

Alaska Oil and Gas Association



121 W. Fireweed Lane, Suite 207
Anchorage, Alaska 99503-2035
Phone: (907) 272-1481 Fax: (907) 279-8114
Email: moriarty@aoga.org
Kara Moriarty, Executive Director

September 23, 2013

Commissioner Cathy P. Foerster, Chair
Alaska Oil & Gas Conservation Commission
333 W. 7th Avenue, Suite 100
Anchorage, AK 99501
Submitted by E-Mail to: jody.colombie@alaska.gov

Re: Proposed Revisions to 20 AAC 25.005,
20 AAC 25.280, 20 AAC 25.990 and proposed addition
of 20 AAC 25.283 – Regulation of Hydraulic Fracturing
Operations

Dear Commissioner Foerster:

Thank you for the opportunity to comment on the Alaska Oil and Gas Conservation Commission's ("AOGCC" or "Commission") second proposed regulation of hydraulic fracturing in revisions to 20 AAC 25.005—20 AAC 25.990 and the addition of 20 AAC 25.283. The 15 members of the Alaska Oil and Gas Association ("AOGA") account for the majority of oil and gas exploration, development, production, transportation, refining, and marketing activities in Alaska.

AOGA's members are supportive of hydraulic fracturing chemical disclosure and the increased transparency it will provide to Alaskans. We share the concerns submitted by the Department of Natural Resources on August 5, 2013 and AOGA has additional concerns that remain from our prior written comments, dated April 1, 2013, April 18, 2013, and August 5, 2013, as well as the oral comments provided on April 4, 2013.

The regulations as written are problematic from industry's standpoint for several reasons. In our view, the proposed regulations attempt to address misperceptions as opposed to actual issues important to Alaska. The proposed regulations will result in substantial increases in cost to industry that would serve to merely address the misconceptions referenced above, but would in reality, fail to provide any tangible benefits. Those increased costs could cause some wells, especially those in Cook Inlet, to be adversely affected, and thus frustrating the development of a resource that is important for overall production and vital to providing necessary natural gas for the residents of Southcentral Alaska. In addition to AOGA's previously substantive comments, AOGA also provides the following background on hydraulic fracturing in an effort to add appropriate context to AOGA's position.

In 1947, Stanolind Oil conducted the first hydraulic fracturing experiment in the Hugoton gas field in Grant County, Kansas. In 1948, J.B. Clark authored a research paper capturing the results of those experiments. In 1949, Halliburton Oil Well Cementing Company obtained a patent and an exclusive license on the process and subsequently performed the first two commercial fracturing treatments. In the following 66 years, approximately 1.2 million oil and gas wells in the United States have utilized the hydraulic fracturing process, which have ultimately produced more than 600 trillion cubic feet of natural gas and seven billion barrels of oil.¹ It is estimated that 50,000 wells will use this process in 2013 alone. The hydraulic fracturing process has facilitated increased production, which has provided direct and indirect economic benefit to states and their residents by safely allowing those within the industry to prevent waste of petroleum resources that would have not otherwise been possible to recover.

Generally speaking, hydraulic fracturing describes a process of flowing a volume of base fluid, usually water, containing proppant², and a small chemical load (0.5% to 1% mass per volume) down a cased wellbore and into a target geological formation under sufficient pressure to induce fractures in the formation to facilitate the flow of oil and gas into the wellbore for production to the surface. The proppant accumulates in the fractures and serves to prop them open when the pressure is released and flowback and production begins. Additionally, the chemical load alters the properties of the base fluid, such as viscosity, to optimize fracture propagation, and also inhibits common downhole problems such as bacterial contamination and corrosion.³

In 2010, hydraulic fracturing was responsible for 49% of United States gas production. In 2007, hydraulic fracturing revenues represented a global market of 13 billion dollars, up from approximately 2.8 billion dollars in 1999.⁴ The increase in the utilization of hydraulic fracturing with proven and consistent success has been met with increasing public controversy. That controversy has been largely predicated on misinformation and flawed accusations primarily relating to claims of fresh ground water aquifer contamination. However, little evidence has been produced to substantiate that hydraulic fracturing has ever resulted in ground water contamination.⁵ Frequently, the facts show that the ground water problems claimed to be associated with hydraulic fracturing were caused by natural aquifer conditions, pollution sources unrelated to oil and gas operations, or, as is often the case, simply did not exist. Nevertheless, in an effort to assuage public fears and misconceptions, several U.S. oil

¹ Institute for Energy Research, "Hydraulic Fracturing—Is It Safe?" May 3, 2011, <http://www.instituteforenergyresearch.org/2011/05/03/hydraulic-fracturing-is-it-safe>. In December 2012, the EPA noted that "[n]atural gas plays a key role in our nation's clean energy future. The United States has vast reserves of natural gas that are commercially viable as a result of advances in horizontal drilling and hydraulic fracturing technologies, which enable greater access to gas in rock formations deep underground. These advances have spurred a significant increase in the production of both natural gas and oil across the country." See <http://www2.epa.gov/sites/production/files/documents/hf-progress-report-exec-summary20121214.pdf>

² Typically sand or ceramic beads.

³ Over the past 60 years, hydraulic fracturing has also been utilized for other purposes, including stimulating the flow of water from water wells and bringing geothermal wells into commercial viability. Additionally, the EPA has used the process to serve as a remediation tool for cleaning up Superfund sites.

⁴ See HYDRAULIC FRACTURING: HISTORY OF AN ENDURING TECHNOLOGY; THE FUSS, THE FACTS, THE FUTURE, Carl T. Montgomery, Michael B. Smith & Robin Beckwith, *Journal of Petroleum Technology* (2010).

⁵ In May 2011, EPA administrator Lisa Jackson told the U.S. Senate that she wasn't aware "of any proven case where the fracking process itself affected water." In June 2011, BLM Secretary Robert Abbey testified to Congress that "[w]e have **not seen any impacts to groundwater** as a result of hydraulic fracturing." In November 2011, former Secretary of the Interior Ken Salazar testified to congress that "with respect to hydraulic [fracturing], because it occurs so far underground, we don't know [of] any examples of [impacts] on public lands." Finally, on July 17, 2013, Secretary of Interior Sally Jewel testified that she was "not aware of any documented cases."

and gas operators voluntarily began posting the chemical constituents used in fracture treatments to a public website referred to as “FracFocus” in 2011.⁶ Essentially, “FracFocus” utilizes a standard template through which operators can provide a wide spectrum of relevant data, including the ingredients used, percentage mass per volume of that ingredient in the base fluid and total volume of fluid. That data, in turn, allows for subsequent analysis of any aquifer alleged to have been contaminated through a hydraulic fracturing operation. Currently, approximately 52,500 well sites are registered through “FracFocus.”

