FEDERAL ENVIRONMENTAL REGULATORY OUTLOOK FOR THE OIL AND GAS INDUSTRY

2016 FORECAST: STRONG MARKET HEADWINDS COUPLED WITH HISTORIC REGULATORY CHALLENGES

Rough business conditions will continue to buffet the oil and gas industry in the new year. At the time of writing, a barrel of Brent crude oil was priced at $33.51, and natural gas was selling at $2.11 MM/Btu. Industry watchers do not forecast a dramatic turnaround for oil and gas prices anytime soon. This turbulence will be compounded by the many federal environmental regulations and other initiatives that the Obama Administration plans to finalize in 2016 impacting upstream and midstream operations.

The Obama Administration in its first term touted the benefits of domestic oil and gas production for strengthening U.S. energy security and driving job creation, and hailed natural gas as a vital bridge fuel. The Administration identified “expand[ing] safe and responsible domestic oil and gas” as a lynchpin of the White House energy policy in its 2011 “Blueprint for a Secure Energy Future.” In his 2012 State of the Union Address, the President specifically recognized shale gas exploration as a vital engine in developing the nation’s vast energy reserves.

After winning a second term, however, the White House quickly moved to put building blocks in place for an aggressive climate change agenda. In 2013, the White House issued its “Climate Action Plan,” followed by the “Strategy to Reduce Methane Emissions” (“Methane Strategy”) in 2014. Notably, the White House Methane Strategy specifically targeted oil and gas operations as a focus sector for U.S. Environmental Protection Agency (“EPA”) and Department of the Interior (“DOI”) regulatory programs.

In its final year, the Obama Administration appears committed to cementing its environmental legacy with an unprecedented and sweeping set of regulations. Both the EPA and DOI are slated to finalize oil and gas regulations in 2016 that will impose significant compliance obligations and costs on regulated facilities. Some highly controversial federal environmental rules are already the subject of intense litigation involving dozens of parties. This litigation will not only affect the rules directly at issue, but also those under development. A clearer picture will emerge this year regarding these lawsuits and any litigation over new environmental rules finalized in 2016.

The industry will also learn in 2016 whether EPA will renew its national enforcement priority focused on the oil and gas sector, continuing heightened federal scrutiny on these operations. Finally, EPA is expected to finalize its landmark study of the relationship between hydraulic fracturing and water resources.

This report will highlight these and other key federal environmental initiatives affecting the oil and gas industry. In this report, the Vinson & Elkins Environmental and Natural Resources Group provides an “insider's perspective” based on our attorneys' deep knowledge of the federal government’s activities regarding the oil and gas sector, our Executive Branch contacts, and extensive experience with regulatory and litigation matters. Regulated companies should contact the firm’s Environmental and Natural Resources Group with specific questions regarding any of the matters addressed in this report.

U.S. ENVIRONMENTAL PROTECTION AGENCY INITIATIVES

From air emissions to chemicals used in hydraulic fracturing, EPA is preparing to finalize and propose new rules in 2016 that will impose a number of additional requirements on operators in the upstream and midstream segments of the oil and gas industry. The Agency relies on the Clean Air Act (“CAA”) as the regulatory cornerstone of its climate change agenda, but has also proposed measures under the Clean Water Act, Toxic Substances Control Act, and Emergency Planning and Community Right-to-Know Act.

Methane and VOC New Source Performance Standards (“NSPS”) Proposal: EPA is slated to finalize a rule under the CAA that would regulate methane directly for the first time with standards that would apply to several types of upstream and midstream facilities and operations, including compressor stations, production gathering and boosting stations, natural gas processing plants, and well sites. These rules only apply to specific sources of emissions that are new, or where “modification” or “reconstruction” has “commenced” after September 18, 2015.

The regulations include specific information on how to demonstrate that the equipment is in compliance with these requirements. With this NSPS proposal, EPA also seeks to expand the 2012 NSPS for volatile organic compound (“VOC”) emissions codified at Subpart OOOO. This new NSPS regulation includes requirements generally designed to achieve 95% reductions in methane and VOC emissions by implementing specific operational measures or installing control equipment at compressor stations and oil and gas well sites for a number of sources, including:

- Compressors;
- Pneumatic pumps;
- Pneumatic controllers;
- Storage vessels; and
- Equipment leaks.

Both well sites and compressor stations must also comply with new leak detection monitoring and repair requirements for fugitive VOC and methane emissions. These fugitive monitoring requirements are expected to be particularly onerous as they impose tight timelines and ongoing monitoring and repair requirements at these widely dispersed, frequently unmanned, facilities. The proposed NSPS requires operators to conduct an initial fugitive emissions survey within 30 days of commencing operations, and semi-annual follow-up surveys, using optical gas imaging (“OGI”) technology. The initial OGI survey of “fugitive emissions components” at the well site or compressor station would include valves, connectors, open-ended lines, pressure relief devices, closed vent systems, and thief hatches on tanks. The proposal would require operators to replace or repair the sources of any detected fugitive emissions within 15 days. All repaired sources of fugitive emissions must then be resurveyed within 15 days of the repair to ensure the repair has been successful. Under the proposal, the survey frequency can increase or decrease depending on the percentage of emission leaks found during surveys. Operators would also be required to develop and implement company-wide monitoring plans to comply with these fugitive emissions requirements.

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The following table compares EPA’s current Subpart OOOO regulation with the proposed methane rule, including control requirements based on the Best System of Emission Reduction (“BSER”). (Source: Vinson & Elkins)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Current Subpart OOOO</th>
<th>Proposed Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulates VOCs</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Regulates Methane</td>
<td>No</td>
<td>Yes (controls are identical to current Subpart OOOO)</td>
</tr>
<tr>
<td>Hydraulically fractured oil well completions</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Hydraulically fractured gas well completions</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Fugitive emissions at well sites and compressor stations</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Equipment leaks at natural gas plants</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pneumatic Pumps</td>
<td>No</td>
<td>BSER</td>
</tr>
<tr>
<td>Control requirements</td>
<td>BSER</td>
<td>BSER (same controls)</td>
</tr>
</tbody>
</table>

EPA projects that it will issue a **final rule in June 2016**. An important legal implication of the methane NSPS is that methane would become a “regulated pollutant” under the New Source Review/Prevention of Significant Deterioration program under the CAA. This could lead to additional requirements to control methane emissions in the future.

**CTGs and New Ozone Standard**: On the same day it proposed the methane NSPS rule, EPA issued draft Control Techniques Guidelines (“CTGs”) mirroring the requirements found in the proposed NSPS for methane and VOCs. CTGs do not impose direct requirements on facilities; rather, they serve as recommendations for additional pollution controls for new and existing sources that states may implement through their State Implementation Plans (“SIPs”) in areas that are not in attainment with EPA’s ground-level ozone standard. In particular, CTGs are recommendations for air control agencies to consider in determining what is known as Reasonably Available Control Technology (“RACT”).

The draft CTGs make RACT recommendations for pneumatic controllers, pneumatic pumps, compressors, equipment leaks, and fugitive emissions in the onshore production and processing segments of the oil and natural gas industry, as well as storage vessels in all segments (except distribution) of the oil and natural gas industry. Unlike the NSPS, these recommendations would apply to both new and existing sources of VOCs if adopted by the states with ozone nonattainment areas.

The impact of these CTGs will be expanded when EPA finalizes its new ozone nonattainment area designations under EPA’s **stricter 70 ppb ozone standard**, which became effective on December 28, 2015. Many areas of the country will be in nonattainment with this new, stricter ozone standard for the first time when EPA makes attainment/nonattainment designations in late 2017. States must submit nonattainment SIPs to EPA within three years of EPA’s designations. Nonattainment areas are then granted different periods of time to meet the 70 ppb ozone standard depending on their nonattainment classification (ranging from marginal to extreme).

