applicable
  - For recycled fluid, the volume and the well or centralized facility where the fluid came from
  - Owner must make all reasonable attempts to obtain information from supplier of products
  - Disclosed on a form prescribed by ODNR or FracFocus
WELL COMPLETION RECORD

- **Miscellaneous provisions**
  - Must report all products, fluids and substances within 60 days of refracturing or restimulating a well – “Cradle to Grave” or “Spud to Plug” requirements
  - MSDS for drilling and stimulation will be posted on ODNR’s web site
  - Must retain all records for chemicals placed in a well for 2 years from the date they were used
Trade secrets

- An Owner may designate materials as a trade secret and prohibits ODNR from disclosing the information.
- Requires the Owner to disclose information regarding the trade secret to a medical professional for the purposes of diagnosing or treating an individual who was affected by an incident associated with the production operations of the well.
- May also be disclosed under a civil suit.
Executive Order 2012-09K effective July 10, 2012

- Outlines the tests that an applicant must satisfy in order to obtain a permit to drill and operate an underground injection control well.
- Allows ODNR to withhold authority to inject fluids if the results of required tests are negative.
- Allows ODNR to set a graduated maximum allowable injection pressure based upon data obtained throughout the permitting process.
- Allows ODNR to require the installation of an automatic shut-off device if the permitted maximum allowable injection pressure is exceeded.
- Requires continuous monitoring of the annulus between the casing and tubing in a well.
OIL & GAS INJECTION WELLS

- **SB 315**
  - Establishes electronic quarterly reporting of brine and other wastes disposed in an injection well
  - Registration and additional reporting for brine transporters
COOPERATIVE AGREEMENTS

- Authorizes ODNR to enter into cooperative agreements with other state agencies for advice and consultation.
  - For example, the State Fire Marshall will inspect fire suppression systems and report back to ODNR
- ODNR maintains authorization to regulate Oil and Gas industry.
- Requires Ohio EPA, ODNR and other agencies to evaluate emerging wastewater treatment/recycling technologies that can be used in lieu of injection.
- Requires ODNR and ODOT to issue a report in 18 months evaluating the effectiveness of the RUMA on maintenance and safety issues.
ENFORCEMENT

- Modifies the definition of “material and substantial violation” to include failure to submit a report, test result, fee or document required by the rules
- Establishes penalties and timeframe for extensions
MIDSTREAM
## Definitions Under the PUCO & OPSB

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Gathering Pipeline</td>
<td>A gathering line not regulated by the Natural Gas Pipeline Safety Act and resultant federal rules and specifies it includes a pipeline used to collect and transport raw natural gas or transmission quality gas to the inlet of a gas processing plant, the inlet of a distribution system, or to a transmission line.</td>
</tr>
<tr>
<td>Processing Gas Plant Stub Line</td>
<td>A gas pipeline that transports transmission quality gas from the tailgate of a gas processing plant to the inlet of an interstate or intrastate transmission line and that is considered an extension of the gas processing plant and is not for public use.</td>
</tr>
<tr>
<td>Operator</td>
<td>For purposes of the gas gathering pipeline and processing plant gas stub pipeline safety standards, as any person that owns, operates, manages, controls, or leases either type of pipeline.</td>
</tr>
<tr>
<td>Gas</td>
<td>Natural gas, flammable gas, or gas that is toxic or corrosive.</td>
</tr>
<tr>
<td>Natural Gas Liquids Finished Product Pipeline</td>
<td>A pipeline that carries finished product natural gas liquids to the inlet of an interstate or intrastate finished product natural gas liquid transmission pipeline, rail loading facility, or other petrochemical or refinery facility.</td>
</tr>
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<td>Definition</td>
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<tr>
<td>Natural Gas Liquids Fractionation Plant</td>
<td>A facility that takes a feed of raw natural gas liquids and produces finished product natural gas liquids.</td>
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<tr>
<td>Raw Natural Gas</td>
<td>Hydrocarbons that are produced in a gaseous state from gas wells and that generally include methane, ethane, propane, butanes, pentanes, hexanes, heptanes, octanes, nonanes, and decanes, plus other naturally occurring impurities like water, carbon dioxide, hydrogen sulfide, nitrogen, oxygen, and helium.</td>
</tr>
<tr>
<td>Raw Natural Gas Liquids</td>
<td>Naturally occurring hydrocarbons contained in raw natural gas that are extracted in a gas processing plant and liquefied and generally include mixtures of ethane, propane, butanes, and natural gasoline.</td>
</tr>
<tr>
<td>Finished Product Natural Gas Liquids</td>
<td>An individual finished product produced by a natural gas liquids fractionation plant as a liquid that meets the specifications for commercial products as defined by the Gas Processors Association. Those products include ethane, propane, iso-butane, normal butane, and natural gasoline.</td>
</tr>
<tr>
<td>Gas Processing Plant</td>
<td>A plant that processes raw natural gas into merchantable products, including transmission quality gas or natural gas liquids and also may include a plant that treats raw natural gas to remove impurities such as carbon dioxide, helium, nitrogen, or water.</td>
</tr>
<tr>
<td>Transmission Quality Gas</td>
<td>Gas consisting predominantly of methane that meets all downstream specifications for transportation in an intrastate or interstate transmission pipeline and that is suitable for use by public consumers.</td>
</tr>
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</table>
Ohio Power Board Certification Authority

