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***6-1 TRANSMISSION AND GATHERING LINE LEAKS AND SPILLS: HOW THE
UPSTREAM AND MIDSTREAM SECTOR NEEDS TO PLAN, RESPOND, AND DEFEND**

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COLIN G. HARRIS has proudly served the energy and natural resources industries in environmental, litigation, and **pipeline** safety matters for over 25 years. His deep air-quality experience includes compliance, permitting, policy, enforcement, and litigation. Colin's upstream and midstream experience includes complex and novel matters in North Dakota, Colorado, Utah, New Mexico and other states. His clients also operate in the refining and utility sectors. Colin is a recognized leader in the **pipeline** industry, which faces strong headwinds associated with new regulations and public opposition. He currently represents over six **pipeline** operators in various matters ranging from PHMSA counseling and administrative evidentiary hearings, to emergency response and litigation defense associated with major spill incidents to waters. Colin was co-appellate counsel in a 2017 precedent-setting case where the Fifth Circuit vacated much of a PHMSA order and penalty, disagreeing with the agency's interpretation of its own regulations, and ruling that it had failed to provide due process. *ExxonMobil Pipeline Co. v. Department of Transportation*, 867 F.3d 564 (5th Cir. 2017). Colin combines his energy industry expertise and regulatory knowledge with a strong litigation background. He has aggressively defended high-profile enforcement cases in pre-trial phases to achieve favorable consent decree terms. He has tried hearings and cases for energy industry clients involving pipeline safety and environmental issues, including a recent arbitration resulting in a significant settlement.

The United States relies on over 2.9 million miles of pipeline to deliver natural gas, oil, and other hazardous liquids. [FN1] Long-distance hazardous liquid transmission lines in the United States make up about a half million miles of this infrastructure and deliver over 70% of crude oil and refined petroleum products to market. [FN2] The oil and gas transportation infrastructure includes gathering lines that carry liquids to transmission lines, oil and natural gas liquids storage facilities, processing plants, terminals, and rail facilities handling oil. The increase of production in shale oil basins, resulting from advances in hydraulic fracturing and horizontal drilling, has driven up volumes of produced water that often is transported by gathering lines for disposal. As with any industrial operation, the oil and gas transportation infrastructure is not risk-free. Given the complexity of pipeline operations, the inherent nature of the commodity, the locational and geographic aspects of the infrastructure, and the human element, it is impossible to prevent all pipeline incidents. Nonetheless, large spill incidents, which understandably capture media and public attention, can skew perception about the risk of pipelines. In fact, statistics demonstrate that accidental liquids transmission pipeline releases are rare. A barrel of crude oil or refined petroleum product reaches its pipeline destination safely 99.999% of the time. [FN3] Further, as the chart below reveals, most liquid pipeline spills are less than fifty barrels in volume:

LIQUID PIPELINE INCIDENTS BY SIZE (2012-2016)

2012	232	69	48	17	366
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2013	260	82	40	19	401
2014	296	93	47	18	454
2015	302	83	53	24	462
2016	248	84	58	25	415
& of 2016 Total	54%	18%	13%	5%	-
5 YR Change	7%	22%	21%	47%	13%

Source: Pipeline and Hazardous Materials Safety Administration, PHMSA Pipeline Safety as of February 2017.⁴

FN4. *AOPL Report* at Figure 7.

***6-2** Even though most releases are small, any release of oil, product, wastewater (e.g., produced water) or natural gas from a pipeline or storage facility can result in significant consequences for both midstream and upstream operators.

This Article discusses how both upstream and midstream companies need to plan, respond, and defend against spills of crude oil and petroleum products. While we focus on oil liquids pipelines and facilities, many of the concepts apply equally to the natural gas sector, particularly if an operator generates natural gas liquids. Section I provides an overview of federal spill prevention and response requirements. Section II discusses the various sources of liability oil and gas operators face after a release under the Clean Water Act (CWA), Pipeline Safety Act (PSA), state enforcement actions, and citizen suits. Next, Section III discusses trends in enforcement involving pipeline and upstream incidents based on a review of data from recent settlement agreements. Section IV discusses practice tips for defending litigation arising from spill incidents. Finally, Section V looks to the emerging trends involving leak detection systems on pipelines and storage facilities.

***6-3** The stakes are high, and increasing. Upstream companies can face civil penalties and injunctive relief for not only releases of crude oil but face liability for the discharge of produced water and flowback from exploration projects. Pipeline ruptures that impact water bodies likely will result in an avalanche of federal, state, and third-party claims, including natural resource damages claims that may drag on for years. [FN5] Operators may also face penalties and orders for corrective action from state regulators for the same spill, even after the federal claims are long resolved. [FN6]

Public perception about pipeline spill risks and operator spill history increasingly drive opposition and denial of approval to pipeline projects. Scrutiny of the Dakota Access Pipeline project grabs headlines, but seemingly every new pipeline project must contend with protests or litigation grounded in the supposition that “if you build it” then “it will leak” and cause irreparable harm to the environment. [FN7] These concerns are not limited to liquids pipelines. Even if natural gas pipeline operators receive the authority for siting a pipeline or storage facility from the Federal Energy Regulatory Commission (FERC), state regulators have objected to major projects effectively halting construction. For example, the New York State Department of Environmental Conservation denied a CWA permit in 2016 for a \$683 million natural gas pipeline between Pennsylvania and New York, which stalled the pipeline despite having received prior approval from FERC. [FN8] Similarly, the West Virginia Department of Environmental ***6-4** Protection recently issued a cease-and-desist order on a \$4.2 billion pipeline under construction citing alleged violations of the operator's water pollution control permit in that state. [FN9]