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3 The projected finalization dates for the EPA rules discussed in this article can be found at: [http://yosemite.epa.gov/opei/RuleGate.nsf/](http://yosemite.epa.gov/opei/RuleGate.nsf/).
The new ozone standard, in conjunction with the CTGs, could result in many of the requirements found in the proposed methane NSPS also applying to existing well sites and compressor stations through revised SIP requirements.

Nonattainment areas for 2008 ozone standard (Source: EPA)

Additional areas expected to be in nonattainment with the new 70 ppb ozone standard based on 2012–2014 air monitoring; note that additional areas (e.g., rural areas) without air monitoring may also be impacted by the new nonattainment designations (Source: EPA)

Definition of “Source” and “Aggregation”: After years of uncertainty and inconsistency, EPA proposed to amend its Prevention of Significant Deterioration (“PSD”), Nonattainment New Source Review (“NSR”), and Title V air permitting program regulations to clarify the definition of “adjacent” for the purpose of making source determinations for the oil and natural gas sector. The proposed rulemaking aims to streamline the permitting process and produce more consistent and predictable source determinations in light of uncertainty created by prior Agency guidance on adjacency and recent litigation. The more activities that EPA aggregates into a “source,” the more likely it is that the source will trigger additional CAA requirements, including permitting, extensive and costly analyses of emissions, and even more stringent pollution controls.

5 See Emission Standards for New and Modified Sources, supra note 2.
Under EPA’s “preferred” proposed option, a “source” would include all the emitting activities located on a property, and only those sources that “are contiguous or are located within a short distance of one another” would be considered “adjacent.” Properties within a quarter mile should be considered a single source. Significantly, in its “preferred” approach, EPA refused to consider the “common sense notion” of a plant, which was endorsed by the U.S. Court of Appeals for the Sixth Circuit in *Summit Petroleum Corp. v. EPA.*

In its proposed rule defining “adjacent,” EPA offered a second option which would include all the emitting activities located on a property, and properties within a quarter mile, as well as sources beyond a quarter mile that are functionally related. This more subjective option would lead to continuing uncertainty and confusion regarding aggregation determinations, leaving ultimate decisions in some cases to the federal courts.

EPA projects that it will finalize this source aggregation rule in June 2016.

**Minor Source Requirements for Indian Country:** EPA proposed a Federal Implementation Plan (“FIP”) to implement the NSR Program in Indian country for new and modified minor sources in the production segment of the oil and natural gas industry. This rule would apply six existing federal standards to reduce emissions of VOC, NOₓ, SO₂, particulate matter (PM, PM₁₀, PM₂.₅), hydrogen sulfide (H₂S), and carbon monoxide (CO). These standards include four NSPS and two national emission standards for hazardous air pollutants (“NESHAP”), which collectively encompass emission limitations and other requirements from many common sources in the oil and gas industry. These sources include:

- Compression ignition and spark ignition engines;
- Reciprocating and centrifugal compressors;
- Fuel storage tanks;
- Fugitive emissions from well sites and compressor stations;
- Glycol dehydrators;
- Hydraulically fractured oil and gas well completions;
- Pneumatic controllers in production and pneumatic pumps; and
- Storage vessels.

The rule would apply in all areas of Indian country, except those designated as nonattainment areas, where the Minor New Source Review (“NSR”) permitting program would apply.

**Amendments to Federal Indian Country Minor NSR Rule:** In the Federal Register Notice issuing the proposed FIP, EPA also proposed several amendments to the Federal Indian Country Minor NSR rule, including establishing a compliance deadline of October 3, 2016, and revising certain provisions. EPA revised its definition of “Indian country” to comport with a 2014 court decision from the U.S. Court of Appeals for the District of Columbia Circuit that addressed EPA’s jurisdiction to implement the Federal Indian Country Minor NSR rule. In *Oklahoma Department of Environmental Quality v. EPA,* the D.C. Circuit reviewed the definition of “Indian country” in the Federal Indian Country Minor NSR regulation, and held that the rule does not apply in non-reservation areas of Indian country, absent a demonstration of tribal jurisdiction by EPA or a tribe. (For example, there are lands held in trust for Indian tribes or lands privately held by non-tribe members within a reservation that EPA has deemed “Indian country.”)

**Storage Vessels without the Potential for Flash Emissions and Small Glycol Dehydrators Subject to NSPS—Request for Additional Information:** EPA signaled in late 2015 that it may pursue additional requirements for storage vessels without the potential for flash emissions (“PFE”) and small glycol dehydrators. The Agency issued a request for information in November 2015.

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5 690 F.3d 733 (2012).
6 See *Emission Standards for New and Modified Sources,* supra note 2.
7 740 F.3d 185 (D.C. Cir. 2014).
seeking data on emissions including hazardous air pollutants (“HAP”) from these sources. EPA is particularly interested in data regarding any emissions of HAP other than benzene, toluene, ethylbenzene, and xylene from small glycol dehydrators, as well as information on available control options for those HAP. EPA has now extended its request for information on these sources until March 11, 2016.

**TSCA and Hydraulic Fracturing Chemicals:** With DOI’s fracking disclosure rule tied up in litigation, EPA anticipates publishing a proposed rule by the end of 2016 that could require the disclosure of chemicals used in hydraulic fracturing on non-federal lands under the Toxic Substances Control Act (“TSCA”). Such a rule could impact chemical manufacturers, chemical suppliers that engage in processing, service providers mixing chemicals on site to create hydraulic fracturing fluids, and service providers responsible for injecting fluids into the well to fracture the formation. The rule could also potentially impact well operators.

Previously, in response to a petition under TSCA from numerous environmental groups, EPA sought comment on a host of key issues that would be addressed in any final chemical disclosure rule in a 2014 Advanced Notice of Proposed Rulemaking (“ANPRM”). These issues included whether a program to obtain information on chemicals used for hydraulic fracturing should be voluntary or mandatory, the appropriate scope of the disclosures, and how data claimed to be trade secrets, or confidential business information (“CBI”), would be handled. In its 2014 ANPRM, the Agency acknowledged that many states already have chemical disclosure requirements in place and expressed an intent not to promulgate duplicative federal requirements for hydraulic fracturing chemical disclosure.

This move to propose a new rule was spurred on by the **EPA Office of Inspector General (“IG”).** The IG issued a report in July 2015 criticizing EPA for not taking further action to follow up on a chemical disclosure rule. The IG recommended EPA publish a timeframe for evaluating whether to go forward with a rule. EPA has now projected a Notice of Proposed Rulemaking (“NPRM”) for a chemical disclosure regulation for December 2016. In addition to investigating waste, fraud, and abuse, the IG conducts programmatic audits and other evaluations of EPA activities. Congress may request that the IG conduct an investigation of a programmatic action that the Agency must implement. Recommendations from the IG become tracked in an electronic database within EPA, and EPA officials are held accountable to implement these IG recommendations within specified timeframes provided by the IG.

The U.S. Government Accountability Office (GAO), which is an independent, non-partisan agency, also conducts evaluations of Executive Branch programs at the request of Congress. Like the EPA IG, GAO has evaluated EPA and DOI activities in the oil and gas sector and provided recommendations for Agency actions.

**Toxics Release Inventory Requirements for Natural Gas Processing Plants:** In response to a lawsuit from environmental groups, EPA announced that it will develop Toxics Release Inventory (“TRI”) requirements for natural gas processing plants under the Emergency Planning and Community Right-to-Know Act (“EPCRA”) enacted in the wake of the Bhopal disaster.

EPA issued a response letter to the environmental petitioners agreeing to create TRI requirements for natural gas processing plants, but declining to create TRI requirements for other requested areas, which included crude petroleum and natural gas liquids, drilling oil and gas wells, and oil and gas field exploration services. EPA estimated that more than half of the 517 natural gas processing plants in the U.S. would meet the TRI employee threshold (10 full-time employees or equivalent), and would manufacture, process, or otherwise use at least one TRI-listed chemical in excess of applicable threshold quantities. The TRI is

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published annually and requires disclosure of releases to air, land, and water, as well as waste management and pollution prevention information.