Hydraulic fracturing has been safely conducted to increase and enhance production of Alaska’s oil and gas resources for decades as well. As AOGCC has reported, “[i]n over fifty years of oil and gas production, Alaska has yet to suffer a single documented instance of subsurface damage to an underground source of drinking water.”⁷ Through the Commission’s efforts, we will have the opportunity to provide Alaskans information regarding hydraulic fracturing operations that will help dispel any misconceptions or false impressions regarding the safety and chemical makeup of materials used in hydraulic fracturing. Many of our members already voluntarily supply this information on the chemical disclosure registry, “FracFocus”, and AOGA supports the utilization of “FracFocus as an effective method to address public concerns regarding processes used for the benefit of all Alaskans.

The Commission’s proposed regulations are the latest in a progression of various states’ efforts to address public concerns regarding hydraulic fracturing within their borders. There are several significant differences between the proposed regulations before us today and those of the states who have adopted hydraulic fracturing chemical disclosure regulations to date, including Colorado, Wyoming, Louisiana, Oklahoma, Pennsylvania, and Texas.

AOGCC’s proposed regulations differentiate from these states in that:

- Alaska would require pre-approval before conducting hydraulic fracturing activities;
- Alaska would require a more substantial preliminary investigation into other wells in the area and groundwater monitoring before and after hydraulic fracturing operations;
- Alaska would require direct notification to area land owners and well operators, including certification that notification has been provided to owners and operators within one-half mile; and
- Alaska would provide no trade secret protection for proprietary information.

Attached you will find a chart comparing Alaska’s proposed regulations to other states, as well as to those regulations currently being considered by the U.S. Bureau of Land Management (BLM) for hydraulic fracturing on public lands. The chart highlights that if adopted as currently written, Alaska’s hydraulic fracturing regulations would constitute some of the most stringent in the country, even more stringent than BLM.

⁶ “FracFocus” was created by a joint effort of the Interstate Oil and Gas Compact Commission and the Ground Water Protection Council.

⁷ Alaska Oil and Gas Conservation Commission, Hydraulic Fracturing White Paper, (April 6, 2011) (“AOGCC White Paper”).

For example, Alaska would be the only state to require a one-half mile radius for water sampling and notification to land owners. Almost all the states provide some level of trade secret protection, while Alaska would provide none. And Alaska would be the only state that would require industry to disclose information three different times versus one central source like FracFocus.

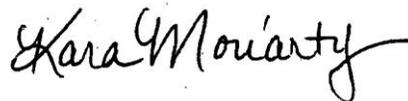
We feel there are specific areas in which Alaska's proposed regulations can be improved to address these and our other concerns. For example, we suggest that AOGCC consider requiring hydraulic fracturing applications only for wells whose trajectory is within 1000 vertical feet of a freshwater aquifer and to limit the scope of testing and notification to one-quarter mile vs. a one-half mile. Our complete suggestions are detailed in the attached "Explanation of Suggested Revisions" which corresponds to our other attachment of suggested red line revisions.

It is important to reiterate that hydraulic fracturing is a process that has been utilized effectively and efficiently in Alaska for decades, without incident. This process has historically and is presently vital to a key component of AOGCC's mission -- to ensure greater ultimate recovery of Alaska's resources. Without the use of hydraulic fracturing, many wells, particularly those located in Cook Inlet, would no longer be able to produce at their current rate.

We encourage the AOGCC to issue a third set of proposed regulations. Taking into account AOGA's reservations, it would be beneficial to all involved if state and industry could engage in a meaningful dialogue. The ultimate goal should be to establish regulations that address the state's concerns while allowing industry to continue operating and utilizing the practice of hydraulic fracturing without undue burden or cost.

Thank you again for this opportunity and we look forward to working with the agency.

Sincerely,

A handwritten signature in black ink that reads "Kara Moriarty". The signature is written in a cursive, flowing style.

KARA MORIARTY
Executive Director

Enclosures as noted.

cc: Commissioner John Norman
Commissioner Dan Seamount
Governor Sean Parnell
Commissioner Dan Sullivan

State by State Comparison of Hydraulic Fracturing Requirements and Regulations
As of September 23, 2013

	Alaska	Texas	Bureau of Land Management	California	Colorado	Illinois	North Dakota	Oklahoma	Pennsylvania
	Proposed; 20 Alaska Administrative Code (AAC) 25.005, 25.280, 25.283	In force; 16 Texas Administrative Code (TAC) 3.29	Proposed; 43 Code of Federal Regulations (CFR) 3162.3-2	Proposed; Senate Bill 4 (Governor signature or veto by Oct. 13, 2013	In force; Colorado Regulations (CCR) 404-1 s.205A	In force; 225 Ill Comp. Stat. 470	In force; North Dakota Administrative Code (NDAC) 43-02-03-27	In force; Oklahoma Administrative Code (OAC) Sec. 165-10-3-10	In force; Pennsylvania Consolidated Statutes (PACS) 58 Sec. 3222, 3222.1
Application & Pre-Approval Required	yes	no	no	yes	no	yes	no	no	no
Prior notice of hydraulic fracturing to landowners	yes; landowners, surface owners, operators, and all owners	no	no; lessee must contact surface owner before entry onto land and engage in good faith agreements	yes, 30 days prior to well stimulation	yes	yes	no	no	no
-Within what distance?	1/2 mile	n/a	n/a	1500 feet of wellhead; 500 feet from the horizontal projection of all subsurface portions	500 feet	1500 feet	n/a	n/a	n/a
Disclosure of nearby water wells	yes	no	no	yes	yes	no	no	no	no
- Data source specified?	no	no	no	no	no	n/a	n/a	n/a	no
Pre-treatment water well testing requirements	yes; within 90 days prior to treatment	no	no	yes	yes	yes	no	no	no
-Within what distance?	1/2 mile	n/a	n/a	not specified	1/2 mile	1500 feet	n/a	n/a	n/a
- # of wells specified?	none specified; assumption is all within 1/2 mile	n/a	n/a	not specified	Up to 4	n/a	n/a	n/a	n/a
- Good faith provision?	no	no	no	no	yes	no	no	no	no
Post-treatment water well testing requirements	yes; after 90 days, but no more than 120 days	none	no	no	yes	yes, after 6, 18, and 30 months	no	no	no
Required chemical disclosures:									
- Chemical ingredient name	yes; for each base fluid and each additive	yes, for all intentionally added ingredients	yes	yes	yes; for all intentionally added constituents, but chemical constituents need not be tied to additives	yes, for all intentionally added ingredients	all elements made reviewable by FracFocus	yes, for intentionally added ingredients	yes, for intentionally added ingredients
- Chemical Abstract Service (CAS) numbers	yes	yes	yes	yes	yes	yes	all elements made reviewable by FracFocus	yes	yes
- Trade name of additive	yes	yes	yes	yes	yes	yes	all elements made reviewable by FracFocus	yes	yes
- Generic name	yes	no	no	no	no	unclear; on FracFocus form but not explicitly required in the bill	no	no	no
- Description/purpose of all base fluids and additives	yes	yes	yes	yes	yes	yes	all elements made reviewable by FracFocus	yes	yes
- By stage	yes	none	no	no	unclear	yes	no	no	none
- Concentration	maximum or actual	maximum, and only for substances required to be listed on an MSDS	maximum in percent by mass	yes; expressed in percent by mass	maximum	yes, in the base fluid	all elements made reviewable by FracFocus	maximum, in base fluid	maximum in stimulation fluid; percent by mass
Requirement that Service Provider/Vendor Discloses to Operator	no	yes; no later than 15 days following completion of fracturing treatment	none	yes, within 30 days of treatment completion	yes; within 30 days of frac treatment completion & no later 90 days after treatment begins	no	no	no	no
Who discloses to regulator	Operator	Operator	Operator	Operator	Service providers & vendors are required to provide the operator with the following information for each frac job: (1) the total volume of water and total volume of base fluid used in hydraulic fracturing treatment; (2) each hydraulic fracturing additive and the trade name, vendor, and brief description of the intended use or function of the additive; (3) each chemical intentionally added to the base fluid; (4) maximum concentration of each chemical intentionally added to the base fluid; and (5) the CAS number for each chemical added to the base fluid. The operator is then required to complete a FracFocus registry form.	Operator	Owner, operator, or service company	Operator or Commission	Operator and PADEP
When disclosure required	Before & After within 30 days of completion	Within 30 days of completion or within 90 days after the date on which drilling operation is completed, whichever is earlier	Within 30 days after fracturing in the Subsequent Report Sundry Notice	Within 60 days of well stimulation treatment	Within 60 days of completion of hydraulic fracturing treatment, and in no case later than 120 after commencement of hydraulic fracturing treatment	With the well completion report	Within 60 days after fracturing	Within 60 days after fracturing	Within 60 days after fracturing
Method of disclosure	Application for Sundry Approval, Report of Sundry Approval, and FracFocus	FracFocus	FracFocus	State Website	State Website & FracFocus	Completion Report	FracFocus	FracFocus	FracFocus
Trade secret (TS) protections	none	yes	yes	no	yes	yes	yes	yes	yes
- Does not have to disclose	n/a	The identity of specific constituent or concentration information claimed to be a TS can be withheld from disclosure	Operator can identify information they believe is protected by law. Operator must explain why information is exempt and Bureau of Land Management (BLM) would evaluate operator's claim	n/a	Vendor, service provider, or operator may claim TS protection for chemical identity or concentration; must submit Form 41 claim of entitlement providing info regarding basis for TS claim	Must disclose total volume of water used in fracking treatment and all chemical ingredients for which a Material Safety Data Sheet (MSDS) is required	n/a	chemical identity, CAS number and/or maximum concentration	Must disclose chemical constituents to health professionals only if they deem it necessary and agree to maintain confidentiality
- Must disclose to health professionals	n/a	yes; in an emergency	no	yes; in an emergency	yes; in an emergency	Illinois Dept. of Natural Resources, Oil & Gas Division, and Health Care Professionals in an emergency	no, unless required by other state or federal law	no, unless required by other state or federal law	yes

