

CLEAN AIR ACT

The federal Clean Air Act (CAA)¹ was substantially modified in 1970 — and significantly amended again in 1977 and 1990 — in order help improve our nation’s air quality and to address increasing concerns regarding the declining quality of ambient (*i.e.*, outdoor) air. Smog, brown haze and various other forms of regional, industrial and automotive air pollution galvanized support for the adoption of a federal law that would improve air quality across the country.

The CAA is the primary federal statute for controlling air pollution in the United States. Both stationary sources of air pollution (*e.g.*, industrial factories, power plants, etc.) and mobile sources (*e.g.*, automobiles, trucks, etc.) are regulated under the Act. The requirements of the Act are implemented through several key regulatory programs. First, Congress directed the U.S. Environmental Protection Agency (EPA) to develop regulations to establish a set of regulatory standards for ambient air quality—the National Ambient Air Quality Standards (NAAQS). These standards specify the levels of particular pollutants in a given region which do not jeopardize public health and welfare. National Ambient Air Quality Standards have been established for a number of “conventional air pollutants,” including sulfur oxides, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead. Congress also specified that state governments would have the primary responsibility for attainment and maintenance of these national standards.

In addition to regulating conventional air pollutants, Congress also has established a regulatory program under the CAA aimed at controlling emissions of hazardous air pollutants or “air toxics.” As part of this program, Congress identified a list of 189 substances and compounds deemed to be “hazardous air pollutants” and directed EPA to implement appropriate emission standards and regulatory requirements for these pollutants. Under this program, EPA has issued various National Emission Standards for Hazardous Air Pollutants, or “NESHAPs,” which contain emission limitations, control techniques and other regulatory requirements that are applicable to various sources of hazardous air pollutant emissions. Some of EPA’s regulations under the NESHAP program apply to hazardous air pollutant emissions from particular industry sectors or industrial activities (*e.g.*, standards applicable to chemical manufacturing, coating operations at automobile manufacturing facilities or emissions from industrial process cooling towers), while other regulations apply to emissions of particular types of hazardous pollutants (*e.g.*, the standards for emissions of beryllium or mercury).

In Regulating Hazardous Air Pollutants, Congress Recognized the Unique Nature of Oil and Natural Gas Production Wells

At the time that it was establishing the current air toxics program in 1990, Congress considered carefully how these provisions should apply to the unique circumstances of oil and natural gas exploration and production activities. Given the varied types of industrial operations in the U.S., Congress chose to apply the air toxics requirements under the CAA only to “major sources” of air pollution, which it defined as stationary sources or groups of stationary sources located within a contiguous area and under common control that emit more than 10 tons per year of any hazardous air pollutant (or 25 tons per year of all hazardous pollutants). For typical manufacturing facilities, these provisions are intended to ensure that buildings that are

¹ 42 U.S.C. §§ 7401-7671q.

part of the same manufacturing facility or industrial complex will be considered together as a single source of air emissions because they are typically concentrated in a small area in an urban setting, present potential risks to the same neighboring residents and are subject to common ownership and control and therefore can be addressed efficiently through a coordinated set of emission control devices.

However, Congress recognized that oil and natural gas exploration and production facilities differ from manufacturing facilities and similar industrial operations in several key respects. First, while an oil and natural gas operator may have a number of active wells in an oil or gas field, these wells may be spread out over many square miles and each well site could have a different landowner. As Congress noted, these oil and natural gas operations are typically “located in remote areas, with wells and equipment widely dispersed geographically, rather than concentrated in a single area”² as would be the case with a manufacturing facility. Moreover, Congress recognized that many of these wells have low emissions of air toxics and therefore present minimal risk to human health even for those few people who may live in the general vicinity of a well.

At the same time, Congress was well aware that “oil and natural gas production provides a crucial national security service to our Nation without posing a threat to our national health through the very low level of emissions which result from oil and natural gas exploration and production.”³ In light of these factors, Congress reasonably found that “[t]o aggregate [these well sites] and to treat them in the same way we would treat urban point sources, for example, simply is not necessary from the point of view of public health and we put an impossible burden both in terms of cost and in terms of regulation on many of these wells.”⁴ Accordingly, Congress specifically provided in establishing this air toxics regulatory program under section 112 of the CAA that emissions from oil and natural gas exploration and production wells are not to be aggregated or lumped together to determine whether these wells qualify as “major sources” of air toxics that would automatically be subject to the requirements applicable to these types of pollutants.⁵

EPA Has Nevertheless Established Appropriate Air Controls for Oil and Natural Gas Well Sites

In spite of the fundamental differences between oil and natural gas well sites and conventional industrial facilities, Congress nevertheless did not ignore the need to control emissions of hazardous air pollutants from oil and natural gas production facilities. In fact, in addition to directing EPA to regulate emissions of hazardous air pollutants from “major sources,” Congress also gave the Agency the authority to regulate emissions of hazardous air pollutants from stationary sources that do not emit air toxics in sufficient quantities to qualify as “major sources.” These lesser sources of emissions are known as “area sources” and Congress in 1990 specified that EPA was to take steps to control emissions from area sources representing 90 percent of the emissions of those hazardous air pollutants presenting the greatest threat to public health in the largest number of urban areas. As part of this program, Congress specifically provided that emissions from oil and natural gas production wells could be aggregated together and regulated as an “area source” under certain circumstances if EPA found that the emissions of

² H. R. Rep. No. 101-490, Part 1 at 338 (1990).

³ S. Prt. 103-38, *A Legislative History of the Clean Air Act Amendments of 1990* at 5735 (Nov. 1993) (statement of Sen. Boren).

⁴ *Id.* at 5736.

⁵ See Section 112(n)(4) of the CAA, 42 U.S.C. § 7412(n)(4).

air toxics from these production wells presented more than a negligible risk to human health. Thus, Congress took steps to address the most significant threats to human health from air toxics emitted by all facilities, including oil and natural gas exploration and production facilities.

Consistent with this authority, EPA has already taken specific steps to regulate the principal source of hazardous air pollutant emissions from oil and natural gas well sites, *i.e.*, triethylene glycol (TEG) dehydration units. (These TEG dehydration units are used to remove excess water vapor from natural gas before it enters transmission pipelines.) EPA has imposed regulatory requirements on these dehydration units at oil and natural gas well sites, especially when they are located in more urbanized areas where there is a greater possibility of people being exposed to the emissions from these units. In these areas emissions from TEG dehydration units must be vented to an appropriate control device that will ensure that any hazardous air pollutants are reduced to an acceptable level, make process changes to ensure an equivalent reduction in emissions of hazardous air pollutants or demonstrate that no controls are necessary in a particular case. In addition, EPA has taken steps to regulate other potential sources of hazardous air pollutants at oil and natural gas well sites such as certain types of engines.

States Also Have Adequate Authorities to Control These Emissions if Necessary

Moreover, Congress's decision to limit the circumstances under which emissions from widely scattered well sites can be aggregated together for purposes of CAA regulation does not mean that states cannot choose to exercise their own independent authority to regulate emissions of air toxics from oil and natural gas production wells. Regardless of the federal provisions, the states nevertheless still retain the authority to apply more stringent regulations to sources of air emissions if they are concerned that emissions present risks to human health in particular cases. States likewise retain the authority to address certain emissions from well sites as a part of regulations to address nonattainment with NAAQS. In fact, states are generally in a better position than EPA to address issues related to air emissions that may be unique to specific areas of the country.

A number of states have carefully considered the need to exercise their authority to regulate emissions of hazardous air pollutants from oil and natural gas well sites. For example, the Colorado Oil and natural gas Conservation Commission (COGCC) has recently adopted regulations imposing requirements regarding the control of volatile organic compounds (VOCs) from certain equipment and areas associated with oil and natural gas production such as condensate tanks, crude oil and produced water tanks, TEG dehydration units and even pits used to store produced water and other fluids. The recent COGCC rules impose requirements to control VOC emissions from these sources if the equipment or pits are located in specified areas of the state and if they are within a 1/4 mile of a residence, educational facility, hospital, nursing home, or other place where people assemble such as a playground or church. Thus, while emissions from oil and natural gas wells generally do not present any risk to human health, states still retain and have exercised the authority to address any issues that may arise in appropriate cases.

At the same time, a number of western states are actively assessing air emissions from oil and natural gas well sites and considering the need for further steps to address these emissions. For example, state officials, EPA, industry and other interested stakeholders have prepared inventories of emissions of air toxics and other pollutants from oil and natural gas production activities in the western states and are currently exploring issues raised by these emissions on a regional level through the Western Regional Air Partnership established by the Western Governors Association.

Congress Has Also Taken Appropriate Steps to Address Hydrogen Sulfide Emissions From Oil and Natural Gas Production

While creating the air toxics program in 1990, Congress also considered how to address the emissions of hydrogen sulfide from oil and natural gas wells in light of concerns that were raised about these emissions during congressional hearings. After closely reviewing this issue, Congress eventually determined that there was a minimal risk to human health and the environment associated with routine emissions of hydrogen sulfide from oil and natural gas wells and that this situation did not warrant listing hydrogen sulfide as a hazardous air pollutant under the CAA.⁶ However, Congress also concluded at that time that accidental releases of hydrogen sulfide could present a more significant issue and that hydrogen sulfide should therefore be regulated under the key risk management provisions of the CAA, which establish a program specifically designed to address the potential for accidental, large-scale releases of air toxics from various facilities.