EPA projects issuing an **NPRM expanding TRI requirements to gas processing plants in December 2016**. The upshot of including these facilities in the TRI program is that it could subject the operations to greater regulatory scrutiny.

**Pretreatment Standards for Unconventional Oil and Gas Extraction Wastewater:** In April 2015, EPA proposed wastewater pretreatment standards that would prohibit onshore unconventional oil and gas extraction facilities from sending wastewater to publicly owned treatment works ("POTWs"). EPA’s proposed standard will apply to sources of wastewater associated with production, field exploration, drilling, well completion, or well treatment for **unconventional oil and gas extraction**.

Historically, operators have primarily dealt with wastewater by injecting it into underground disposal wells. When disposal wells were unavailable, some operators began looking to public and private wastewater treatment facilities to manage their wastewater. Because the extraction wastewater contains substances that these treatment facilities do not ordinarily treat, some of the substances are discharged, untreated, from the POTW to the bodies of water that receive the water. EPA has proposed a "standard" that would prohibit both new and existing unconventional oil and gas extraction sources from discharging wastewater into POTWs.

Because producers do not generally discharge to POTWs, this rule will likely have limited practical effect. **EPA projects issuing a final rule in August 2016.**

**U.S. DEPARTMENT OF THE INTERIOR REGULATORY INITIATIVES**

Upstream operators on federal and tribal lands and offshore operators can all expect new requirements to be imposed on them during the new year. The Department of the Interior, through the Bureau of Land Management ("BLM"), U.S. Fish and Wildlife Service ("FWS"), and the Bureau of Safety and Environmental Enforcement ("BSEE"), has proposed imposing new permitting, flaring, equipment design, and other requirements on operators. DOI has adopted the view that its regulations need to keep pace with industry and technological developments related to oil and gas exploration and production and, therefore, new rules are necessary.

These DOI rules raise concerns regarding overlapping and duplicative federal and state requirements, problems with shared enforcement power between DOI and state inspectors, and unfamiliarity with each regulator’s requirements. How these requirements will overlap with existing state and federal requirements, their costs, as well as the ultimate outcome of any legal challenges to them, remains to be seen.

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Lands administered by the DOI and other federal agencies (Source: DOI)

Venting and Flaring Requirements on Federal and Tribal Lands: The BLM administers over 200 acres of federal lands, and over 60,000 wells operate on these lands. In addition, there are over 3,700 leases on tribal lands. Activities on these lands have become an area of greater focus as part of the Obama Administration’s initiative to reduce methane emissions from the oil and gas sector from 40 to 45 percent by 2025.

On February 8, 2016, BLM published a proposed rule aimed at reducing natural gas lost through natural gas venting, flaring, and equipment leaks from both new and existing production activities on federal lands. Under BLM’s proposal, operators would be charged royalties on natural gas losses from onshore federal and Indian mineral leases administered by BLM except where gas loss is “unavoidable,” as defined by the proposed rule. BLM acknowledges in its proposed rule efforts by EPA, state regulators, and industry to reduce flaring and venting, but argues that additional rules are necessary to protect the public’s resources and assets from being wasted. Indeed, the proposal is predicated on the view that oil and gas lost to venting, flaring, and leaks constitutes “waste.”

Existing rules allow the loss of natural gas from venting and flaring subject to BLM pre-approval; oil and gas companies are exempt from royalty payments on gas that is vented or flared with prior authorization or approval, which is known as “unavoidably lost” gas.

Current BLM requirements were adopted in 1979 and are found in the Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases (NTL-4A): Royalty or Compensation for Oil and Gas Lost, which states that the BLM Area Supervisor may approve venting or flaring only after review of “(1) an evaluation report supported by engineering, geologic, and economic data which demonstrates to the satisfaction of the Supervisor that the expenditures necessary to market or beneficially use such gas are not economically justified and that conservation of the gas, if required, would lead to the premature abandonment of recoverable oil

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reserves and ultimately to a greater loss of equivalent energy than would be recovered if the venting or flaring were permitted to continue or (2) an action plan that will eliminate venting or flaring of the gas within 1 year from the date of application.  

Operators under the BLM proposal would be required to pay royalties on avoidable gas losses. BLM specifically proposed to focus on reducing gas lost from:

- Flaring of associated gas from development oil wells;
- Gas leaks from equipment and facilities located at well sites;
- Gas leaks from compressors;
- High-bleed pneumatic controllers and certain pneumatic pumps;
- Gas emissions from vessels;
- Downhole well maintenance and liquids unloading; and
- Well drilling and completions.

Comments may be submitted on the proposed rule up to 60 days after publication in the Federal Register, and the rule is projected to be finalized in June 2016.

Rules for Oil and Gas Operations on National Wildlife Refuge Lands: When the Fish and Wildlife Service ("FWS") acquires lands within the boundaries of a wildlife refuge, it often only purchases the rights to the surface estate; it does not purchase the subsurface property interests as well. Private parties thus retain non-federal mineral rights underlying national wildlife refuges across the country.

According to FWS, more than 100 wildlife refuges host nearly 1,700 active wells, in addition to thousands of inactive ones. Following a March 2015 report from the DOI Inspector General citing lack of oversight of these wells, FWS published a proposed rule in December 2015 that would significantly overhaul prior federal regulations. The FWS proposed rule includes a number of measures such as:

- A permitting scheme for new non-federal oil and gas operations on refuge lands;
- Operating standards (e.g., protection of water resources, wildlife, and plant life);
- Reporting requirements (change of operator, accidents, impacts to plant life, fish and wildlife);
- Chemical disclosure via FracFocus;
- Allowing FWS to require that operators hire third-party contractors to monitor operations for compliance with FWS rules;
- Incorporating compliance with state standards into FWS-issued permits along with joint inspection and enforcement authority with state inspectors;
- Plugging and abandonment and reclamation requirements on FWS lands;
- Spill prevention and waste management provisions; and
- Financial assurance requirements.

The proposed requirements would also provide for access payments to FWS, as well as penalties for violations of the proposed rules. As proposed, operations under an existing permit from FWS may continue, as long as they comply with existing federal, state, and local laws and regulations. However, following cessation of operations, FWS would modify the existing permit, and the

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18 Projected timeframes for Department of Interior rules can be found at the Unified Regulatory Agenda site: Agency Rule List - Fall 2015.
proposed reclamation requirements would apply to pre-existing operations. The proposed rules would not apply to wells drilled outside of a refuge to access mineral rights located beneath refuge lands.

In addition to questions about duplicative federal and state requirements, there is a threshold concern regarding the time for processing applications. FWS lacks experience permitting oil and gas operations; operators with leases inside of refuges will likely face significant delays.

FWS has not indicated a projected date for finalizing this rule for refuge lands.

**DOI Offshore Requirements – BSEE Blowout Preventer Rule:** On April 13, 2015, BSEE proposed more stringent standards for well control equipment used in offshore drilling operations. The proposed standards focus on blowout preventers ("BOP"), well design, well control, casing, cementing, real-time well monitoring, and subsea containment requirements.20

The proposal represents a culmination of recommendations from multiple governmental agencies and various industry, academic, and public working groups to address offshore safety concerns following the April 2010 *Deepwater Horizon* incident in the U.S. Gulf of Mexico. Among other changes, the proposed rule incorporates industry standards, including American Petroleum Institute ("API") standards and recommended practices for blowout prevention, subsea production systems, subsea wellhead and Christmas tree equipment, and choke and kill systems.

BSEE proposed "qualification" requirements for all who perform BOP maintenance work and annual reviews of BOP repair and maintenance records by a BSEE-certified third party to determine whether the BOP continues to meet original design specifications. Additional maintenance and qualification requirements would be imposed on BOP equipment slated for use in High Pressure High Temperature ("HPHT") wells.

The proposed rule also expands the areas of regulatory focus, including:

- **Shearing Ram Requirements** – The proposal would require the use of double shearing rams on BOPs. BSEE based the requirement for a double shear ram on API Recommended Practice ("RP") 53; however, unlike the industry RP, BSEE does not propose to allow operators of moored drilling rigs to "opt-out" of this requirement. Operators must instead seek a variance and approval from BSEE.