Acronyms & Abbreviations: CFR - Code of Federal Regulations
AAC - Alaska Administrative Code FracFocus - www.fracfocus.org
A.B. - Assembly Bill MSDS - Material Safety Data Sheet
BLM - Bureau of Land Management n/a - not applicable
CAS - Chemical Abstract Service NDAC - North Dakota Administrative Code
CCR - Code of Colorado Regulations OAC - Oklahoma Administrative Code

Alaska Oil and Gas Association
Additional Explanation of Concerns by Section
Hydraulic Fracturing Regulations
September 23, 2013

1. Application and Approval Process

AOGA supports the chemical disclosure and reporting requirements for hydraulic fracturing operations, but the application for approval process outlined in 20 AAC 25.005 and 20 AAC 25.283(a) will result in unnecessary delay, burden AOGCC staff resources, and in many instances, require information that is either premature or impractical and at an unnecessary level of detail. In our enclosed red-line revisions, we have suggested that many of the provisions of subsection (a) could be codified as rules or requirements rather than required in an application for Commission approval. For example, in subsection (a)(14), the Commission would require operators submit volumes and concentrations of chemical ingredients and additives that may be yet undetermined prior to the start of a hydraulic fracturing operation and subject to change during the course of the operation. As AOGCC notes in its own “white paper” on hydraulic fracturing from 2011, “completion interval thickness, permeability and other characteristics that determine required fluid volumes generally are not known before the well is drilled.”¹ It is evident that requiring this information in an application prior to hydraulic fracturing is premature.

In addition, we are concerned that the volume of detailed applications required of the proposed regulations would swamp AOGCC staff, causing further delays to resource development projects critical to Alaska’s economic and energy needs. In addition to operations on the North Slope, hydraulic fracturing has also treated a variety of natural gas producing wells in the Cook Inlet basin. Current plans for maintaining and increasing the natural gas supply to South Central Alaska involve operations in the Cook Inlet covered by these proposed regulations. It is imperative that AOGCC’s proposed rulemaking results in regulations that are timely, efficient, and that provide certainty to the process for the exploration and development of South Central Alaska’s gas supply.

AOGA appreciates and recognizes the Commission’s exemplary oversight of oil and natural gas production in Alaska. With current statutes and regulations, Cook Inlet and North Slope wells are already held to stringent well construction and mechanical integrity requirements. AS 31.05.030(e)(1)(B) provides that AOGCC “may regulate [hydraulic fracturing]” and AS 31.05.030(j)(2)(A) proscribes that the Commission “shall regulate hydraulic fracturing in nonconventional gas wells *to ensure protection of drinking water quality.*” (emphasis added). By the Commission’s own admission, current “mechanical integrity requirements are the primary means for protecting drinking water”² and AOGCC’s “[c]urrent well construction standards used in Alaska properly protect fresh drinking waters.”³ It is unclear what the proposed application

¹ *Id.*

² *Id.*

³ Statement of AOGCC Commissioner Cathy Foerster, Interstate Oil & Gas Compact Commission, Regulatory Statements on Hydraulic Fracturing (June 2009).

and approval process intends to further accomplish. We strongly urge the Commission to reconsider the application and approval process for hydraulic fracturing operations.

We understand that AOGCC intends to require an Application for Sundry Approval for all hydraulic fracturing operations. If after the Commission's careful consideration, the final promulgation of these regulations still require application and approval, we respectfully request an exception for hydraulic fracturing operations where there is no freshwater aquifer present within one-quarter mile or 1,000 vertical feet of the proposed wellbore trajectory, or as identified by the Commission as Freshwater Aquifer Exemptions pursuant to 20 AAC 25.440.⁴

An exception for these operations, where there is no threat to drinking or freshwater, would not exacerbate AOGCC's purpose to provide disclosure in areas where contamination of freshwater might be a public concern. As AOGCC has previously stated, there is no freshwater or drinking water present in the North Slope where the majority of hydraulic fracturing operations occur and, therefore, "freshwater is not a concern."⁵ Only monitoring and a Report of Sundry Well Operations, including hydraulic fracturing chemical disclosure, should be required of operations meeting this exception.