At the same time, Congress required EPA to undertake a further study of the potential hazards to human health and the environment resulting from hydrogen sulfide emissions associated with oil and natural gas production.⁷ EPA completed its report and submitted it to Congress in October 1993. Based on its extensive review of the issue, EPA concluded that “there appears to be no evidence that a significant threat to public health or the environment exists from routine emissions [of hydrogen sulfide] from . . . oil and natural gas wells.”⁸ Consistent with these findings, EPA continues to regulate accidental releases of hydrogen sulfide as part of its overall risk management provisions under the CAA, but still leaves the regulation of routine emissions of hydrogen sulfide from oil and natural gas wells to the states.

Conclusion

In enacting the CAA, Congress determined that it would not be in the national interest to impede the production of critical oil and natural gas supplies by imposing unnecessary regulatory burdens on operators of these wells. For example, in considering the imposition of hazardous air pollutant controls, Congress recognized that oil and natural gas production facilities are different in several key respects from the types of manufacturing facilities located in urban environments that Congress viewed as the principal source of risk from these pollutants. Given these circumstances, Congress reasonably decided that different treatment of oil and natural gas production wells was appropriate in light of their scattered nature, their location in rural areas, and the minimal risk posed by emissions of air toxics from these wells.

At the same time, Congress left both EPA and the states with adequate authority to regulate specific risks posed by emissions of air toxics or NAAQS nonattainment from oil and natural gas well sites and both EPA and the states have exercised that authority. Thus, Congress’s approach to the regulation of emissions of air toxics from oil and natural gas well sites has not resulted in any significant risk to human health and remains a very effective approach.

⁶ Due to a clerical error hydrogen sulfide was originally included on the list of hazardous air pollutants in Section 112(b) of the CAA, but the clerical error was subsequently corrected through a joint resolution of Congress.

⁷ 42 U.S.C. § 7412(n)(5).

⁸ U.S. Environmental Protection Agency, *Report to Congress on Hydrogen Sulfide Air Emissions Associated With the Extraction of Oil and Natural Gas* (Oct. 1993), at iv.

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CLEAN WATER ACT

Congress passed the Federal Water Pollution Control Act Amendments of 1972 to address pollution of the nation's rivers, lakes, streams and ocean waters, with the ultimate goal of eliminating all discharges of pollutants into those waters.¹ Commonly referred to as the federal Clean Water Act (CWA), this federal water pollution law is aimed at achieving the national goal of making our nation's waters safe for swimming and fishing. To achieve these objectives, the CWA regulates the discharges of pollutants into the "waters of the United States" from municipal, industrial and other sources (*e.g.*, persons filling wetlands or concentrated animal feeding operations such as feedlots). The Act also includes provisions that are designed to prevent spills of oil and hazardous substances from entering and contaminating national waterways and that assign liability for cleaning up spills that do occur.

As a key part of this overall framework, the CWA authorized the implementation of the National Pollutant Discharge Elimination System (NPDES) program, which established a system for the issuance of permits to control discharges of pollutants into the navigable waters and their tributaries from wastewater treatment plants, industrial facilities and other "point sources." These permits establish limits on the amounts of pollutants that a facility may have in the wastewater it discharges to a stream, river, lake or other regulated surface water and set forth permit conditions that require monitoring of discharges and reporting to the appropriate permitting authority. The authority to issue these NPDES permits has largely been delegated to the states, most of which have developed their own wastewater discharge permitting programs.

At the same time, the CWA established a system for addressing spills of oil and hazardous substances that is largely implemented by the federal government through the U.S. Environmental Protection Agency (EPA) and other agencies such as the U.S. Coast Guard. The CWA prohibits the discharge of harmful quantities of oil or hazardous substances into or on U.S. surface waters or adjoining shorelines and imposes liability for any spill that contaminates these surface waters on the owner and operator of the vessel or on-shore facility that was the source of the spill. The Act also requires that the owners and operators of vessels and facilities from which oil or hazardous substances could be spilled in harmful quantities prepare plans — known as Spill Prevention, Control and Countermeasure (SPCC) Plans — for preventing these types of spills and outlining measures that are to be taken if a spill does occur.

Oil and natural gas exploration and production operations are subject to regulation under the Clean Water Act in various ways. Among other things, any discharges of wastewaters such as produced waters from well sites to navigable waters or their tributaries are fully subject to the NPDES permit requirements under the CWA. In addition, stormwater runoff from a well site that contains pollutants is subject to the same permitting requirements that are imposed on stormwater discharges from various industrial facilities under the CWA. Moreover, oil and natural gas exploration and production facilities are fully subject to the spill requirements of the CWA, including the need to prepare SPCC plans to minimize any potential for spills that could harm nearby waters.

¹ 33 U.S.C. §§ 1251-1387.

The Exemption from Stormwater Permitting Requirements for Oil and Natural Gas Exploration Is Quite Limited

In adopting the CWA, Congress has at various times considered how the provisions of the Act should apply to oil and natural gas exploration and production activities in light of the unique circumstances of well sites so as not to unnecessarily impede vital energy production. For example, in fashioning the scope of the stormwater permit program included in the CWA in 1987, Congress specifically considered how these new permitting requirements should specifically apply to stormwater runoff from oil and natural gas exploration and production facilities.² Following its review Congress determined that it was appropriate to provide a limited exemption from stormwater permitting requirements for oil and natural gas exploration and production sites because of their unique nature. This exemption applies only in those specific situations where the stormwater runoff is not contaminated by and does not come into contact with raw materials, intermediate or finished products, byproducts or waste products in the first place. Thus, if the stormwater runoff from an oil or natural gas well site is contaminated with materials such as oil, grease or hazardous substances, the operator of the well site is not exempt from the regulations under the CWA and must still obtain permit coverage from EPA or from the appropriate state permitting authority under the NPDES program.

In enacting this limited permitting exemption, Congress recognized that oil and natural gas operators were already taking the proper steps to control stormwater runoff from well sites and other facilities. Congress also recognized that if such runoff was uncontaminated there was little more to be gained by requiring operators to incur the costs and potential delays of obtaining a new burdensome permit. Therefore, the congressional committee responsible for fashioning the stormwater permit program concluded that:

to avoid penalizing operators for using good management practices designed to prevent or minimize pollution and for making expenditures to prevent stormwater run-off contamination, uncontaminated stormwater diversion devices should not be regulated under the permit scheme of the Act.³

Consequently, “[w]ith this limitation on the permitting requirements for such stormwater runoff, important oil [and] gas . . . operations will be able to continue without unnecessary paperwork restrictions . . .”⁴

At the same time, decided in 1987 to extend these stormwater permitting requirements in general to construction projects. EPA initially determined that these stormwater permitting requirements should apply to construction projects that disturb more than five acres. Moreover, EPA also determined that oil and natural gas well sites being prepared for drilling should be treated as construction sites and not as oil and natural gas sites subject to the limited exemption from stormwater permitting requirements. Even after EPA eventually lowered the threshold for the applicability of the stormwater permitting requirements to construction activities from five acres to one acre in response to litigation, the Agency believed that relatively few oil and natural gas sites that were being developed would fall under the NPDES stormwater permitting requirements. However, it eventually became clear that this fundamental assumption was entirely wrong — in fact, members of the oil and natural gas industry subsequently made EPA aware that close to 30,000 oil and natural gas sites annually could be subject to stormwater

² 33 U.S.C. § 1342(l)(2).

³ H.R. Rep. No. 99-189, at 37 (1985).

⁴ 133 Cong. Rec. H171 (daily ed. Jan. 8, 1987) (statement of Rep. Hammerschmidt).

permitting under EPA's interpretation. Given this key information, EPA decided to reassess whether thousands of oil and natural gas sites that were just being prepared for drilling should indeed be subject to the burdens of the NPDES stormwater permitting program.

This issue was eventually resolved by Congress in the Energy Policy Act of 2005 ("EPAct"). In light of the significant implications of any permitting requirements for energy production, Congress clarified in the EPAct that the limited exemption from stormwater permitting requirements for oil and natural gas exploration and production operations originally included in the 1987 amendments to the CWA should indeed extend to construction-related activities at oil and natural gas sites, including activities that are necessary to prepare a site for drilling for oil or natural gas.

In taking this action, Congress rejected the notion that there should be different standards applied for oil and natural gas construction sites and simply subjected the process of preparing oil and natural gas sites for drilling to the same standards for stormwater permitting that already apply once drilling and production commence. In doing so, Congress continued to provide an exemption from permitting requirements that is limited in scope, *i.e.*, again if stormwater runoff from sites being prepared for drilling is contaminated with pollutants such as oil or hazardous substances, the permitting exemption does not apply and the operator is still required to obtain permit coverage for such discharges. It is only when the stormwater runoff from oil and natural gas sites — including runoff associated with construction activities at these sites — is uncontaminated that operators are exempt from permitting requirements. Under these circumstances, a requirement that an operator obtain permit coverage would serve little purpose other than imposing unnecessary and unjustified regulatory burdens — and the associated costs — on oil and natural gas exploration and production and would only serve to unreasonably impede the development of American energy supplies.

