Environmental Due Diligence and Defect Procedure

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I. INTRODUCTION

Environmental laws have historically regulated oil and gas exploration, production, and development less heavily than other activities with comparable environmental effects. Many federal and state laws establish exclusions and exemptions specific to the oil and gas industry. Oil and gas operations face increasing environmental regulatory burdens, however, and operators must comply with their complex requirements. This regulatory burden has increased scrutiny on environmental issues in oil and gas transactions. As a result, the parties to a transaction will carefully evaluate the environmental compliance of assets for sale and negotiate the allocation of any risks or liabilities they may present. This paper discusses the primary federal environmental laws that affect the upstream oil and gas industry and how purchase and sale agreements may address them.

II. ENVIRONMENTAL ASSESSMENT PROCESS

Most buyers are unwilling to rely solely upon the representations and warranties the seller of oil and gas properties makes with respect to environmental compliance and environmental cleanup liabilities. As a result, buyers should, and typically do, elect to conduct their own environmental investigation of the properties being purchased. The primary purpose of the environmental assessment is to aid the parties in assessing environmental risk associated with the transaction. Therefore, the parties should balance the potential magnitude of the risk with the transaction costs associated with conducting environmental due diligence. The larger the transaction and associated environmental risk, the more substantial the environmental due diligence should be. Conversely, however, in a large transaction, the buyer might be prepared to assume a greater environmental risk and establish a higher threshold for investigation, because only greater risks will be material to the amount being paid for the assets. In upstream oil and gas transactions, the seller typically wants to avoid post-sale environmental risk, particularly if the seller is the operator, because the seller does not want to incur post-sale claims after it has lost the ability to bill non-operating working interest owners. Thus, the seller will want the parties to address all environmental liabilities at closing. This may drive the environmental defect process.

A. Scope of Assessment

Environmental due diligence focuses on liabilities associated with compliance with environmental laws and regulations. Liabilities associated with environmental conditions

include not only regulatory requirements, but also potential common law liabilities, such as unasserted toxic tort and nuisance claims. Although these liabilities are traditionally considered significant because of the potential for high damage awards, the mere assertion of these claims can also interfere with ongoing operations. For example, if remediation of a particular parcel of real estate is required, that parcel may become less valuable as a producing property if the cleanup remedy interferes with the use of the parcel. Similarly, to achieve additional leverage in their claims, private litigants may seek to intervene in permit proceedings to contest the issuance of a permit needed for operations.

Compliance with environmental laws is frequently overlooked as a due diligence issue, but it is also important. Environmental laws carry significant civil and even criminal penalties. Further, governmental agencies can take injunctive action to force compliance, including the requirement to undertake corrective action. For example, failure to comply with Clean Air Act ("CAA") technology standards could require a costly retrofit of air pollution control devices. In extreme cases, this type of relief could require the temporary or permanent cessation of operations at noncompliant facilities. Finally, the assessment should include regulatory matters that could impede the future development of the assets, such as the presence of wetlands, endangered species, species that regulators have proposed to list as endangered, or archeological resources. Regulators may restrict the assets' development or operation in light of these local environmental conditions. Environmental assessments that include compliance reviews are known as environmental audits.

B. Background Information

The first step in the environmental assessment should be the collection and review of all available background information. The buyer should use this background information to design the remainder of the assessment and to focus on those areas that are more likely to present environmental concerns. Much of the background information will need to come from the seller. The information provided should reflect the seller's current operating practices and emphasize the seller's waste management and pollution control practices. The buyer should also request copies of any environmental assessments prepared by or on behalf of the seller or the seller's predecessors for the properties being purchased. In addition, the background information should reflect any changes in the seller's operating practices over the years, particularly changes in the waste disposal practices. Moreover, the buyer should request copies of all environmental permits the seller holds and review all of the environmental files the seller maintains, including any files related to agency inspections or enforcement actions. In addition to reviewing documents, the buyer should interview the seller's employees who have knowledge of the seller's current and past operating practices.

C. **Environmental Site Assessments**

To assist in identifying potential environmental liabilities and environmental compliance issues, the buyer may engage an environmental consultant to conduct an assessment of the facilities. As counsel for the buyer, the attorney may assist in selecting a reputable firm and defining the scope of the assessment. If the buyer already has a good relationship with an environmental consulting firm, the client may elect to have the attorney engage the firm to seek to establish a claim of legal privilege over the consultant's work product. What is most important, however, is that the attorney and the environmental consultant have a clear understanding of the scope of the assessment and that they work together to identify and quantify the environmental risk.

1. Phase I

The initial step in any environmental assessment, after compiling seller and agency information, is to conduct a "Phase I" environmental site assessment of all or representative facilities. The American Society for Testing and Materials, now called ASTM International ("ASTM"), has largely standardized the scope of work for a Phase I environmental site assessment. ASTM has published certain standards for assessing environmental compliance and potential environmental liabilities at industrial and commercial facilities, including standard E1527-13, regarding Phase I environmental site assessments.²

A Phase I environmental site assessment generally consists of a records review, site reconnaissance, interviews with current owners and operators, and an evaluation and report.³ Site reconnaissance consists of a walkthrough and visual inspection by the naked eye. The records review generally consists of searching public records regarding the subject property and properties with a certain distance of it, to the extent that the assessor can perform such a review within a reasonable time and at reasonable cost.

In large oil and gas transactions, hundreds of facilities may be involved, and a Phase I environmental site assessment for each of them may be cost prohibitive. Therefore, the buyer may use agency background information and the information the seller provided to identify which facilities merit an actual site inspection. In some instances, it may be appropriate to select a sampling of facilities for site visits. In addition, the ASTM Phase I process may generate a large volume of unhelpful data by requiring the assessor to search public records regarding properties within a certain distance of the assets. If the transaction involves a large number of properties, the user may choose to conduct environmental assessments that do not meet the E1527-13 standard in order to focus their results. The buyer may also select which facilities to

¹ See, e.g., Congoleum Indus., Inc. v. GAF Corp., 49 F.R.D. 82 (E.D. Pa. 1969), aff'd, 478 F.2d 1398 (3d Cir. 1973).

² ASTM E1527-13, STANDARD PRACTICE FOR ENVIRONMENTAL SITE ASSESSMENTS: PHASE I ENVIRONMENTAL SITE ASSESSMENT PROCESS (ASTM International 2013).

 $^{^3}$ *Id*.

visit based on prior Phase I environmental assessments or recent aerial photography. For widespread oil and gas assets, particularly in hard to reach areas, some buyers use drones to perform such inspections to save time and money. A Phase I environmental assessment does not include an analysis of compliance with environmental regulations. If the buyer desires such an analysis, she must specify it separately.

2. Phase II

A Phase I generally indicates only the potential for environmental problems. A buyer typically performs a "Phase II" environmental site assessment to identify the nature and, to some measure, the extent of the potential contamination a Phase I environmental site assessment identifies. Most often, the Phase II environmental site assessment will involve surface, subsurface, and groundwater sampling for contaminants. Unlike Phase I environmental site assessments, there is no federal or universally accepted standard for Phase II environmental site assessments.⁴ Therefore, the buyer must rely more on the expertise and advice of environmental counsel and the environmental consultant. Phase II environmental site assessments can be expensive and they can delay the closing of a transaction.

