Inhofe Responds to Attacks on Hydraulic Fracturing

WASHINGTON, D.C. th U.S. Senator James Inhofe (R-Okla.), Ranking Member of the Senate Environment and Public Works Committee, today delivered a floor speech highlighting the nation's vast reserve of energy resources recoverable through hydraulic fracturing techniques. Inhofe praised the fracturing industry for its impressive job growth and flawless safety record.

(Media-Newswire.com) - WASHINGTON, D.C. – U.S. Senator James Inhofe (R-Okla.), Ranking Member of the Senate Environment and Public Works Committee, today delivered a floor speech highlighting the nation's vast reserve of energy resources recoverable through hydraulic fracturing techniques. Inhofe praised the fracturing industry for its impressive job growth and flawless safety record. The 60 year old technique, which has been responsible for 7 billion barrels of oil and 600 trillion cubic feet (Tcf) of natural gas, is under fire from several federal and state representatives who claim the practice endangers drinking water sources. Today, Inhofe set the record straight on a number of falsehoods concerning hydraulic fracturing regulations.

"During this Congress, Democratic House members from Colorado and New York and Senate members from Pennsylvania and New York have introduced legislation imposing new federal regulations on hydraulic fracturing," Senator Inhofe said. "Some of these members claim the allowing the practice is a loophole in federal law and that it is free from regulation. Mr. President, that is completely false. Through my leadership position on the Senate Environment and Public Works Committee, I have a long history of working on environmental and energy issues, and I can tell you new federal regulation of hydraulic fracturing would be a disaster.

"Hydraulic fracturing is a key production method which has aided in U.S. production of oil and gas from more than one million wells and continues to aid in the production from over 35,000 wells per year. This 60 year old technique has been responsible for 7 billion barrels of oil and 600 trillion cubic feet (Tcf) of natural gas. The National Petroleum Council reports that 60% to 80% of all wells in the next ten years will require fracturing to remain productive and profitable.

"The Potential Gas Committee at the Colorado School of Mines reported in June that the U.S. has 1,836 Tcf (or 1.8 quadrillion cubic feet) of technically recoverable natural gas. This is the highest reserve total ever reported by this organization in the last 44 years. When the U.S. Department of Energy's proven reserves are added to the total, the U.S. future natural gas supply is over 2,000 Tcf. At today's rate of use, this is enough natural gas to meet demand for the next 100 years. Only 1 Tcf of natural gas can heat 15 million homes for a year or fuel 12 million natural gas powered vehicles for a year. Only 1 Tcf of natural gas can heat 15 million homes for a year or fuel 12 million natural gas powered vehicles for a year…. We must not impose new burdens on our exploration and production. Instead, we must open up supplies and use our domestic resources in new and innovative ways to create jobs and a new energy economy.

"Oklahoma has a proud tradition of utilizing hydraulic fracturing. In fact, the first use of hydraulic fracturing was near Duncan, Oklahoma in 1949. Since that time, companies such as Oklahoma's Devon and Chesapeake have perfected the practice. Very simply, it is the temporary injection of mostly water with sand, nitrogen, carbon dioxide, and other additives to fracture and prop open a ground formation to improve the flow of oil and natural gas through rock pores and increase oil and gas production.

"Importantly, increased production of natural gas means jobs. Oklahoma, for example, exploration for natural gas accounts for 80% of the state's energy production, and over 50,000 people are directly employed by the oil and gas industry. One in seven jobs in Oklahoma is directly or indirectly supported by the crude oil and natural gas

industry because we rank fourth in the nation for natural gas production and fifth in crude oil. Oklahoma received $1.3 billion in taxes directly from oil and gas production in 2009. In fact, oil and gas accounts for 25% of all taxes paid in the state. These reserves mean domestic energy production and jobs."

Below is Senator Inhofe's full speech as prepared for delivery:

Hydraulic Fracturing

Sen. James Inhofe, July 27, 2009

Mr. President, I have long been a proponent of increasing domestic energy production. As I have said many times, we need an all the above approach to energy production which includes oil, natural gas, nuclear, coal, renewable energy such as cellulosic ethanol and wind, among others.