Even with this limited exemption, there are still many layers of other effective controls currently in place which act to ensure that stormwater flows off of oil and natural gas sites do not adversely affect human health and the environment. One layer of control is the standard management practices already adopted by the oil and natural gas industry itself to control stormwater runoff. In fact, EPA has readily acknowledged that the oil and natural gas industry has already implemented effective practices to prevent soil erosion and runoff associated with the preparation of sites for drilling and other construction activities. The Agency has stated that these industry practices "result in practical, cost-effective approaches that are flexible enough to address the variety of situations and water quality concerns that might be encountered in the field."⁵

At the same time, states still retain their inherent governmental powers to exercise regulatory controls should they become concerned about the impact of sediment or other discharges from oil and natural gas site operations. In fact, many states with active oil and natural gas exploration and production activity already have requirements in place independent of their NPDES programs to effectively address sediment and erosion control at oil and natural gas sites. For example, the State of West Virginia requires the use of BMPs at sites being prepared for drilling activity consistent with the erosion and sediment control field manual issued by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. These requirements have proven to be very effective and efficient in ensuring that any concerns about sediment deposition are properly addressed. These state programs are consistent with the national policy set forth in the CWA of preserving the primary responsibilities and rights of the

⁵ 71 Fed. Reg. at 33633.

states to prevent, reduce and eliminate pollution and to plan the development and use of land and serve to supplement the federal permitting programs already in place.

SPCC Regulation

EPA has likewise considered how to apply various other provisions of the CWA to oil and natural gas exploration and production activities. For example, in promulgating regulations for the SPCC program, EPA has only taken very limited actions to accommodate the unique circumstances of well sites. As noted above, oil and natural gas production facilities are subject to the oil spill provisions of the CWA and operators of well sites must therefore prepare SPCC plans for their well sites if they meet the same criteria that apply to all facilities, *i.e.*, more than a specified amount of oil can be stored on the site and if spilled the oil could enter a surface water in harmful quantities. The SPCC plan must specify operating procedures that the facility uses to prevent oil spills as well as control measures to prevent any oil spill from reaching nearby waters and measures to contain and clean up any spill that does reach nearby waters or their shorelines. Like the owners and operators of other types of facilities that are subject to these oil spill requirements, operators of well sites must report spills of oil to the proper authorities and are responsible for cleaning up and restoring the affected area in the event of a spill.

However, when EPA amended its SPCC regulations in 2002, it imposed requirements on oil and natural gas exploration and production facilities that were subsequently found to be unduly restrictive and burdensome. Accordingly, as part of its revisions to the SPCC regulations in 2008, EPA modified certain requirements applicable to well sites to provide the operators of these sites with greater flexibility in meeting the regulatory requirements while continuing to balance the need to ensure that the potential for any spills of oil or hazardous substances from well sites that may reach navigable waters is appropriately minimized against the unnecessary burdens imposed by new regulations on the production of American oil and natural gas resources. These amendments remain subject to public comment and may be further revised before they are finalized.

Conclusion

As can be seen, oil and natural gas exploration and production activities are subject to key regulatory requirements imposed by the CWA. However, both Congress and EPA have taken reasonable steps to minimize unnecessary burdens on oil and natural gas production without compromising substantive environmental protection. The congressional action in the EPAct extending the limited NPDES stormwater permitting exemption to cover drilling and construction-related activities was not an attempt to provide special treatment for oil and natural gas sites; rather, it was an effort to clear up the unnecessary confusion and make sure that these activities were subject to the same standards that already apply to oil and natural gas operations themselves. This congressional action did not expand any permitting exemptions for these operations and the NPDES permitting exemption continues to remain limited in scope and apply only where stormwater runoff is not contaminated, just as was the case before the passage of the EPAct. Likewise, well sites remain subject to the oil spill provisions of the SPCC and recent EPA amendments to the SPCC regulations simply represent an effort to minimize the impacts of these regulations on oil and natural gas production without limiting critical environmental protections for the nation's waters.

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA)¹ was enacted on January 1, 1970 in order to establish a national environmental policy to be implemented by all federal agencies across the government. Viewed as a landmark piece of legislation, NEPA was enacted in order to: (1) formally declare a national policy which will encourage productive and enjoyable harmony between man and his environment; (2) to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; and (3) to enrich the understanding of the ecological systems and natural resources important to the nation.

NEPA imposes a number of key requirements on federal governmental agencies in order to achieve these goals. For example, as a general matter, the federal government is required to use all practicable means to preserve and maintain conditions under which human beings can coexist with the natural world in productive harmony. In addition, federal agencies are specifically required to lend appropriate support to initiatives and programs meant to prevent the degradation of the environment, as well as to directly incorporate environmental considerations in their decision making, using a systematic, interdisciplinary approach.

Perhaps the most significant element of NEPA is the requirement that federal agencies prepare an environmental impact statement (EIS) for those actions which are classified as “major federal actions that will significantly affect the quality of the human environment.” An EIS is an in-depth analysis, often several hundred pages in length, of the potential environmental impacts associated with a federal action. The EIS also examines alternatives to the proposed action and the environmental impacts of those alternatives. This requirement concerning the preparation of an EIS addresses the federal decision-making process by creating methods for stakeholders to present information and concerns regarding the environmental aspects of various federal actions. However, NEPA’s EIS requirements are procedural in nature; specific environmental standards are addressed under federal or state regulatory laws such as the Clean Water Act or the Clean Air Act.

As directed under NEPA, the federal Council on Environmental Quality (CEQ) has promulgated the necessary regulations to implement the requirement to prepare these EISs in those cases where major Federal actions are proposed. Under these regulations CEQ has specified that the federal actions that are potentially subject to these EIS requirements are defined broadly to include such actions as federal construction projects, the issuance of federal permits and leases, and federal funding of state, local or private actions, among various other types of federal projects. However, while federal actions are generally subject to NEPA, not every federal action requires an EIS; rather, only federal actions significantly affecting the quality of the human environment must have an EIS.

In fact, in many cases various federal actions may be exempted from the EIS requirement through one of two mechanisms. First, the CEQ regulations authorize federal agencies to specifically identify various categories of actions that by their nature do not have a significant impact on the environment in the first place; these categories of activities are generally referred to as “categorical exclusions.” Most federal agencies have developed their own “categorical

¹ 42 U.S.C. §§ 4321-4347.

exclusions” that cover a wide variety of routine federal actions, including such actions as maintenance activities on federal properties, oversight of state environmental programs, and inspections and enforcement activities. Any federal actions which fall under a categorical exclusion do not require any specific environmental analysis and are not subject to EIS requirements.

Second, for those actions that are not covered by a categorical exclusion, CEQ regulations authorize agencies to prepare a limited analysis, commonly known as an Environmental Assessment (EA), which generally amounts to a very preliminary review of the possible impacts of a proposed federal action on human health and the environment. The purpose of an EA is to determine whether a federal action will have a significant impact on the environment, which would trigger the need for an EIS. If the conclusion of the EA is that an action would not significantly affect the human environment, the federal agency may then issue a Finding of No Significant Impact (FONSI), which concludes the agency’s NEPA obligations for that action and in these cases the federal agency is not required to continue to prepare an EIS in order to satisfy NEPA.

Congress Has Not Provided an Unwarranted NEPA Exemption for Oil and Natural Gas Projects

In an effort to facilitate the prudent development of our nation’s energy supplies and to move toward energy independence, Congress sought to reach a careful balance in the Energy Policy Act of 2005 (EPAct) between encouraging oil and natural gas development and assuring the protection of human health and the environment. As part of this approach, Congress established under Section 390 of EPAct a rebuttable presumption that activities related to oil and natural gas development on federal land or pursuant to leases of federal interests in oil and natural gas reservoirs should be subject to a categorical exclusion under NEPA; in these cases the cognizant federal agency would not be required to prepare an EIS or an EA. Under EPAct, this rebuttable presumption applies where:

- the surface disturbance associated with the activity is less than five acres so long as the total disturbance on a lease area is less than 150 acres and a site-specific analysis under NEPA (*i.e.*, an EA or an EIS) has previously been prepared;
- an oil or natural gas well is being drilled at a location where drilling has previously occurred within the last five years;
- an oil or natural gas well is being drilled within a developed field where the drilling activity has been analyzed within the last five years in an approved land use plan or an EA or EIS prepared under NEPA;
- a pipeline is being placed in an approved corridor; or
- the activity consists of maintenance.

As can be seen, this EPAct requirement cannot be viewed as a substantial “carve-out” from NEPA — rather it provides a well-reasoned, limited categorical exclusion that avoids unnecessary, duplicative, and costly EIS requirements for those oil and natural gas projects that would be deemed to have minimal impacts in the first place or have already been adequately studied in other prior NEPA reviews. For certain oil and natural gas projects EPAct Section 390

creates a rebuttable presumption that a NEPA review is not required in connection with an Application for Permit to Drill at a specific well site where an EA or EIS has already previously examined the potential impacts of drilling in the area in which the proposed drilling site is located. In other cases this section would simply clarify that no site-specific environmental review is necessarily required in two situations where environmental impacts would be minimal in any event, *i.e.*, where the drilling will be conducted on a site that is already disturbed or where the only activity being undertaken is maintenance.