It may be unclear whether gathering certain kinds of data constitutes a Phase I or a Phase II assessment. For example, the user may want to use drones equipped with optical gas imaging ("OGI") to search for leaks and fugitive emissions. This technology records the infrared range of the light spectrum, which renders some leaks and emissions visible that would normally be invisible to the naked eye. It can detect leaks and fugitive emissions relatively cheaply and quickly. Alternatively, some consultants equip drones with laser-based or proprietary instruments to detect emissions. The use of these remote sensing technologies is generally considered a Phase II type of activity.

D. Purpose of Assessments

There are two primary reasons to perform an ASTM-compliant inspection. First, lenders rely on the Phase I standard as a minimal level of diligence. If the buyer plans to mortgage the purchased assets, lenders may require the buyer to conduct ASTM-compliant Phase I assessments on them, although that is less likely for large transactions involving hundreds or thousands of wells.

Second, the party conducting a Phase I appropriately has generally met the all appropriate inquiry ("AAI") standards of the "innocent purchaser defense" under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").⁵ Under the innocent

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⁴ ASTM has issued Standard E1903 for Phase II environmental assessments of commercial property, but the standard is not universally followed to the same extent as E1527 for Phase I environmental assessments.

⁵ 78 Fed. Reg. 79,319 (Dec. 30, 2013); 42 U.S.C. § 9601(35)(B). Section IV of this paper describes CERCLA in greater detail.

purchase defense, a landowner who purchases contaminated property without knowledge of the contamination, despite diligent attempts to learn about environmental contamination on the property, may avoid liability for cleanup costs under CERCLA.⁶ For a landowner to show that it had no reason to know that any hazardous substances were on the acquired property, the landowner must have undertaken, at the time of acquisition, "all appropriate inquiry" into the property's previous ownership and uses.⁷ The U.S. Environmental Protection Agency ("EPA") recognizes ASTM site assessment standard E1527-13 as compliant with AAI requirements.⁸ Crude oil and natural gas are exempt from classification as hazardous substances under CERCLA. ⁹ This can make the innocent landowner defense less valuable. Even so, oily dirt can result in environmental violations, such as causing a sheen on stormwater runoff. 10 In addition, the statute may apply to other hazardous substances used in oilfield operations, including chlorinated solvents. As a result, it may be prudent to maintain eligibility for the innocent landowner defense by using ASTM/EPA-AAI assessments.

Other reasons to perform Phase I environmental site assessments may include establishing a baseline for a property's environmental conditions before the buyer takes possession of it. The agreement could use this baseline to allocate environmental risk between the parties. Similarly, the buyer may want to know if the site is a candidate for certain redevelopment programs.

III. ENVIRONMENTAL ASSESSMENTS WHEN SELLER IS NOT AN OPERATOR

The environmental assessment process is relatively straightforward when two parties, the buyer and the seller, perform it. However, in order to spread the risk of upstream oil and gas development, the ownership and operation of certain assets may be divided among multiple parties, including operating working interests and non-operating working interests. The seller's and the buyer's relationship to the assets will affect the scope and execution of the buyer's environmental due diligence.

A. **Operating Versus Non-Operating Working Interests**

A working interest is typically subdivided into two separate interests, operating interests and non-operating interests. Operators involved in the exploration and development of an oil and gas well typically have an operating working interest in the well, whereas persons who merely provide funding in exchange for a percentage of the working interest, but do not actually participate in the well operations, have a non-operating working interest in the well.

⁸ 78 Fed. Reg. 79,319 (Dec. 30, 2013). On October 6, 2014, EPA amended its AAI rules so that ASTM standard E1527-05 no longer satisfied the AAI requirement. 79 Fed. Reg. 60,087 (Oct. 6, 2014).

⁶ See 42 U.S.C. §§ 9601(35), 9607(b)(3), (q), (r).

⁹ 42 U.S.C. § 9601(14). ¹⁰ 40 C.F.R. § 110.

B. Liabilities of Operating and Non-Operating Working Interests

1. Federal Environmental Statutes

Despite the seemingly clear distinction between the two types of working interests, they do not necessarily align with how environmental laws, particularly CERCLA, define which parties are liable. Under CERCLA, operator liability requires a meaningful level of involvement in the day-to-day management decisions affecting the facility. Courts will review the activities of all potential defendants to determine their participation in facility operations, regardless of how the defendants defined or described their relationships. Whether a court will characterize a non-operating working interest holder as an operator, and therefore a generator of hazardous substances, may turn on whether the non-operating working interest holder made management-type decisions concerning the operational details of the properties or merely provided funding in exchange for a share of the working interest. In addition, the remedial obligations environmental laws impose generally apply to the surface estate. The non-operator may only have an interest in the mineral estate, in which case the non-operator may only be subject to environmental obligations it assumed in a joint operating agreement ("JOA").

2. State Statutes and Regulations

State laws and regulations may also distinguish between operating and non-operating working interests. Under Texas law, for instance, the site's past and present operators are liable for plugging and abandoning oil and gas wells. ¹² If abandoned wells present environmental problems and the operators are insolvent or cannot be found, then each non-operator is responsible only for its proportionate share of the cost of plugging the well. ¹³ As a result, Texas holds past and present operators primarily, and non-operators secondarily, responsible for the costs of plugging and abandoning wells.

3. Contractual Liability

A JOA may determine whether the operating working interest holder has a right to reimbursement for its environmental costs from non-operating working interest owners. Such provisions are generally enforceable; the parties should review them carefully. The standard provision governing the operator's conduct is that the operator shall conduct operations in a "good and workmanlike manner," with the caveat that the operator will not be liable to non-operators unless it acted with gross negligence or willful misconduct.¹⁴

¹¹ See, e.g., United States v. BestFoods, 524 U.S. 51 (1998).

¹² Tex. Nat. Res. Code § 89.011.

¹³ *Id.* at §§ 89.012, 89.083.

¹⁴ See American Association of Professional Landmen Joint Operating Agreement, Form 610, 1989, Section V.A.

C. Environmental Assessments When Seller is Not an Operator

The operating and non-operating working interest owners may have distinct risk profiles under federal law, state law, and their JOA. This can lead to conflict when a non-operating working interest owner seeks to sell its interest in the assets. In these circumstances, the seller, as a non-operating working interest owner, will market an interest in producing assets over which it generally does not exercise day-to-day control. If the seller is able to attract prospective buyers, they will require access to the assets to perform their environmental due diligence.

Recall that a Phase I environmental assessment typically involves a consultant conducting site reconnaissance, interviews with current owners and operators, and a records review. The consultant must access the property to reconnoiter its environmental condition; the records they must review may only be onsite. As a result, access to producing assets is generally necessary to conduct a Phase I environmental assessment. A consultant would need more extensive access to conduct a Phase II environmental assessment, which can involve sampling the property over a period of time. This is not problematic where the seller exercises sufficient control over the site to grant the buyer the access it needs to perform the assessment. But an operating working interest owner may deem it imprudent to allow the prospective buyers of a non-operating working interest to inspect its assets. For example, the inspection may trigger reporting obligations and associated cleanup costs, the operator may perceive the inspectors to be unreliable or disreputable, or the inspection may simply inconvenience operation. This may put the seller of a non-operating working interest in the difficult position of marketing assets that prospective buyers are unable to examine.

