TESTIMONY OF
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U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
UNITED STATES HOUSE OF REPRESENTATIVES

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Thank you, Mr. Chairman and Members of the Committee. I am Benjamin H. Grumbles, EPA's Assistant Administrator for Water, and I appreciate the opportunity to testify before you today on EPA's programs and activities to protect public health and the environment, particularly as they relate to the oil and gas sector.

President Bush has charged EPA with accelerating the pace of environmental protection while maintaining our nation's economic competitiveness. EPA Administrator Johnson has focused his priorities on meeting this challenge. One priority is to ensure we make timely and informed permitting decisions and foster technological innovations to support the clean development of domestic energy resources, including oil, natural gas, nuclear, coal, wind, hydro, and solar.

Overview

Under several environmental statutes, the Agency reviews proposed oil and natural gas projects. We are experiencing a marked increase in those reviews. Changing technologies, coupled with the rising resource value, have increased exploration, extraction, production and processing of oil and gas, and include expansion into frontier areas.

As potential and realized projects move through the development phases, there are a myriad of associated environmental issues, transportation and infrastructure requirements, tribal responsibilities and regulatory requirements that are managed under EPA authorities.

We use every tool available to do our job. In partnership with States, Tribes, and other federal agencies, we implement the Clean Water Act; the Clean Air Act; the Marine Protection, Research and Sanctuaries Act; the Safe Drinking Water Act; the National Environmental Policy Act; the Emergency Preparedness and Community Right to Know Act; the Energy Policy Act of 2005 and numerous Executive Orders.

EPA actions range from issuing permits for wastewater discharges from oil exploration vessels in the offshore marine environment; to air, water and waste management permits for refineries in populated onshore areas. Permitting

actions may involve a single EPA program or a variety of permits under numerous state and federal statutory authorities. Major projects may involve land disturbance, loss of wildlife habitat, changes in water quality and quantity, potential air quality concerns and a variety of secondary and tertiary impacts including the need for significant new infrastructure to support proposed activities. Equally important, we also are responsible for compliance and enforcement of the laws and regulations that we implement. We work closely with the Department of Justice, States, and Tribes to assure compliance with the laws and to secure penalties from those found guilty of breaking the law.

EPA also recognizes that environmental protection strategies must evolve as the characteristics of U.S. industries and their operations change over time and that one-size-fits-all regulatory approaches do not always achieve superior environmental performance. Accordingly, through compliance assistance, the Sector Strategies Program and other efforts, EPA works with the regulated community to achieve performance improvement by addressing the unique issues and challenges of specific industries in a collaborative setting where the focus is on actual environmental results. Such programs aim to apply insights from listening and learning, foster innovation to identify new environmental solutions, and achieve results for a cleaner environment. The oil and gas sector, which includes the oil and gas extraction industry as well as petroleum refining, is one of our more recent collaborations established in 2007.

Effluent Guidelines for Pollutant Discharges

The Clean Water Act (CWA) directs EPA to establish national, technology-based regulations known as effluent guidelines to reduce pollutant discharges from categories of industry discharging directly to waters of the US. These effluent guidelines promulgated by EPA are implemented through National Pollutant Discharge Elimination System (NPDES) permits. EPA has promulgated effluent guidelines for 56 industrial categories covering approximately 48,000 permitted industrial facilities. For the oil and gas industry, we have promulgated effluent guidelines for oil and gas extraction which apply to facilities engaged in field exploration, drilling and well production in offshore, coastal, and onshore areas; and effluent guidelines for petroleum refining. These guidelines help control discharges of a variety of pollutants, including oil and grease, mercury, cadmium, ammonia, and chromium.

Coal Bed Methane Industry

On an annual basis, EPA reviews all previously promulgated effluent guidelines to determine whether they need to be revised, and every two years publishes a plan, after public notice and comment, that identifies any new or existing industrial categories selected for effluent guidelines rulemaking. In our 2006 Effluent Guidelines Plan published last December, we announced our plan to conduct a detailed study of the coal bed methane (CBM) industry to determine

whether to revise the effluent guidelines for the Oil and Gas Extraction category.

The CBM industry would potentially be a new subcategory of the oil and gas category and rules for this subcategory would constitute a revision to an existing effluent guideline. The coal bed methane industry sector is a relatively new but growing and important part of our Nation's domestic source of natural gas. In 2004, CBM accounted for about 10.4% of the total U.S. natural gas production, and the Department of Energy's Energy Information Administration (EIA) expects CBM production to remain an important source of domestic natural gas over the next few decades. Currently, permits for discharges to surface waters from CBM operations are issued by EPA and states based on best professional judgment and state water quality standards.