- **Failure and Near-Miss Reporting and Original Equipment Manufacturers ("OEMs")** – The proposed rule would also require operators and OEMs to report and share information for equipment failure and near-miss incidents.

- **Real–Time Onshore Monitoring of Operations** – BSEE proposes that operators monitor deepwater and HPHT well operations from an onshore facility in real-time, which the preamble claims will assist in identifying “critical issues” to address while simultaneously providing BSEE with “greater visibility of operations.”

- **Cementing and Use of Centralizers** – The proposal includes a general performance obligation to use centralizers to ensure efficient placement of cement around the casing string. The proposal requires BSEE District Manager approval before installing a different casing than that originally approved in the Application for Permit to Drill.

- **Testing Frequency of BOPs** – BSEE proposes to change the seven-day BOP testing interval for workover and decommissioning operations to 14 days. A 14-day interval would be consistent with the testing frequency requirements for drilling and completion.

DOI had projected a final BOP rule in January 2016.21 A final proposed rule was sent to the White House Office of Management and Budget for review in early February 2016.

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21 Id.
KEY COURT CASES TO WATCH IN 2016

There are several pending lawsuits that go to the heart of EPA’s authority to regulate discharges and air emissions at oil and gas facilities, with implications for the longer-term role natural gas will play in the nation’s fuel portfolio. Some of these lawsuits are likely to reach the U.S. Supreme Court.

In 2016, a clearer picture should emerge on the pathway, timeframe, and potential outcomes of these cases.

“Waters of the U.S.” Litigation: EPA and the Army Corps of Engineers’ (the “Corps”) 2015 rule redefining the term “waters of the United States” under the Clean Water Act (“CWA”)—and significantly expanding the scope of federal regulation over land-use—faced immediate legal challenge in many jurisdictions across the country. At the time of writing, EPA’s rule is subject to a nationwide stay per a ruling of the U.S. Court of Appeals for the Sixth Circuit.

The litigation over EPA’s controversial rule could stretch out beyond 2016, and could very well wend its way to the U.S. Supreme Court more than once. Most immediately, there is a possibility of conflicting decisions from the Sixth Circuit and the U.S. Court of Appeals for the Eleventh Circuit (where challenges filed by a number of states are pending) on the threshold “jurisdictional” question of whether the cases are properly heard by trial or appellate courts in the first instance. Ultimately, there could also be conflicting decisions or other grounds for Supreme Court review of the rule’s legality.

In hopes to avoid having to litigate challenges in courts around the country, EPA and the Corps argued in December 2015 in front of the Sixth Circuit that the CWA gives exclusive jurisdiction over the dispute to circuit courts. Questions from the panel at oral argument appeared to indicate they believed the breadth of the new rule could qualify it for circuit court review. The crux of this determination revolves around whether the federal government is correct in asserting that the rule is a limitation on the way EPA regulates certain pollutant discharges—called an “other limitation”—under Section 509(b)(1)(E) of the CWA. Section 509 provides that only certain rules must be challenged initially at the appellate level, which includes the approval or promulgation of any effluent limitation “or other limitation” under Sections 301, 302, 306 or 405, permit approvals under Section 402, or individual water quality control strategies under Section 304. However, the jurisdiction rule does not fall under a specific section of the Act. The Circuit Court will have jurisdiction over the case if the court determines the jurisdictional rule does qualify as an “other limitation” or permit approval.

Given the importance and nationwide impact of the rule, the EPA/Corps rule may well be taken up by the Supreme Court—even without a circuit split.

Clean Power Plan Litigation: Numerous suits challenging the legality of EPA’s Clean Air Act (“CAA”) regulations governing greenhouse gas emissions for the power industry were consolidated in the U.S. Court of Appeals for the District of Columbia Circuit. These suits challenge EPA’s authority to invoke Section 111(d) of the CAA in fashioning a sweeping regulatory scheme for the power industry.

After the final rule was published in October 2015, over two dozen states and various industry groups filed several petitions that were later consolidated in the D.C. Circuit Court of Appeals challenging the rule and seeking a stay of the rule while litigation is ongoing. West Virginia and Texas led a 24-state coalition in one suit and Oklahoma, Mississippi, and North Dakota all filed separate suits. The U.S. Chamber of Commerce is leading a group of trade associations, while utilities, coal companies, mining interests, and other sectors each filed their own cases.

Generally, all challengers argue that EPA is overstepping its authority under Section 111(d) of the CAA. In seeking a stay of the rule pending appeal, the states argued they “are being immediately and irreparably harmed by EPA’s illegal effort to force States to reorder their electrical generation systems . . . [t]his case involves an unprecedented, unlawful attempt by an environmental regulator to reorganize the nation’s energy grid.”22 EPA has contended that under the final rule states have three years to develop their implementation plans for cutting carbon dioxide emissions, and initial compliance dates are seven years away.

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Although it denied a stay of the rule, the D.C. Circuit did grant expedited briefing, on a schedule that suggests a ruling on the merits could come before even initial plans are required in September of this year. Shortly thereafter, a coalition of states (led by Texas and West Virginia) and business interests took the unusual step of asking the Supreme Court to stay the rule pending the outcome of the D.C. Circuit proceedings. On February 9, 2016, the Supreme Court granted a stay of the rule. Should the Supreme Court ultimately agree to review the merits of the issue (following a ruling by the D.C. Circuit), the Court likely would not rule until 2017 or 2018. Also, should the political affiliation of the Administration change in 2017, the timeline could be further muddled as the new Administration could seek to modify or rescind the Clean Power Plan or decide to not defend it in court.

Among other repercussions, decisions on EPA’s authority under Section 111(d) of the CAA could have important consequences for the propagation of Subpart OOOO to existing sources.

**BLM Fracking Rule Challenge:** BLM’s rule imposed new requirements for hydraulically fractured oil and gas wells on federal and tribal lands, and is subject to litigation pending in the District of Wyoming. The rule establishes many new requirements—including requirements for well construction, water management, and chemical disclosure—that increase the regulatory burden for well drillers on federal and tribal lands, and ultimately may make drilling on those lands less attractive than similar projects on nearby lands only subject to state regulations.

A federal district court issued a preliminary ruling enjoining enforcement of the BLM rule holding that BLM lacked authority to regulate hydraulic fracturing. The court reasoned that the exemption of hydraulic fracturing from the Safe Drinking Water Act (except if diesel fuels are using in fracking) evidenced Congressional intent to exclude hydraulic fracturing from federal regulation.23

Environmental groups appealed the federal district court’s injunction to the U.S. Court of Appeals for the Tenth Circuit,24 which will likely address the issue in 2016.

**Pre-Enforcement Review of Clean Water Act Jurisdictional Determinations:** The U.S. Supreme Court granted certiorari in December 2015 to hear a case, Army Corps of Engineers v. Hawkes Co., No. 15-290, turning on the issue of whether recipients of CWA jurisdictional determinations (JDs) can challenge the findings in court as final agency action under the Administrative Procedure Act before regulators take administrative enforcement action predicated on that JD. The appellants had requested a JD (i.e., wetlands delineation) from the Corps for mining peat on their land. The Corps determined the property included wetlands subject to Clean Water Act jurisdiction requiring a Section 404 permit for the discharge of dredge and fill material. The Eighth Circuit in Hawkes held that JDs are final agency actions subject to judicial review,25 creating a circuit split with the Fifth Circuit’s contrary holding in Belle Co. v. Army Corps of Engineers that JDs may only be challenged once the JDs are used as a basis for an enforcement action or a permitting decision.

Property rights advocates argued that landowners should be able to challenge JDs in court immediately upon their issuance, because they require landowners to incur considerable compliance costs, forego the planned development of their property, or risk substantial enforcement penalties.