D. Drones: A Potential Solution

One way for the buyer to evaluate the operator's assets is to use alternative means to reconnoiter them. Unmanned Aircraft Systems ("UAS"), also known as remotely piloted aircraft but more commonly referred to as "drones," may provide a solution.

UAS may be equipped with a variety of site inspection tools, including high-resolution cameras for conducting site reconnaissance and leak detection instruments. These tools allow UAS to monitor emissions from wellheads, tanks, and flare stacks to help evaluate compliance with permit emissions limitations. Such inspection applications allow prospective buyers to conduct the site reconnaissance necessary to perform an environmental assessment. In fact, drones may allow the buyer to gather more information than they could have during a conventional Phase I environmental assessment. Some inspection applications for drones, like examining flare tips, were previously only available during planned facility shutdowns because of worker safety concerns. The use of UAS would allow prospective buyers to gather that information while the facility remained operational. Finally, persons using drones equipped with

infrared cameras or other leak detection devices should consider whether the data is eligible for certain privilege protections and whether penalty immunity or mitigation could apply.¹⁵

In February 2015, the Federal Aviation Administration ("FAA") proposed regulations allowing limited commercial drone use. FAA's proposed rules impose certain important operational restrictions on UAS. Among other things, UAS must fly below 500 feet, fly between sunrise and sunset, and remain close enough to the operator for him or her to see the aircraft without any aids, except for corrective eye lenses. Moreover, a person may not operate a drone while stationed on a moving land-based vehicle or aircraft and, therefore, cannot follow the drone from a moving station in order to extend his or her line of sight. Finally, the rules would also prohibit an operator from flying a drone over any person not directly involved in its operation, except for persons located under a covered structure that could protect them from a falling drone.

These restrictions may limit drones' due diligence applications. For example, the rule against flying a drone over a person not directly involved in its operation may prevent a prospective buyer from flying a drone over an operator's manned facilities or an oilfield that stretched across private properties. Similarly, the line-of-sight requirement could impede environmental assessments performed across large geographic areas, such as a field of well sites.

IV. OVERVIEW OF ENVIRONMENTAL LIABILITIES

Oil and gas exploration, production, and development must comply with comprehensive and complex environmental laws and regulations. To properly allocate environmental responsibility through a purchase and sale agreement, the parties must understand the environmental laws that may apply to their assets and the liabilities those laws may impose. Some federal laws establish exclusions and exemptions to the oil and gas industry that may limit the parties' responsibilities.

A. RCRA

The Resource Conservation and Recovery Act ("RCRA")²⁰ regulates the treatment, storage, and disposal of solid and hazardous waste. It provides a "cradle to grave" approach to the management of hazardous waste by regulating generators and transporters of hazardous waste and owners and operators of hazardous waste storage, treatment and disposal facilities.

¹⁵ See, e.g., Tex. Rev. Civ. Stat. art. 4447cc, §§ 1 et seq.

¹⁶ See 80 Fed. Reg. 9544 (Feb. 23, 2015).

¹⁷ *Id*. at 9546.

¹⁸ *Id*.

¹⁹ *Id*.

²⁰ 42 U.S.C. §§ 6901 et seq.

A waste must be solid waste in order to be a hazardous waste.²¹ Solid waste includes virtually any discarded material, regardless of its physical form.²² A solid waste is a hazardous waste if regulations specifically list it as a hazardous waste²³ or if it exhibits certain characteristics of hazardous wastes, including corrosivity, ignitability, reactivity, or toxicity.²⁴ Under these definitions, regulators could consider some of the materials produced during the exploration, development, and production of oil and gas to be hazardous wastes. However, RCRA expressly provides that drilling fluids, produced waters, and certain other wastes associated with the exploration and production of crude oil and natural gas are not hazardous wastes.²⁵ As a result, RCRA does not regulate many of the wastes generated in connection with the exploration, development, and production of oil and gas.

EPA has indicated that RCRA's so-called E&P exemption does not apply to general industrial wastes, such as solvents, that are not unique to the exploration, development, and production of oil and gas.²⁶ As a result, some wastes associated with the exploration and production of oil and gas are considered hazardous wastes. The operator of an upstream facility must manage these wastes in compliance with RCRA's hazardous waste requirements.

In order to comply, the operator must correctly classify the waste, obtain a hazardous waste identification number, comply with the applicable storage and other management requirements, prepare manifests of the waste, and transport the waste to a permitted facility using an authorized RCRA transporter. Failure to comply with any of these requirements could subject the owner and/or operator to civil and criminal penalties.²⁷

В. **CERCLA**

CERCLA provides for liability, compensation, cleanup and emergency response for hazardous substances released into the environment and the cleanup of inactive hazardous waste disposal sites.²⁸ The statute creates virtually no regulatory obligations. Instead, it provides the federal and state governments and private parties with various mechanisms to obtain or finance the cleanup of operating or abandoned sites that have been contaminated by or are threatened with releases of hazardous substances.²⁹

²¹ 40 C.F.R. § 261.3.

²² *Id.* § 261.2.

 $^{^{23}}$ Id. § 261.3. The listed hazardous wastes are set forth in 40 C.F.R. §§ 261.30–.35.

²⁴ *Id.* §§ 261.3, 261.20–.24.

²⁵ 42 U.S.C. § 6921(b)(2)(A). ²⁶ See generally 53 Fed. Reg. 25,446 (July 6, 1988).

²⁷ See 42 U.S.C. § 6928.

²⁸ Pub. L. No. 96-510, 94 Stat. 2767 (1980).

²⁹ See Ascon Props., Inc. v. Mobil Oil Co., 866 F.2d 1149, 1152 (9th Cir. 1989).

CERCLA gives the federal government the authority to compel potentially responsible parties to conduct cleanup of sites that pose an imminent and substantial endangerment,³⁰ or to conduct cleanup actions and recover its costs from liable persons.³¹ In addition, non-governmental entities which incur cleanup costs can recover those costs from liable persons if they satisfy certain requirements of the so-called National Contingency Plan.³²

Persons who may be liable for cleanup costs under CERCLA include the following: (1) the current owner or operator of a facility; (2) any person who owned or operated a facility at the time hazardous substances were disposed of there; (3) any person who arranged for disposal or treatment, or arranged with a transporter for disposal or treatment, of hazardous substances; and (4) any person who accepts hazardous waste for transport to disposal or treatment facilities and selects the disposal site.³³ Significantly for oil and gas interest holders, courts have found that an absent lessor may be an "owner" under the statute.³⁴

Current operators also are liable parties under CERCLA.³⁵ In oil and gas exploration and production activities, the term "operator" generally extends to those with an operating working interest in the well, but not to non-operating working interest owners who merely provide funding in exchange for a percentage of the income from the well.³⁶ Despite the distinction between the types of working interests, if there is sufficient participation in management or day-to-day operations, a court might hold a non-operating working interest holder liable as an operator and therefore liable for hazardous substance cleanup costs.³⁷ In the oilfield context, parties that conduct cleanups may look to non-operating parties, such as non-operating working interest and mineral interest holders, to defray their cleanup costs.