In addition, many Conservation Orders specifically allow hydraulic fracturing operations without a Sundry Application.⁶ This new regulation does not act as to modify current approvals. The application and approval requirement will exacerbate the inconsistent regulatory requirements administered by the Commission. 20 AAC 25.280(a)(1),(2),(3) & (5) are specifically cited in the various conservation orders that allow use of the document "Wellwork Operations and Sundry Notice/Reporting Requirements for Pools Subject to Sundry Waiver Rules," dated July 15, 2005, informally known as the "sundry matrix." In correlation with the promulgation of hydraulic fracturing regulations, we suggest the matrix and possibly the references in those conservation orders be modified to remove inconsistencies with the proposed regulations. Currently, the matrix specifically allows stimulations, including hydraulic fracturing, in development wells to be undertaken without a Sundry Application.

2. Proposed Disclosures Required in Report of Sundry Well Operations

Our members support the disclosure and reporting of materials pumped during hydraulic fracturing operations on the chemical disclosure registry, FracFocus. However, we suggest the required disclosure of concentrations and types of material pumped be consistent with the disclosures routinely submitted on FracFocus, and not require disclosure that would compromise proprietary information or otherwise expose trade secrets. Health, safety and environmental concerns can be addressed without jeopardizing this information.

The current absence of any protection of proprietary information is of concern to AOGA's members and their service providers. Technological advancements in hydraulic fracturing have not only significantly increased and enhanced production, but have made it more environmentally sound, reducing water use as well as the use of biocides and chemicals. As you

⁴ See, e.g., EPA's Aquifer exemptions for Class II injection activities, 40 CFR 147.102.

⁵ *Supra*, n.1.

⁶ See, e.g., C.O. 556, dated July 15, 2005.

have heard and will hear from our members' service providers and vendors, these technologies are highly proprietary and the result of years of expensive research and development efforts. Failing to recognize intellectual property rights to these technologies in the Alaskan market may jeopardize the value of the rights globally, which means many suppliers may simply elect to withhold new products from the Alaskan market. As Colorado's Governor John Hickenlooper recently said, "if we were overzealous enforcing them to disclose what they had created, they wouldn't bring it into our state."⁷

The continuation of these technologies in hydraulic fracturing treatments is important to the oil and gas industry in Alaska. AOGA's members have substantiated concerns that any requirement to force disclosure of this proprietary information, including product formulations, will create a disincentive for the service providers' development and use of these technologies in our state. To this end, we urge the Commission to adopt subsections (h) – (o) in the enclosed red-line revisions.⁸

In addition, to the extent the proposed regulations require the reporting or disclosure of information stage by stage, interval by interval or well by well, we suggest and respectfully request that reporting and disclosure be instead required for each hydraulic fracturing treatment, resulting in a more efficient and streamlined reporting process.

3. Explanation of Suggested Revisions

Please find enclosed AOGA's suggested red-line revisions of the proposed hydraulic fracturing regulations. In addition to our concerns above, the summaries that follow provide our explanation and requests regarding each section of the proposed regulations.

20 AAC 25.005. Permit to Drill (13)

Pursuant to the discussion above, AOGA respectfully requests removal of the requirement to submit an application for approval of hydraulic fracturing operations.

20 AAC 25.280. Workover Operations (f)

Again, we respectfully request deletion of this provision and removal of the approval and application process requirement.

20 AAC 25.283. Hydraulic Fracturing (a)

If the final promulgation of these regulations require application and approval, we respectfully request the adoption of our proposed exception to 20 AAC 25.283(a) for hydraulic fracturing operations where there is no freshwater aquifer present within ¼ mile or 1,000 vertical feet of the

⁷ Ben Wolfgang, *I drank fracking fluid, says Colorado Gov. John Hickenlooper*, THE WASHINGTON TIMES, February 12, 2013, available at <http://www.washingtontimes.com/blog/inside-politics/2013/feb/12/colorado-gov-hickenlooper-i-drunk-fracking-fluid/>.

⁸ Please note that (h)-(o) relate to AOGA's proposed regulations rather than the subsections articulated in AOGCC's proposed regulations.

current or proposed wellbore trajectory, or as identified by the Commission as Freshwater Aquifer Exemptions pursuant to 20 AAC 25.440 (e.g., EPA’s Aquifer exemptions for Class II injection activities is 40 CFR 147.102). Only monitoring, hydraulic fracturing chemical disclosures, and a Report of Sundry Well Operations should be required of operations meeting this exception.

In addition, we request the addition of language to provide certainty by limiting the number of days the Commission has to respond to an Application for Sundry Approval of hydraulic fracturing, so that an operator can reasonably plan on the timeline of operations. If the Commission takes no action within ten business days, the application will be deemed approved.

(a)(1)

We support providing notice of operations to landowners and surface owners within *one-quarter* mile radius of the current or proposed wellbore trajectory. The Commission’s revision of the proposed regulations to expansion of one-half mile has exponentially increased the geographical area, without any explanation or justification for this subsection and the following requirements. The one-quarter mile coverage is standard in EPA and AOGCC regulations. *See, e.g.,* 20 AAC 25.252(c), 20 AAC 25.402(c), and 40 CFR 146.6(b).

If the requirement of application for Sundry Approvals stands, the application required in proposed 20 AAC 25.283 would be quite voluminous and technical in nature, and likely include confidential geologic information. The proposed regulation should be revised to provide that a copy of the application is available from the Commission at the public’s request, excluding any proprietary information. The public should be able to rely upon the Commission’s expertise to regulate wellbore integrity and provide appropriate oversight that operators should not be required to submit details to a surface owner.

(a)(2)

Revises to require identification of any water wells located within one-quarter mile radius of the well’s surface location. We request that AOGCC adopt language clarifying that the operator must make good faith efforts to identify any water wells in the defined project area relying on publicly available records and notice to neighboring surface owners. In addition, water well is not currently defined; we request AOGCC adopt our suggested definition of “water well” in the attached red-line revisions.

(a)(3)

Revises to require identification of freshwater aquifers within one-quarter mile of the “current or proposed wellbore trajectory.”

(a)(5)

We request deletion of this section. In addition to the significant costs associated with the proposed well sampling requirements, we believe there are issues with the indefinite amount of time that a well’s production could be delayed while obtaining permission of each landowner or well required, as well as the delays associated with the turnaround and testing of well samples. Analytica Group estimates that the holding time for the tests requested in AOGCC’s proposed

regulations are in the 7 day or longer category. Often water sampling laboratories are not nearby to Alaska oil wells; as Analytica Group indicated in its response to AOGCC's inquiry, some tests would need to be shipped to a lab in Colorado or sub-contracted to other approved laboratories,⁹ likely causing additional delay. At times, it is difficult to fit large coolers of multiple 1L bottles of acidified water in air cargo on small planes and keep the samples from freezing.