Ever since the U.S. Supreme Court’s unanimous 2012 ruling in Sackett v. EPA26 that a compliance order issued under the Clean Water Act by EPA constituted a final agency action that may be reviewed in federal court, many have expected that the U.S. Supreme Court could take up a case like Hawkes and potentially expand the Sackett holding. The Supreme Court’s decision in the case could have significant impacts on the Corps’ approach to, and willingness to issue, JDs if the High Court concludes that JDs should be subject to pre-enforcement review. The Corps is authorized, but not required, to provide JDs. Currently, the Corps issues thousands of JDs each year. At a minimum, a Supreme Court ruling that JDs triggered pre-enforcement review could impact the time required for the Corps to issue JDs, and dramatically reduce the number of JDs the Corps could complete. Conceivably, such a ruling could even cause the Corps to cease issuing JDs.

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Pre-Enforcement Review of Clean Air Act/Resource Conservation and Recovery Act Enforcement Order: A lawsuit filed in the Ninth Circuit, *National Electric Coil et al. v. EPA*, No. 14-72810, seeks review of an administrative compliance order issued by EPA under the CAA and Resource Conservation and Recovery Act (“RCRA”). The affected companies claim that EPA violated the Constitutional guarantee of due process by issuing a final order under the CAA and RCRA without first providing an opportunity to respond to the Agency’s findings of violations embodied in the order.

The administrative instrument at issue ordered injunctive relief on an expedited schedule with the threat of penalties, yet the companies have argued that they did not learn of the alleged violations until they received the compliance order. The companies have argued before the Ninth Circuit that the U.S. Constitution’s Due Process Clause required notice and an opportunity to be heard regarding the alleged CAA violations before issuance of the order. (The petitioners are pursuing separate administrative remedies for the alleged RCRA violations under that statute.) In addition, the companies contend that due process compels an opportunity for administrative as well as judicial review, and an opportunity to challenge the evidence relied upon by EPA for its allegations of violations.

*National Electric Coil* represents yet another example where a federal court may potentially extend procedural protections afforded regulated parties before EPA may take administrative enforcement action. Any such extension could potentially cause the Agency to issue additional guidance and expend more resources developing evidence and engaging with regulated entities prior to taking CAA enforcement actions.

EPA ENFORCEMENT HORIZON FOR THE OIL AND GAS SECTOR

Energy Extraction National Enforcement Initiative and Continuing Focus on Oil and Gas Operations: The oil and gas sector has been, and will continue to be, a national focus for EPA’s enforcement offices. One of EPA’s six current National Enforcement Initiatives (“NEI”) is “Ensuring Energy Extraction Sector Compliance with Environmental Laws.”\(^{27}\) The Energy Extraction NEI, which was first designated an NEI in the 2011–2013 cycle, was motivated by the “unprecedented acceleration of natural gas development,” and its impacts to air, water and the land, according to EPA’s Office of Enforcement and Compliance Assurance (“OECA”) in its FY 2014 National Program Manager Guidance.\(^{28}\) It was then renewed in the 2014–2016 cycle.\(^{29}\)

Prior to the NEI, EPA enforcement at oil and gas operations was conducted as part of the “core” enforcement program. The Agency investigated noncompliance and brought enforcement cases in this sector before the NEI designation; the difference now is that EPA Headquarters is coordinating more closely on these enforcement activities with regional offices and requiring specific numerical commitments from the regions for inspections and enforcement actions. Also, EPA has shifted greater contractor resources and equipment funding to support enforcement activities in the oil and gas sector with the priority designation.

EPA increased the number of energy extraction inspections and evaluations from 361 in 2011 to 870 in 2012. In other words, from the first year of the NEI to the second, the number of inspections and evaluations more than doubled. But the trend has not continued, and in 2013, the number dropped down to 673. In 2014, it rose slightly to 723, and in 2015, it dropped again to 564.

Under this NEI, EPA concluded 43 enforcement actions in 2011; 53 in 2012; 36 in 2013; 24 in 2014; and 40 in 2015. With the exception of the relatively low number in 2014, the number of enforcement actions concluded annually across this time period has been relatively consistent and has not directly tracked the number of inspections conducted.


\(^{28}\) Id. at 3.

The types of enforcement actions EPA has taken under the Energy Extraction NEI include cases addressing the following:

- Unauthorized brine discharges and other releases from upstream producers under Sections 301 and 402 of the CWA;
- Unauthorized wastewater discharges by treatment facilities under Sections 301 and 402 of the CWA;
- Illegal dredging and filling under Section 404 of the CWA;
- Unauthorized waste injection under the Underground Injection Control ("UIC") Class II program of the Safe Drinking Water Act ("SDWA");
- Excess emissions from storage tanks, compressors, and gas processing plants under the CAA; and
- EPA has also utilized its emergency authorities under CERCLA and SDWA to address alleged impacts from exploration and production activities on sources of drinking water.

The bulk of the inspections and enforcement actions under the Energy Extraction NEI have occurred in EPA Region 3 (which includes Pennsylvania and West Virginia); Region 6 (which includes Texas and Oklahoma); and Region 8 (which includes Colorado, North Dakota, and Wyoming). These Regions correspond to the major shale plays in the U.S.

The Regions have distinct “enforcement philosophies” and approaches to conducting investigations in the oil and gas sector and addressing noncompliance.

- EPA Region 3 focuses field inspections in Pennsylvania, and to a lesser extent, West Virginia. The Region has issued a number of administrative orders to address noncompliance and has also reached civil judicial settlements, including significant Consent Decrees resolving violations of the CWA 404 program.
• EPA Region 6 often utilizes investigatory approaches such as overflights that allow the Region to cover a large geographic area and address a substantial number of sources, leveraging administrative enforcement tools.

• Region 8 has partnered with the State of Colorado and invoked the Colorado SIP to achieve a settlement under the CAA addressing storage tank emissions, and looks to build on that model to continue pursuing enforcement actions in Rocky Mountain plays, as well as in the Bakken.

• EPA Region 5 has conducted a large number of inspections under the SDWA UIC Class II program, and has started initiating more enforcement actions to address SDWA noncompliance as well as CAA violations.

These Regions, as well as EPA Headquarters, have utilized statutory information gathering authorities, such as Section 114 of the CAA and Section 308 of the CWA, to obtain information from regulated oil and gas sector facilities and assess compliance at regulated sources.

Map showing EPA inspections, enforcement actions, and shale plays (Source: EPA)

Oil and Gas Enforcement in 2016 and Beyond: In 2016, it is expected that EPA will announce that the Energy Extraction NEI will be renewed for the FY 2017–2019 cycle. Much of EPA’s enforcement focus has been in the Marcellus, Barnett and Eagle Ford shale plays, as well as Rocky Mountain areas and the Bakken. EPA’s enforcement activities under this NEI will likely continue to expand beyond these geographic areas to shale plays like the Antrim and Utica, led by EPA Region 5.

EPA has signaled that enforcement under the Energy Extraction NEI will likely focus on CAA cases in 2016 and beyond. In September 2015, EPA OECA issued a Compliance Alert titled *EPA Observes Air Emissions from Controlled Storage Vessels at Onshore Oil and Natural Gas Production Facilities.*[^30] The Compliance Alert focuses on emissions from storage vessels at onshore oil and natural gas production facilities, and suggests that, as a general matter, cases under the CAA will be a continuing focus of the NEI.

In part, EPA is focusing on compliance issues under the CAA because that statute lacks the oil and gas exemptions that are found in CERCLA, RCRA, the CWA, and the SDWA. The Agency and the U.S. Department of Justice are reluctant to test the bounds of oil and gas exemptions in court for fear of establishing unfavorable caselaw. Also, the Agency believes it can more effectively investigate air emissions using Next Generation Compliance technologies, as discussed below, compared to targeting

discharges under the CWA and violations under its other authorities. Finally, the Agency considers air emissions from upstream and midstream facilities a significant impact of oil and gas industrial activity that affects human health, warranting focused attention.