Potential CERCLA liability for response costs of cleanup arises only if there is a release or threatened release of a hazardous substance.³⁸ The definition of "hazardous substances" in CERCLA specifically excludes certain petroleum products.³⁹ EPA has concluded that this petroleum exclusion applies to crude oil and its refined derivatives, such as gasoline, even if a specifically listed hazardous substance is present in the petroleum waste in naturally occurring concentrations.⁴⁰ For example, leaded gasoline qualifies for the petroleum exclusion despite the

³⁰ 42 U.S.C. § 9606.

³¹ See id. § 9604.

³² *Id*. § 9607(a)(4)(B).

³³ *Id.* § 9607(a).

³⁴ United States v. Argent Corp., 722 F.2d 1157 (D.N.M. 1984); United States v. South Carolina Recycling and Disposal, Inc., 653 F. Supp. 984 (D.S.C. 1984), modified sub. nom., United States v. Monsanto Co., 858 F.2d 160 (4th Cir. 1988), cert. denied, 109 S. Ct. 3156 (1989).

³⁵ 42 U.S.C. § 9607(a)(1).

³⁶ Cf. United States v. Bestfoods, 524 U.S. 51 (1998).

³⁷ See id.

³⁸ 42 U.S.C. § 9604(a)(1).

³⁹ *Id.* § 9601(14).

⁴⁰ See Memorandum to J. Winston Porter, EPA Assistant Adm'r for Solid Waste & Emergency Response, from Francis S. Blake, EPA General Counsel (July 31, 1987).

presence of lead, 41 but petroleum products contaminated with hazardous substances are not within the petroleum exclusion. 42 Similarly, the petroleum exclusion does not apply to general industrial waste associated with oil and gas production, such as solvents.⁴³

CERCLA liability for owners and operators creates significant risks for both the buyer and the seller. The buyer assumes the seller's on-site CERCLA liabilities by purchasing the property. On the other hand, the seller will remain liable under CERCLA, even after transfer of the property, if any "disposal" of hazardous substances occurred during their period of ownership.

C. **Clean Water Act**

The Federal Water Pollution Control Act, also known as the Clean Water Act ("CWA"),44 is the primary federal statute intended to protect the nation's water quality. The CWA establishes a comprehensive program for protecting the nation's waters. The CWA programs most relevant to the oil and gas industry are the National Pollutant Discharge Elimination System ("NPDES") permit program; the stormwater discharge permit program; and the Spill Prevention Control and Countermeasure ("SPCC") program.⁴⁵

1. **NPDES Permits**

The NPDES permit program implements the CWA's prohibition against unauthorized discharges of pollutants from point sources into waters of the United States. 46 These permits, which EPA and delegated states issue pursuant to the CWA, authorize the permittee to discharge specified pollutants from outfalls, usually for a period of five years.⁴⁷ Most permits are individually issued to address a discharge from a specific facility, but EPA and delegated states also issue general permits for entire classes of discharging facilities. These general permits cover many types of discharges in the oil and gas industry, such as discharges of treated produced water and sanitary wastewater from offshore operations.

The CWA gives EPA and the U.S. Army Corps of Engineers authority to enforce the NPDES program in navigable waters, which is defined to include "waters of the United States." 48 What constitutes a water of the United States is a fraught, disputed topic. In June 2015, EPA published a final rule that sought to clarify the matter.⁴⁹ The rule significantly expanded the definition of waters of the United States, particularly regarding tributaries and certain waters and

⁴¹See Wilshire Westwood Assocs. v. Atlantic Richfield Co., 881 F.2d 801 (9th Cir. 1989).

⁴² See Southern Fuel Co. v. Amoco Oil Co., 1994 U.S. Dist. LEXIS 15769, at *13 (D. Md. Aug. 23, 1994). ⁴³ See 42 U.S.C. § 9601(14).

^{44 33} U.S.C. §§ 1251 et seq.

⁴⁵ See 40 C.F.R. § 112.3.

⁴⁶ 33 U.S.C. § 1342.

⁴⁷ *Id*.

⁴⁹ 80 Fed. Reg. 37,054 (June 29, 2015).

wetlands adjacent to waters of the United States. The rule is subject to ongoing litigation, but as it is written, it could significantly expand federal jurisdiction in the NPDES program.⁵⁰

2. **Stormwater Permits**

The CWA prohibits EPA from requiring a permit for discharges of stormwater runoff from oil and gas exploration, production, processing or treatment operations, and transmission facilities that are "not contaminated by contact with . . . raw material, intermediate products, finished product, byproduct, or waste products To implement this directive, EPA provides that a stormwater discharge from an oil and gas activity is not contaminated unless there is a discharge of a reportable quantity of a pollutant for which notification is required or the discharge contributes to a violation of a water quality standard.⁵² Moreover, the operator of a stormwater discharge for an oil or gas activity must submit a permit application if the facility had a stormwater discharge that either contributed to a violation of a water quality standard or contained a quantity of oil or hazardous substances that requires notification.⁵³ For example, the discharge of stormwater with an oily sheen, such as from coming into contact with oily dirt, is a water quality standard violation.⁵⁴ In some cases, discharges of chlorides, sulfides, or total dissolved solids, which are often present in and around oil and gas fields, can lead to such a violation.

The stormwater permitting program's greatest impact on the regulated community arises from the requirement to prepare and implement a Stormwater Pollution Prevention Plan. These plans generally require that the facility implement certain regular housekeeping and material management programs to prevent pollutants from entering stormwater runoff. extensive recordkeeping and certification requirements to document that the facility has completed the required inspections and other tasks.

3. Spill Prevention Control and Countermeasure Plans

Finally, EPA has promulgated oil pollution prevention regulations designed to prevent and contain oil spills from facilities storing specified volumes of oil. These regulations provide that operators of regulated oil and gas facilities must satisfy minimum design and operational standards for oil-handling facilities and prepare a Spill Prevention Control and Countermeasure

⁵⁰ See, e.g., In re: U.S. Dep't of Def. & U.S. Envtl. Prot. Agency Final Rule: Clean Water Rule, No. 15-3751 (6th Cir. Feb. 22, 2016) (opinion asserting court's jurisdiction to hear merits of challenge to proposed rule), available at http://www.ca6.uscourts.gov/opinions.pdf/16a0045p-06.pdf.

⁵¹ 33 U.S.C. § 1342(1)(2).

⁵² See 55 Fed. Reg. 48,067 (Nov. 16, 1990). Reportable quantities are set forth in 40 C.F.R. §§ 110.6, 117.21, and

⁵³ See 40 C.F.R. § 122.26(c)(1)(iii).

⁵⁴ *Id.* at § 110.

⁵⁵ See 40 C.F.R. pt. 112. The SPCC rules apply to facilities with at least 42,000 gallons of underground oil storage capacity and aggregate aboveground storage capacity of more than 1,320 gallons. See id. § 112.1(a).

("SPCC") Plan. ⁵⁶ The SPCC Plan requirements apply even to inland oil and gas facilities, so long as they are located near water sources.