Alternatively, we respectfully request AOGCC replace (a)(5) with our suggested revised language which limits the geographical area of testing to up to four wells within one-quarter mile, includes a liability provision regarding the use of sampling results and addresses and provides a waiver in a situation where access to test a private well is not granted by the well owner. The suggested provision includes the identical sample parameters AOGCC has proposed.

(a)(7)

We respectfully suggest deletion of subsection (a)(7). For many new wells, the requested information will not be available at the time of application and the Commission should not be expected to review and analyze such information and deliver its consent within hours of when the data is submitted. Requiring this information for Commission approval will cause unnecessary delay. A more workable solution would be to simply proscribe, as suggested in the attached red-line revisions in suggested section 20 AAC 25.283 (h), that well casings be cemented sufficiently below the base of the lowermost freshwater aquifer and according to 20 AAC 25.030 and that all hydrocarbon zones penetrated by the well must be isolated to prevent the treatment from negatively impacting the surface environment, fresh water aquifer, or water well.

It should be noted that not all wells have cement bond logs. It is not clear if the promulgation of this new regulation will require such logs in the future. *See, e.g.,* 20 AAC 25.412(d).

(a)(8)

AOGA also requests the modification of subsection (a)(8) as indicated. Pressure test information is not currently required to be submitted for any well and it is unclear if the intention of this provision is to require submission of the complete test data or the summary results. Current data is not always available.

(a)(10)

We also request deletion of subsection (a)(10). For exploration wells in remote areas this data will be limited and uncertain. This should not be required in an application for Commission approval, but instead may be reported with Form 10-404. If this subsection remains, the data requested should be limited to areas "within one-quarter mile of the proposed wellbore trajectory."

(a)(11)

Adds "within one-quarter mile of the current or proposed wellbore trajectory."

(a)(12)

Adds "located within one-quarter mile of the current or proposed wellbore trajectory."

⁹ *Id.*

(a)(13)

We request the identification of faults be limited to those faults *known* “within one-quarter mile of the current or proposed wellbore trajectory.” It should be noted that faults can be encountered while drilling that have not been previously identified on seismic, and it is improbable faults can be suspected.

(a)(14)

Deletes “detailed” to avoid any ambiguity regarding what constitutes detailed and removes “by stage.” Instead of requiring reporting stage by stage, we respectfully request the information required be reported for a single hydraulic fracturing treatment operation, including only the totals for a multistage fracturing treatment.

Deletes (C)-(D). We do not oppose the disclosure of this information, insofar as proprietary information is protected from public disclosure, but we respectfully request the Commission remove this section and only require this information be disclosed after the fracturing operation is complete, pursuant to proposed 20 AAC 25.283(h). Successful hydraulic fracturing operations often require the operator’s ability to modify the hydraulic fracturing plan and to substitute fluids and agents once hydraulic fracturing begins. A post-fracturing report included in Form 10-404 details the actual characteristics of the job, including fluid volumes generally not known before the well is drilled. In addition, subsection (D) is unnecessary since a proppant is already considered an additive under AOGCC’s proposed definition (3).

(a)(15)

Deletes “detailed” to avoid any ambiguity regarding what constitutes detailed information.

(e)

Deletes “be confined to approved formations during hydraulic fracturing” and replaces with the requirement that hydraulic fracturing fluids shall not transmit beyond the confining zone. Incidental fracture growth into the confining zone may occur, but shall not exceed beyond the confining zone.

(f)

Monitoring by gauge and pressure relief should be limited to the first annulus adjacent to the fracture treatment string.

(g)

Monitoring and recording should be limited to the first annulus adjacent to the fracture treatment string. First and second annulus are monitored, but continuous monitoring and recording of all annulus pressures is not industry practice.

In addition, the requirement that the operator submit a Report of Sundry Well Operations within 15 days is redundant; the report of the incident and plan of corrective action is required by the suggested revision and a full Report of Sundry Well Operations giving all details, including corrective actions already taken, will be submitted within 30 days as required by proposed 20 AAC 25.283(h).

New Subsection (h)

Adds new section to require that well casings be cemented below the base of the lowermost freshwater aquifer and according to 20 AAC 25.030, and that all hydrocarbon zones penetrated by the well are isolated to prevent the treatment from negatively impacting the surface environment, fresh water aquifer, or water well.

New subsection (i)

Much of the information identified in section (h) is already required under 20 AAC 25.280(d). We suggest revising this section to remove duplicative information. A 30-day reporting deadline may also be impractical to meet for such a complex measurement and calculation process.¹⁰ In addition, we request the replacement of “interval” with “treatment.” The term “each hydraulic fracturing interval” could refer narrowly to each set of perforations or broadly to each formation that is fractured. We suggest the information required be limited to that generated during a single hydraulic fracturing treatment operation, including only the totals for a multistage fracturing treatment.

(i)(2)

Deletes “each treatment stage.” The term “each treatment stage” could refer narrowly to each level of proppant concentration during the operation or broadly to the treatment of a set of perforations during the fracture treatment of multiple sets of perforations. We suggest revising this subsection to require only “the estimated total amount and types of material pumped during a hydraulic fracturing treatment.” That level of reporting will provide an appropriate level of information to the public and will be consistent with FracFocus submissions. FracFocus requires the submission of the maximum concentration for each chemical used in the fracture treatment, rather than the actual concentration, thus providing disclosure with some measure of confidentiality.

It is important that the disclosed list of chemical names is decoupled from concentrations to protect confidentiality of trade secrets as discussed above. AOGA supports the disclosure of all ingredients intentionally included in additives in a single aggregate list, as long as the regulations provide for the disclosure of particular ingredients apart from particular additives.

New Subsections (j) – (l)

Explains the process for the excluding the disclosure of specific chemical ingredients or their CAS numbers, or concentration of such ingredients, that are proprietary information entitled to trade secret protection. Subsection (j) requires that service providers and vendors furnish operators with the information required to be submitted pursuant to 20 AAC 25.283(h)(2). In addition, we request subsection (k) identifying disclosures not required, including chemicals not disclosed to the operator by the manufacturer, vendor, or service provider; ingredients not intentionally added to the hydraulic fracturing fluid; chemicals that occur incidentally or are otherwise unintentionally present in trace amounts, may be the incidental result of chemical reaction or chemical process, or may be constituents of naturally occurring materials that become part of a hydraulic fracturing fluid.

¹⁰ A period of sixty days would be more reasonable.

New Subsections (m) – (p)

AOGA supports the full disclosure of trade secrets in the event of a health care emergency and as necessary for the Commission’s proper investigation of waste or spills. Currently, federal law requires Material Safety Data Sheets (MSDSs) to be available on location, but provides for the protection of specific chemical constituents and quantities if they are proprietary information. This information, however, must be disclosed upon receipt of a written statement of medical need, or in the event of medical emergency, to a health professional. We support AOGCC’s adoption of a similar provision as suggested in subsection (l) of our red-line revisions. The requirements and processes for claiming trade secret protection should be clear and provide procedural certainty. The language suggested in enclosed subsections (l) and (m) require disclosure of such information to health care providers and emergency responders, as needed, in the event of a medical emergency.

