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U.S. House of Representatives
Committee on Natural Resources
Washington, DC 20515

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February 28, 2011

TODD YOUNG
CHIEF OF STAFF

The Honorable Ken Salazar
Secretary
Department of the Interior
1849 C Street, NW
Washington, DC 20240

Dear Secretary Salazar:

The extraction of natural gas from shale deposits and other unconventional sources holds great potential to enhance America's energy independence and reduce our reliance on more carbon-intensive sources of energy. To tap into these natural gas reserves, oil and gas companies have been using a technique known as hydraulic fracturing, which involves forcing fluids and propping agents into wells at extremely high pressures to fracture rocks and release gas trapped deep underground. More recently, this same drilling technique has been used to open up vast fields of previously out-of-reach oil deposits in the United States¹.

With increasing use of this technology applied to more wells in more parts of the country, including on federal lands, there has been an increase in public concern about the potential effects of hydraulic fracturing on water quality and quantity. Many of the concerns have centered on the chemical composition of fracturing fluids, the location of drilling in or near underground sources of drinking water, and the potential health impacts resulting from these activities.²

Just two days ago, The New York Times released results of an investigation³ that suggests that millions of gallons of drilling wastewater contaminated with radioactive radium, at levels that far exceed the safe drinking water standards, has been dumped into rivers and other U.S. waterways. This is of particular concern since these same waterways feed into drinking water intake facilities and ingestion of radioactive radium increases the risk of developing bone cancer, lymphoma and other chronic diseases. The New York Times article also reported that natural gas from fracking operations has seeped into underground drinking water supplies in at

¹ http://news.yahoo.com/s/ap/20110209/ap_on_re_us/us_shale_oil

² See for example:

<http://www.nytimes.com/gwire/2010/03/23/23greenwire-oilfield-company-failed-to-report-fracking-vio-34193.html>

and http://switchboard.nrdc.org/blogs/amall/incidents_where_hydraulic_frac.html and

<http://www.npr.org/templates/story/story.php?storyId=104565793&ps=rs>

³ Regulation Lax as Gas Wells' Tainted Water Hits River By Ian Urbina, Published: February 26, 2011

see: <http://www.nytimes.com/2011/02/27/us/27gas.html?hp>

least five states, including Colorado, Ohio, Pennsylvania, Texas and West Virginia. In addition, The New York Times reported that air pollution from natural gas drilling operations is a growing threat, and that in one example, Wyoming has failed to meet federal air quality standards due to fumes containing benzene and toluene from roughly 27,000 wells, most of which were reportedly drilled in the last five years.

Furthermore, at the end of January, Ranking Member Markey, along with other Members of the Energy and Commerce Committee, released the results of an investigation into hydraulic fracturing which concluded that oil and gas service companies have injected over 32 million gallons of diesel fuel into gas wells in 19 states between 2005 and 2009, despite the fact that this practice is an apparent violation of the Safe Drinking Water Act⁴. Because different entities are responsible for different aspects of the well drilling and extraction activities, the service companies questioned did not even know whether this use of diesel fluid occurred in or near underground sources of drinking water. Following the release of the results of this investigation, Rep. Holt and Rep. Maurice Hinchey wrote the Delaware River Basin Commission (DRBC) urging it to suspend its current natural gas development rulemaking process in light of these disclosures.

As industry expands the use of this technology to tap into more oil and gas reserves, we must ensure that the process of hydraulic fracturing is performed in a safe and environmentally sound manner. Extracting natural gas on public lands should not result in a threat to public health. As Ranking Members of the Natural Resources Committee and its Energy and Mineral Resources Subcommittee, we would like to find out more information about hydraulic fracturing occurring on federal lands. Accordingly, we request that you respond to the following questions and provide supporting documents and other relevant information by close of business on Friday, March 25, 2011.

