Testimony before the United States Senate, Environment and Public Works Committee, Clean Air and Nuclear Safety Subcommittee

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Good morning. Mister Chairman, members of the Committee, my name is Will Allison. I am the Director of the Colorado Air Pollution Control Division. Thank you for this opportunity to provide our perspective on the responsible development and regulation of oil and gas resources. I am here today to offer comments supportive of EPA's recently finalized oil and gas rules, and to describe Colorado's extensive experience with oil and gas development and regulation.

Colorado has a long history of oil and gas development. Our first well was drilled in the 1860's. Development techniques have advanced greatly since then. Hydraulic fracturing of oil and gas wells in Colorado began in the 1970's, and continues to evolve and improve. Hydraulic fracturing is now standard practice for virtually all oil and gas wells in Colorado, and across much of the country. As of 2009, Colorado ranked fifth in natural gas production and tenth in oil production. Today, Colorado has over 45,000 active oil and gas wells. We foresee continued and steady growth in this industry sector. For example, thousands of more wells are planned in the Niobrara formation, which extends from El Paso County south of Denver, north to the Wyoming border.

In addition to abundant oil and gas resources, Colorado also has a thriving recreational, resort and tourist economy. Colorado's clean air and clear streams, wildlife, majestic Rocky Mountains, and the parks and wilderness areas are an essential part of our economy and our identity.

Oil and gas are an important source of domestic energy for our state and our nation. The industry provides good-paying jobs and needed tax revenues. That is good news. Our job is to help ensure oil and gas development does not result in bad news for public health and the environment, and to help strike a responsible balance between environmental protection and energy development.

Colorado has been at the forefront of regulating air emissions from oil and gas operations for many years, and has a comprehensive regulatory framework. Similar to other oil and gas producing states, Colorado provides multiple state agencies with different authorities to regulate industry operations. The Colorado Department of Public Health and Environment and the Colorado Department of Natural Resources maintain separate but complementary oversight of industry operations. Colorado's Air Quality Control Commission has regulations to address emissions from tanks, engines, compressors, and associated equipment. Colorado's Oil and Gas Conservation Commission has regulations pertaining to such issues as well completions, odors, noise, and drill rig setbacks. Many improvements to Colorado's oil and gas regulations were adopted in the 2007-2010

timeframe, and several of these regulations are reflected in EPA's new rules.

Colorado's regulatory agencies regularly confer on matters within their areas of expertise, including natural resources, air quality, water quality, and wildlife issues. Colorado regularly reviews and seeks enhancements to its oil and gas programs. Recently, this included a favorable third-party review of Colorado's oil and gas rules by a national oversight group, adoption of the country's most comprehensive fracking fluid disclosure rules, and creation of a state task force to discuss state and local jurisdictional issues in the oil and gas arena. The oil and gas industry continues to thrive in Colorado under our comprehensive regulatory programs.

EPA issued its oil and gas rules in April 2012. The rules will reduce emissions of such harmful pollutants as volatile organic compounds, sulfur dioxide, and air toxics such as benzene. The rules also have the co-benefit of reducing greenhouse gases such as methane. Because EPA's new rules are issued under the Clean Air Act, this will require some changes in our state agency responsibilities.

EPA's rules are largely based and build upon rules that have been successfully implemented in several oil and gas producing states, including Colorado. The rules promote proven technology and best practices that are already being used by many Colorado operators. Colorado supports EPA's efforts to provide cost-effective emission reductions for the nation's oil and gas industry. Colorado has consistently supported the responsible and balanced development of natural resources. The federal rules will provide a level playing field and certainty to industry nationwide. States will retain the right to be more stringent than EPA's rules, if they desire.

One of the central components of EPA's rules is "green" or "reduced emission" completions of hydraulically fractured wells. Green completions can significantly reduce emission of pollutants such as volatile organic compounds and hazardous air pollutants. When a company completes a fractured well without best operational practices, the water, chemicals, sand, and related air emissions are vented to the atmosphere. This can go on for several days. Green completions capture this material, much of which can be reused. Green completions also significantly minimize emissions to the environment.

The EPA has concluded that in most instances green completions are highly cost effective. We agree. Colorado already has rules requiring green completions where technically and economically feasible. Many operators routinely utilize green completions on all of their wells in Colorado.