**EPA’s “Next Generation Compliance” Program will Continue and Likely Expand:** An animating philosophy behind EPA’s current enforcement program is the “Next Generation Compliance” initiative. Next Gen compliance consists of five interconnected components, each of which is designed to improve the effectiveness of EPA’s compliance program. The five components are: (1) regulation and permit design; (2) advanced monitoring; (3) electronic reporting; (4) transparency; and (5) innovative enforcement approaches.

**Five components of Next Gen Compliance (Source: EPA)**

EPA plans to design **regulations and permits** that will be more effective in encouraging compliance. According to EPA’s Strategic Plan, such regulations and permits must be “clear, as easy to implement as possible, and that contain self-reinforcing drivers for better performance.”

EPA will increasingly use and promote **advanced monitoring** technologies, technologies that allow for more effective detection of emissions and leaks, near real-time data, or remote monitoring. Advanced monitoring includes both point source emission/discharge monitoring and ambient monitoring (e.g., fence-line monitoring). Next Gen Compliance will couple advanced monitoring approaches with **electronic reporting** and other information technology systems to promote greater **transparency** and make more information available to the public. The idea underlying **innovative enforcement** is that through the use of technology and analytical tools, combined with better information from advanced monitoring and electronic reporting, EPA can better focus its civil and criminal monitoring and enforcement work where it can make the most difference.

EPA is aggressively seeking to incorporate Next Gen Compliance tools in enforcement settlements **whenever possible**. A 2015 OECA memorandum explains that “case teams are expected to consider these Next Gen compliance tools in all cases other than expedited settlements, and to include them whenever appropriate in civil judicial and administrative settlements.”

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EPA’s updated Supplemental Environmental Projects Policy also encourages the use of “[l]innovative enforcement tools supporting OECA’s Next Generation Compliance, such as fenceline monitors, e-reporting, web posting of data and independent third-party audits.”

EPA’s “Next Gen” Initiative Raises Significant Concerns for Regulated Entities: The use of Next Generation Compliance practices by EPA raises legal, technical, and practical concerns for the regulated community, including:

- A potential increase in private tort suits and citizen suits with increased sharing of environmental data with communities, particularly if environmental data are not properly validated, generated using technologies that are not proven, or are provided without proper context;
- Use of technologies that are not specified in applicable regulations and are insufficiently tested to develop enforcement actions; and
- Use of remote monitoring devices that may not precisely determine where emissions originate.

Negotiating Settlements: Companies should bear in mind when negotiating with government teams who are pushing Next Gen Compliance provisions in settlements that these measures are untested in federal court as injunctive relief. The government has adopted the position that Next Gen provisions may be ordered by federal district court judges within their broad injunctive powers, and will “push” in settlement negotiations to secure these mechanisms. Yet, there are parameters on federal court equitable authority that bound what a federal district would likely order as injunctive relief. When negotiating, regulated entities should explore with the government whether the requested relief exceeds what is required to return to compliance in the underlying regulations. Companies should weigh the overall terms in a settlement and consider staking the position that any Next Gen provisions are extralegal and, therefore, should be handled as a voluntary Supplemental Environmental Project (“SEP”) in the settlement. In an agreement that includes a SEP, the settling party would receive an explicit penalty reduction in consideration of its commitment to undertake any Next Gen measures as a SEP, such as publishing emissions data, conducting fenceline monitoring, or agreeing to utilize OGI technologies beyond what is specifically required in the applicable regulations. Regulated entities should also seek to delimit use of any data developed in connection with Next Gen provisions in a settlement agreement.

EPA Will Continue to Push Advanced Technologies and “Transparency” Without Clear Legal Authority: In its September 15, 2015, Federal Register notice publishing proposed National Enforcement Initiatives for the FY 2017–2019 cycle, EPA indicated that for all the NEIs it selects, EPA intends to incorporate Next Generation Compliance approaches into its work. In so doing, EPA’s “goal will be to use the most current monitoring technologies, data analytics and transparency, as well as the latest thinking on what drives better compliance, to get better results even in a time of serious resource constraints.” Indeed, “advancing Next Generation Compliance” is also a specific area of focus in EPA OECA’s FY 2016–2017 National Program Manager Guidance. For these reasons, companies can continue to expect a vigorous effort by EPA to push these measures in settlements.

GROWING SCIENTIFIC FOCUS ON THE OIL AND GAS SECTOR

Upstream exploration and production operations are the subject of expanding scientific investigation, including EPA’s study on the impacts of hydraulic fracturing on drinking water projected to be finalized in 2016, as well as studies from universities. Any studies finding links between oil and gas sector activities and impacts to water systems or the air could spur more third-party tort actions, citizen suits, and embolden state and federal regulators to issue yet more regulations in 2016 and beyond.

EPA’s Study on Hydraulic Fracturing: This year, EPA’s Office of Research and Development (“ORD”) plans to finalize its landmark study to investigate the potential impacts to drinking water resources from hydraulic fracturing. EPA’s draft 2015 paper

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24 See U.S. v. EME Homer City Generation, L.P., 727 F.3d 274, 293 (3d Cir. 2013) (“The specific types of relief do not overlap or otherwise suggest that they are merely examples of ‘any appropriate relief.’ Consequently, any injunctive relief available under this residual phrase must be limited to ongoing violations, consistent with the specific forward-looking injunctive remedies that precede it.”) (citation omitted) The U.S. Court of Appeals for the Third Circuit in EME Homer City construed Section 113(b) of the CAA, which provides: “such court shall have jurisdiction to restrain such violation, to require compliance, to assess such civil penalty, to collect any fees owed the United States under this chapter . . . and to award any other appropriate relief.” 42 U.S.C. § 7413(b).
concluded that the study “did not find evidence that [hydraulic fracturing activities] have led to widespread, systemic impacts on drinking water resources in the United States.” In its report, the Agency noted specific instances where activities associated with hydraulic fracturing (but not fracking itself) led to impacts on drinking water resources. But the number of these instances, according to EPA, was small as compared to the number of hydraulically fractured wells.

In reaching these conclusions, the study reviewed and analyzed existing information on the potential impacts on drinking water resources related to five activities associated with hydraulic fracturing: (1) water acquisition, (2) chemical mixing, (3) well injection, (4) flowback and produced water, and (5) wastewater treatment and waste disposal.

**Water Acquisition**: Based on available data, the draft report finds that the national median volume of water used per hydraulically fractured well is approximately 1.5 million gallons, with horizontal shale gas wells typically using more than vertical wells. The report notes that hydraulic fracturing water use generally accounts for less than 1% of total annual water use, but that this percentage is higher at a more local level. The report also notes that while “high fracturing water use or consumption alone does not necessarily result in impacts to drinking water resources,” it could when combined with other water use and low water availability on a local scale. The potential for such impacts is highest in areas such as Southern and Western Texas, which are characterized by high “fracturing water use, low water availability, drought, and reliance on declining ground water.”

**Chemical Mixing**: EPA’s draft report notes that on-site storage, mixing, and pumping of this fluid can potentially result in accidental spills or leaks, leading to potential impacts on drinking water resources depending on the characteristics of the spills, and the fate, transport, and toxicity of the chemicals spilled. With regard to frequency of spills, EPA only produced estimates for two states. In Colorado, EPA estimates that there is one spill for every 100 wells, and in Pennsylvania, EPA estimates that there are approximately .4 to 12.2 spills for every 100 wells. EPA does not know whether these estimates are representative of national releases, but notes that if they are, national spills could range from 100 to 3,700 spills annually. Spills ranged from 5 to more than 19,000 gallons and were caused most commonly by equipment failure.

**Well Injection**: According to EPA’s draft assessment, well injection can lead to drinking water contamination via one of two mechanisms. First, deficiencies in the well’s casing or cement can let liquids or gases flow out of the production well or along the outside of the production well into a drinking water resource. The second mechanism occurs when liquids or gases from the production zone move to a drinking water source through subsurface geologic formations. EPA reports, however, that this is unlikely to occur due to the distance between the production zone and the drinking water resources. An EPA survey of 2009 and 2010 wells estimated that 80% of the wells had more than 2,000 feet of distance between the base of groundwater resources and the shallowest point of fracturing.