1. How many acres of land does the Department of the Interior (DOI) manage for the purposes of fossil fuel development? What percentage of this land is currently used for natural gas development? What percentage is currently used for oil production? How much of this land could be expected to be tapped for oil and gas development in the next 10 years?
2. What percentage of U.S. undiscovered, technically recoverable oil and gas resources are located on federal lands? How much oil and gas is estimated to be present in these areas? Based on current projections of natural gas prices, how much of this gas is believed to be economically recoverable? Please provide documentation that indicates the location of deposits on federal lands, the type of gas or oil formation, the quantity of estimated oil or gas, and whether the deposit is located in, near or below an underground source of drinking water (as defined in the Safe Drinking Water Act). Also, please indicate whether the locations of these deposits are in protected or other areas that are unavailable for energy development by law or regulation.

⁴ <http://democrats.energycommerce.house.gov/index.php?q=news/waxman-markey-and-degette-investigation-finds-continued-use-of-diesel-in-hydraulic-fracturing-f>

3. Which oil and gas production companies currently have leases to drill on public lands? Out of these companies, which, if any, have been cited for safety or drilling violations on federal lands? Please provide a list that contains the leaseholders in each State, and whether each leaseholder has been cited by the Department for any such violations (and if so, the nature of the violation and the remedy therefore) in the past 10 years.
4. Of the wells located on public lands that are currently used for natural gas development, how many have been hydraulically fractured? Of the wells located on public lands currently used for oil development, how many have been hydraulically fractured? Please provide data indicating for each leased area in which hydraulic fracturing occurred whether fracturing occurred in, near or below an underground source of drinking water (as defined in the Safe Drinking Water Act).
5. Please describe the type of information that an oil or gas producer must provide to DOI prior to the approval of a federal land lease for oil or gas development. As a part of the leasing and permitting process, does DOI perform an environmental analysis for each individual drilling plan? If yes, please describe what factors are considered and what process is followed during the environmental analysis. If not, why not?
6. How have environmental impact statements (EIS's) or environmental assessments (EA's) for hydraulic fracturing on public lands analyzed the potential environmental and public health risks associated with hydraulic fracturing? Have such EIS's or EA's evaluated the threat of radioactive or toxic materials being released into waterways that serve as sources of drinking water? Have they evaluated the threat associated with the release of toxics such as benzene or toluene into the air? In light of the revelations in The New York Times article⁵, do you believe such EIS's and EA's need to be updated or revised?
7. It is our understanding that DOI is considering mandating disclosure of chemicals used in fracturing fluids. We commend the DOI for considering this important step in ensuring public confidence in this technique, since many concerns about hydraulic fracturing center on the potential public health impacts of fracturing fluids. Recently, we learned that several production companies have used diesel fluid as a part of their fracturing process despite absence of the appropriate permits. Is DOI aware of any instances in which diesel fluid was used on federal lands as a part of a hydraulic fracturing operation? If yes, please provide documentation about where the well was located and whether the well was in, near or below an underground source of drinking water (as defined in the Safe Drinking Water Act). Has DOI ever been requested to issue or issued a permit for the use of diesel in hydraulic fracturing fluids? If yes, please provide supporting documentation for each such permit.
8. Please provide copies of all documents (including reports, emails, correspondence, memos, phone or meeting minutes or other materials, and including materials in the possession of all Departmental Bureaus and Offices) relating to any allegations submitted

⁵ Regulation Lax as Gas Wells' Tainted Water Hits River By Ian Urbina, Published: February 26, 2011
see: <http://www.nytimes.com/2011/02/27/us/27gas.html?hp>

to or other information in the possession of the Department that the products used in hydraulic fracturing fluids on public lands have caused harm to human health or the environment.