In addition, AOGA requests the adoption of subsections (n) and (o) providing for the disclosure of proprietary information to AOGCC in order to investigate waste under AS 31.05.030 or a release under 20 AAC 25.205, and as necessary to enable the Alaska Department of Environmental Conservation to respond to a release.

(q)

We support reporting and disclosure through FracFocus, and insofar as it is redundant to the reporting requirements of (h) above, this reporting shall satisfy the reporting requirement under (h). We also suggest deletion of “electronic copy.” Electronic information is not normally submitted with Form 10-404. If included, we suggest the acceptable electronic format be specified.

(s)

We respectfully request defining “confining zone” to mean “a geological formation (or group or part of a formation) capable of limiting fluid movement out of an injection zone.” This definition, however, should be limited to 20 AAC 25.283 as the term “confining zone” is used throughout current regulations, and we do intend to unintentionally complicate or implicate other provisions of the regulations.

20 AAC 25.990. Definitions

(34) - (–)

The proposed regulations, as drafted, necessitate additional definitions, including “hydraulic fracturing treatment,” “stage,” “water well,” and “trade secret.” Accordingly, we have provided suggested definitions for these terms.

20 AAC 25.005. Permit to Drill

(13) a copy of the proposed drilling program; ~~for a well proposed for hydraulic fracturing, the drilling program shall so indicate; a request for approval to perform hydraulic fracturing must be separately made by submitting Form 10-403 (Application for Sundry Approvals) with the information specified at 20 AAC 25.280 and 25.283;~~

20 AAC 25.280. Workover Operations.

~~(f) an application for Sundry Approvals for a well proposed for stimulation by hydraulic fracturing must also comply with 20 AAC 25.283.~~

20 AAC 25.283. Hydraulic Fracturing. (a) Prior to hydraulic fracturing a well with a current or proposed wellbore trajectory within one-quarter mile radius and 1,000 vertical feet of a freshwater aquifer, for which there is no Freshwater Aquifer Exemption pursuant to 20 AAC 25.440, the operator must submit an Application For Sundry Approvals (Form 10-403) under 20 AAC 25.280. If the Commission takes no action on the application within ten (10) business days of receipt, the application shall be deemed approved. The application shall include:

(1) an affidavit showing that all owners, landowners, surface owners, and operators within a ~~one-half~~ one-quarter mile radius of the wellbore trajectory have been provided notice of operations. The notification will state that upon request, a complete copy of the application is available from the Commission operator, ~~and will include the operator contact information.~~

(2) a plat showing the well location and the current or proposed wellbore trajectory identifying any water wells located within ~~a one-half mile radius of the well's surface location and further identifying any well penetrations (all well types) within one-half~~ one-quarter mile radius of the current or proposed wellbore trajectory and fracturing interval and the sources of the information used in identifying such wells. Applicant will make a good faith effort to identify any water wells in the defined project area. Information used to collect water well location information will include notification to surface owners and publicly available recordings including Alaska Department of Natural Resources Water Right data (AS 46.15) and similar public records.

(3) identification of freshwater aquifers within the one-~~half~~ quarter mile radius of the current or proposed wellbore trajectory;

(4) whether the well is covered by a Freshwater Aquifer Exemption as per 20 AAC 25.440;

~~(5) water sampling of water wells. Water sampling consists of collection of baseline water data pre fracture (but not more than 90 days prior) and follow up water sampling collected at the same location no sooner than 90 days and no later than 120 days after the conclusion of any hydraulic fracturing operations. The sample parameters shall include pH; Alkalinity; Specific conductance; arsenic; barium; bicarbonate; boron; bromide; cadmium; calcium; carbonate; chloride; chromium; fluoride; hydroxide; iodide; iron; lithium; magnesium; manganese; potassium; radium; selenium; silicon; sodium; strontium; sulfate; Total dissolved solids; BTEX/GRO/DRO (Benzene, Toluene, Ethylene, Xylene/Gasoline Range Organics/Diesel Range Organics); TPH (Total Petroleum Hydrocarbons) or Oil and Grease (HEM); PAH's (Polynuclear Aromatic Hydrocarbons including benzo(a)pyrene); Dissolved Methane, Dissolved Ethane, and Dissolved Propane. Current applicable EPA approved sample custody and collection protocols and analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain nationally accredited programs. Copies of all test~~

~~results, analytical results and sample locations shall be provided to the commission and to the Alaska Department of Environmental Conservation in printed form and in an electronic data deliverable format that is acceptable to the commission within 90 days of collecting the samples;~~

(5) A plan for water sampling of up to four water wells within 1,000 vertical feet and one-quarter mile radius of the proposed wellbore trajectory is required. If there are no water wells located within 1,000 vertical feet and one-quarter mile of the proposed wellbore trajectory, or if property owners do not grant permission for sampling, then this will be documented and submitted in the application, if an application is otherwise required. Water sampling should consist of collection of baseline water data pre-fracture and follow-up water sampling collected at the same location no sooner than 90 days and no later than 180 days after the conclusion of any hydraulic fracturing operations.

(A) Surface Owner Access and Exception Process

(i) Surface owners have the right to refuse written permission for water well access and/or disclosure of sampling results.

(ii) If the owners of water wells suitable for testing under this rule do not grant access despite an operator's reasonable good faith efforts to obtain consent to conduct sampling, then an operator may apply for exception to this sampling. An operator seeking an exception on this ground shall document the efforts used to obtain access from the owners of suitable water wells.

(iii) If the Commission takes no action on the application within ten (10) business days of receipt, the requested exception from the requirements of this rule shall be deemed approved.

(B) Sample Parameters. The sample parameters shall include pH; Alkalinity; Specific conductance; arsenic; barium; bicarbonate; boron; bromide; cadmium; calcium; carbonate; chloride; chromium; fluoride; hydroxide; iodide; iron; lithium; magnesium; manganese; potassium; radium (measured by radium 226 & 228); selenium; silicon; sodium; strontium; sulfate; Total dissolved solids; BTEX/GRO/DRO (Benzene, Toluene, Ethylene, Xylene/Gasoline Range Organics/Diesel Range Organics); TPH (Total Petroleum Hydrocarbons) or Oil and Grease (HEM); PAH's (Polynuclear Aromatic Hydrocarbons including benzo(a)pyrene); Dissolved Methane, Dissolved Ethane, and Dissolved Propane. Current applicable EPA-approved sample custody and collection protocols and analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain nationally accredited programs. Copies of all test results, analytical results and sample locations shall be provided to the commission and to the Alaska Department of Environmental Conservation within 90 days of collecting the samples;

(C) Liability. The sampling results obtained to satisfy the requirements of this section, including any changes in the constituents or concentrations of constituents present in the samples, shall not create a presumption of liability, fault, or causation against the owner or operator of a Well who conducted the sampling, or on whose behalf sampling was conducted by a third-party. The admissibility and probity of any such sampling results in an administrative or judicial proceeding shall be determined by the presiding body according to applicable administrative, civil, or evidentiary rules.