D. **Oil Pollution Act**

Liability arises under the Oil Pollution Act ("OPA") when there is a discharge or substantial threat of a discharge of oil into navigable waters or adjoining shorelines from any vessel or any onshore or offshore facility.⁵⁷ Responsible parties may be liable for certain removal costs and damages, which include removal costs consistent with the National Contingency Plan, damages to real or personal property, natural resource damages, economic losses resulting from the destruction of property, and more. 58

Liable responsible parties may include owners and operators of onshore facilities; owners, operators, and persons chartering vessels; and lessees and permittees of the area where offshore facilities are located.⁵⁹ A facility is any structure or equipment used to explore for, drill for, produce, store, handle, transfer, process, or transport oil. 60 Therefore, OPA may provide jurisdiction over oil spills into navigable waters from almost any exploration, production, or transportation facility or vessel.

OPA also establishes financial responsibility requirements and maximum liability limits for vessels, offshore and onshore facilities, deepwater ports and mobile offshore drilling facilities. 61 Responsible parties must provide evidence of financial responsibility up to the applicable liability limits. Responsible parties can establish financial responsibility using any one or a combination of insurance; surety bonds; qualification as a self-insurer; letters of credit; guarantees by another entity; and more. 62 The liability limits under OPA do not apply if the operator's gross negligence or willful misconduct caused the discharge; the spill resulted from a violation of federal safety, construction or operating regulations; or the responsible party fails to report the incident or cooperate with removal efforts.⁶³

Ε. Clean Air Act

1. Overview

With respect to industrial sources of air pollution, the CAA regulates three broad categories of pollutants: (1) criteria pollutants, which include sulfur dioxide, carbon monoxide,

⁵⁹ See id. § 2701(32)(A)–(C).

⁵⁶ See 40 C.F.R. § 112.3. ⁵⁷ See 33 U.S.C. § 2702.

⁵⁸ See id.

⁶⁰ *Id.* § 2701(9).

⁶¹ See id. §§ 2704(a), 2716. 62 See id. § 2716(e). 63 See id. § 2704(c).

particulates, nitrogen dioxide, ozone and lead; (2) hazardous air pollutants; and (3) stratospheric ozone-depleting substances.⁶⁴

National ambient air quality standards ("NAAQS") regulate criteria pollutants by establishing ambient air concentrations for protecting public health and welfare. ⁶⁵ EPA establishes these minimum standards; state and local governments implement and enforce them through state implementation plans ("SIPs"). ⁶⁶ SIPs are complex combinations of emission limitations, air pollution control standards, permitting programs, and enforcement mechanisms that each state or local government designs to achieve the NAAQS in its geographic region.

The CAA, through EPA regulations, requires each SIP to have a mandatory preconstruction permitting program whose content is prescribed by the quality of the air in each respective geographic region. Areas that are in compliance with a NAAQS for a particular pollutant, which are called "attainment areas," must develop a prevention of significant deterioration ("PSD") permitting program. PSD permits are mandatory for all new major sources or modifications to major sources that emit the pollutant. The PSD permitting program maintains attainment areas' compliance with the NAAQS by requiring new or modified sources to install the best available control technology ("BACT").

If an area fails to comply with one or more NAAQS, it is designated a "nonattainment area," and it must adopt a nonattainment new source review ("NNSR") program. NNSR permitting programs are more stringent than PSD programs. They are designed to reduce emissions of criteria pollutants so that the nonattainment area becomes an attainment area. As a result, new major sources and modifications to existing major sources in nonattainment areas must apply stricter air pollution controls than sources in attainment areas, and they must offset emission increases with an equal or greater emission reduction from other sources.

In October 2015, EPA issued a final rule under the CAA lowering the NAAQS for ground-level ozone to 70 parts per billion from 75 parts per billion.⁶⁹ This may reclassify certain areas of the country from attainment to nonattainment areas, which in turn may make it more difficult to construct new or modified sources of air pollution in newly designated nonattainment areas.

2. NSPS

The CAA and EPA also require newly constructed or significantly modified industrial sources, whether located in attainment or nonattainment areas, to comply with new source

⁶⁶ See id. § 7410.

⁶⁴ 42 U.S.C. §§ 7401 et seq.

⁶⁵ See id. § 7409.

⁶⁷ See generally id. §§ 7470-7492 (also known as Part C of Title I of the Clean Air Act).

⁶⁸ See generally id. §§ 7501-7515 (also known as Part D of Title I of the Clean Air Act).

⁶⁹ 80 Fed. Reg. 65,292 (Oct. 26, 2015).

performance standards ("NSPS").⁷⁰ NSPS typically specify emission standards for new or modified sources in designated industrial categories. For example, in August 2012, EPA published NSPS for the upstream and midstream oil and gas industries.⁷¹ These regulations, known as Subpart OOOO, regulate air emissions from hydraulically fractured natural gas wells and other emission sources associated with exploration, production, processing, and transportation of oil and natural gas.

On September 18, 2015, EPA published proposed NSPS for methane and volatile organic compound ("VOC") emissions from the oil and gas sector alongside a proposal to redefine an oil and gas "source" in a way that could add burdensome requirements, extend the time and risks associated with permitting, and potentially require additional rules.⁷² The proposed rules could expand the current VOC air regulations to cover methane emissions from both oil and gas well completions, and would require owners and operators to install new control equipment, conduct fugitive emissions tests, and replace leaking equipment at certain hydraulically fractured oil and gas well sites. The proposed rule would apply to new or modified sources, but the CAA provision under which EPA proposed the rules gives EPA the ability to extend these controls to existing oil and gas sources in the future.

3. Federal Operating (Title V) Permits

The Title V permitting program requires major sources to apply for a Title V permit in order to continue existing operations.⁷³ It also requires sources to sort through a complex assortment of CAA requirements and specify each applicable requirement for each emission point at the source. Once a source has developed this list, the facility operator must submit a Title V permit application to certify that it complies with each of the requirements its application identifies as applicable.⁷⁴ After a Title V permit is issued, the facility operator must certify annually that it has operated in compliance with all CAA requirements or identify the requirements with which it has not complied.⁷⁵ As a result, facilities under the Title V program spend substantial amounts of time tracking and monitoring their compliance.

The proposed NSPS for methane and VOCs described above could have important implications for the Title V program. The more activities EPA aggregates into a single "source," the more likely it is that the source will be recategorized as a major source and therefore subject to the Title V program. Current rules aggregate only those facilities that are, among other things, located on contiguous or adjacent properties.⁷⁶ The proposed NSPS may aggregate facilities

⁷⁰ See id. § 7411.

⁷¹ 77 Fed. Reg. 49,490 (Aug. 16, 2012) (codified at 40 C.F.R. §§ 60.5360 *et seq.*)

⁷² 80 Fed. Reg. 56,593 (Sept. 18, 2015).

⁷³ See generally id. §§ 7661-7661f.

⁷⁴ See id. § 7661b(b)(1).

⁷⁵ See id. § 7661b(b)(2).

⁷⁶ See 40 C.F.R. § 71.2

based on whether they are within a quarter mile of each other.⁷⁷ This could significantly expand the activities EPA aggregates into a single source, subjecting more facilities to Title V requirements.