Many Colorado operators also already use other practices set forth in EPA's new rules. This includes the use "low" or "no bleed" valves, which emit less pollution than "high" bleed valves. Switching the valves out is as simple as changing a spark plug. We have found that the controls in EPA's rules are cost effective, and that industry can quickly recoup its costs, as companies capture and then sell natural gas that would otherwise be vented to the atmosphere.

The tremendous growth of oil and gas industry in Colorado and other states presents tremendous opportunities and challenges. EPA's rules include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other industry sources of pollution that have not been regulated at the federal level. The rules are an important tool to complement the unprecedented success and growth of America's oil and gas industry. Tens of thousands of oil and gas wells already exist in individual states, and EPA estimates that nationally, approximately 11,000 more wells will be fractured annually. As thousands of additional wells are drilled, and associated infrastructure is built to service these wells, it is important to have cost effective emission controls in place to address the individual and cumulative impacts of these sources. For example, despite the growth of oil and gas emission sources in Colorado, over the past decade we have seen decreases in the levels of many organic pollutants associated with oil and gas operations, including ethane, propane, benzene and toluene.

As another example, many areas of the nation, including the Denver metropolitan area, are not currently meeting EPA's health-based ozone standard. Oil and gas operations are a significant source of VOC emissions, which in turn contribute to ozone formation. We estimate that almost 40% of anthropogenic VOC emissions in Colorado's ozone non-attainment area are related to oil and gas operations.

It can be challenging for businesses to come into or expand their operations within non-attainment areas. That is one reason why Colorado already has more stringent rules in our ozone non-attainment area, and several oil and gas companies already use practices that go beyond our existing rules. Sound and cost-effective oil and gas practices are thus important to our efforts to maintain and improve air quality, while supporting a rapidly growing industry sector.

With the growth of the oil and gas industry, it is important for state agencies and industry to work diligently to catch up and keep up with the growth. The oil and gas industry now accounts for approximately 50% of the air permit applications received in Colorado. Oil and gas applications have almost doubled in recent years and, as previously noted, we expect further growth. We have created a separate unit within our agency devoted exclusively to oil and gas permitting and compliance issues. Colorado has devoted considerable resources to understanding and regulating this industrial sector. Our agency received approximately 3,360 permit applications from oil and gas sources alone in 2010. These permits cover equipment such as wellheads, compressor stations, natural gas processing plants, wastewater treatment and disposal facilities, and natural gas storage facilities. Through the processing of these permits, the Division has developed extensive experience with oil and gas operations.

It will be important for states to have sufficient field personnel to assist with compliance with the new rules. This is particularly true as, in addition to the volume, drilling activity often occurs in remote areas with limited advance notice. Most oil and gas companies

work very hard at environmental compliance, and some go beyond applicable standards. Regulatory agencies must continue to work with industry to ensure widespread and regular compliance. EPA's rules will place additional responsibilities upon state agencies already operating under resource constraints. We support continued and adequate Congressional funding to ensure that EPA and the states can effectively implement these important regulations.

Hydraulic fracturing has been utilized for decades, but it is new in many parts of the country. Even where it is not new, it is now deployed commonly as part of natural gas development. While hydraulic fracturing and directional drillings result in a smaller environmental footprint at the well pad, the drill rigs can be onsite much longer, and the practices raise their own environmental challenges. We are increasingly hearing concerns about the potential impacts of oil and gas development on public health and the environment, including questions about emissions and odors. Comprehensive rules such as these are an important tool for addressing community concerns regarding the potential impacts of oil and gas operations.

Colorado believes that oil and gas activities are most effectively regulated at the state level. It is important that oil and gas development occur in an environmentally responsible manner, recognizing the unique geologic, atmospheric, and aquatic resources of each state. EPA's rules build on proven and cost-effective technologies that have already been implemented by several states. The rules provide a comprehensive baseline and framework for all states, particularly those jurisdictions where oil and gas activity may be relatively new. They also provide a standardized program for oil and gas exploration on federal lands, including Indian lands within state boundaries where the federal government may have primary jurisdiction.

In conclusion, Colorado supports EPA's rules and plans to incorporate the new rules into our air quality program. The rules are an important step forward in our efforts to provide clean air while promoting economic growth. We will continue to look for opportunities and take appropriate action to ensure that our regulatory programs are protective, cost-effective and efficient.

Thank you for the opportunity to speak with you today.