Increasing attention has been given to hydraulic fracturing, a key production method which has aided in U.S. production of oil and gas from more than one million wells and continues to aid in the production from over 35,000 wells per year. This 60 year old technique has been responsible for 7 billion barrels of oil and 600 trillion cubic feet (Tcf) of natural gas. The National Petroleum Council reports that 60% to 80% of all wells in the next ten years will require fracturing to remain productive and profitable.

The first use of hydraulic fracturing was near Duncan, Oklahoma in 1949. Since that time companies such as Oklahoma's Devon and Chesapeake have perfected the practice. Very simply, it is the temporary injection of mostly water with sand, nitrogen, carbon dioxide, and other additives to fracture and prop open a ground formation to improve the flow of oil and natural gas through rock pores and increase oil and gas production. 95% of the fluid is water. 99% of the fluid is water and sand.

Hydraulic fracturing is used for both oil and gas production, but I would like to focus on natural gas. I have good news and bad news, but first let me tell you the good news. The Potential Gas Committee at the Colorado School of Mines reported in June that the U.S. has 1,836 Tcf (or 1.8 quadrillion cubic feet) of technically recoverable natural gas. This is the highest reserve total ever reported by this organization in the last 44 years. When the U.S. Department of Energy's proven reserves are added to the total, the U.S. future natural gas supply is over 2,000 Tcf. At today's rate of use, this is enough natural gas to meet demand for the next 100 years. Only 1 Tcf of natural gas can heat 15 million homes for a year or fuel 12 million natural gas powered vehicles for a year. T. Boone Pickens is often quoted in this chamber. He characterized the reserves this way, 2 quadrillion cubic feet of gas are equivalent to Saudi Arabia's petroleum reserves.

Much of the increase noted in the new report comes from estimates of shale gas found in formations throughout the U.S. In fact, shale gas accounts for a third of America's total gas reserves. The U.S. Department of Energy reports that by 2011 most new reserves growth will come from nonconventional shale gas reservoirs. The American Petroleum Institute forecasts that unconventional gas production such as that from coal bed methane (CBM) and shale will increase from 42% of total US gas production to 64% in 2020. However, shale resources are largely only economically and technologically available due to hydraulic fracturing.

The good news does not only involve oil and gas reserves. It also means good news for jobs. For example, the 10,000 wells producing in the 14 county north Texas Barnett Shale are responsible for over 110,000 jobs, $4.5 billion in royalty payments; and they account for 8% of personal income, 9% of employment, and over $10 billion in increased economic activity in north Texas.

The Haynesville Shale in Louisiana has created 33,000 jobs, $2.4 billion in business sales, $3.9 billion in salaries, and $3.2 billion in royalty payments.

The IPAA reports that the Marcellus Shale in Pennsylvania and New York contains 516 Tcf of natural gas which is enough to satisfy U.S. demand for more than 35 years. A 2008 report on the Marcellus Shale attributes production in the Marcellus to two key methods, and one is hydraulic fracturing. Oil and gas development employs more than 26,000 and continued development in the Marcellus Shale is forecasted to create over 100,000 jobs. These jobs pay more than $20,000 above the average annual salary in Pennsylvania.

The Walton School of Business at the University of Arkansas recently completed an economic forecast of the Fayetteville Shale. It estimates a business and capital investment in the area of $22 billion, the creation of 11,000 jobs, and new state revenues of more than $2 billion by 2012. Oklahoma is home to the Woodford Shale which is pictured here and extends through southwestern Oklahoma. In Oklahoma, exploration for natural gas accounts for 80% of the state's energy production, and over 50,000 people are directly employed by the oil and gas industry. One in seven jobs in Oklahoma is directly or indirectly supported by the crude oil and natural gas industry because we rank fourth in the nation for natural gas production and fifth in crude oil. Oklahoma received $1.3 billion in taxes directly from oil and gas production in 2009. In fact, oil and gas accounts for 25% of all taxes paid in the state.

These reserves mean domestic energy production and jobs, but now I have bad news. Another reason hydraulic fracturing has received increasing attention is because some Members of Congress want to subject it to new federal regulation, specifically the Safe Drinking Water Act, by claiming the practice endangers drinking water sources. This Congress, House members from Colorado and New York and Senate members from Pennsylvania and New York have introduced legislation imposing new federal regulation. Some of these members claim the allowing the practice is a loophole in federal law and that it is free from regulation. Last Congress at a House hearing, the current chairman of the House Energy and Commerce Committee claimed about hydraulic fracturing, "Oil and gas companies can pump hundreds of thousands of gallons of fluid — containing any number of toxic chemicals — into sources of drinking water with little or no accountability. Mr. President, that is completely false. In fact, nothing could be further from the truth, and I will demonstrate why. As former chairman and current ranking member of the Senate Environment and Public Works Committee, I have a long history of working on environmental and energy issues, and I can tell you new federal regulation of hydraulic fracturing would be a disaster.