**Flowback and Produced Water**: EPA’s draft report found that flowback water can impact drinking water through both surface spills and releases from unlined pits. While the report lacks national data on the frequency of on-site produced water spills, EPA was able to characterize spill volumes and causes for 225 cases in which produced water spilled near a well pad. The report found that the most frequent cause was failure of container integrity, which accounted for 74% of the 225 spills EPA reviewed.

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27 Id.
28 Id.
29 Id. at ES-3.
30 Id. at ES-9.
31 Id.
32 Id.
33 Id.
34 Id. at ES-10.
35 Id. at ES-11.
36 Id.
37 Other causes included human error, failure of container integrity, weather and vandalism. Id.
38 Id. at ES-13 – ES-14.
39 Id. at ES-14.
40 Id. at ES-15.
41 Id.
42 Id. at ES-19.
43 Id. at ES-17.
44 Id.
causes included human error, equipment failure, and other miscellaneous causes.\textsuperscript{55} EPA also noted that 8\% of these spills reached surface or ground water. \textsuperscript{56} Such spills tended to be larger in volume than spills that did not reach surface or ground water.\textsuperscript{57}

**Wastewater Treatment and Disposal:** The treatment and disposal of hydraulic fracturing wastewater, which consists in part of flowback and produced water, can also impact drinking water resources. EPA’s report found that drinking water impacts can occur through inadequate treatment of wastewater prior to discharge, accidental spills during transport from storage pits, migration of constituents following land application, and, finally, through the accumulation of constituents outside of CWTs and POTWs.\textsuperscript{58}

**Draft Science Advisory Board (“SAB”) Recommendations:** As part of the peer review process for the hydraulic fracturing study, EPA’s SAB released a draft report on January 7, 2016, reviewing and providing advice on scientific questions associated with the Agency’s hydraulic fracturing study.\textsuperscript{59} The SAB’s review is the latest development regarding EPA’s study and may impact the final version of the study. Among other comments, the SAB found that it is not clear how EPA’s statement of no widespread, systemic impacts to drinking water reflects “the uncertainties and data limitations described” in the draft study. The SAB also stated that EPA’s finding of no widespread, systemic impacts “requires clarification and additional explanation.” In response to the SAB’s recommendations, EPA could potentially amend its prior finding of no widespread, systemic impacts. \textbf{The SAB is expected to issue a final report with consensus advice in the spring of 2016. EPA indicated that it still plans to issue its final hydraulic fracturing study in 2016.}

As a backdrop to the hydraulic fracturing study, \textbf{EPA has been criticized for its three high-profile groundwater investigations} in Parker County, Texas; Dimock Township, Pennsylvania; and Pavillion, Wyoming. The Agency dropped its investigations in these cases, deferring to the states to take the lead for investigating and addressing any impacts. For example, EPA published a draft report for public comment describing its investigation into alleged impacts to private drinking water wells from hydraulic fracturing in Pavillion, Wyoming, but never finalized its assessment after receiving strong criticism for its sampling methodology.

**University Studies on Air and Water Impacts:** A number of peer-reviewed studies have been published assessing potential impacts from upstream exploration and production activities to air and water. These studies include the recent articles noted below.

**Air Studies:** A November 2015 study in the \textit{Proceedings of the National Academy of Sciences} (“PNAS”) journal concluded that methane emissions from Barnett Shale oil and gas wells are 90\% higher than EPA’s estimates based on the Agency’s Greenhouse Gas Inventory.\textsuperscript{60}

An August 2015 study published by Colorado State University in \textit{Environmental Science & Technology} evaluated methane emissions from natural gas equipment. The authors concluded that their results “suggest that CH$_4$ emissions from gathering are substantially higher than the current EPA GHG estimate and are equivalent to 30\% of the total net CH$_4$ emissions in the natural gas systems GHGI. Because CH$_4$ emissions from most gathering facilities are not reported under the current rule and not all source categories are reported for processing plants, the total CH$_4$ emissions from gathering and processing reported under the EPA GHGRP (180 Gg) represents only 14\% of that tabulated in the EPA GHGI and 7\% of that predicted from this study.”\textsuperscript{61}

**Water Studies:** A 2014 study led by Ohio State University and published in the PNAS journal concluded contamination of drinking water wells in the Marcellus and Barnett Shales by natural gas activities is most likely caused by poor casing and cementing in the gas wells.\textsuperscript{62} The study results indicated that contamination was not caused by horizontal drilling or hydraulic fracturing.\textsuperscript{63}

\textsuperscript{55} Id.
\textsuperscript{56} Id. at ES-19.
\textsuperscript{57} Id.
\textsuperscript{58} Id. at ES-19.
\textsuperscript{59} See \textit{SCIENCE ADVISORY BOARD, SAB REVIEW OF THE EPA’S DRAFT ASSESSMENT OF THE POTENTIAL IMPACTS OF HYDRAULIC FRACTURING FOR OIL AND GAS ON DRINKING WATER RESOURCES} (draft Jan. 7, 2016), \url{http://yosemite.epa.gov/sab/sabproduct.nsf/fedrgstr_activities/D4210BA02EBEF65185252F30005A0CC2/$File/Report+to+Administrator-SAB+Hydraulic+Fracturing+Research+Advisory+Panel-1-7-16+draft.pdf}
\textsuperscript{63} Id. at 14080.
A 2014 study published in the Annual Review of Environment and Resources led by Stanford University also examined sources of water impacts.\(^{64}\) Other contributors included Duke University, Los Alamos National Laboratory, Newcastle University, Ohio State University, MIT, NOAA, and University of Colorado. The study found that the “[p]rimary threats to water resources include surface spills, wastewater disposal, and drinking-water contamination through poor well integrity.”\(^{65}\)

**BEYOND 2016: WHAT DO THE NATIONAL ELECTIONS IN 2016 PORTEND FOR FEDERAL ENVIRONMENTAL REGULATIONS AND OTHER MEASURES?**

**Enforcement Trends are Generally Steady:** If past is prologue, the change in administrations should not bring about a radical shift in the level of EPA’s enforcement activities. Even during the Obama Administration, there have been conflicting trends with EPA’s enforcement activities as compared to the George W. Bush Administration.

In FY 2015, EPA obtained nearly $205 million in federal administrative and civil judicial penalties, more than double the total for FY 2014. Moreover, in FY 2015, private party Superfund cleanup commitments were approximately $2 billion, the second highest amount committed to spend on site cleanup during a fiscal year. In FY 2015, the total of criminal fines, restitution, and court ordered projects was $4 billion, an increase over prior years.\(^{66}\)

Other measures have declined during the Obama Administration. There has been a steady downward trend in the number of civil case initiations from FY 2010 to 2014, from approximately 3,300 civil case initiations to approximately 2,300 case initiations. Similarly, there has been a decline in the number of inspections during that period from approximately 21,000 to 16,000. The number of criminal investigations opened fell from approximately 375 in FY 2011 to approximately 200 in 2015.\(^{67}\)

Some enforcement metrics remained relatively consistent during the Bush and Obama Administrations:

- During the last two years of the Bush Administration, 372 cases were completed and, adjusting inflation to FY 2009 dollars, $131.6 million in penalties were levied. During the first two years of the Obama Administration, 401 cases were concluded, and $163.1 million in penalties were levied.\(^{68}\)

- The number of cases EPA referred to the Department of Justice ranged between 277 and 280 between 2007 and 2009, before dropping to 233 in 2010.\(^{69}\)

- This continuity also exists at a program-specific level. During the final two years of the Bush Administration, civil judicial penalties under the CWA averaged $8.3 million. During the first two years of the Obama Administration, they averaged $6.6 million. Similarly, civil judicial penalties under RCRA averaged $7.9 million in 2007–08, and averaged $7.6 million from 2009–10.\(^{70}\)

- Note that these annual totals can be affected significantly by one or two very large cases occurring in a particular year.