CBM extraction requires removing large amounts of water from underground coal seams before the methane in the coal seams can be released. The quantity and quality of water that is produced in association with CBM extraction varies from site to site, from coal seam to coal seam, and over the lifetime of a CBM well. The water produced by CBM extraction can sometimes be beneficially used in agriculture or in livestock operations, particularly in the Western U.S., but may also have certain impacts. One issue is the potential for too high a level of sodium and other dissolved inorganics in some produced waters, which may make the water unusable for agriculture or other purposes. In addition,

dewatering coalbed formations may also decrease water in irrigation wells in connected aquifers, which may render the irrigation wells unusable.

We are conducting a detailed study and review of the CBM industry in cooperation with the Departments of the Interior and Energy, which includes collecting technical, economic, and environmental data from a wide range of coal bed methane operations. Over the last several months, EPA experts have visited Alabama, West Virginia, Pennsylvania, Colorado, New Mexico, Wyoming and Montana to observe CBM operations and meet with a wide range of stakeholders, including industry, states, community groups, farmers, and ranchers. Information gathered from these site visits, along with other data collection, will help us determine next steps, including, ultimately whether to initiate a new national effluent guidelines rulemaking.

Hydraulic Fracturing of Coalbed Methane Reservoirs

In the late 1980s, CBM development was spurred by technological advances and tax incentives for alternative natural gas production. Hydraulic fracturing involves pumping fluid down a well at high pressure to fracture the rock and allow more gas production. Complaints about drinking water contamination near a CBM well in Alabama prompted a state and EPA investigation which found no evidence that CBM activity was connected to the contamination. Despite those findings, EPA was petitioned, and later successfully sued by the Legal Environmental

Assistance Foundation to require Alabama to regulate hydraulic fracturing of coalbeds under the Safe Drinking Water Act's (SDWA) Underground Injection Control Program.

In 2004, with technical assistance from the Department of Energy, U.S. Geological Survey and States, EPA completed a national report on coalbed methane entitled: Final Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs which concluded that, except in the cases where diesel fuel was used as an injection fluid, hydraulic fracturing posed little or no threat to underground sources of drinking water. Prior to releasing the report EPA signed a Memorandum of Agreement (MOA) with three major well-service companies to eliminate diesel fuel from their fracturing fluids on a voluntary basis. The three companies, which perform approximately 95 percent of the hydraulic fracturing projects in the US, have certified in written reports that they have converted to non-diesel fluids and are in full compliance with the MOA. The Energy Policy Act of 2005 specifically exempted hydraulic fracturing of coalbed methane reservoirs from regulation under the SDWA so long as diesel fuel was not injected into the wells. More broadly, in our 2004 review of incidents of drinking water contamination alleged to be associated with hydraulic fracturing, EPA found no confirmed cases that were linked to fracturing fluids injection into CBM wells or subsequent underground movement of fracturing fluids.

Stormwater Permitting

Section 323 of the Energy Policy Act of 2005 modified Section 502 of the CWA to clarify that the exclusion from the NPDES permit program for stormwater discharges includes "all field activities or operations associated with exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities." Consistent with this statutory change, EPA published a final rule on June 12, 2006 that exempts storm water discharges from construction activities at oil and gas sites from the requirement to obtain an NPDES permit where they meet the statutory conditions of the exemption. Because we understand the benefit of erosion and sediment control at construction sites, EPA encouraged operators of oil and gas field activities or operations to implement and maintain best management practices (BMPs) to minimize erosion and control sediment to protect surface water quality during storm events even though permit coverage is not required. EPA also emphasized that States could choose to regulate these activities through a non-NPDES permit program and that nothing in our regulations preempted such efforts. Environmental groups challenged this rule, with oral arguments heard in the Ninth Circuit this month.

Summary

Mr Chairman, EPA will continue to use its authorities in a timely and coordinated manner to meet the highest standards of environmental protection in the oil and gas sector. By working collaboratively with state, federal and tribal government partners and other stakeholders we can ensure the effects, direct and cumulative, will be identified, minimized and mitigated, wherever possible.

I would be happy to answer any questions you or your colleagues may have.