The Safe Drinking Water Act was enacted in 1974 to establish drinking water standards and to control permanent disposal of waste by underground injection. By 1974, hydraulic fracturing had been in commercial operation for 25 years. This law was not designed nor intended to regulate the practice and the legislative history demonstrates that. The 1974 conference report states that none of the Act's underground injection provisions are to "needlessly interfere with oil or gas production." In fact, the 1980 amendments were probably the most significant until 2005 for clarifying the Act's application to oil and gas operations. The 1980 amendments created a new section 1425 to allow States to regulate underground injection from two types of oil and gas operations known as injection wells and disposal wells. However, given the chance to additionally address hydraulic fracturing, Congress declined. In the 2005 Energy Bill, Congress specifically clarified the Act is not intended to apply to hydraulic fracturing.

There are a myriad of federal statutes such as federal workplace rules, the Emergency Planning and Community Right to Know Act, the Toxic Substances Control Act, among others which regulate the storage and disposal, transporting, handling, and reporting of chemical use. Federal law requires disclosure of any release to the environment. Those statutes overlay state laws which also include extensive rules permitting oil and gas drilling and production. No state has been required to regulate hydraulic fracturing under the Safe Drinking Water Act with the exception of Alabama. The 11th Circuit issued an opinion in 1997 ignoring legislative history, oil and gas industry practices, and the clear text of the law, finding that Alabama should subject hydraulic fracturing in coal bed methane production to the Safe Drinking Water Act. However, hydraulic fracturing has not been subject to the Safe Drinking Water Act and is not correctly governed by the Act.

I am not alone in this opinion. President Obama's Energy Czar agrees with me. In 1995, as EPA Administrator, Carol Browner wrote in response to litigation that federal regulation is not necessary for hydraulic fracturing. She

correctly made the point that the practice was closely regulated by the states and, “EPA is not legally required to regulate hydraulic fracturing.” Most importantly, she further wrote that there was “no evidence that hydraulic fracturing resulted in any drinking water contamination” in the litigation involved.

Following the 1997 litigation in Alabama, I introduced legislation in 1999 with Senator Sessions and again in 2005 clarifying that hydraulic fracturing is not correctly regulated by this Act. In March 2002, the Senate spoke on this issue voting 78-21 on Senator Bingaman’s amendment, which I cosponsored, to study “the known and potential effects on underground drinking water sources of hydraulic fracturing.” That amendment ultimately did not become law, but in June 2004, the U.S. Environmental Protection Agency gave us the answer. It issued its lengthy report, which EPA began in late 2000, to determine if underground drinking water sources have been or are endangered from the use of hydraulic fracturing from coal bed methane production. EPA’s study of coal bed methane wells is particularly important because CBM wells are shallower meaning they would be closer to underground drinking water sources than other conventional or unconventional oil and gas well production. In fact, most “fracked” wells are hundreds or thousands of feet deep and well below drinking water sources. In this 2004 report, EPA conducted a review of all 11 major coal basins across the country and of 200 peer-reviewed publications. It reviewed 105 comments in the Federal Register. It requested information from 500 local and county agencies in states where CBM production occurs. It interviewed 50 local and state government agencies, industry representatives, and 40 citizens groups which alleged drinking water contamination from hydraulic fracturing. After completing this 4 year study, EPA concluded that, “the injection of hydraulic fracturing fluids into CBM wells poses little or no threat to underground sources of drinking water and does not justify additional study at this time.” EPA had planned to study contamination in a two phase study. Following these findings EPA did not even initiate the second phase of study.

In fact, in hydraulic fracturing’s 60 year history there has not been a single documented case of contamination.