4. Greenhouse Gases

In April 2007, the Supreme Court issued a landmark opinion holding that CO₂, the most prominent greenhouse gas ("GHG"), is an "air pollutant" under the CAA and that EPA has the authority to regulate CO₂ and other GHGs.⁷⁸ Pursuant to this authority, EPA finalized an "endangerment finding" that GHG emissions, including CO₂, pose a threat to human health and welfare.⁷⁹ The finding allows EPA to regulate GHG emissions as air pollutants under the CAA. In light of the endangerment finding, EPA adopted regulations that limit emissions of GHGs from motor vehicles, which in turn triggered the imposition of CAA construction and operating permit requirements under the PSD and Title V permitting programs for certain large stationary sources that were already subject to these requirements due to emissions of criteria pollutants.⁸⁰ Facilities that are required to obtain permits for their GHG emissions are required to reduce those emissions using BACT standards, which are currently developed on a case-by-case basis. Finally, EPA has required certain large emitters of GHGs to inventory and report their GHG emissions to EPA since 2009.⁸¹

F. Other Statutes

Certain other federal statutes may impede the development of oil and gas assets, depending on local conditions. For example, in areas where protected species or their habitats are known to exist, the Endangered Species Act ("ESA") and analogous state laws may require the operator to develop and implement plans to avoid potential adverse effects to protected species and their habitats. These laws may also prohibit the operator from conducting operations in certain locations or during certain seasons, such as breeding and nesting seasons, when the operations could have an adverse effect on the species. In addition, Section 404 of the CWA may require an operator to obtain a permit from the U.S. Army Corps of Engineers or a state with an EPA-approved program before any point source discharge of dredged or fill material into the waters of the United States, including wetlands. Determining whether an area is a wetland and obtaining an individual permit can be expensive and time consuming. The issuance of a Section 404 permit may also require an Environmental Assessment or Environmental Impact Statement under the National Environmental Policy Act ("NEPA"),

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⁷⁷ 80 Fed. Reg. 56,579 (Sept. 18, 2015).

⁷⁸ *Massachusetts v. EPA*, 549 U.S. 497 (2007).

⁷⁹ 74 Fed. Reg. 66,496 (Dec. 15, 2009).

⁸⁰ 75 Fed. Reg. 25,324 (May 7, 2010); 76 Fed. Reg. 57,106 (Sept. 15, 2011).

^{81 74} Fed. Reg. 56, 260 (Oct. 30, 2009).

⁸² 16 U.S.C. §§ 1531 et. seq.

^{83 33} U.S.C. § 1344; 40 C.F.R. § 232.2(r).

further delaying the process.⁸⁴ Finally, the Archaeological Resources Protect Act and analogous state laws may require a permit before an operator removes or alters archeological resources.⁸⁵ Evaluating potential archeological resources and obtaining such a permit may delay oil and gas development.

V. STANDARD DEFINITIONS OF CERTAIN ENVIRONMENTAL TERMS

After the due diligence period, the parties will negotiate an agreement that reflects the environmental risks affecting the assets for sale. In upstream oil and gas transactions, it is customary for the seller to try to cut off post-closing claims by addressing environmental matters at closing. The parties have a variety of contractual provisions they may deploy to allocate environmental responsibilities, including a so-called environmental defect process, giving the seller the right to cure environmental defects affecting the assets for sale or giving the buyer a purchase price reduction. The buyer may prefer to remedy the defect itself. The effectiveness of these provisions may turn on well-drafted definitions.

A. **Environmental Defect**

"Environmental Defect" is an operative term that generally means any violation or failure to comply with applicable environmental laws; any release or presence of hazardous substances with respect to which remediation may be required; and any condition or circumstance for which applicable environmental laws require reporting, correction or response. In this definition, "Environmental Laws" will be an operative term defined broadly to include any and all laws, rules, regulations, and governmental requirements pertaining to prevention of pollution, protection of the environment, remediation of contamination, or restoration of environmental quality.

The expansive definition of Environmental Defect allows the buyer to assert environmental liabilities against the seller that are not limited to direct or indirect cleanup costs. The buyer may also pursue claims for the cost of procuring permits, retrofitting facilities, implementing monitoring and reporting programs, and more. This is important because procuring permits may delay or impede the buyer's operation or development of the assets. Similarly, retrofitting facilities can be expensive and time consuming. The buyer should be wary of an agreement that only allows it to pursue cleanup costs.

The parties may limit the concept of Environmental Defect in important ways. First, the seller may try to prevent the buyer from claiming that end-of-life asset retirement obligations ("AROs") are defects. Thus, naturally occurring radioactive material ("NORM") and asbestos, which are often left in place until plugging and abandonment, are sometimes excluded from the definition of Environmental Defect. Second, the parties may pair an Environmental Defect

 ^{84 42} U.S.C. § 4332(C).
85 16 U.S.C. §§ 470aa et. seq.; 43 C.F.R. pt. 7.

provision with a "Retained Liabilities" provision that expressly identifies liabilities the seller will retain. Retained Liabilities may include the seller's in personam liabilities, such as criminal sanctions, tort claims, or civil and administrative fines levied against the seller. The seller may indemnify the buyer for such liabilities. In contrast, the buyer may take in rem liabilities that run with the assets, such as contaminated soil or noncompliant facilities and equipment.

B. Remediation

As discussed above, the definition of Environmental Defect will generally refer to remediation that Environmental Laws require. An agreement will generally define "Remediation" to mean the implementation and completion of any remedial, removal, response, construction, closure, disposal, or other corrective action, including monitoring, reporting, permitting and/or the installation of any necessary pollution control equipment, to the extent required under Environmental Laws to correct, eliminate, or remove an Environmental Defect.

This definition, like the definition of Environmental Defect, is typically very broad. It includes permitting, monitoring, equipment installation, and other modifications, as well as cleanup. The buyer will seek a broad term so that it can seek remedies for every type of environmental defect. A broad term will also allow the environmental defect process to capture and resolve the many compliance issues that arise under Environmental Laws.

Another important aspect of the definition of Remediation is that it includes only expenditures required to comply with Environmental Laws. This prevents the buyer from pursuing the seller for the cost of gold-plated remediation that goes beyond what regulatory guidelines require. The buyer might pursue such a claim to limit perceived exposure to non-regulatory risks, such as toxic tort or nuisance lawsuits, or to bring a site into compliance with self-imposed standards that are more stringent than the applicable regulations.

C. Remediation Cost

"Remediation Cost" is an operative term that defines the cost of the remediation the buyer may pursue through the environmental defect process. It is important, and contentious, because it determines the kinds of costs the buyer may recover from the seller. This, in turn, may determine the value of the buyer's claim. Disputes regarding Remediation Costs are often referred to arbitration.

A typical definition of Remediation Cost is the cost of implementing and completing the most cost-effective remediation reasonably available to address and resolve any Environmental Defects. This can lead to some common points of contention. One is whether the buyer has selected the most cost-effective remediation strategy. Recall that Remediation means actions required to comply with Environmental Laws. But it is not always clear which rules apply or what they require. For instance, the applicability and requirements of some Environmental Laws

may turn on whether contaminants pose a certain level of risk to human health and the environment, depending on the potential exposure pathways onsite. ⁸⁶ This risk assessment can vary depending on the assessor's exposure model and its underlying assumptions. The seller may contest these assumptions and argue that the buyer has not properly characterized the problem, or misidentified or misapplied the regulatory requirements. For example, one remedy option might be to (A) cleanup all contamination, but another might be to (B) record a deed notice warning that shallow groundwater in the area should not be used for human consumption. Option A might cost \$5 million, while Option B might cost a few hundred dollars if the seller has the right to record such notices.

