Written testimony in support of HR___(Flores): A bill to recognize States' authority to regulate oil and gas operations and promote American energy security, development, and job creation.

Alaska Oil and Gas Conservation Commission
Cathy P Foerster, Chair and Engineering Commissioner

Thank you, Chairman Lamborn, ranking member Holt, and members of the Subcommittee on Energy and Mineral Resources for inviting me here today to discuss hydraulic fracturing regulation.

The Alaska Oil and Gas Conservation Commission applauds Congressman Flores for introducing this bill and the members of this sub-committee for their interest in considering it. The last thing the United States needs right now is duplicative regulation of an already stringently regulated process, unless, of course, we need increased federal spending and bureaucracy; delays in providing jobs, revenue, and affordable domestic energy; confusion among operators and regulators; and one-size-fits-all regulations that are ignorant to regional differences.

In my testimony I believe you will hear why I wholeheartedly support Representative Flores' proposed legislation. In arguing my support for this legislation, let me first take you back one week ago to a hearing with this very committee and Secretary Sally Jewell. I feel that hearing created the potential for several misperceptions and I'd like to clear those up.

Secretary Jewell's answers to questions from Representatives Lamborn, Fleming, and Mullin gave the perception that no national standard exists for hydraulic fracturing, that some states regulate properly but others use 30-year-old technology, and that states that are just starting to deal with hydraulic fracturing have no place to go for help in establishing appropriate regulations. None of these statements is true.

In America today a state-funded NGO called IOGCC (Interstate Oil and Gas Compact Commission), officed in Oklahoma City, represents the governors of all oil and gas producing states. Its very purpose is to help all states in their regulation of oil and gas operations, including hydraulic fracturing. All Canadian provinces with oil and gas operations also belong to the IOGCC.

The IOGCC has a base set of guidance documents on a variety of oil and gas operations that is very general but that helps states set high standards of environmental protection that are consistent with the varying engineering and geologic needs of each state.

In addition an organization born out of a joint effort between the DOE and API, called STRONGER (State Review of Oil and Natural Gas Environmental Regulations), exists to provide a national standard for environmental protection in all aspects of oil and gas operations and a critical review of individual state regulations to ensure that the national standard is being met and that the local issues are also being taken into account. STRONGER consists of representatives from industry, environmental NGOs and state regulators and addresses the

concerns of all three groups. STRONGER convenes sub-groups to address individual issues. One such sub-group deals specifically with hydraulic fracturing. I am a member of that sub-group.

To imply, as I believe Secretary Jewell did, that no national standard for hydraulic fracturing exists, is not true.

As for states needing help to address any new aspect of oil and gas regulations, they can, should, and do use the work already done by STRONGER and by the IOGCC and its member states. In fact, IOGCC even reaches out to states and provinces new to oil and gas and invites them to join the compact commission. Also, during bi-annual meetings, members of the IOGCC and guests share learnings so that, if one state or province encounters a problem or issue, we all collaborate on the solution.

To imply that state regulators have nowhere to go for help when they encounter hydraulic fracturing or any other new operation or technology is also not true.

As far as the states' regulations being old and out-of-date, that is, again, not true. The IOGCC member states meet twice a year to review the latest technology advances and operating practices with an eye to whether any regulatory changes are warranted. The IOGCC seeks out industry representatives to provide information at these meetings on new or changing technologies and operating practices. And as a state regulator for over eight years, I assure you that we are almost constantly updating one regulation or another to keep up with technology advances and operating changes.

Almost eighty years ago, the IOGCC had the good idea to develop model statutes, which they did. On top of that, we revisit the standards and our individual state regulations constantly to ensure that they are up-to-date. More recently STRONGER has developed a comprehensive set of guidelines for state regulation of hydraulic fracturing – one that I helped update less than one year ago. We certainly don't need to duplicate these efforts.

There was also some discussion during that hearing of FracFocus and trade secret protection. I just want to remind the subcommittee that the Uniform Trade Secrets Act is in place in 47 states and the District of Columbia and that FracFocus is (and any other disclosure mechanism would be) bound by the provisions of that act. I'm not an attorney but I suggest you ask an attorney to answer the question of how this act affects access to the data industry wants held confidential. Another thing to keep in mind is that FracFocus requires that ALL ingredients be disclosed; it is simply the mix of those ingredients that is withheld as a trade secret.

I'd like to clear up one more misperception from that hearing. Representative Lowenthal suggested that FracFocus is privately run and may not be maintained. Although funded by the DOE and industry, it is maintained by another state-funded NGO, the Groundwater Protection Council (GWPC) in association with the IOGCC. Thus, the concern about it being around in the future is unwarranted.

As for Alaska in particular, approximately 25 % of Alaska's wells have been hydraulically fractured and we have been performing hydraulic fractures for about forty years. Moreover in its history of oil and gas operations, Alaska has yet to suffer a single documented instance of subsurface damage to an underground source of drinking water. As long as each well is properly constructed and its mechanical integrity is maintained, (in other words as long as operators follow our regulations) hydraulic fracturing should have no potential to damage any fresh groundwater.

The following paragraphs describe the current state of Alaska's regulation of hydraulic fracturing. However it should be noted that my commission is currently engaged in the deliberative process on proposed changes to these regulations. Proposed changes include fluid disclosure requirements (although all Alaska operators are currently disclosing voluntarily via FracFocus), water well sampling requirements, and adding a section titled "hydraulic fracturing" that either cites or refers to all our existing regulations that impact hydraulic fracturing operations. We are not creating this section because we currently have no regulations on hydraulic fracturing. Rather we are creating this new section simply to make it easier for the lay person to find the regulations that are currently scattered across a number of existing sections. For example the casing requirements are in the casing section, the cementing requirements are in the cementing section, and so on.