As early as 1998, the Ground Water Protection Council conducted the first survey of the 25 states in which hydraulic fracturing for oil and natural gas production occurs for any complaints of groundwater contamination. The survey reported no instance of contamination from the practice. In 2002, the IOGCC representing 37 states conducted its own survey making the same findings. On June 12, the Oklahoma Corporation Commission addressed the issue of hydraulic fracturing again in correspondence with the IOGCC. The Corporation Commission wrote that it has been regulating oil and gas drilling and production for 90 years which has included tens of thousands of hydraulic fracturing operations over the past 60 years. The Commission wrote, “You asked whether there has been a verified instance of harm to groundwater in our state from the practice of hydraulic fracturing. The answer is no.”

States have been regulating oil and gas exploration and production for years. The Department of Energy and Ground Water Protection Council released a report in May titled, “State Oil and Natural Gas Regulations Designed to Protect Water Resources” where it described state regulations which require multiple barriers, casings, and cement reinforcement to protect against groundwater contamination. Fracturing involves removing thousands of gallons of water from the well which includes the fracturing fluids. Once these fluids are returned to the surface, regulations require they are treated, stored, and isolated from ground water zones. All these processes together work to significantly reduce risk to groundwater. This DOE and GWPC report ultimately concluded that federal regulations on fracturing would be “costly, duplicative of state regulations, and ultimately ineffective because such regulations would be too far removed from field operations.” Equally interesting, the report also concluded that the “only alternative to fracturing in reservoirs with low permeability such as shale would be to simply have to drill more wells.” These findings mirror the EPA’s 2004 report of hydraulic fracturing in CMB production. EPA noted that fracturing involves the removal of thousands of gallons of ground water. This removal includes the fracturing fluids and the possibility that fracturing chemicals effect groundwater. EPA also concluded that the low permeability of rock where hydraulic fracturing is used acts as a barrier to any remnant of fracturing chemicals moving out of the rock formation. None of these findings are new. In the 1980 amendments to the Safe Drinking Water Act, Congress acknowledged, “32 states that regulate underground injection related to production of oil and gas believe they have programs already in place to meet the requirements of this Act….States should be able to continue these programs unencumbered with additional federal requirements.”

We need to recognize that in considering additional federal regulation, we are experimenting with disaster. In January, the DOE released a report by Advanced Resources International which evaluated the economic and energy supply effects on oil and gas exploration and production under a series of new regulatory scenarios. One scenario evaluated effects from new federal regulation of hydraulic fracturing. According to the report, the largest cost for new unconventional gas wells would be from any new federal regulations on hydraulic fracturing. The report concluded these costs would amount to an additional $100,000 per well in the first year alone.

Among other factors, this report concludes that increasing federal regulations on hydraulic fracturing would reduce unconventional gas production by 50% over the next 25 years. Even more recently, the American Petroleum Institute released a report in June which only evaluated the effect of increased federal regulations and the effect of eliminating the practice of hydraulic fracturing altogether. This report determined that through duplicative federal regulations, the number of new oil and natural gas wells drilled would drop by 20% in the next five years. Should hydraulic fracturing be eliminated, new oil and gas wells would drop by 79% resulting in 45% less domestic natural gas production and 17% less domestic oil production.

It would be a disaster to impose new federal regulation. And again, I'm not alone in this opinion. Colorado Governor Bill Ritter recognizes the value of the practice. In the Denver Business Journal, the Governor characterized the bills pending in Congress imposing new federal regulation on hydraulic fracturing as "a new and potentially intrusive regulatory program." A Colorado newspaper recently reported a number of Colorado counties have adopted resolutions against the pending federal bills. States are passing their own resolutions opposing new federal regulation of hydraulic fracturing. For example in March, the North Dakota legislature passed a concurrent resolution to not subject hydraulic fracturing to needless and new federal regulation. North Dakota is home to the Bakken Shale where oil wells are reported to be producing thousands of barrels a day.

Mr. President, America has tremendous natural gas reserves. The exploration and production of these reserves using hydraulic fracturing have been regulated by states and conducted safely for 60 years. The oil and gas industry contributes billions in state and federal revenues each year and billions in salaries and royalty payments. The oil and gas industry employs 6 million people in the U.S. When the U.S. is approaching 10% unemployment and when we want energy security and independence from foreign energy, why would we want to go out of our way to restrict an environmentally and economically sound means to extract our own resources – a means that has demonstrated effectiveness and safety for 60 years? This session I expect Congress to consider energy legislation. We must not impose new burdens on our exploration and production. Instead, we must open up supplies and use our domestic resources in new and innovative ways to create jobs and a new energy economy.

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