(6) detailed casing and cementing information;

~~(7) an assessment of each casing and cementing operation performed to construct or repair the well with sufficient supporting information, including cement evaluation logs and other evaluation logs approved by the commission, to demonstrate that casing is cemented below the base of the lowermost freshwater aquifer and according to 20 AAC 25.030 and that all hydrocarbon zones penetrated by the well are isolated;~~

(8) ~~pressure test information if available and~~ plans to pressure test the casings and tubing installed in the well;

(9) accurate pressure ratings and schematics for the wellbore, wellhead, BOPE, and treating head;

(10) data for the fracturing zone and confining zones within one-quarter mile radius of the current or proposed wellbore trajectory including lithologic description, geological name, thickness and measured depth (MD) and true vertical depth (TVD), and estimated fracture pressures for the fracturing zone and confining zones;

(11) the geologic name and depth (MD and TVD) to the bottom of all freshwater aquifers located within one-~~half~~ quarter mile radius of the current or proposed wellbore trajectory;

(12) the location, orientation, and a report on the mechanical condition of each well located within one-quarter mile radius of the current or proposed wellbore trajectory that may transect the confining zones and information sufficient to support a determination that such wells will not interfere with containment of the hydraulic fracturing fluid ~~within the one-half mile radius of the proposed wellbore trajectory;~~

(13) the location, orientation, and geological data of known or ~~suspected~~ faults and fractures within one-quarter mile of the current or proposed wellbore trajectory that may transect the confining zones, and information sufficient to support a determination that any such faults and fractures will not interfere with containment of the hydraulic fracturing fluid ~~within the one-half mile radius of the proposed wellbore trajectory;~~

(14) a ~~detailed~~ copy of the proposed hydraulic fracturing program including, but not limited to, the pumping procedure ~~by stage~~ where applicable, with a chemical disclosure based on the total amounts and volumes per well including;

(A) the estimated total volumes planned;

(B) the trade name, generic name, and purpose of all base fluid(s) and additives to be used. The estimated or maximum rate or concentration of each additive shall be provided in appropriate measurement units;

~~(C) the chemical ingredient name and the Chemical Abstracts Service (CAS) Registry number, as published by the Chemical Abstracts Service (a division of the American Chemical Society, see www.cas.org), for each base fluid and each additive used. The actual or maximum concentration of each chemical ingredient in each base fluid and additive used shall be provided in percent by mass. In addition, the actual or maximum concentration of each chemical ingredient in the hydraulic fracturing fluid shall be provided in percent by mass. Freeze protect fluids pumped before and/or after hydraulic fracturing should not be included;~~

~~(D) the estimated weight or volume of inert substances, including proppants and other substances injected;~~

(E) the maximum anticipated treating pressure and information sufficient to support a determination that the well is appropriately constructed for the proposed hydraulic fracturing program; and

(F) the designed height and length of the proposed fracture(s), including the calculated MD and TVD of the top of the fracture(s) accompanied by a description of the methods and assumptions used to determine designed fracture height and length.

(15) a ~~detailed~~ description of the plan for post fracture wellbore cleanup and fluid recovery through to production operations.

(b) When hydraulic fracturing through production casing or through intermediate casing, the casing must be tested to 110% of the maximum anticipated pressure differential to which the casing may be subjected. If the casing fails the pressure test it must be repaired or the operator must use a temporary casing string (fracturing string).

(c) When hydraulic fracturing through a fracturing string, the fracturing string must be stung into a liner or run on a packer set not less than 100 ft MD below the cement top of the production or intermediate casing and tested to not less than 110% of the maximum anticipated pressure differential to which the fracturing string may be subjected.

(d) A pressure relief valve(s) must be installed on the treating lines between pumps and wellhead to limit the line pressure to the test pressure determined in (a)14 (E) of this section; the well must be equipped with a remotely controlled shut-in device unless the operator requests and obtains a waiver from the commission.

(e) The placement of all hydraulic fracturing fluids shall ~~be confined to the approved formations during hydraulic fracturing~~ not result in the transmission of such fluids beyond the confining zone.

(f) If the surface casing annulus is not open to atmospheric pressure, then the annulus adjacent to the fracturing treatment string ~~surface casing pressures~~ shall be monitored with a gauge and pressure relief device while hydraulic fracturing operations are in progress; the annular space between the fracturing string and the intermediate or production casing must be continuously monitored; the pressure in such annular space may not exceed the pressure rating of the lowest rated component that would be exposed to pressure should the fracturing string fail.

(g) During hydraulic fracturing operations, the annulus pressures adjacent to the fracturing treatment string must be ~~continuously~~ monitored and recorded. If at any time during hydraulic fracturing operations the annulus pressure increases more than 500 psig above those anticipated increases caused by pressure or thermal transfer, the operator must notify the commission as soon as practicable, but no later than twenty-four (24) hours following the incident and shall implement corrective action or increased surveillance as the commission requires. ~~Within fifteen (15) days after the occurrence, the operator shall submit a Report of Sundry Well Operations Form 10-404 giving all details, including corrective actions taken.~~

(h) During hydraulic fracturing operations, all casings must be sufficiently cemented below the base of the lowermost freshwater aquifer according to the proposed well casing and cementing program submitted with Form 10-401 as described in 20 AAC 25.030. All hydrocarbon zones penetrated by the well must be isolated to prevent the treatment from negatively impacting the surface environment, freshwater aquifer, or water well.

~~(h)(i) The operator shall file with the commission, within 30 days after completion of hydraulic fracturing operations, on a Report of Sundry Well Operations (Form 10-404), a complete record of the work performed and the tests conducted, and a summary of daily well operations as described in 20 AAC 25.070(3). The operator shall also file with the commission a copy of the daily record required by 20 AAC 25.070(1), for each~~ documenting the hydraulic fracturing treatment. The information will include;

(1) a description of the actual treated interval including measured and true vertical depth of perforations;

(2) the amount and type(s) of base fluid(s) and additives pumped ~~during each treatment stage~~;

(3) the total amount and type(s) of base fluid(s) and additives pumped including;

(A) a description of the hydraulic fracturing fluid pumped identified by base fluid(s) and additives including trade name, supplier, and a brief description of the purpose (*e.g.*, acid, biocide, breaker, brine, corrosion inhibitor, crosslinker, de-emulsifier, friction reducer, gel, iron control, oxygen scavenger, pH adjusting agent, proppant, scale inhibitor, surfactant); and

(B) the chemical ingredient name and the CAS registry number, as published by the Chemical Abstracts Service (a division of the American Chemical Society, see www.cas.org), ~~for each base fluid and each additive used. The actual or maximum concentration of each chemical ingredient in each base fluid and additive used shall be provided in percent by mass.~~ In addition, the actual or maximum concentration of each chemical ingredient in the hydraulic fracturing fluid shall be provided in percent by mass. Freeze-protect fluids pumped before and/or after hydraulic fracturing should not be included;

(j) If the operator claims that the specific identity of a chemical, the concentration of a chemical, or both the specific identity and concentration of a chemical is a trade secret, the operator of the well must indicate on the Application For Sundry Approvals (Form 10-403) and the Report of Sundry Well Operations (Form 10-404) that the identity of the chemical, the concentration of a chemical or both is claimed to be entitled to trade secret protection and will not be disclosed. If the identity of the chemical, the concentration of a chemical or both is claimed to be entitled to trade secret protection, the chemical family or other similar description associated with such chemical ingredient shall be disclosed.