Another common dispute involves the buyer's estimated costs. Recall that the term "Remediation Cost" includes the cost of implementing and completing the remediation. The time required to perform environmental sampling and then design, engineer, and implement a remediation project can stretch far beyond closing. As a result, the Remediation Cost the buyer asserts may include speculative, remote costs the buyer will never incur, or may incur only after significant time has passed. As a result, the buyer's estimated costs may differ significantly from its actual costs. The seller will anticipate inflated costs and seek to limit its exposure by requiring the buyer to provide information to support the alleged cost of the defect. This information might include an itemized calculation of the Remediation Cost, a reasonably detailed description of most cost-effective remediation required to cure the Environmental Defect, the assumptions the buyer used to calculate the Remediation Cost, the Environmental Laws the site does not comply with, and more. Finally, the buyer may not want to pursue the most-effective remedy if it impairs future operation of the assets. Thus, the most cost-effective remediation strategy must allow for normal future operations.

VI. ENVIRONMENTAL DEFECT PROCESS

The agreement may provide that the parties address certain environmental matters through a so-called environmental defect process. During a typical defect process, the buyer will inspect the assets for sale and notify the seller of certain defects by a date certain. In response, the seller may contest the alleged defect, cure it, reduce the purchase price by the value of the defect, or remove the defective assets from the transaction.

A. Representations and Warranties

An agreement may include a provision that broadens or narrows the scope of its representations and warranties depending on the seller's knowledge. The buyer should ask the seller for such knowledge-based representations and warranties to require the seller to disclose known problems regarding the assets. The seller will want to narrow the definition of its knowledge as much as possible; for example, by defining knowledge to include only the actual

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 $^{^{86}}$ See generally 30 Tex. Admin. Code §§ 350.1 et seq.

knowledge of certain specified individuals. In contrast, the buyer will seek to define knowledge broadly, including constructive knowledge upon due inquiry and information known to the seller's representatives, including environmental consultants. The seller may indemnify the buyer for breaches of the seller's knowledge-based representations and warranties.

B. Notice of Defect

Typically, the buyer must provide the notice in writing, identify any affected assets, describe the defect in reasonable detail, include appropriate documentation to substantiate the alleged defect, and indicate what the buyer believes in good faith is the value of the defect. The seller will negotiate for the notice to include a higher level detail to better evaluate the alleged defect and its value, including the legal standard the defect supposedly violates, a reasonably itemized calculation of the Remediation Cost, the remediation the buyer proposes to pursue, and the assumptions the buyer made when calculating the Remediation Cost. The notice must identify the allegedly violated legal standard for the seller to evaluate its risk.

The buyer, on the other hand, will want the flexibility to provide less fulsome information. This may be especially important in situations where the buyer lacks the time, access, or capacity to perform robust due diligence. In such a situation, the buyer will seek to provide reasonably detailed notice of defects prior to a date certain with the right to supplement that information later.

Another important issue is when the buyer must provide notice. The buyer will want to negotiate for sufficient time and access to evaluate the seller's records and assets in order to identify any Environmental Defects, while the seller may press for a shorter diligence period to provide certainty or close the deal during propitious market conditions. The date by which the buyer must submit its notice of defect to the buyer may be prior to or after the closing date, although the deadline is usually before the money changes hands unless the parties use an escrow account.

C. Thresholds

A typical structure for the environmental defect process links it to the seller's representations and warranties, using the breach of the representations and warranties to delineate the seller's responsibilities to the buyer. This structure may include a deductible or threshold, whereby the seller must cover certain claims only after the buyer incurs a specified amount of costs. This is sometimes called a bucket or basket the buyer must fill.

The threshold may be a dollar amount or a percentage of the purchase price. There may also be separate thresholds for individual claims and for the aggregate amount the claims must reach before the buyer may pursue them. For example, the agreement may require the buyer to allege defects that exceed \$250,000 in the aggregate, while the individual claims constituting that

amount must be each exceed \$25,000. The *de minimis* threshold for individual claims prevents the parties from contesting immaterial issues, while the aggregate threshold limits the environmental defect process to situations where the alleged environmental problems materially affect the deal. Sometime the threshold is styled as a deductible. If so, the seller need only compensate the buyer for the value of the Environmental Defects exceeding the deductible.

D. Contested Defects

Following the seller's reception of the notice of defect, the agreement may provide that the parties must resolve the dispute within a certain period of time. The parties may negotiate whether they will withhold the affected assets from the closing, include them in the closing subject to certain conditions or purchase price adjustments, or refer the dispute to arbitration.

1. Arbitration

Arbitration before an experienced environmental professional can be an efficient way to resolve complex environmental matters. The arbitration clause should include the arbitrators' qualifications, time limits on the proceedings or decision, and what the standard of decision should be. When choosing the standard of decision, the seller should require the arbitrator to select the lowest cost means to remediate the site or restore compliance. In addition, a loser-pays cost-shifting provision may benefit the seller by discouraging opportunistic claims. However, there is usually not time to arbitrate a claim before closing. Based on the arbitrator's decision, the parties may need to adjust the purchase price after closing, convey or reconvey an asset, or cure the defect.

2. Adjustments to Purchase Price

The parties may adjust the purchase price to account for the Environmental Defects the buyer asserts, subject to any applicable threshold or deductible regarding the seller's environmental obligations. If the parties do not contest the existence or value of the defect, then at closing the buyer will pay the seller the purchase price of the assets less the value of any defects. If the parties contest a defect, the buyer may pay the seller the adjusted purchase price at closing, subject to a final accounting at a later date to reflect the arbitrator's decision. Similarly, if the seller has the right to cure the defect after closing, the buyer may pay the seller the adjusted purchase price at closing and pay the value of the unresolved defects into an escrow account. The escrow funds may then be released to the seller if it successfully cures the defect.

3. Removing Assets

Some agreements allow the seller to remove allegedly defective properties from the transaction. This process is based on the so-called allocated value of the defective assets. The agreement may include a purchase price allocation that apportions the unadjusted purchase price

among the assets being sold. If the seller has the right to remove certain assets from the closing, it will reduce the purchase price to reflect the allocated value of those assets. Alternatively, the seller may have the right to hold back the assets from the closing, retaining title to them while the buyer deposits the allocated value of the assets into an escrow account pending arbitration. The seller will prefer such an arrangement, while the buyer may prefer to take title to the assets at closing and reconvey them to the seller if necessary. It may be prudent to remove defective assets from the transaction because, unlike title defects, the value of an Environmental Defect can exceed the value of the asset. As a result, the seller may negotiate for a provision that limits the value of any Environmental Defect to the allocated value of the affected assets.