9. In the wake of the Deepwater Horizon catastrophe, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) launched aggressive and much needed reforms to enhance the safety of offshore oil and gas drilling operations. The new safety rules address the appropriate use of drilling fluids, well bore casing and cementing, well control equipment and procedures, and puts in place number of environmental safeguards. Do similar prescriptive and protective regulations exist for onshore drilling for oil and natural gas extraction on public lands, including extraction using hydraulic fracturing? Does DOI have plans to revise existing onshore regulations to provide for more rigorous minimum requirements for well design and construction, as well as for enhanced oversight and enforcement of these activities? If so, please provide a detailed schedule. If not, why not, and when were these regulations last revised?
10. The New York Times recently reported⁶ that in Pennsylvania, response plans for drilling activities, which detail how a company would respond to an accident or spill, appear to be in violation of the law. In fact, in one well in Pennsylvania, Cabot Oil and Gas filed a spill response plan that states that a spill would not enter waterways, even though it subsequently experienced three spills, some of which *did* enter waterways⁷. Even after these three spills, the company filed a revised spill response plan that *still* maintained that spills into nearby surface water are not likely⁸. As we saw during the Deepwater Horizon incident, when companies fail to anticipate or prepare for a realistic worst case accident, there can be devastating impacts on the environment and the economy. Does DOI review spill response plans for every drilling permit on federal lands? If not, why not? Has DOI ever found a spill response to be inadequate for the type of drilling project? If so, for each such instance, please provide documentation that details the problems. How does DOI evaluate response plans to ensure that companies are taking into consideration site specific risks such as the possibility of a spill to enter a waterway?
11. The New York Times also reported⁹ that certain drilling sites in Wyoming failed to meet air quality standards due in part to emissions from drilling activities that contribute to higher ozone levels. Does the DOI monitor or analyze air pollution impacts associated with natural gas drilling activities on federal lands? If yes, please provide all documents that are related this analysis. If not, why not? Does DOI monitor for fugitive methane emissions from hydraulic fracturing activities? If yes, please provide relevant documentation. If not, why not?

⁶ Regulation Lax as Gas Wells' Tainted Water Hits River By Ian Urbina, Published: February 26, 2011
see: <http://www.nytimes.com/2011/02/27/us/27gas.html?hp>

⁷ <http://www.nytimes.com/interactive/2011/02/27/us/natural-gas-documents-1.html#document/p789/a9966>

⁸ <http://www.nytimes.com/interactive/2011/02/27/us/natural-gas-documents-1.html#document/p879/a9986>

⁹ Regulation Lax as Gas Wells' Tainted Water Hits River By Ian Urbina, Published: February 26, 2011
see: <http://www.nytimes.com/2011/02/27/us/27gas.html?hp>

12. The proper handling and disposal of used hydraulic fracturing fluids and wastewater is also important for minimizing threats to water supplies. Is DOI contemplating the development of rules or best management practices for the handling, disposal and recycling of hydraulic fracturing fluids and wastewater? If so, please provide a detailed schedule and description of activities DOI is undertaking in this area. If not, why not? What actions has DOI taken to ensure that radioactive wastewater is not discharged into U.S. waterways? Please provide documents related to monitoring activities or any reports of discharges of radium or any other toxic substance typically found in wastewater from hydraulic fracturing operations.
13. Please provide copies of all documents (including reports, emails, correspondence, memos, phone or meeting minutes or other materials, and including materials in the possession of all Departmental Bureaus and Offices) relating to:
 - a. The presence of naturally occurring radioactive materials in drilling wastes;
 - b. Earthquakes or other seismic events caused or thought to be caused by oil or gas drilling activities, including hydraulic fracturing;
 - c. The migration of natural gas or the substances used in hydraulic fracturing beyond the shale formations that are the target of the fracturing activities.
 - d. Correspondence between the Department and representatives of the natural gas industry (since January 1, 2010).

Thank you for your assistance and cooperation in responding to this request. Should you have any questions, please have your staff contact Dr. Michal Freedhoff of the Committee's Democratic Staff at 202-225-6065; Dr. Avenel Joseph, of Rep. Markey's staff at 202-225-2836 or Andrea Burgess of Rep. Holt's staff at 202-225-5801.

Sincerely,



Edward J. Markey
Ranking Member
Natural Resources Committee



Rush D. Holt
Ranking Member
Subcommittee on Energy and Mineral
Resources

cc: The Honorable Doc Hastings
Chairman
Natural Resources Committee

The Honorable Doug Lamborn
Chairman
Subcommittee on Energy and Mineral Resources
Natural Resources Committee