(k) A service provider who performs any part of a hydraulic fracturing treatment or a vendor who provides hydraulic fracturing additives directly to the operator for a hydraulic fracturing treatment shall, with the exception of information claimed to be a trade secret, furnish the operator with the information required by subsection 20 AAC 25.283(h)(2), as applicable.

(l) A vendor, service provider, or operator is not required to disclose:

(1) chemicals that are not disclosed to the operator by the manufacturer, vendor or service provider;

(2) ingredients not intentionally added to the hydraulic fracturing fluid; or

(3) chemicals that occur incidentally or are otherwise unintentionally present in trace amounts, may be the incidental result of a chemical reaction or chemical process, or may be constituents of naturally occurring materials that become part of a hydraulic fracturing fluid.

(m) Operators, service providers and/or vendors shall disclose the specific identity and amount of any chemicals claimed to be a trade secret to a health professional or emergency responder that requests such information provided that the health professional or emergency responder provides:

(1) a written statement of need that the health professional or emergency responder has a reasonable basis to believe that:

(A) the information is needed for purposes of diagnosis or treatment of an individual;

(B) the individual being diagnosed or treated may have been exposed to the chemical concerned; and

(C) knowledge of the information will assist in such diagnosis or treatment
(2) a confidentiality agreement that states:

(A) the health professional or emergency responder shall not use the information for purposes other than the health needs asserted in the statement of need; and

(B) the health professional or emergency responder shall otherwise maintain the information as confidential.

(n) A written statement of need and confidentiality agreement is not required under (l) of this section when a health professional or emergency responder determines that a medical emergency exists and the specific identity and amount of any chemicals claimed to be a trade secret is necessary for emergency treatment. An operator, service provider and/or vendor shall immediately disclose the information to the health professional or emergency responder upon

(1) a verbal acknowledgment by the health professional or emergency responder that such information shall not be used for purposes other than the health needs asserted; and

(2) a verbal acknowledgment that the health professional or emergency responder shall otherwise maintain the information as confidential.

(o) A vendor, service provider, or operator shall provide the specific identity of a chemical, the concentration of a chemical, or both the specific identity and concentration of a chemical claimed to be a trade secret to the Commission upon receipt of a communication from the Commission stating that such information is necessary to investigate a release reported to the Commission under 20 AAC 25.205 or to investigate any allegation of waste presented to or initiated by the Commission under AS 31.05.030(b) or AS 31.05.030(e)(1)(E). Upon receipt of such a communication from the Commission, such information shall be disclosed by the vendor, service provider, or operator directly to the Commission or its designee and shall in no way be construed as publicly available.

(p) The Commission or its designee may disclose information provided to it under 20 AAC 25.283(l) to the Alaska Department of Environmental Conservation (ADEC) only to the extent that such disclosure is necessary to allow ADEC to respond to a release and to otherwise carry out its duties and responsibilities under AS 46.03 or AS 46.04, provided that such information shall not be disseminated any further. Any information so disclosed to ADEC shall at all times be considered confidential and shall in no way be construed as publicly available.

(q) Prior to the submission of Form 10-404 under subsection (h), the operator must post the information required by the Interstate Oil and Gas Compact Commission/Groundwater Protection Council hydraulic fracturing web site (www.fracfocus.org). A printed copy ~~and electronic copy~~ of this information in a format acceptable to the commission shall be filed as an attachment with the Form 10-404.

(r) Upon written request of the operator, the commission may modify a deadline in this section upon a showing of good cause, approve a variance from any other requirement of this section if the variance provides at least an equally effective means of complying with the requirement, or approve a waiver of a requirement of this section if the waiver will not promote waste, is based on sound engineering and geoscience principles, will not jeopardize the ultimate recovery of hydrocarbons, will not jeopardize correlative rights, and will not result in an increased risk to health, safety, or the environment, including freshwater.

(s) For purposes of 20 AAC 25.283, “confining zone” means a geological formation (or group or part of a formation) capable of limiting fluid movement out of an injection zone.

Eff. __/__/__, Register __.)

Authority: AS 31.05.030

20 AAC 25.990. Definitions.

(3) "Additive" means any chemical substance or combination of substances, including a proppant, contained in a hydraulic fracturing fluid that is intentionally added to a base fluid for a specific purpose whether or not the purpose of any such substance or combination of substances is to create fractures in a formation.

(14) "Chemical Ingredient" means a discrete chemical constituent with its own specific name or identity, such as a CAS registry number, that is contained in an additive.

(34) “Hydraulic fracturing” means the treatment of a well by the application of hydraulic fracturing fluid under pressure for the express purpose of initiating or propagating fractures in a target geologic formation to enhance production of oil and/or natural gas.

(35) “Hydraulic fracturing fluid” means the fluid, including the applicable base fluid and all additives, used to perform a particular hydraulic fracturing treatment.

(36) “Hydraulic fracturing treatment” means all stages of the treatment of a well by the application of hydraulic fracturing.

(73) “Surface owner” means any person who holds record title to the surface of the land as an owner..

(--) “Water well” means a well producing freshwater that serves as a source of drinking water for human consumption.

(--) “Stage” means one of several separate interval treatments during a multi-stage treatment that initiate new fractures sequentially from different locations within the wellbore.

(--) “Trade Secret” means any formula, pattern, device, or compilation of information that is used in a person’s business, and that gives the person an opportunity to obtain an advantage over competitors. The six factors considered in determining whether information qualifies as a trade secret, in accordance with the definition of “trade secret” in the Restatement of Torts, Comment B to Section 757 (1939), as discussed in *Powercorp Alaska, LLC v. Alaska Energy Authority*, 209 P.3d 1173 (Alaska 2012) include:

(A) the extent to which the information is known outside of the company;

(B) the extent to which it is known by employees and others involved in the company’s business;

(C) the extent of measures taken by the company to guard the secrecy of the information;

(D) the value of the information to the company and its competitors;

(E) the amount of effort or money expended by the company in developing the information; and

(F) the ease or difficulty with which the information could be properly acquired or duplicated by others.

(Eff. __/__/__, Register __.) **Authority:** AS 31.05.030