The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Appropriations Subcommittee on General Government

BILL:	SB 1468
INTRODUCER:	Senator Richter
SUBJECT:	Regulation of Oil and Gas Resources
DATE:	April 13, 2015
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Gudeman	Uchino	EP	**Favorable**
2.	Howard	DeLoach	AGG	**Pre-meeting**
3.			AP	

I. Summary:

SB 1468 amends provisions relating to the regulation of oil and gas resources. Specifically, the bill:

- Provides a definition for "high pressure well stimulation";
- Requires the Department of Environmental Protection (DEP) to adopt rules for the regulation of high pressure well stimulation;
- Specifies the rules must ensure all well drilling activities are done properly;
- Requires high pressure well stimulation to be monitored, inspected, and included in drilling reports;
- Requires notice be given to the DEP and a fee be paid prior to high pressure well stimulation activities;
- Prohibits high pressure well stimulation prior to permit issuance;
- Requires the DEP to consider groundwater contamination and public policy when reviewing a permit application for high pressure well stimulation;
- Specifies that a permit may be denied or specific permitting conditions applied based on the compliance history of the permit applicant or affiliated entity;
- Specifies the DEP has clear authority to inspect drilling activities;
- Requires the permit applicant to provide financial assurance to the DEP that high pressure well stimulation will be conducted in a safe and environmentally compatible manner;
- Increases the civil penalty from $10,000 per day to $25,000 per day for violations of the provisions found in Part I of ch. 377, F.S.
- Creates a high pressure well stimulation chemical disclosure registry and provides specific requirements for the registry;
- Requires the chemical ingredients used in high pressure well stimulation to be reported to the chemical disclosure registry, FracFocus; and
- Exempts information considered proprietary business information as defined in s. 377.24075(1)(a)-(e), F.S., from the disclosure registry.

The fiscal impact to the Department of Environmental Protection (DEP) is indeterminate. According to the DEP, the increased workload related to the regulatory and rulemaking process can be handled within existing resources.

The bill is effective July 1, 2015.

II. Present Situation:

Oil was first successfully extracted from the ground in large quantities in 1859 in Titusville, Pennsylvania. Prior to this, oil was collected through seeps in small quantities and skimmed from surface waters using blankets.[1] Since this time, the oil and gas industry has evolved to become one of the world's largest industries.[2]

Traditional Drilling and Hydraulic Fracturing

Traditional oil wells are drilled vertically to reach the oil and gas reservoir. A steel pipe, called a casing, is inserted into the wellbore and set in place using cement. Once the targeted area is reached, the well casing is perforated and the oil and gas immediately surrounding the well can be extracted.[3]

Hydraulic fracturing is a technique that involves stimulating the well to extract oil and gas. Large amounts of fluid under pressure are injected into a wellbore to create and extend fractures in the rock formation. The fractures are held open by a slurry mixture which allows natural gas to flow from the fractures into the production well.[4]

The injected fluid is composed of water, proppants, and chemical additives. The composition of the injected fluid varies between rock formations but the majority of the fluid, 98 to 99.5 percent, is water. The proppants are made of sand, ceramic pellets, or other small incompressible particles that hold the fractures open. The chemical additives include bactericides, buffers, stabilizers, fluid-loss additives, and surfactants that improve the effectiveness of the fracturing process and prevent damage to the rock formation.[5]

The injection of the fracturing fluid is sequenced and the blend and proportions of the additives used vary depending on the characteristics of the rock formation. The acid stage consists of several thousand gallons of water mixed with hydrochloric acid or muriatic acid that work to clear cement debris and create an open path for the fracturing fluids. The pad stage consists of approximately 100,000 gallons of "slick-water," which is a friction reducing agent that reduces the pressure needed to pump fluid into the wellbore and facilitate the flow and placement of the

[1] Business Reference Services, *History of Oil and Gas*, http://www.loc.gov/rr/business/BERA/issue5/history.html (last visited Mar. 29, 2015).
[2] American Petroleum Institute, *Industry Economics*, http://www.api.org/oil-and-natural-gas-overview/industry-economics (last visited Mar. 29, 2015).
[3] Drilling Waste Management Information System, *Fact Sheet-Drilling Practices That Minimize Generation of Drilling Wastes*, http://web.ead.anl.gov/dwm/techdesc/drilling/ (last visited Mar. 29, 2015).
[4] FracFocus Chemical Disclosure Registry, *Hydraulic Fracturing: The Process*, http://fracfocus.org/hydraulic-fracturing-how-it-works/hydraulic-fracturing-process. (last visited Mar. 27, 2013).
[5] *Id*.