In essence, this provision attempts to strike a balance and is indeed quite narrow in scope — it does not at all represent a complete exclusion from NEPA requirements for these types of oil and natural gas activities. Instead, in enacting Section 390 Congress has established only a limited categorical exclusion from the EIS requirements for a set of oil and natural gas activities that have already been subject to environmental review or are the types of activities that normally have minimal environmental impacts. In fact, in any given case the federal agency overseeing the activity could nevertheless still decide to prepare an analysis of the potential environmental impacts of drilling at a well site in the form of an EA or EIS because of particular concerns about that impacts at that location.

In any event, because it only applies to the activities or actions of federal agencies or activities on federal lands, NEPA would still by its own terms have no application to many oil and natural gas drilling operations in the first place even in the absence of the congressional action taken in EPAct. For example, NEPA would not apply to most drilling activities in the Marcellus Shale in the Northeast, the Barnett Shale in Texas, or the Fayetteville Shale in Arkansas, where the federal government owns relatively little land and few rights to subsurface oil and natural gas. Likewise, it would have no applicability to drilling in the coalbeds of the Black Warrior Basin in Alabama since drilling activity there is undertaken solely on private lands.

Federal Agencies Will Continue to Protect the Environment

While Congress has acted to reasonably streamline the NEPA approval process for oil and natural gas drilling activities, this action does not at all suggest that the federal government is actually attempting under EPAct to abdicate its responsibilities to ensure that these activities are undertaken in a manner protective of human health and the environment — rather, just the contrary is true. In fact, the two principal federal land management agencies — the U.S. Bureau of Land Management (BLM) and the U.S. Forest Service (USFS — part of the U.S. Department of Agriculture (USDA)) — with responsibilities over federal lands where oil and natural gas operations are undertaken have at the same time also adopted specific policies under NEPA and other applicable federal land management statutes to ensure that ongoing operations are conducted in a manner fully protective of human health and the environment and in accordance with federal environmental policies. For example, BLM has formally stated as part of its agency policy that it will:

- conduct on-site inspections of all proposed drilling locations even where a categorical exclusion under NEPA applies;
- review an Application for Permit to Drill in the same fashion as would have been done in the absence of a categorical exclusion;

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- continue to consult, where appropriate, with the U.S. Fish and Wildlife Service, state historic preservation offices and other officials regarding the potential impacts of drilling activities; and
- apply mitigation measures identified in previously prepared EAs or EISs in order to minimize the environmental impacts of drilling.

Similar to BLM, USDA (which includes the USFS) also has emphasized in its operational agency policies that the Department will continue to ensure that oil and natural gas drilling activities use best management practices in order to minimize the effects of these activities on surface resources and prevent unnecessary or unreasonable surface resource disturbances, stating that:

It is critical to note that use of Section 390 in no way limits or diminishes the Forest Service's substantive authority or responsibility regarding review and approval of a [Surface Use Plan of Operations] The Authorized Forest Officer will continue to assure that operations on leaseholds on National Forest System lands will minimize effects on surface resources and prevent unnecessary or unreasonable surface resource disturbance, including effects to cultural and historical resources and fisheries, wildlife and plant habitat. Best management practices are to be applied as necessary to reduce impacts of any actions approved under these categorical exclusions.

Conclusion

In sum, the EAct was not intended to be integrated as a new government policy to excuse oil and natural gas projects from key environmental reviews; rather, Congress enacted Section 390 of the EAct merely to eliminate unnecessary, redundant and costly environmental reviews for certain types of oil and natural gas drilling projects in an effort to streamline the approval process for the construction and operation of energy projects that will move our nation toward energy independence. In fact, while Congress authorized the adoption of a process to exempt certain oil and natural gas projects from further NEPA scrutiny in certain cases, this exemption was quite narrowly drawn and therefore only applies to a limited number of energy projects. It was based on a close review of the estimated impacts of these proposed projects in light of actual experience and represents a careful balance with respect to encouraging necessary energy development while protecting human health and the environment. In any event, even in those cases where these categorical exclusions from NEPA may apply, the relevant federal land management agencies have emphasized that they still continue to take steps to ensure that the use of the categorical exclusions will not result in any lessening of substantive environmental protections — that is, the permits will continue to have specific provisions to manage the environmental risks of oil and natural gas development. As a result Section 390 of EAct does not sacrifice environmental protections but simply expedites the production of vital American supplies of oil and natural gas that is needed for our country.

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RESOURCE CONSERVATION AND RECOVERY ACT

Enacted in 1976, the Resource Conservation and Recovery Act (RCRA)¹ was passed to achieve three key goals: namely, to (1) conserve energy and natural resources, (2) reduce or eliminate the generation of hazardous waste as expeditiously as possible, and (3) protect human health and the environment. Congress subsequently amended RCRA in 1980 to address a number of key new issues raised in implementing this law, and then again in 1984 when it adopted the Hazardous and Solid Waste Amendments (HSWA) Act; HSWA established further waste cleanup and corrective action requirements, restrictions that prohibit the disposal of certain wastes in or on the land unless the wastes comply with specified treatment standards and/or waste constituent levels, and various other technical requirements for the management and disposal of solid and hazardous wastes.

One of the key portions of RCRA — Subtitle C — is intended to effectively control the management and disposal of hazardous waste from “cradle to grave.” The waste management framework established by Subtitle C is designed principally to address “low volume,” “high toxicity” wastes generated at one site and transported to another for disposal. Consistent with this framework, RCRA bans the disposal of “hazardous wastes” — which are broadly defined under the statute — at facilities without valid permits. In order to obtain a permit, any new treatment, storage or disposal facility must meet stringent specifications for handling RCRA Subtitle C or hazardous wastes. Permitted facilities are subject to a wide range of management standards mandating ground-water protection, facility closure, and post-closure care requirements. Other specific management standards apply to targeted waste management units such as containers, tanks, surface impoundments, waste piles, land treatment units, landfills and incinerators.

RCRA also establishes a comprehensive system designed to closely track the generation, storage, transport and disposal of Subtitle C wastes. Any company which generates these wastes above certain threshold amounts must register with EPA and/or an authorized state agency and comply with their requirements. These generators also must satisfy applicable recordkeeping and waste marking, labeling and placarding requirements in preparing wastes prior to shipment for off-site disposal. The Act provides that EPA may delegate to the states the authority to administer and enforce these various regulatory requirements and in the case of most states, the Agency has done so.

Taken together, the Subtitle C requirements impose costly and rigorous limitations — constraints that were made more demanding by the 1984 HSWA Act. However, RCRA’s broad definition of hazardous waste had the effect of expanding RCRA’s scope well beyond the “low volume,” “high toxicity” wastes it was originally designed to cover.

Congress Did Not Intend to Regulate Oil and Natural Gas Exploration and Production Wastes Under RCRA

As a result of regulations proposed by EPA in 1978 to implement the 1976 Act, Congress recognized that certain types of wastes presented unique issues and were most likely not well

¹ 42 U.S.C. §§ 6901-6992k.

suited to regulation under EPA's highly prescriptive Subtitle C regulatory scheme. These concerns particularly applied to those wastes that were produced in substantial volumes but also had relatively low toxicity. In fact, these wastes posed management issues that were far different than the issues posed by Subtitle C wastes generated by manufacturing and other industrial operations under routine circumstances.

One particular category of these "high-volume, "low-toxicity" wastes consisted of drilling fluids, produced waters and other wastes associated with the exploration and production of oil and natural gas. In the course of early deliberations concerning potential amendments to RCRA, Congress specifically considered regulations for these categories of wastes that had previously been proposed by EPA. However, after careful deliberation Congress found that the extensive regulatory program proposed by EPA to regulate drilling fluids, produced waters and related wastes, *i.e.*, wastes generated from oil and natural gas exploration and production operations, could have a significant economic impact on American oil and natural gas production.² Moreover, Congress also recognized that the large volumes of these wastes really could not be handled by existing waste management units. Based on these concerns, Congress concluded that these wastes should be subject to a different regulatory scheme than other more "mainstream" Subtitle C wastes.

EPA Has Concluded That Regulation of Oil and Natural Gas Exploration and Production Wastes Under the Subtitle C Waste Management Program Is Not Appropriate

Congress specifically considered the proper way to handle these "high-volume," "low-toxicity" wastes in addressing changes to RCRA in 1980. After considering a wealth of information, Congress decided that instead of specifically including these wastes under the general Subtitle C waste management program, EPA should instead set up a specialized way to address the need for any regulatory controls for these wastes. As part of this specified process, Congress first required EPA to study how these wastes were being managed by the states at that time and whether such existing management practices were adequate in light of the nature of these wastes. As part of this process, EPA was specifically required to look at the sources and volume of drilling fluids, produced water and other "high-volume," "low-toxicity" wastes associated with oil and natural gas exploration and production; potential risks to human health and the environment from surface runoff or leaching from these wastes; existing disposal practices, alternatives to such practices and the costs of these alternatives; and the impact of any alternatives on oil and natural gas exploration and production.

