TITLE 312 NATURAL RESOURCES COMMISSION

Economic Impact Statement
LSA Document #16-230

IC 4-22-2.1-5 Statement Concerning Rules Affecting Small Businesses
Estimated Number of Small Businesses Subject to this Rule:

There are nearly 300 small businesses involved in the oil and gas industry that will be subject to these proposed rules. In addition, individual landowners of nearly 600 privately owned gas wells will also be subject to these rules.

The new regulations do not expand regulatory jurisdiction to any additional businesses not currently subject to the existing regulations at 312 IAC 16.

Estimated Average Annual Reporting, Record Keeping, and Other Administrative Costs Small Businesses Will Incur for Compliance:

All of the nearly 300 small businesses will incur additional administrative costs in some manner due to the proposed rules.

New rules will require small business operators to submit reports of pit closures and land application of drilling and completion wastes to the division. It is expected that 150 operators will be affected each year due to this rule. Operators are already required under existing rules to submit a variety of reports to the division. The additional reports required under the proposed rules are not considered to require substantial time to prepare and submit.

Small businesses will be required to prepare and make available spill prevention, containment, and response plans when conducting large stimulation treatments and hydraulic fracturing operations. These requirements are intended to ensure better protection of the environment when larger stimulation treatment operations are proposed. Only a small percentage of operators utilize these methods to complete wells. All of these operators are well capitalized and the additional impact of these new requirements is not considered to be a substantial burden on the operator.

The new article requires small businesses to register new and existing tank battery facilities. 100% of all oil producers will be affected by this rule. The proposed requirements for tank battery registration are similar to provisions implemented 10 to 12 years ago. While the new requirements will involve time to prepare, the requirements are comparable to existing requirements for locating and applying for a permit to drill a well. The rules provide a substantial lead time for operators to submit the facility registration information.

Small businesses will now be required to register new and existing production pits. There are nearly 20 production pits which would need to be registered. These requirements will apply to a small percentage of operations and the new provisions are important to ensure protection of public health and safety and the environment.

The new article will require small businesses who wish to apply oil and tank bottom sediment to lease and county roads to request and receive authorization to do so. It is expected that nearly 20% of all oil and gas operators will request approval to conduct this activity. The requirements in the proposed rules are similar to those which have been in place for a number of years in the state of Illinois. The new provisions are important to be able to better track and monitor such applications which, if not done properly, can pose adverse impacts upon the environment.

All small businesses will be required to report monthly oil and gas production on a yearly basis under the proposed article. To reduce the record keeping burden on operators, the rules provide that information provided to the operator by the crude oil or natural gas purchaser may be used instead to meet the reporting requirement.

Estimated Total Annual Economic Impact on Small Businesses to Comply:

The proposed rules will likely cause small businesses to incur initial costs during the first year following implementation. Some of the additional work that these businesses will now be required to do include: closure of certain pits, lining of production pits, registration of fluid storage facilities, monitor and correct issues with wells with uncirculated casing, additional requirements for flowing wells, submission of production reports, taking action to prevent spills in flood prone areas, and complying with new provisions relating to hydrogen sulfide gas.

An estimate of the potential initial costs during the first several years of implementation is provided below. These estimates are based on information provided by operators to the Division of Oil and Gas. These estimates are for potential initial costs affecting all operators, but it is estimated that over 90% of Indiana's oil and gas operators are small businesses.

Many of the costs incurred during the first year will not be recurring costs once improvements are made to affected oil and gas facilities. Additionally, those operators which have been utilizing best management practices with respect to their oil and gas operations will incur substantially lower costs initially.

New Requirement	Reasonable Potential Costs Per Well	Reasonable Potential Costs Per Lease	Reasonable Potential Costs Per Operator	Number of Affected Wells, Leases, or Operators[1]	Total Potential Costs
Well Drilling	$2,500			105	$262,500[2]
Conventional Fracs	$1,800			14	$25,200[3]
High Volume Fracs	$3,000			4	$12,000[4]
Workover Operations	$1,650			250	$412,500[5]
Tank Batteries		$6,040		500	$302,000[6]
Facility Operating Reqts		$360		1,200	$579,500[7]
Production Reporting			$500	295	$147,500
H_2S Management		$51,000		20	$1,020,000[8]
Waste Management		$500		1,000	$500,000[9]
NORM Management *		$16,200		50	$810,000[10]
Well Plugging	$1,600			204	$326,400[11]
				TOTAL	$4,700,400

* NORM (Naturally Occurring Radioactive Material) occasionally associated with produced water associated with oil and gas production.

[1 –] The number of wells, leases, or operators for each category are based on actual occurrences in 2015 for events which could be determined, otherwise the numbers reflect best estimates. Actual numbers may vary.

[2, 3, 4 –] The potential costs for drilling and conducting hydraulic fracturing operations will vary significantly depending on whether wells are located in karst prone areas; whether the operator is using saltwater or oil-based drilling fluids; and whether well control equipment is necessary.

[5 –] Since operators are not currently required to notify the Division prior to conducting workover operations the number of affected operators is an estimate. Actual numbers may vary.