proppant material. The prop sequence stage, which may include several sub-stages, uses several hundred thousand gallons of water mixed with varying sized particulates that keep the fractures open. Finally, there is a flushing stage that consists of enough water to adequately flush the excess proppant from the wellbore.[6]

Oil and Gas Production in Florida

There are two major oil producing areas in Florida: the Sunniland trend in South Florida and the western panhandle. The Sunniland trend is approximately 200 to 300 feet thick and the top of the formation is approximately 11,200 to 11,600 feet below sea level. This area has been in production since 1943. Oil production in north Florida began with the discovery of the Jay field in 1970, which is the largest oil field in the state. There are eight oil fields in this region that extend through Escambia and Santa Rosa Counties. The production area is 14,500 to 16,800 feet below the land surface and between 5 to 259 feet thick.[7] Production from both regions peaked at 100,000 barrels per day in 1978 and has since leveled off to approximately 6,000 barrels per day.[8]

Oil and Gas Regulation in Florida

The Oil and Gas program in the Department of Environmental Protection (DEP) is the permitting authority for oil and gas wells under Part I of ch. 377.01, F.S. Section 377.22, F.S., directs the DEP to establish rules for the oil and gas program that ensure human health, public safety, and the environment are protected from the exploration phase to well completion and abandonment phase. The DEP is also responsible for monitoring and reporting the well drilling and production activities from exploration to well abandonment.

The DEP adopted Rules 62C-25 through 30, Florida Administrative Code (F.A.C.), to implement Part I of ch. 377, F.S. The rules include permitting procedures, bonding requirements, well spacing, well construction, production, injection, workovers, and well abandonment. The rule also requires each operator to submit a spill prevention and cleanup plan pursuant to Rule 62C-28.004(2), F.A.C. The plan must include the potential spill source, the protective measures to prevent a spill, and the location of emergency equipment in the event of a spill.

The requirements and procedures for well stimulation technology is not provided for in rule or statute; however, hydraulic fracturing, acidizing, or other chemical treatments of a well are activities that may be approved in a workover. A workover includes a variety of remedial operations that are conducted in order to increase well production. Rule 62C-25.002(61), F.A.C., defines a "work over" as "an operation involving a deepening, plug back, repair, cement squeeze, perforation, hydraulic fracturing, acidizing, or other chemical treatment which is performed in a production, disposal, or injection well in order to restore, sustain, or increase production,

[6] *Id*.
[7] Bureau of Land Management, *Florida, Reasonable Forseeable Development Scenario for Fluid Minerals*, 18 (Apr. 2008), *available at* http://www.blm.gov/style/medialib/blm/es/jackson_field_office/planning/planning_pdf_florida.Par.65103.File.dat/Florida_RFDS_R1.pdf (last visited Mar. 29, 2015).
[8] EIA, Florida State Energy Profile, Florida Quick Facts, http://www.eia.gov/state/print.cfm?sid=FL (last visited Mar. 29, 2015).

disposal, or injection rates." An operator is required to notify the DEP prior to commencing a workover procedure, unless it is for an emergency operation in which case the operator must notify the DEP during the operation or immediately thereafter.[9] The operator must submit a revised Well Record to the DEP within 30 days of the workover.[10]

Emergency Planning and Community Right to Know Act

In 1986, Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA), which requires federal, local, and state governments to report hazardous and toxic chemicals in order to increase the public's knowledge and access to information on chemicals at individual facilities. The EPCRA includes the Toxic Release Inventory (TRI), which is a publicly available database that contains information on chemical releases and waste management reported by certain industries. The U.S. Environmental Protection Agency (EPA) has not included oil and gas extraction as an industry that must report under the TRI because the EPA determined the oil and gas extraction industry is not a high priority for reporting. The decision is based on the fact that most of the information that the TRI requires is already reported by oil and gas providers to the individual state agencies and reporting for the hundreds and thousands of oil and gas sites would overwhelm the system.[11]

In May 2012, the Bureau of Land Management (BLM) published a proposed rule that would require companies that conduct hydraulic fracturing on lands managed by the BLM to disclose the composition of the fracturing fluid. Congress has also proposed legislation requiring the disclosure of chemicals under the Fracturing Responsibility and Awareness of Chemicals Act.[12]

To date, federal legislation has not been implemented to require the disclosure of chemicals used in hydraulic fracturing; therefore, many states have taken steps to develop their own chemical disclosure laws. The disclosure requirements that have been established in certain states include the information about the chemical additives and whether the disclosures are made to state agencies or available to the public, the composition of the chemicals, the protections provided in trade secrets, and when the disclosure of the chemicals is to take place in relation to the fracturing process.[13]