Once this study was completed, EPA was required to submit it to Congress for its review. EPA was further required under this specialized process to make a determination within six months from the time the report was given to Congress regarding whether the imposition of any additional regulatory controls on "high-volume," "low-toxicity" wastes was warranted. In the event that the Agency subsequently determined that drilling fluids, produced waters and related categories of wastes should be regulated under the standard RCRA Subtitle C waste management controls, Congress directed that any regulations implementing such a decision would not become effective unless specifically approved by Congress. In amending RCRA in 1980 Congress applied a similar process to other similar types of "high-volume," "low-toxicity" waste such as

² S. Rep. No. 96-172 at 6 (1980), *reprinted in* 1980 U.S.C.C.A.N. 5019, 5024-25.

fly ash waste and slag wastes, noting that such amendments were necessary to “bring the implementation of the Act closer to the original intent of Congress.”³

As a result of this mandated study, EPA subsequently determined that “high-volume,” “low-toxicity” wastes associated with oil and natural gas production should not be regulated under the RCRA Subtitle C waste management program. In reaching this conclusion, the Agency first confirmed that the wastes produced in connection with oil and natural gas exploration and production were being produced in substantial quantities. For example, EPA found that 361 million barrels of drilling waste were generated in 1985 as the result of drilling activities at about 70,000 well sites and that over 800,000 active well sites generated 20.9 billion barrels of produced water. Perhaps even more important, EPA also found in this study that a wide range of practices for the management of such waste had already been effectively adopted under various state regulatory programs as a result of widely varying geological, ecological, topographic, economic, geographic and other differences among well sites.

Based on these findings EPA’s study came to the conclusion that imposing any form of RCRA Subtitle C waste management controls on these types of oil and natural gas exploration and production wastes was not effective and would not only result in substantial economic hardships for the oil and natural gas industry, but would also place severe and undue administrative burdens on regulated oil and natural gas companies and regulatory authorities themselves. For example, EPA’s 1988 study found that:

- imposing strict Subtitle C waste management controls on the handling and management of “high-volume,” “low-toxicity” wastes could impose costs on the oil and natural gas industry exceeding \$6.7 billion;
- imposing these controls could also lead to declines in oil and natural gas production of up to 12 percent and costs to consumers of approximately \$4.5 billion;
- the current RCRA program did not provide adequate flexibility for addressing this specialized class of wastes;
- regulating oil and natural gas exploration and production wastes under the strict Subtitle C waste management controls could lead to severe permitting delays that would disrupt production of vital American energy supplies and could severely strain the existing capacity of facilities authorized to treat and dispose of hazardous wastes;
- existing state and federal regulatory programs were generally adequate to manage oil and natural gas wastes and any gaps in these regulatory programs could be effectively addressed by regulation under RCRA programs for non-hazardous waste (Subtitle D) and by working with the states on their regulatory programs;
- the state regulatory programs were specifically tailored to the unique circumstances of the oil and natural gas industry and it would be impractical and inefficient to impose the relatively inflexible RCRA Subtitle C waste regulations on oil and natural gas exploration and production wastes because of the potential for disrupting these state regulatory programs; and

³ S. Rep. No. 96-172 at 2, *reprinted in* 1980 U.S.C.C.A.N. at 5020.

- substantial burdens would be imposed on EPA and state regulatory authorities if even a small percentage of the hundreds of thousands of oil and natural gas exploration and production facilities were required to obtain permits to treat, store or dispose of waste under the RCRA Subtitle C waste management program.⁴

In light of this independent review, EPA's decision not to regulate these "high-volume," "low-toxicity" wastes from oil and natural gas exploration and development was a careful decision based on sound science and technical support. In the years since it made its original determination, EPA has still not found it necessary to revisit its determination or change its conclusions regarding the inappropriateness of regulating these oil and natural gas wastes under the RCRA Subtitle C waste management system.

At the same time, consistent with its prior determination EPA has continued to work with state regulatory officials to ensure that state regulatory programs remain adequate to address any issues with respect to the control and disposition of these wastes. For example, in 1988 the Agency initiated a program in cooperation with state regulators to review state programs for the regulation of oil and natural gas exploration and production waste on a periodic basis. This process has now been formalized through the State Review of Oil & Natural Gas Environmental Regulations (STRONGER), which involves representatives of state and federal regulatory agencies, industry and environmental advocacy organizations. As part of this review process, state regulatory programs are compared to a set of national guidelines which is regularly updated in order to identify areas for improvement in existing state programs. More than 30 reviews of state programs responsible for the regulation of over 85% of American onshore oil and natural gas production have been conducted under this process.

Conclusion

In enacting RCRA and overseeing its implementation, Congress recognized that certain types of "high-volume," "low-toxicity" waste such as the drilling fluids, produced waters and other wastes produced in connection with the exploration and production of oil and natural gas are different in key respects from the types of wastes typically managed under the RCRA Subtitle C regulatory program and that it may not be appropriate to subject such wastes to the strict requirements of that program. After careful study EPA has again subsequently confirmed that it would be impractical, costly and disruptive to manage these oil and natural gas wastes under the RCRA Subtitle C waste regulations. The decision not to regulate oil and natural gas exploration and production wastes as Subtitle C wastes under RCRA reflects the nature of those wastes and the reality that the RCRA Subtitle C regulatory program is not designed to and was never intended to address these wastes in the first place.

⁴ 53 Fed. Reg. 25446 (July 6, 1988).

SAFE DRINKING WATER ACT

Congress enacted the federal Safe Drinking Water Act (SDWA)¹ in 1974 to ensure that water supply systems serving the public meet appropriate standards to protect the public health. As part of SDWA, the U.S. Environmental Protection Agency (EPA) is required to establish (1) national drinking water regulations to address contaminants that might adversely affect human health, and (2) an Underground Injection Control (UIC) program to protect underground sources of drinking water from contamination. To address these requirements, EPA has implemented a program for the treatment and disinfection of water supplies that must be met by public water supply systems across the country and also has established standards for maximum levels of various contaminants that may be found in drinking water provided to the public (these are known as maximum contaminant levels or MCLs). SDWA also specifies that EPA may delegate to the states the authority to enforce drinking water regulations and to issue UIC permits if the state has a program in place that meets certain minimum requirements established by Congress, and in fact these federal programs are now largely administered by the states.

Similar to other landmark federal laws passed at that time, SDWA was specifically intended to cover the disposal of wastes that might threaten underground sources of drinking water (USDWs) and not production-related operations themselves. Congress initially passed SDWA based on its recognition that various industrial and agricultural practices had resulted in increased concentrations of potentially harmful chemicals that were entering the nation's drinking water sources.² For example, in the key congressional report from the U.S. House of Representatives Committee on Interstate and Foreign Commerce accompanying the 1974 law, this congressional committee recognized the concerns of the U.S. Geological Survey and the Bureau of Mines regarding the "indiscriminate 'sweeping of our wastes underground'" and noted that these wastes were coming from many sources, such as municipalities that "increasingly engag[e] in underground injection of sewage, sludge and other wastes. Industries are injecting chemicals, byproducts and wastes. . . . Even government agencies, including the military, are getting rid of difficult to manage waste problems by underground disposal methods."³ Consistent with this view, the intended focus of the UIC program when it was originally enacted as part of SDWA in 1974 was on managing the discharge of wastes into geologic formations. In order to ensure that this issue was effectively addressed, SDWA was specifically designed to establish a federal-state partnership to "protect drinking water from contamination by the underground injection of waste."⁴

Congress Did Not Intend to Regulate Hydraulic Fracturing Under the UIC Program

At the same time, Congress did not intend that the UIC program would be extended to regulate wells that are themselves used for the production of oil or natural gas. In considering SDWA, Congress recognized that many states already had vigorous regulatory programs in place to govern petroleum operations and that these programs had been more than adequate through the years to ensure that these operations would not harm underground sources of drinking water, particularly in many of the energy-producing states in the South and Western portions of the country. To ensure that SDWA was properly targeted, Congress intended to limit the scope of SDWA to avoid imposing unnecessary regulations that would be a constraint on energy production, divert funds from energy development and represent an inflationary factor in energy costs. In accordance with this approach,

¹ 42 U.S.C. §§ 300f-300j-26.

² H. R. Rep. No. 93-1185 (1974), *reprinted in* 1974 U.S.C.C.A.N. 6454, 6459.

³ H.R. Rep. No. 93-1185 (1974), *reprinted in* 1974 U.S.C.C.A.N. 6454, 6481.

⁴ *Natural Resources Defense Council v. U.S. Environmental Protection Agency*, 824 F.2d 1258, 1268 (1st Cir. 1987).

Congress focused the UIC program on waste disposal activities that threatened the quality of underground drinking water sources and never sought to regulate wells that were themselves being used for oil and natural gas production.

Given the focus of the UIC program on the underground disposal of waste, EPA also had never thought to regulate energy production operations such as hydraulic fracturing — a critical oil and natural gas production technique that will be essential to the aggressive development of the nation’s energy resources — under SDWA. In fact, EPA’s regulations for the UIC program address a variety of wells, including wells used for the disposal of hazardous waste (Class I wells), wells used for the disposal of wastes from oil and natural gas production activities and wells used to enhance oil and natural gas production from existing production wells (Class II wells), and other types of disposal wells such as cesspools (Class III-V wells). However, those regulations do not purport to regulate hydraulic fracturing.