- Require certification for a gas pipeline that is greater than 500 feet in length, and its associated facilities, that is more than 9 inches in outside diameter and designed for transporting gas at a maximum allowable operating pressure in excess of 125 psi.

- Excludes from PSB certification requirements gathering lines, gas gathering pipelines, and processing plant gas stub pipelines and associated facilities; any gas processing plant; natural gas liquids finished product pipelines; pipelines from gas processing plants to an interstate or intrastate gas pipeline or to a natural gas liquids fractionation plant; any natural gas liquids fractionation plant; an oil, gas, or other production operation regulated by the state including pipelines upstream of any gathering lines; and certain compressor stations.
Exempts from regulation as a public utility an entity engaged in the business of the transport associated with gathering lines, raw natural gas liquids, or finished product natural gas liquids.

Exempts from regulation as a public utility certain natural gas gatherers and producers engaged in the business of supplying natural gas for lighting, power, or heating purposes to Ohio consumers, and that deliver or sell Ohio-produced raw natural gas liquids.

Exempts from Ohio's pipeline safety law (specifically requirements on "operators") an entity engaged in the business of the transport associated with gathering lines, raw natural gas liquids, or finished product natural gas liquids.
PIPELINE SAFETY STANDARDS

GAS GATHERING LINES & PROCESSING PLANT
GAS STUB PIPELINES

- Applies to pipelines transporting gas from a horizontal well constructed on or after September 10, 2012
- Requires compliance with the applicable pipe design requirements under the minimum federal safety standards (Part 192, Subpart C).
- Requires operators to engage in various other activities
  - Designing, constructing, inspecting, and testing
  - Controlling corrosion
  - Carrying out a damage prevention and public education program
  - Establishing the maximum allowable operating pressure
  - Installing and maintaining pipeline markers
  - Performing and maintaining records of leakage surveys.
- Declares they are not subject to the Natural Gas Pipeline Safety Act, U.S. DOT rules, or the PUCO's current safety and other regulations over gathering lines.
NOTIFICATIONS

- Requires an operator to provide certain information within 21 days prior to the commencement of construction to the PUCO Division of Pipeline Safety
- Must submit as-built information within 60 days after construction is completed
OTHER REGULATIONS

- Department of Commerce, State Fire Marshall
  - Exclusive authority to adopt fire safety standards for shale oil processing premises and enforcement for non-compliance
  - May not be developing rules

- Department of Commerce, Division of Industrial Compliance
  - Governor’s Executive Order 2012-03K, effective March 12, 2012
  - Gives exclusive authority to the Division for applicable building permits and codes for shale gas processing unit
  - Takes the authority out of local building departments
UNCONVENTIONAL DEVELOPMENT: STRONG SUPPORT, BUT ALSO OPPOSITION

- OOOGA
- OOGEEP
- OGA
- Jobs Ohio
- Ohio Shale Coalition
- Universities

Both have varying degrees of opposition groups – but it appears they are more active in PA – too early for Ohio?
OHIO PROGRAMMATIC CONSIDERATIONS

- ENVIRONMENTAL | AIR

- OHIO EPA AIR PERMITS
  - Ohio EPA does not regulate drilling operations
  - Ohio EPA jurisdiction begins with well completion activities
  - General Permit 12 (GP12) covers most activities at well head
  - Activities outside those allowed under GP12 will need additional permitting
  - Ohio EPA is in the process of revising the GP12 to incorporate new NSPS – OOOO requirements related to completion activities
  - PTO and PTI are required for midstream infrastructure
OHIO PROGRAMMATIC CONSIDERATIONS

- ENVIRONMENTAL | CLEAN WATER ACT COMPLIANCE
  - Section 404 – Permits to discharge dredged and fill material
  - Section 401 - Water Quality Certification of federal permits
    - Ohio Water Quality Standards (WQS) among most advanced in nation
    - Aggressive application of WQS through Section 401 program
    - Detailed conditioning of 404 Individual and Nationwide permits
    - Wetland and Stream evaluation guidance (qualitative and quantitative methods)
ENVIRONMENTAL | ISOLATED WETLAND PROTECTION