FracFocus Chemical Disclosure Registry

FracFocus is a national hydraulic fracturing chemical registry operated by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission. The registry provides public access to reported chemicals used for hydraulic fracturing. FracFocus does not replace state governmental information systems but is used by ten states as the primary means of state chemical disclosure. Currently, there are 41,118 well sites registered with the database.[14]

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[9] Fla. Admin. Code R. 62C-29.006 (1996).
[10] The Well Record is the DEP Oil and Gas Form 8.
[11] *Id*.
[12] *Id*.
[13] Congressional Research Service, *Hydraulic Fracturing: Chemical Disclosure Requirements*, 2 (June 19, 2012), *available at* http://www.fas.org/sgp/crs/misc/R42461.pdf (last visited Mar. 29, 2015).
[14] *Supra* note 2.

Public Records Law

Article I, s. 24(a) of the Florida Constitution sets the state's public policy regarding access to government records. The section guarantees every person a right to inspect or copy any public record of the legislative, executive, and judicial branches of government. The Legislature may provide for the exemption of records from the requirements of the constitution; however, the Legislature must specify the public necessity to justify the exemption.

Access to public records is also addressed in the Open Government Sunset Review Act in s. 119.07(1), F.S., which guarantees every person the right to inspect and copy any state, county or municipal record. The Open Government Sunset Review Act provides that a public record or public meeting exemption may only be created or maintained if it serves a public purpose. The Legislature created a number of specific exemptions from the Open Government Sunset Review Act, including documents submitted by a private party that constitute trade secrets as defined in s. 812.081, F.S. and are stamped as confidential at the time of submission to an agency.

Proprietary Business Information

Section 377.24075, F.S., defines "proprietary business information," as information that:

- Is owned or controlled by the applicant or person affiliated with the applicant;
- Is intended to be private and is treated by the applicant as private;
- Has not been disclosed except as required by law or private agreement;
- Is not publicly available or otherwise readily ascertainable through proper means from another source in the same configuration as requested by the DEP;
- Includes trade secrets as defined in s. 688.002, F.S.;
- Includes leasing plans, real property acquisition plans, exploration budgets, or marketing studies; and
- Includes well design, completion plans, geologic and engineering studies, utilization strategies or operating plans.

III. Effect of Proposed Changes:

Section 1 amends s. 377.19, F.S., to define "high pressure well stimulation" as "a well intervention performed by injecting more than 100,000 gallons of fluids into a rock formation at high pressure that exceeds the fracture gradient of the rock formation in order to propagate fractures in such formation to increase production at an oil or gas well by improving flow of hydrocarbons from the formation into the wellbore."

Section 2 amends s. 377.22, F.S., to require the Department of Environmental Protection (DEP) to adopt rules for the regulation of high pressure well stimulation. The bill requires the permit applicant to provide a reasonable bond or other form of security acceptable to the DEP, which is conditioned on each well being properly drilled, cased, produced, operated, and plugged. It also includes high pressure well stimulation as an activity that is monitored and inspected.

The bill requires high pressure well stimulation to be to be included in drilling reports and the disclosure of chemicals and other materials used to stimulate the well to be reported to the

chemical disclosure registry FracFocus. The bill exempts information considered proprietary business information as defined in s. 377.24075(1)(a)-(e), F.S., from the disclosure registry.

The bill requires the DEP to consider the past history of violations on the part of the permit applicant and the applicant's affiliated entities in all permit reviews.

Section 3 amends s. 377.24, F.S., to require notice be given to the DEP and a fee be paid prior to high pressure well stimulation activities. The amount of fee will be determined through the rulemaking process. The bill also prohibits high pressure well stimulation prior to permit issuance.

Section 4 amends s. 377.241, F.S., to add criteria for issuing a permit for high pressure well stimulation. The DEP must consider whether the high pressure well stimulation is designed to ensure the groundwater through which the well is drilled is not contaminated and the high pressure well stimulation is consistent with the public policy stated in s. 377.06, F.S.

The bill specifies that a permit may be denied or require specific conditions of a permit, including increased bonding and monitoring, if the permit applicant or affiliated entity has a history of violations related to the regulation of oil and gas, including violations that occurred outside of Florida.

Section 5 amends s. 377.242, F.S., to specify that the DEP has the authority to inspect drilling activities, including installation and cementing of casing, testing of blowout preventers, pressure testing of casing and casing shoe, and testing of cement plug integrity during plugging and abandoning operations.