[6, 7 –] Costs associated with tank batteries and facility operating requirements will vary substantially from operator to operator. Many operators have already constructed their tank battery facilities in compliance with the proposed rules which would lessen the impact of these regulations. Likewise with many of the facility operating requirements. The actual costs for some operators with facilities that have not been constructed or operated using best management practices could be substantially higher.

[8, 10 –] Since H_2S and NORM are currently unregulated by DNR, it is difficult to accurately characterize the economic impact. The numbers provided are best estimates. Actual costs will vary by operation depending on the severity of H_2S or NORM encountered and whether the operator may already be utilizing best management practices for these waste streams.

[9 –] As with some previous explanations, the impact of waste management regulations will vary significantly from operator to operator. Many operators are currently utilizing best management practices for handling their wastes. Additional financial impact on these operations will be negligible.

[11 –] The costs for well plugging do not reflect actual cost to plug a typical well. The values included here are only reflective of additional costs which may result from compliance with new regulations.

The full impact of the new regulations on specific oil and gas well owners or operators can vary substantially based on the following factors:

1. Management practices utilized by an operator. Those which have consistently utilized best management

practices will incur the least additional costs, if any;
2. The number of wells operated;
3. The age, depth and condition of wells and operating facilities;
4. The types of wells operated, i.e. oil, gas, Class II, etc;
5. Whether the operator is actively engaged in the drilling or completion of new wells;
6. Whether an operator is utilizing higher volume hydraulic fracture stimulation operations;
7. Whether the operator is using production fluid storage pits or structures that are adequately constructed with synthetic liners to protect against seepage;
8. Whether an operator has facilities with NORM or H_2S present.

Examples of potential impacts on certain classes of small operators and worst case scenarios

1. Noncommercial gas well operators (~600 persons): Impacts to noncommercial gas well operators should be no different than under current rules. Owners who agree to voluntarily register previously unpermitted wells under these rules should incur no additional expense. Noncommercial gas well operators are required to plug the wells when they are no longer being used. This has been a requirement under the Oil and Gas Act (IC 14-37) which is not changed by the proposed rules.

2. Small oil well operators with existing crude oil tank battery facilities (250 operators).
   a. Impact of new tank battery rules:
      i. For operators utilizing best management practices for secondary containment and fluid management practices (estimate 25% of operators): Zero additional impact.
      ii. For operators with inadequate secondary containment and/or poor fluid management practices (estimate 75% of operators): $5,000 to $10,000 per tank battery to upgrade a facility to acceptable standards. If these operators spent an average of $7,500 per tank battery facility needing upgraded, the total additional impact per operator would be:
         1. $15,000 to $25,000 for ~90 operators;
         2. $25,000 to $75,000 for ~65 operators; and
         3. $75,000 to $150,000 for ~30 operators.
   b. Impact of new facility operating rules:
      i. For operators utilizing best management practices for facility operating requirements (estimate 25% of operators): Zero additional impact.
      ii. For operators needing to upgrade facilities to meet the new operating requirements (estimate 75% of operators), if these operators spent an average of $350 per lease, the total additional impact per operator would be:
         1. $700 to $1,400 for ~90 operators;
         2. $1,750 to $3,500 for ~65 operators; and
         3. $3,850 to $7,000 for ~30 operators.
   c. Impact of new production storage facility pit liner requirements:
      i. Estimates for complete reconstruction of some existing production storage facility pits could range from $100,000 to $250,000 depending on the size of the impoundment and amount of contaminated soil needing to be disposed.

Justification Statement of Requirement or Cost:

Small businesses in the oil and gas industry in Indiana have operated for many years with regulations considered less stringent than many other oil and gas producing states in the country. A peer review study of the division's overall program which was conducted several years ago identified many areas that needed to be strengthened due to the significant changes that have taken place in the industry during the last several years. Adequate environmental protection will likely not occur if these proposed rules are not implemented. All of the changes proposed are needed to ensure that adverse impacts to the environment and public health and safety are minimized. These regulations are no more stringent than provisions found in most other oil and gas producing states.

Offsetting the additional financial burden these regulations may pose on small businesses are the benefits that result from increased protection of surface and groundwater from contamination, and the reduction of soil contamination. Depending on the degree of contamination that might arise from improperly constructed or operated facilities under these rules, the operator will avoid significant additional expense in cleaning up and remediating affected soils and groundwater. Furthermore, failure of an operator to perform such cleanup operations could ultimately cause the state of Indiana to incur a substantial financial burden for Environmental Fund cleanup projects under IC 14-37-10.

Additionally, having up-to-date regulations is important for future growth and development of oil and gas resources in that they bring an element of certainty into our program which is important not only for existing operators but also new operators looking to invest in oil and gas drilling and production operations in Indiana.

They can see up front how we regulate oil and gas operations and what they can expect if they move to Indiana.

Regulatory Flexibility Analysis of Alternative Methods:

Since nearly all of the oil and gas businesses in Indiana are defined as small businesses, limited regulatory flexibility can be considered. However, recognizing the broad diversity of operations in Indiana, the division must be prepared to work with operators who may have fewer resources than others in order for them to achieve compliance. Rather than employing immediate enforcement actions against a smaller operator who may be struggling to meet a particular requirement, working with that operator to develop a plan for achieving compliance tailored to their situation is an important tool which must be used when appropriate.

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