Hydraulic fracturing is a well stimulation technology that has been used for 60 years in millions of energy production operations. As Congress has already recognized, hydraulic fracturing has been effectively regulated for decades by the states and is essential for the future development of America’s oil and natural gas supplies. State regulations require the use of various techniques to protect drinking water aquifers, including the use of steel casing and cement to seal off shallow formations containing drinking water sources from materials being pumped into and out of an oil or natural gas well. These regulations effectively protect against any risks to drinking water aquifers; consequently, there would be no additional environmental benefits to further federal regulation of hydraulic fracturing under SDWA.

In fact, hydraulic fracturing differs in many key respects from what have traditionally been viewed as waste disposal activities intended for regulation under EPA’s UIC program. As part of these waste disposal operations, wastes are specifically injected into subsurface formations for purposes of disposal and are intended to be left in the subsurface. In contrast, hydraulic fracturing is an activity that takes place in the production well itself and is a part of the process of completing the well and preparing it for the production of oil and natural gas. The fluids used in the hydraulic fracturing process — consisting mostly of water — are pumped into an oil- or natural gas-bearing formation that is generally thousands of feet below any aquifers being used for drinking water.⁵ Moreover, the fluids that are pumped into the subsurface as part of the hydraulic fracturing process are intended to be removed from the formations into which they are pumped. Indeed, studies of coalbed methane wells in Alabama have shown that 80 percent or more of the fluids pumped into a well during the hydraulic fracturing process are eventually recovered from the well during the production process.⁶

In light of these fundamental differences between hydraulic fracturing and subsurface waste injection, many of the regulations developed by EPA to implement the UIC program simply have no application to hydraulic fracturing activities whatsoever. For example, EPA’s regulations require that certain parameters such as injection pressure, flow rate and cumulative volume of fluids injected be monitored weekly or monthly and in some cases on a daily basis.⁷ These requirements for

⁵ While such formations may contain groundwater that would technically meet the definition of an “underground source of drinking water” under SDWA because the water contains less than 10,000 milligrams per liter of total dissolved solids, such groundwater would not in practice be used as drinking water – and would certainly not be tapped by a private drinking water well – because it is of low quality, would require significant treatment in order to be potable and would be quite expensive to access.

⁶ Palmer, I.D., *et al.*, *Comparison between gel-fracture and water-fracture stimulations in the Black Warrior basin*; Proceedings 1991 Coalbed Methane Symposium, Univ. of Alabama (Tuscaloosa), pp. 233-242.

⁷ 40 C.F.R. § 146.23(b)(2).

ongoing monitoring would simply not apply or be practical for an activity such as hydraulic fracturing that takes only a few hours to complete.

SDWA was never meant to create special treatment for these kinds of energy-producing operations — instead, SDWA recognized that there was a need to regulate waste disposal operations and not to impose undue regulatory burdens on production operations if they were not necessary. When Congress amended SDWA in 1980, it relied on the fact that the states already had existing programs in place to regulate oil and natural gas exploration and production activities, including activities that could be considered as “underground injection” subject to regulation under SDWA. In order to take advantage of the experience of state regulators and to avoid disrupting existing state programs, Congress specifically provided in Section 1425 of the Act that states could assume primary authority over Class II injection wells — those associated with oil and natural gas production activities — by demonstrating that their programs meet the same basic standards as those established by Congress for programs administered by EPA.

While many parties have sought to reexamine this law, even EPA itself has specifically emphasized that SDWA was never intended to regulate wells that are themselves used for the production of oil or natural gas. For example, in addressing the scope of SDWA in *Legal Environmental Assistance Foundation v. U.S. Environmental Protection Agency*,⁸ the Agency expressly argued that Congress never intended to regulate hydraulic fracturing as “underground injection” under SDWA. While the U.S. Court of Appeals subsequently decided that hydraulic fracturing fit the definition of “underground injection” and so had to be regulated under the Act, the court’s decision ignored the intent of Congress and did not consider whether hydraulic fracturing actually posed any risk to drinking water supplies in the first place. In fact since this ruling the court’s decision has been severely criticized for its failure to follow the will of Congress and ignoring EPA’s long-standing interpretation of the specific scope of SDWA.

Because of the regulatory uncertainty created by this court decision, Congress amended SDWA in the Energy Policy Act of 2005 to specifically clarify that hydraulic fracturing is not regulated as a form of underground injection under SDWA except that EPA does have the authority to regulate the use of diesel in the fluids employed in the fracturing operations. This exemption simply confirmed the well-recognized proposition that the UIC provisions of SDWA were primarily intended to regulate the subsurface disposal of waste and that Congress never intended to regulate an activity such as hydraulic fracturing under SDWA. Moreover, Congress’s decision to clarify SDWA to exempt hydraulic fracturing from unnecessary regulation is consistent with the longstanding congressional mandate under this law to avoid impeding oil and natural gas production unless restrictions are absolutely necessary to protect underground sources of drinking water.

Federal Regulation of Hydraulic Fracturing Is Not Necessary

Contrary to unsupported claims, Congress’s position that hydraulic fracturing should be excluded from additional federal controls under SDWA is based on sound science. For example, in 2004 EPA completed a study of the potential impacts of hydraulic fracturing of coalbed methane (CBM) wells on drinking water supplies; the Agency has, in fact, characterized this study as the most extensive review of the potential impacts of hydraulic fracturing on public health ever undertaken.⁹ As part of this study, EPA reviewed information about alleged incidents of drinking water well contamination believed by the affected parties to be associated with hydraulic fracturing or other CBM development activities. A draft of the study report was subject to extensive public comment

⁸ 118 F.3d 1467 (11th Cir. 1997).

⁹ See *Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, EPA Office of Water (June 2004).

and was thoroughly reviewed by numerous EPA offices, other federal agencies and a peer review panel of experts.

After much scrutiny and careful review, the Agency found in this key 2004 study that, although thousands of CBM wells are fractured annually, there were “no confirmed cases [of contamination of drinking water wells] that are linked to fracturing fluid injection into CBM wells or subsequent underground movement of fracturing fluids.” EPA also identified a number of key factors that minimize the risk posed by hydraulic fracturing to underground sources of drinking water (USDWs), even though that term is very broadly defined in SDWA and may include aquifers that are not in fact used as sources of drinking water and would be quite unlikely to serve as sources of drinking water. These factors include the removal of much of the fracturing fluid from the subsurface once fracturing operations are completed and the dilution, dispersion and adsorption as well as the potential biodegradation of any fluids that remain in the subsurface. Consequently, EPA concluded that hydraulic fracturing of CBM wells poses little or no threat to USDWs. This EPA study confirmed the results of prior studies by state regulators which essentially reached the same conclusion.¹⁰

In addition, Congress recognized that there was little need for federal regulation of hydraulic fracturing because the states had been quite satisfactorily regulating the practice for many years. For example, the Ground Water Protection Council (GWPC), a highly-regarded national organization representing state officials charged with protection of groundwater, had studied the impacts of hydraulic fracturing and came to the conclusion that there are no technical threats posed by these oil and natural gas operations to human health and the environment. In reaching this conclusion, GWPC noted that:

As the front line regulators of the state oil and natural gas UIC program, we have not seen credible evidence that the hydraulic fracturing of coal bed methane reservoirs, or any other deeper formations, causes any documented threat to underground sources of drinking water. The states have maintained oversight of hydraulic fracturing as a part of the oil and natural gas production process. This makes good regulatory sense and has stood the test of time for over 50 years. Any requirement to regulate this process as underground injection would not result in any additional environmental protection of under ground sources of drinking water (USDW) and, it would strain already depleted state UIC resources. The result would be that money that could be used to solve severe contaminant source problems, such as urban storm water or large capacity cesspools, would be diverted to a practice that is already regulated under another program and is not a threat to USDWs.¹¹

Conclusion

In short, trying to regulate hydraulic fracturing under the UIC program would be like trying to fit a square peg into a round hole. Given the lack of harm to drinking water aquifers and the need to focus limited regulatory resources on actual threats to drinking water, Congress’s decision in 2005 to clarify the scope of regulation under SDWA to exclude hydraulic fracturing was entirely reasonable and reflected the active support of state regulators in charge of groundwater protection.

¹⁰ See Ground Water Protection Council, *Survey Results On Inventory and Extent of Hydraulic Fracturing In Coalbed Methane Wells In the Producing States* (Dec. 15, 1998); Interstate Oil and Gas Compact Comm’n, *States Experience With Hydraulic Fracturing* (July 2002).

¹¹ Letter from Thomas P. Richmond, GWPC President, to The Hon. James Inhofe and The Hon. James Jeffords (June 8, 2005).

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SUPERFUND

In 1980 Congress responded to the problems posed by contaminated waste sites such as those at Love Canal (near Niagara Falls, New York) and Times Beach, Missouri by passing the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).¹ Commonly referred to as the federal “Superfund” law, CERCLA was intended to encourage the prompt and expeditious cleanup of numerous abandoned hazardous waste disposal sites and other contaminated properties scattered across the country. In enacting CERCLA, Congress had recognized that there was a “gap” in addressing the need to remediate hazardous waste sites — the federal Resource Conservation and Recovery Act (RCRA) was already in place to govern the handling and disposal of hazardous wastes from active facilities, but there was still a need to address the environmental problems posed by the plethora of old, non-operating hazardous waste sites in the country.