Section 6 amends s. 377.245, F.S., to require the permit applicant to provide surety to the DEP that high pressure well stimulation will be conducted in a safe and environmentally compatible manner. The bill specifies that the permit applicant must provide such surety consistent with existing law.

Section 7 amends s. 377.37, F.S., to increase the civil penalty from $10,000 per offense to $25,000 per offense.

Section 8 creates s. 377.45, F.S., to establish a high pressure well stimulation chemical disclosure registry. The bill requires the DEP to designate the national chemical registry, FracFocus, as the state's registry for chemical disclosure for all wells on which high pressure well stimulation is performed. A link to the FracFocus registry must be provided on the DEP's website. The service provider, vendor, well owner, or operator must report the following minimum information:

- The owner's or operator's name;
- The date of completion of the high pressure well stimulation;
- The county in which the well is located;
- The American Petroleum Institute (API) number for the well;
- The well name and number;
- The latitude and longitude of the wellhead;

- The total vertical depth of the well;
- The total volume of water used in the high pressure well stimulation; and
- Each chemical ingredient that is subject to the Occupational Safety and Health Administration (OSHA) regulations in 29 C.F.R. s. 1910.1200(g)(2) for each well that high pressure well stimulation is performed.[15]

In the event the chemical disclosure registry cannot accept or provide the information to the public, the service provider, vendor, well owner or operator must provide the required information to the DEP.

The service provider, vendor, well owner, or operator is required to report the chemical disclosure information within 60 days of the initiation of high pressure well stimulation. The service provider, vendor, well owner, or operator must also update the chemical disclosure registry and notify the DEP if any chemical ingredient not previously reported is used intentionally.

The bill exempts ingredients from the chemical disclosure registry if the ingredients are unintentionally added to the high pressure well stimulation, occur incidentally or are otherwise unintentionally present in the high pressure well stimulation, or are considered proprietary business information as defined in s. 377.24075(1)(a)-(e), F.S.

Section 9 provides an effective date of July 1, 2015.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

The bill authorizes a new permit fee for high pressure well stimulations and increases fines from $10,000 per offense per day to $25,000 per offense per day.

[15] See U.S. Department of Labor, *OSHA, Standards-29CFR*, https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10099 (last visited Mar. 29, 2015).

B. Private Sector Impact:

The bill increases penalties from $10,000 to $25,000 per offense, which will have a negative fiscal impact on private companies that are found in violation of the law.

The bill protects proprietary business information which may provide a financial benefit to private companies engaged in high pressure well stimulation.

C. Government Sector Impact:

The Department of Environmental Protection (DEP) will incur additional costs associated with permitting high pressure well stimulation activities. The regulatory costs and permit fee(s) will be based on the permitting requirements that will be established through the rulemaking process. According to the DEP, existing staff is sufficient to handle the anticipated workload increases.

The bill increases the penalty for violations from $10,000 per offense to $25,000 per offense. Should violations occur, the increased revenue will have a positive fiscal impact to the Minerals Protection Trust Fund within the DEP.

Finally, the costs associated to amend Rules 62C-25 through 30, F.A.C., can be absorbed within the DEP's existing budget.

VI. Technical Deficiencies:

None.

VII. Related Issues:

The bill defines a "high pressure well stimulation" as "a well intervention performed by injecting more than 100,000 gallons of fluids into a rock formation at high pressure that exceeds the fracture gradient of the rock formation in order to propagate fractures in such formation to increase production at an oil or gas well by improving flow of hydrocarbons from the formation wellbore." The definition limits the high pressure well stimulation activities regulated by the bill to 100,000 gallons. This limit may not capture all well stimulation activities, as the DEP has received at least one workover notice for well stimulation that was less than 100,000 gallons of fluids.[16] In addition, the amount of pressure applied to a well during stimulation activities varies, therefore, the use of "high pressure" is not clear as it may not be inclusive of the range of pressures that are used during well stimulation activities.[17]

The definition of "proprietary business information" in s. 377.24075(1) (a)-(e), F.S., relates to an application for a natural gas storage facility permit. The definition may not apply to proprietary business information with respect to high pressure well stimulation.

[16] Dan A. Hughes, Co., *Collier-Hogan #20-3H, Well Proposal*, 6 (Dec. 23, 2013) (on file with the Senate Committee on Environmental Preservation and Conservation).
[17] ALL Consulting, *Expert Evaluation of the D.A. Hughes Collier-Hogan 20-3H, Well Drilling and Workover*, 27 (Dec. 2014) (on file with the Senate Committee on Environmental Preservation and Conservation).

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 377.19, 377.22, 377.24, 377.241, 377.242, 377.2425, and 377.37.

The bill creates section 377.45 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.