- Ohio EPA has sole jurisdiction over isolated wetlands, but USACE determines isolation
- No minimum impact provision – all impacts require a permit and mitigation.
- Levels of review:
  - Level I: 30 days, State General Permit
  - Level II: 90 days, State Individual Permit
  - Level III: 120 days, State Individual Permit with antidegradation review
ENVIROMENTAL | THREATENED & ENDANGERED SPECIES

- Coordinated with USFWS when there is a federal permit required
- Biological data base resources available from ODNR
- Major concerns in Utica are Indiana bat, freshwater mussels, and bald eagle
OHIO PROGRAMMATIC CONSIDERATIONS

- ENVIRONMENTAL | CULTURAL RESOURCES
  - Coordinated with OHPO when there is a federal permit required
  - GIS data base resources available from OHPO
OHIO PROGRAMMATIC CONSIDERATIONS

- ENGINEERING | PADS
  - Pad Configuration to Accommodate Drill Rig and Completions Equipment
  - Surface Design
  - Storm Water Management
  - Slope Stability
  - ODNR developing rules for design, certification and construction

- ENGINEERING | ACCESS ROADS
  - Grading and Drainage
  - Driveway Permits
OHIO PROGRAMMATIC CONSIDERATIONS

- ENGINEERING | IMPOUNDMENTS
  - Only Fresh Water can be stored in impoundments
  - Flow back water prohibited from being stored in impoundments
  - ODNR currently developing rules for design and construction
  - Slope Stability
  - Liners
  - Regional vs. Location-Specific
  - On-Ground Temporary Pipelines
OHIO PROGRAMMATIC CONSIDERATIONS

ENGINEERING | SEDIMENT & EROSION CONTROL

- Easy target of regulatory agencies
- ODNR Ohio Rainwater and Land Development Manual
- IPAA Reasonable and Prudent Practices for Stabilization of Oil and Gas Sites (RAPPS)
WATER WITHDRAWAL – GREAT LAKES COMPACT

House Bill 473

- Permit required when withdrawing from Lake Eire Basin (and water remaining in the Lake Erie Basin)
  - 2.5M gallons/day from Lake Erie or navigable channel
  - 1M gallons/day from other streams and groundwater
  - 100K gallons/day from high quality streams
  - Based on 90-day average for Lake Erie, navigable channel or other stream and groundwater
  - Based on 45-day average for high quality streams

- No diversions from Lake Erie watershed greater than 100K gallons outside of the Lake Erie Basin without a permit
  - Extremely difficult to obtain
**OHIO PROGRAMMATIC CONSIDERATIONS**

- **LANDFILLS**
  - Drill cuttings and fluids on the pad are regulated by ODNR
  - Drill cuttings and fluids off the pad are regulated as solid waste by Ohio EPA
    - Exempt as hazardous waste
  - Hull part of inter-agency workgroup to develop fact sheet on management of drill cuttings from oil and gas exploration
  - ODH recently developed rules regarding TENORM
UNDERGROUND INJECTION PROGRAM

- ODNR administers disposal of brine and other waste produced from drilling, stimulation, and production of oil and gas in Ohio
- There were 183 permitted UIC wells in Ohio as of December 2011
  - Varying degrees of integrity
- Residuals from treatment/pretreatment of brines may have to be managed as TENORM
BENEFICIAL USE

- Ohio has a history of supporting beneficial reuse
- Current 2009 beneficial reuse rules will be modified in the near future
  - Anticipate a “general” permit program for beneficial use of major waste streams or co-products including drill cuttings
- Ohio is proposing a 3 tiered approach
  - Tier 1 – Pre-approval of for a specific end use
  - Tier 2 – General Permit
  - Tier 3 – Individual Permit
OHIO PROGRAMMATIC CONSIDERATIONS

Spill Reporting and Cleanup in Ohio

- SPCC Plan
  - Reportable Releases – Verbal Notification within 30 minutes
    - impacts surface water
    - > 5 bbl crude oil or >25 gallons other oils outside of containment
    - exceeds CERCLA RQ or Section 304 EHS RQ (List of Lists)
  - Ohio DNR – on pad releases
  - Ohio EPA – off pad releases
  - Useful Links
    - Online spill reporting decision matrix: [http://71.18.12.15/oil/report/](http://71.18.12.15/oil/report/)
Stray Gas Migration and Response in Ohio

- Response measures are currently not standardized or codified
- Multiple agency involvement
- Useful links:
  - 2012 GWPC Stray Gas Incidence and Response Forum:
  - Technical Measures for the Investigation and Mitigation of Fugitive Methane Hazards in areas of Coal Mining Office of Surface Mining Reclamation and Enforcement (2001)
  - Scott Kell, OH Oil & Gas – PP presentation at 2012 GWPC Stray Gas Incidence and Response Forum
    - [http://www.gwpc.org/sites/default/files/event-sessions/Kell_Scott2.pdf](http://www.gwpc.org/sites/default/files/event-sessions/Kell_Scott2.pdf)
QUESTIONS