To help achieve the statute’s goals, CERCLA established a very onerous liability scheme under which parties could be held strictly, jointly, severally and retroactively liable for the cleanup of hazardous waste landfills and other contaminated sites. Under CERCLA four categories of parties can be held liable for the cleanup of these sites, including current and former owners and operators of the sites as well as entities that generated hazardous substances which were disposed of at a contaminated site and any entity that transported these hazardous substances to these sites. In addition, CERCLA provides broad powers to federal and state governments to recover the costs that these governments incurred in remediating these sites to required cleanup levels.

As part of the funding mechanisms for the law, CERCLA further established a very substantial trust fund referred to as the Hazardous Substance Superfund (the “Trust Fund”) that was intended to be used to help fund these cleanup activities. This fund, financed by an excise tax on crude oil, petroleum products and other specified chemicals, was specifically intended to help support the U.S. Environmental Protection Agency (EPA) in carrying out the Agency’s responsibilities under the law, essentially amounted to a feedstock tax that was imposed on the oil and natural gas industry in a manner to reflect the industry’s responsibilities for these hazardous waste problems. Additional monies were provided to this Trust Fund in the amendments to CERCLA adopted as part of the Superfund Amendments and Reauthorization Act of 1986 (SARA) to further support cleanup activities.

In enacting CERCLA, Congress attempted to strike a careful balance among a number of critical factors shaping the overall cleanup program. First, there already were a number of federal laws on the books that were intertwined with the scope of CERCLA. For example, the federal Clean Water Act (CWA) had previously been adopted to regulate the cleanup of oil spills and related remediation activities; RCRA also had been passed in order to address cleanup issues at active industrial sites. At the same time, there were also a number of other pending federal legislative proposals that would have addressed other facets of cleanup responsibilities such as the cleanup of oil pollution in the nation’s navigable waters. Against this background, two key elements of CERCLA were included in order to strike a reasonable accommodation with these

¹ 42 U.S.C. §§ 9601-9675.

other environmental activities: (1) the “petroleum exclusion” and (2) the treatment of “federally-permitted releases.”

The “Petroleum Exclusion”

The “petroleum exclusion” reflected the numerous reasonable steps taken by Congress to fashion a responsible cleanup program in the face of many competing pressures. First, Congress recognized that the principal focus of the cleanup program should be on releases of hazardous chemicals, which was the most serious threat to human health and the environment posed by the abandoned waste sites. Indeed, in commenting on the need for the Superfund program at that time, then-EPA Administrator Douglas Costle noted that “[t]he problem of hazardous spills is acute and more threatening than oil.”² As a result CERCLA was passed to provide EPA with the necessary tools to address the widespread and serious contamination at old chemical waste sites like the Love Canal site in New York or the “Valley of the Drums” site in Kentucky — these sites included large landfills covering many acres and a wide variety of manufacturing and waste processing facilities that had handled large volumes of chemicals for many years and that had very high levels of hazardous chemical contaminants in the soils and extensive plumes of contaminated groundwater that threatened drinking water supplies.

Second, although the cleanup of chemical waste sites was given a high priority by Congress in enacting CERCLA, Congress had never intended to ignore the need to clean up petroleum contamination, but instead decided to address these issues much more effectively through other programs. For example, recognizing the need to address oil spills, Congress had already passed key provisions in the CWA as noted above to address spills of petroleum into the surface waters, thus negating the need to address it again during the deliberations on CERCLA. Congress subsequently expanded the regulation of oil spills by passing the Oil Pollution Act of 1990 (OPA), which imposes liability on any party responsible for a vessel or onshore facility from which oil is discharged to the waters of the United States (which includes most surface waters and adjacent wetlands) or adjoining shorelines for the cost of cleaning up those discharges and for the damages that may result from the incident. OPA was adopted to directly respond to the concerns raised in the congressional debates on Superfund regarding the need to hold parties responsible for a wide range of surface spills of petroleum. For underground storage tanks (USTs) containing petroleum, Congress also eventually added provisions to RCRA in 1984 to address any leaking USTs. This program specifically imposes requirements to prevent leaks from USTs containing petroleum as well as to ensure the proper monitoring of these tanks and corrective actions if these tanks leak.

In any event, the adoption of the so-called “petroleum exclusion” is consistent with the general principles that the courts themselves have adopted in interpreting the scope of CERCLA responsibilities. In addressing the question of CERCLA liability, an overwhelming number of courts have consistently ruled that companies which sell useful products such as petroleum and/or crude-oil products themselves should not be subject to CERCLA in the first place. According to this universally-standard rule, CERCLA was intended to cover only the disposal of contaminated products, not the use of uncontaminated petroleum and crude oil supplies.

² 126 Cong. Rec. H 9248 (Sept. 18, 1980) (statement of Rep. Harsha).

Consistent with this view, EPA also has interpreted the “petroleum exclusion” rule only to cover hauling and transport of crude oil and refined petroleum products themselves, including those substances that are normally found in crude oil or are normally added to crude oil as part of the standard refining process. However, to the extent that petroleum or petroleum products eventually become contaminated with hazardous substances as a result of use or otherwise, then these supplies would no longer be covered under the “petroleum exclusion” rule and they would then become subject to CERCLA liability just like any other contaminated waste materials. As a result, companies which have generated waste motor oils or hydraulic oils, or other types of used petroleum products, would be required to clean up sites that have become contaminated from the disposal of these waste products just as with any other hazardous wastes.

Federally-Permitted Releases

CERCLA also contains a provision excluding “federally-permitted releases” from CERCLA liability. This exclusion covers releases of hazardous substances to the environment that have been authorized pursuant to a variety of federal permits, such as a National Pollutant Discharge Elimination System (NPDES) permit or a dredge or fill permit issued under the CWA, or an air permit issued under various provisions of the Clean Air Act. In addition, Congress included within the exclusion for federally-permitted releases any injection of fluids or other materials authorized under state law (i) for the purpose of stimulating or treating wells for the production of crude oil, natural gas or water, (ii) for the purpose of secondary, tertiary or other enhanced recovery of crude oil or natural gas, or (iii) which are brought to the surface in conjunction with the production of crude oil or natural gas and are subsequently reinjected into the subsurface.

These “federally-permitted releases” exemptions have been quite misinterpreted in many cases. This CERCLA exemption was not included as a means to avoid imposing any liability on responsible parties, but rather to ensure that permitting issues were instead properly addressed under the respective federal regulatory programs in which they were administered in the first place. Indeed, in enacting this particular exclusion, Congress specifically recognized that “in view of the large sums of money spent to comply with specific regulatory programs,” any liability for releases of hazardous substances in accordance with duly issued permits “should be determined based on the facts of each individual case.”³ Accordingly, Congress provided that liability for these types of releases should not arise under CERCLA, but should more properly be determined under the law pursuant to which the release was authorized or under common law so as to “give regulated entities clarity in their legal duties and responsibilities.”⁴ A similar provision is included in the Oil Pollution Act of 1990.

Conclusion

CERCLA was enacted in order to address the environmental problems posed by abandoned, inactive contaminated waste sites and hazardous substance spills. This law casts a broad web of liability on responsible parties for the cleanup of these sites and resulted in a dramatic shift in the nature of liability for these problems — imposing a new federal standard

³ S. Rep. No. 96-848 at 46 (1980).

⁴ 126 Cong. Rec. S 14965 (Nov. 24, 1980) (Statement of Sen. Randolph).

involving strict, joint and several liability that could be imposed retroactively and without regard to fault for conduct occurring years earlier.

In adopting this approach, Congress had to grapple with the impacts of imposing this far-reaching new liability regime on other pre-existing federal environmental regulatory requirements and to try to ensure that these other federal laws were still properly implemented. To achieve this goal, Congress chose to codify two particularly key provisions: the “petroleum exclusion” and the exclusion for federally-permitted releases. Neither of these exemptions was adopted in order to afford special treatment to the oil and natural gas industry or any specific industry. Rather, they were included either for sound practical reasons or because it was clear that the scope of CERCLA should have never covered these situations in the first place. There has been no intent to ignore any environmental problems caused by the spillage of crude oil or petroleum. In fact, as Congress intended, any environmental problems caused by contaminated petroleum or crude oil supplies are amply addressed under CERCLA or under a plethora of other federal environmental regulatory authorities.

TOXIC RELEASE INVENTORY

The federal Emergency Planning and Community Right-to-Know Act (EPCRA)¹ was enacted by Congress as Title III to the Superfund Amendments and Reauthorization Act of 1986. Adopted in response to several highly-visible chemical incidents, EPCRA primarily addresses two key issues: (1) support for emergency planning to respond to chemical accidents, and (2) “provid[ing] the public with important information on hazardous chemicals in their communities.”² In order to achieve its first goal, EPCRA sets up a broad, comprehensive framework for emergency planning at the state and local levels. For example, EPCRA requires that owners or operators of facilities at which hazardous chemicals are present to provide information contained in the Material Safety Data Sheets (MSDSs) for these chemicals to various state and local authorities. These MSDSs provide a variety of information concerning chemical products, including information on product composition, the physical and chemical properties of the product, potential health hazards and toxicity information, and first aid information and other steps to take in the event of a spill of the product. Addressing its second goal, EPCRA specifically focuses on major chemical and other industrial facilities — those categorized as falling within Standard Industrial Classification (SIC) Codes 20 to 39 (covering only manufacturing operations such as chemical manufacturing, automobile manufacturing, etc.) — and requires these facilities to report annually to the U.S. Environmental Protection Agency (EPA) regarding various releases of specified hazardous chemicals, a form of reporting that is commonly referred to as “Toxic Release Inventory” or “TRI” reporting.