4. Walk-Aways

Finally, a walk-away provision allows the seller to cancel the transaction entirely if the negative adjustments to the purchase price exceed a specified amount, usually a percentage of the purchase price. This right can make sense if the adjustments to the purchase price are so significant the parties would prefer to terminate the deal. The agreement should carefully limit walk-away provisions. They can, by definition, kill a deal, and they can create enormous leverage for either party. For example, the seller could negotiate for a low walk-away threshold to discourage the buyer from pursuing legitimate Environmental Defect claims. This would give the seller powerful leverage to kill the deal and pursue better terms from another buyer. On the other hand, the buyer may allege spurious Environmental Defects and inflate their costs to reach the walk-away threshold and cancel the deal. A walk-away provision with a high threshold may avoid these issues.

VII. CURE RIGHTS

The agreement should address the seller's right to cure any Environmental Defects the buyer asserts. This can reduce the uncertainty and liability each party faces. The seller may be best positioned to resolve certain environmental issues; the buyer may prefer to receive the value of the Environmental Defect and get on with the asset's development and operation. Clear language and clear thinking must guide the cure process.

A. Pre-Closing Cure Rights

The seller may cure the defect prior to closing, include the defective assets in the closing and reduce the purchase price by the value of the defect, or remove the defective asset from the closing. In this context, "curing" an alleged defect simply means to resolve it, whether by cleaning up the contamination, obtaining a permit, or doing whatever else may need to be done. "Cure" is generally not an operative term, although some agreements refer to the seller's right to remediate a defect. The seller typically has the right, but not the obligation to cure an alleged defect. The seller will typically seek to cure the defects it can address quickly and easily.

Common examples include closing pits, installing safety signs, removing oily dirt, or registering a source of air emissions.

If the seller chooses to cure the defect, then it should notify the buyer in writing of its intent to cure, along with a proposed plan and schedule for the remediation. Because remediation may involve the installation of equipment, sampling, or monitoring that may impede the buyer's operation and development of the assets after closing, the remediation plan may be subject to the buyer's reasonable approval. Some agreements expressly allow the buyer to withhold approval of remediation that the seller will not complete before a date certain, such as 90 days after closing. Such a term prevents the seller from pursuing a remediation strategy that is not prompt and reasonable. Alternatively, the agreement may provide a deadline by which the seller has the right to cure a defect without subjecting the seller's remediation plan to the buyer's approval, or requiring the buyer's approval only for remediation that will last beyond a certain deadline. To ensure that the seller does not take the full purchase price and then delay or neglect its cure obligations, the buyer will usually want the seller to cure before closing or insist on escrowing allocated values for sites where the seller will perform a cure.

The seller should notify the buyer in writing when it has cured the defect, and provide reasonable supporting documentation necessary for the buyer to verify that the seller cured the defect. Next, the buyer should advise the seller in writing whether it agrees that the seller cured the defect. If the parties cannot agree, they may refer the matter to arbitration.

B. Post-Closing Cure Rights

The environmental defect process is not always keyed to closing. Some agreements allow the seller to cure an alleged defect after closing during a so-called cure period, in conjunction with a post-closing final accounting that adjusts the purchase price to incorporate the value of cured and uncured Remediation Costs when the cure period expires. The final accounting typically occurs 90 to 120 days after closing.

Generally, agreements will provide that the buyer must act in good faith and reasonably cooperate with the seller after closing to cure an Environmental Defect. Alternatively, an access agreement attached to the purchase and sale agreement may set forth the seller's right to access the assets. In addition, it is common for the seller to indemnify the buyer for actions the seller takes after closing to cure a defect. This protects the buyer from remediation efforts that aggravate the non-compliance or impede the buyer's use of the assets.

If the seller has the right to cure defects after the closing, the parties will negotiate whether to include the defective asset in the closing, who will possess the asset during the cure period, whether they will adjust the purchase price at closing or at the post-closing final accounting, and more. The parties may agree to include the allegedly defective asset in the closing at its allocated value less the value of the Environmental Defect. If so, the parties will

pay the Remediation Cost of the uncured defect into an escrow account upon closing. As in the pre-closing cure process described above, the parties may agree by a time certain that the seller has cured the defect, partially cured the defect, or they may fail to agree. If the seller cures or partially cures the defect, the associated Remediation Cost is credited back to the seller in the post-closing final accounting while the buyer receives the remainder. If the seller fails to cure the defect at all, the buyer will receive the entire escrow amount. If the parties fail to agree, they will refer the matter to arbitration. Post-closing cures are often problematical. The seller will seek to cure the defect quickly and cheaply, while the buyer may be dissatisfied with the seller's efforts.

C. Curing Assets Seller No Longer Owns

1. Seller's Right to Cure

If the parties choose to include an allegedly defective asset in the closing and the seller has a right to cure the defect after closing, then the seller will have the right to cure assets it no longer owns. In such a situation, the parties may dispute who is responsible for the defect and whether the seller has the right to cure it. Recall that the seller may indemnify the buyer for breaches of the seller's knowledge-based representations and warranties. Recall also that the seller will retain, and indemnify the buyer for, the seller's in personam liabilities, such as tort claims arising from its operations, while the buyer will take in rem liabilities that run with the assets. These provisions may determine whether the seller has the right to cure a defect and whether its value will be held against the seller. Such disputes may arise if the post-closing cure period lasts for an extended period of time, pre-closing diligence was limited, or the seller lacked information about its predecessors' operations. Parties may limit these disputes by providing for a relatively brief post-closing cure period, such as 30 days. In addition, the parties may commission a baseline environmental assessment or audit during the pre-closing diligence process. This would provide the parties with up-to-date compliance information regarding the assets on the eve of closing.

2. Unanticipated Developments

Post-closing regulatory uncertainty may await the parties even if they carefully negotiate and allocate their liabilities. Site remediation may cost more than anticipated, the parties may find residual contamination that needs additional cleanup, or they may discover new contaminants during remediation. The buyer will seek to shift these risks to the seller, while the seller will seek to limit its post-closing exposure. It is crucial that the parties agree on the goal of any cure, whether it is obtaining a permit, receiving a certain notification from regulators, or bringing contaminants into compliance with regulatory guidelines. The seller should include this information in the notice of intent to cure it sends the buyer; the agreement may also require the buyer to approve the plan. This will focus the cure on achieving a discrete goal.

The environmental defect process is limited by design. The seller generally must cure the defect by a time certain, the purpose of curing defects is to avoid reductions to the purchase price, and the seller's exposure is typically limited to the alleged value of the defect. Other contractual provisions, such as indemnities or environmental insurance, are more appropriate ways to address latent, chronic environmental risks.

3. Control of Dealings with Regulators and Third Parties

The parties may also contest who controls dealings with regulators after closing. This can be important where curing the Environmental Defect involves obtaining a permit or other notification that the site complies with Environmental Laws. The parties may negotiate who will take the lead at meetings, who may be present at meetings, reserve the ability to make submissions to regulators, or prohibit one party from engaging in dialogue without the other's prior approval. The seller will seek to control the regulatory and compliance process, minimizing its liability. The buyer will want to meaningfully participate in the regulatory process as the site's new owner.

VIII. CONCLUSION

Careful consideration of environmental risks and liabilities will lead to a better assessment of the risk associated with the purchase of oil and gas properties. Thorough and comprehensive environmental due diligence will lead to a better quantification of the specific risk associated with the pending oil and gas transaction. This assessment can then inform the negotiation and drafting of the agreement.