Shrinking EPA budgets, declining resources, and retirements account for some of these trends, and accompany a focus by the Agency on more complex, “risk-based” cases with larger environmental and human health benefits. Moreover, there have generally not been large swings because EPA’s enforcement is largely conducted by career professionals, including the career senior managers directing enforcement work, rather than political appointees.

**National Enforcement Priorities Tend to Remain in Place:** Similarly, enforcement priorities areas have generally not shifted significantly across Administrations. Some of the current National Enforcement Initiatives noted above have been focus areas for many years, and will likely continue for the FY 2017–2019 cycle, including the Energy Extraction NEI.


\(^{65}\) Id. at 327.


\(^{67}\) Id. at 14.


\(^{70}\) Amounts are inflation adjusted to FY2010 dollars. Miller & Smith, supra note 68, at 12.
Will a New Administration Have Flexibility to Modify or Rescind Obama-Era Regulations?: Whether (and how quickly) the new administration that takes over in January 2017 could modify or rescind any Obama Administration rulemakings would depend on the specific rule at issue and a number of factors, such as the stage of the rulemaking process, agency’s basis for the rule, and the rulemaking process the agency used.

As a general matter, an agency must follow lengthy procedures (e.g., advance notice and an opportunity for public comment) before rescinding, amending, or replacing an existing formal regulation. As a result, a new administration may not be able to replace an existing rule for several years or more. Although compliance with these administrative procedures is likely to be the dominant method of replacing a previous administration’s rules, in some narrow circumstances the notice and comment process is not always required.

The Administrative Procedure Act (“APA”) provides for the waiver of prior notice and comment where the agency has “good cause” to forego these procedures if they are impracticable, unnecessary, or contrary to the public interest.71 In NRDC v. Abraham, the Court of Appeals for the Second Circuit construed the good cause exception narrowly in the context of a political transition.72 In early 2001, without prior notice or comment, the George W. Bush Administration published two so-called final rules that delayed and ultimately suspended the effective date of certain energy efficiency standards the Clinton Administration had finalized, but which had not yet gone into effect. The Department of Energy argued that good cause existed because it needed more time to review and consider the efficiency standards. The Second Circuit held that good cause did not exist because the agency could not demonstrate a delay of the rule would do real harm or threaten the public interest. The court wrote that “an emergency of DOE’s own making cannot constitute good cause.”73 As a result, the court held that the Bush Administration had not effected a valid amendment of the Clinton-era rule’s effective date.

Also, in limited circumstances, agencies may issue a “direct final rule,” which takes effect a certain period after publication unless adverse comments are received.74 As a gap-filling measure (e.g., when necessary to address exigent circumstances), an agency may also issue an “interim final rule,” which takes effect upon publication, and subsequently take comments on the rule if it needs to forego prior notice and opportunity for comment for some important reason.75 Absent explicit Congressional authorization, however, an agency that attempts either of these procedures will face material risk that the agency’s action will ultimately be vacated for failure to follow the normal administrative procedures.

In any suit challenging a new rule that significantly modified or rescinded an Obama Administration rule, the court would evaluate in the first instance whether the agency in question followed relevant procedural requirements, and then also whether the new rule was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. Absent certain specific issues (such as an agency that has violated an unambiguous statute), courts are generally deferential to agencies, and have affirmed an agency’s leeway to change positions, so long as the agency follows applicable procedures, explains its rationale, and has sufficient support in the record.

There could be other mechanisms to alter the implementation of an Obama Administration regulation, such as by fashioning a new enforcement policy for that rule and granting states more leeway in administering a regulation. Efforts to “slow walk” federal enforcement or otherwise weaken rules or policies, however, could face pressure from non-governmental organizations (“NGOs”), Congress, and other parties. Citizens and NGOs could submit Freedom of Information Act requests to the government, seek investigations by the EPA Inspector General and potentially file suit. Congress could also hold hearings, subpoena records and officials, request an Inspector General investigation or an investigation by the U.S. Government Accountability Office.

Furthermore, an agency has significantly greater leeway to withdraw a proposed but unfinished rule, without an opportunity for comment on the withdrawal.76 A study of political transitions in Congress and the White House from 1983 to 2002 found elevated numbers of withdrawn rules following political transitions.77

73 Id. at 206.
75 Id.
Congressional Review Act: If the Obama Administration finalizes any of the regulations noted above too late in its final year, a new Congress or President could seek to roll back the regulations under the 1996 Congressional Review Act ("CRA"). The CRA empowers Congress to pass a resolution striking down a rule within 60 legislative days of the rule's publication. Congress has rarely invoked the CRA successfully. A Congressional resolution under the CRA could move quickly through the legislative process and would more likely be signed by the new President from an opposing party. Congress could also, of course, simply amend an agency's underlying statutory authority.

On January 19, 2016, President Obama vetoed a Congressional resolution that would have struck down the EPA/Army Corps of Engineers "waters of the U.S" rule. After President Obama vetoed the resolution, the resolution returned to the Senate for consideration of a veto override, which requires a two-thirds majority. The consideration of an override was indefinitely postponed after the Senate did not invoke cloture. Congress has passed resolutions under the CRA that would have blocked several other Obama Administration regulations, including the Clean Power Plan.

Modification of Policy and Guidance Memoranda: An agency typically has greater flexibility to modify informal policy, guidance, enforcement priorities, and related matters than it does to modify existing formal regulations. For example, formal regulations do not require EPA to pursue its Next Generation Compliance initiative. An incoming Administration could choose to emphasize other enforcement tactics without following a notice and comment process. Similarly, a new President is generally free to withdraw or modify Executive Orders, memoranda, and other White House guidance to the Executive Branch, without observing such procedures. The Obama Administration has issued a number of such documents regarding environmental matters, including the following:

- A January 2015 Executive Order removed 9.8 million acres of Arctic marine waters in offshore Alaska from oil and gas leasing under the Outer Continental Shelf Lands Act.78
- A May 2011 Presidential Memorandum called for federal agencies to reduce petroleum consumption through efficiency and alternative fuels in the federal light vehicle fleet.79
- An October 2009 Executive Order required certain executive agencies to increase efficiency and improve their environmental performance, including their GHG emissions.80 A March 2015 Executive Order tightened those emissions targets, requiring certain federal agencies to cut their carbon dioxide output by an average of 40% compared to 2008 levels by 2025.81

States have successfully challenged a federal enforcement policy in the context of immigration law. In June 2012 and November 2014, the Department of Homeland Security ("DHS") issued memoranda that created the Deferred Action for Parents of Americans ("DAPA") and expanded the Deferred Action for Childhood Arrivals ("DACA") immigration programs, respectively.82 The memoranda directed DHS to defer prosecution of certain undocumented immigrants if they met specified criteria.

Texas and 25 other states challenged the programs in court, arguing in part that the programs violated the APA and exceeded the authority granted to DHS.83 In November 2015, the Fifth Circuit Court of Appeals affirmed the District Court's preliminary injunction against the programs.84 The District Court's decision relied on Texas’ “abdication standing” to challenge the actions of the Obama Administration.85 The court reasoned that Texas had standing to sue because the United States had exclusive authority over immigration but had refused to act in that area. The Court of Appeals held, in part, that the plaintiffs had established a substantial likelihood of success regarding their claims that DHS had violated the APA, and that the programs exceeded the authority the Immigration and Naturalization Act vested in the Secretary of Homeland Security.86

77 Id. at 960.
82 Texas v. United States, No 15-40238, at 3-4 (5th Cir. 2015).
83 Id. at 2.
84 Id. at 8.
85 Id. at 54, 66.
CONCLUSION

The final year of the Obama Administration stands to be a momentous period of federal environmental regulation and initiatives on the scientific and enforcement fronts. Businesses in the oil and gas space will need to understand these developments to make compliance decisions and undertake sound business planning. Operating in the shifting landscape of so many emerging federal requirements will be even more challenging given market conditions.

The Vinson & Elkins Environmental and Natural Resources Group is available to counsel regulated companies on specific matters arising under any of these federal, or other state, programs affecting their operations.

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