EPCRA was specifically enacted in response to the tragic incident in Bhopal, India and to domestic chemical release incidents such as one that had occurred in Institute, West Virginia. These incidents resulted from the atmospheric release of chemicals from large chemical manufacturing plants into the surrounding community, raising concerns about the risks posed by these releases from large industrial facilities.³ Based on these incidents, in enacting the TRI provisions in Section 313 of EPCRA⁴ Congress specifically focused on the types of facilities that created these risks — large chemical production plants and other types of concentrated industrial operations using significant volumes of hazardous chemicals, particularly where the facilities are located in urban environments or other population centers. Given this approach, Congress limited the EPCRA Section 313 reporting requirements only to those facilities that have the equivalent of at least 10 full-time employees, are classified as being in an industry that has an SIC Code of 20 to 39 (*i.e.*, most manufacturing facilities), and have manufactured, imported or processed more than 25,000 pounds of any covered toxic chemical or “otherwise used” more than 10,000 pounds of any such chemical.

¹ 42 U.S.C. §§ 11001-11050.

² H. R. Rep. No. 99-962 at 281 (1986), *reprinted in* 1986 U.S.C.C.A.N. 3276, 3374.

³ *See, e.g.*, 132 Cong. Rec. H9595 (Oct. 8, 1986) (statement of Rep. Edgar) (“my concerns rest with the families that live in the shadow of these chemical and manufacturing plants”).

⁴ 42 U.S.C. § 11023.

Congress Did Not Intend to Regulate Oil and Natural Gas Exploration and Production Under the TRI Program

Congress made a conscious decision in enacting the TRI provisions of EPCRA in 1986 to focus on the types of large manufacturing facilities that were believed to be creating risks to individuals who live in the neighborhoods in the vicinity of such facilities. In adopting this approach, Congress chose not to impose TRI reporting requirements on a wide range of other types of commercial and industrial operations, including but certainly not limited to facilities involved in the exploration and production of oil and natural gas. For example, residential and commercial construction, transportation services, and agricultural operations as well as other types of decentralized operations were also specifically excluded from the scope of the TRI reporting requirements as a result of the congressional deliberations.

Oil and natural gas exploration and production operations in particular differ in key respects from the types of manufacturing operations on which Congress chose to impose TRI reporting obligations. The industrial operations covered by SIC Codes 20-39 which were made subject to TRI reporting — including not only chemical manufacturers themselves but also manufacturing operations that use chemicals, such as motor vehicle, ship, railroad car and aircraft manufacturers, manufacturers of electronics and other types of consumer products and industrial equipment, manufacturers of materials such as steel, plastics and cement and even manufacturers of clothing — typically involve manufacturing processes in large, centralized facilities. These facilities often use or produce significant quantities of chemicals on a consistent, long-term basis and consequently store substantial quantities of chemicals as a routine matter. At the same time, these manufacturing facilities are often located in urbanized environments with many residences surrounding or in close proximity to the manufacturing plant. It was these specific types of circumstances, for example, that resulted in thousands of nearby residents being exposed to the chemicals accidentally released from the chemical manufacturing facility in Bhopal.

In contrast to these concentrated manufacturing operations, oil and natural gas exploration and production facilities are generally widely scattered. Well pads are spread out through many areas of the country, with hundreds or thousands of feet separating individual well pads even in those areas with substantial exploration and production activity. In addition, these facilities are generally found in rural environments, with few if any individuals residing in the vicinity of a well pad itself. In fact, many well pads are located in isolated areas far from any residential areas. At the same time, the operations at an individual well pad typically use very limited amounts of chemicals and many uses of chemicals — such as for hydraulic fracturing and other stimulation operations — are indeed very short-term. As a result operations at individual well pads do not at all create the types of significant risks associated with the use of chemicals that are specifically posed by large manufacturing operations. Consequently, there is no indication that Congress ever intended that highly decentralized operations such as oil and natural gas exploration and production facilities were to be subject to TRI reporting requirements.

Moreover, when it first enacted EPCRA Congress gave EPA the authority to revisit the scope of the TRI reporting when necessary and to add to the categories of facilities that must file TRI reports if the Agency deemed it appropriate. Nevertheless, even when EPA subsequently decided to expand the scope of the types of facilities that must comply with TRI reporting

obligations, the Agency again decided not to include oil and natural gas exploration and production facilities within the scope of this program. In exercising its authority, EPA added categories of facilities only when it found that these plants engaged in types of activities which are similar to or related to the activities conducted at the facilities within the manufacturing sector.

Consistent with this congressionally-directed approach, EPA has only added through the years such categories as petroleum bulk terminals, wholesaling of chemicals and related products, metal mining, facilities engaged in the processing (but not the extraction) of coal, solvent recovery services and hazardous waste treatment facilities to the industry sectors required to submit TRI reports;⁵ however, EPA has specifically rejected adding oil and natural gas exploration and production facilities to the list of industry sectors required to comply with TRI reporting requirements. In justifying this action, EPA stated that “[t]his industry group is unique in that it may have related activities located over significantly large geographic areas.”⁶ EPA even noted that for individual well sites, operations probably would not have exceeded the thresholds established in the Act with respect to the minimum number of employees a particular facility must have and the amounts of chemicals it must use in order to be subject to the TRI requirements in the first place. Thus, EPA found no compelling need to require oil and natural gas exploration and production facilities to submit TRI reports, and in fact identified significant concerns that might have arisen if it had decided otherwise.

TRI Reporting Would be Burdensome for Oil and Natural Gas Exploration and Production Facilities and Would Not Yield Significant Benefits

If oil and natural gas exploration and production facilities were to be subject to TRI reporting, such requirements would be unnecessarily burdensome, the usefulness of the data generated by such reporting would not justify the costs and those costs, taken together with other regulatory burdens, would severely affect the production of American oil and natural gas.

According to its recent analysis of reporting burdens associated with TRI reporting, the Agency has estimated that facilities that are subject to TRI reporting will spend an average of 48 man-hours and over \$2400 for each “Form R” report that must be submitted to EPA.⁷ Imposing these types of reporting burdens on operations at individual well sites could result in substantial cumulative burdens for well operators, many of whom would have to prepare dozens or even hundreds of such reports (if they were eventually subjected to these reporting obligations) because of the number of individual wells they operate and the highly decentralized nature of the operations. These burdens would in turn substantially impede the ability of oil and natural gas operators to produce adequate supplies of American energy at affordable prices. Moreover, these reports would only provide minimal benefit in light of the fact that few if any residents would ever be exposed to any releases of chemicals from many well sites.

At the same time, the imposition of such reporting requirements on oil and natural gas exploration and production facilities could also place substantial administrative burdens on EPA itself and on the TRI program generally. EPA currently estimates that approximately 30,000 facilities throughout the country are subject to TRI reporting requirements and will file a total of

⁵ See 62 Fed. Reg. 23834 (May 1, 1997).

⁶ 61 Fed. Reg. 33588, 33592 (June 27, 1996).

⁷ EPA, *Toxic Release Inventory, TRI Form R Toxic Chemical Release Reporting, Information Collection Request Supporting Statement*, EPA ICR No. 1363.15 at 24 (Dec. 10, 2007).

about 77,000 reporting forms.⁸ In contrast, there are over 933,000 operating well sites across the country — if any significant portion of these well sites were to become subject to TRI reporting, it would obviously result in a dramatic increase in the number of reports submitted to the Agency and could potentially overwhelm the system with information about facilities that pose little risk of the type that EPCRA was designed to address in the first place, thereby undermining EPA’s ability to focus its attention and resources on the types of facilities that Congress actually intended to cover — those that pose a potential risk to significant populations.

Conclusion

In short, Congress intended EPCRA to meet two principal objectives — namely, first to provide chemical information for emergency planning and response to key state and local governmental agencies, and second to focus on large centralized manufacturing operations and facilities to obtain information on releases to the environment. Oil and natural gas exploration and production activities differ from those types of manufacturing operations that are subject to TRI reporting obligations in several key respects. First, in contrast to these manufacturing facilities, oil and natural gas exploration operations are widely scattered and relatively small in scale. Moreover, these operations are generally not undertaken near large, urban centers in the U.S. Thus, the decision of Congress not to include oil and natural gas exploration and production activities within the universe of facilities subject to TRI requirements was wholly consistent with congressional intent. Indeed, many other commercial and industrial sectors were likewise excluded from TRI coverage. In addition, EPA has chosen not to add oil and natural gas exploration and production activities to the universe of facilities required to comply with TRI reporting obligations because there is no compelling reason to impose new reporting burdens that would provide no significant benefit and that would only serve to drive up the cost of oil and natural gas production.

⁸ *ICR Supporting Statement* at 41.