The AOGCC's statutes and regulations, found in Chapter 5 of Title 31 of the Alaska Statues and Title 20, Chapter 25 of Alaska's Administrative Code, apply to all oil, gas, and geothermal wells drilled in the state. These statutes and regulations include stringent well construction requirements that are designed to protect underground sources of water and ensure mechanical integrity during production and injection operations. The AOGCC has no specific section of its regulations entitled "hydraulic fracturing" but the requirements for mechanical integrity are found throughout our regulations. Additionally, the AOGCC is required by statute to take extra measures to protect underground sources of drinking water in "nonconventional gas" operations, including hydraulic fracturing operations. Non-conventional gas includes coal bed methane and shale gas, both of which usually require production and disposal of significant amounts of water to establish and maintain gas flow.

The AOGCC does not yet have any rules regarding disclosure of hydraulic fracturing fluids or baseline water well sampling, but we are in the deliberative process to consider these change and others. Under our current regulations, proposed fracturing programs are described in the application for permit to drill a new well (Form 10-401) or in an Application for Sundry Approvals (Form 10-403) when such work is planned on an existing well. Disclosure of the chemical composition or the anticipated volume of fluid is not currently required for either permit. However, Material Safety Data Sheets are required by federal law to be available on location. For hydraulic fracturing operations, these sheets list every chemical used in the fracturing process and must be disclosed to the AOGCC if requested. In instances where fracturing is proposed in a drilling permit application, volumes may or may not be included because completion interval thickness, permeability and other characteristics that determine required fluid volumes generally are not known before the well is drilled. The volume of fluid actually used must be disclosed in the final completion report for each fractured well.

On the North Slope, Alaska's most prolific oil and gas province, freshwater is not a concern. In this part of Alaska, a thick layer of soil is underlain by permafrost – ground that remains frozen year round – so there is no liquid water, other than surface water, to a depth of 1000 to 2000 feet. Below the permafrost, only salt water is present, with very few exceptions. Regardless, wells on the North Slope are held to the same stringent construction requirements as other wells throughout the State.

Wherever underground sources of drinking water are present, they are protected by Commission regulations. All operators are required to obtain advance approval for well work, including drilling. AOGCC staff engineers and geologists review all applications to ensure the proposed well construction is appropriate for the well's planned use. Well mechanical integrity requirements are the primary means for protecting drinking water. In order to operate, all wells must demonstrate competent barriers to prevent the flow of any fluids from the well to the surrounding rocks. These barriers are supplied by strings of pipe in the wells as well as cement and mechanical devices that pack-off (i.e., seal) the pipe. Every well must have a surface casing that is set below the base of the deepest formation that could potentially be a source of drinking water. That casing must be cemented completely to the surface. As a well is drilled deeper, every additional casing string must also be cemented sufficiently to restrict fluids to their native reservoirs. Testing of the barriers and evaluation of cementing records verify a well has competent barriers installed. Wells which cannot demonstrate competent barriers are required to be shut-in unless the operator can demonstrate to the Commission's satisfaction that redundant barriers exist to adequately protect the surface and subsurface environment.

To assure compliance, every operator is required to install pressure measurement devices on every well and monitor those devices. If a measurement device indicates a compromise of the well's mechanical integrity, the operator is required to shut-in the well immediately and notify the Commission. In addition to these monitoring devices, the Commission requires periodic mechanical integrity tests on all injection wells. The AOGCC has six field inspectors who randomly witness the tests as they are performed. Regardless of whether or not an inspector is present for a pressure test, the operators are required to submit to the AOGCC documentation for every test conducted. All test information is reviewed thoroughly by AOGCC engineers. Unannounced inspections also assure regulatory compliance.

A little more historical detail on the formation of STRONGER:

In 1989, the Interstate Oil and Gas Compact Commission (IOGCC) formed a Council on Regulatory Needs composed of environmental and oil and gas regulators representing the major producing areas of the country. There were nine advisors and nine official observers. The Council was funded by a grant from EPA. At the first Council meeting all participants were invited to the table and the stakeholder process was established. This Council was charged with developing guidelines for state oil and gas exploration and production waste regulatory programs. In early 1990 the Council produced the 1990 Guidelines. The 1990 Guidelines were organized by subject matter. They established environmental objectives for state regulatory programs. Fundamental differences exist from state to state, and within regions within a state in terms of climate, hydrology, geology, economics, and methods of operation. Consequently, regulatory programs vary in order to accommodate the differences in state administrative

procedures, laws, and regulatory history. The Guidelines were used as a basis for state reviews. In 1993 the Guidelines were updated and revised to include abandoned sites and naturally occurring radioactive materials (NORM). Follow-up reviews to document changes resulting from recommendations contained in reports of initial reviews were initiated. In 1999, State Review of Oil and Natural Gas Environmental Regulations (STRONGER) was formed to manage the state review process. STRONGER received funding from EPA, DOE and API. The 1994 Guidelines were revised in 2000, 2005 and 2010. Important additions were Spill Prevention, Performance Measures to evaluate how well state programs achieve their goals, Stormwater Management, and Hydraulic Fracturing. Hydraulic fracturing guidelines are currently being revised and air guidelines are under development.

Thank you again, Chairman Lamborn and ranking member Holt, for inviting me to appear before your Subcommittee.