I. Overview of Federal Spill Prevention and Response

Prevention is the best method of avoiding liability for releases from storage facilities, pipelines, or well pads. Depending on the type of facility involved, federal law requires operators to perform certain planning requirements under the CWA, PSA, or potentially both statutes. Facilities subject to federal spill regulations are divided into three categories: (1) non-transportation-related facilities; (2) transportation-related facilities; and (3) complex facilities which conduct activities associated with both transportation and non-transportation facilities.

a. Spill Prevention Control and Countermeasure Plans

The CWA Spill Prevention Control and Countermeasure (SPCC) program requires operators to implement measures to prevent and respond to spills. [FN10] The U.S. Environmental Protection Agency (EPA) enacted the initial SPCC rules over forty years ago, as a result of a congressional directive to establish “requirements...to prevent discharges of oil[.]” [FN11] The SPCC regulations apply to facilities that are non-transportation related with an aboveground oil storage capacity of more than 1,320 U.S. gallons (or a completely buried oil storage capacity greater than 42,000 gallons) that can reasonably be expected to discharge oil to navigable waters or adjoining shorelines in quantities that may be harmful. [FN12] Many operators may consider that, among their many compliance burdens, SPCC compliance is fairly rote. The regulations seem straightforward as written. Indeed, many operators use forms and checklists to comply with the SPCC regulation, often relying on consultants who may not have an in-depth knowledge of *6-5 equipment and operations at a facility. However, there is more than meets the eye. This is evident from the fact EPA has prepared a 921 page guidance document for SPCC inspectors.

A detailed recitation of the SPCC rules is beyond the scope of this paper. Instead we consider certain SPCC requirements that raise unique concerns for upstream and midstream operators. First, there are specific rules for onshore “production” facilities. [FN13] In addition to meeting the general SPCC requirements under 40 C.F.R. § 112.7 (e.g., secondary containment, response planning, inspections), onshore production facilities must also meet the requirements established in 40 C.F.R. § 112.9. A “production facility” includes all structures (including wells, platforms, or storage facilities), piping (including flowlines or intra-facility gathering lines), or equipment... used in the production, extraction, recovery, lifting, stabilization, separation or treating of oil...and is located in an oil or gas field, at a facility.” [FN14]

Secondary containment is the primary method SPCC seeks to prevent discharges. The SPCC program recognizes two categories of secondary containment: (1) general secondary containment provisions which apply to all potential oil discharges from regulated facilities; and (2) specific size-based secondary containment provisions which are intended to prevent discharges resulting from failures of storage vessels. General secondary containment requirements are applicable to all production facilities and include the use of dikes, berms, curbing, weirs, booms, diversion ponds, sorbent materials, sump pumps, or drip pans. [FN15] Specific secondary containment measures apply to crude loading facilities and bulk storage containers, including tank batteries and produced water treatment facilities. [FN16] EPA has clarified, however, in most cases it is not practical to have secondary containment for flowlines and gathering lines located inside a *6-6 production facility. [FN17] The SPCC plan must provide an optional compliance alternative consisting of contingency planning and a written commitment of manpower, equipment, and materials in lieu of the general secondary containment. [FN18] In certain instances, EPA has also required the installation of remote tank volume monitoring at crude oil storage facilities as an additional prevention control method. [FN19]

Second, the early SPCC regulations stated that, at “facility transfer operations,” “[b]uried piping installations should have a protective wrapping and coating” (the “wrap and coat” guideline) and that “[w]hen a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin,” (the “disconnect out-of-service lines” guideline). [FN20] EPA considered these to be mandatory. [FN21] The wrap and coat requirements have been carried over through the many SPCC revisions for non-production facilities, and now include the requirement to cathodically protect buried lines. [FN22] However, the requirement to protect buried lines is not explicitly included in the production facility regulations, nor is the disconnect out-of-service-line requirement. Operators should be aware; however, that all facilities must prepare a plan that is

“in accordance with good engineering practices.” [FN23] Consequently, EPA could argue good engineering practice warrants that buried lines at a production facility--or indeed any facility--should be protected from corrosion.

*6-7 Third, there are unique SPCC jurisdictional issues related to oil and gas facilities. For operators in semi-arid environments, the status of the “water of the United States” (WOTUS) rule warrants special attention, because that rule re-assesses the jurisdictional status of intermittent streams, and usually dry ditches and other features. This is addressed in more detail in a later section of this paper. Loading racks, transfer hoses, loading arms, and other equipment used to transfer oil in bulk to or from highway vehicles or railroad cars are considered non-transportation related and are subject to EPA regulation under the SPCC. Similarly, highway vehicles, rail cars, and pipelines used to transport oil exclusively within the confines of a non-transportation-related facility such as a well pad, are also subject to EPA regulation. [FN24] Complex facilities are those possessing a combination of transportation-related and non-transportation-related elements and as a result are subject to dual jurisdiction by EPA and U.S. Department of Transportation (DOT) or the U.S. Coast Guard. [FN25]

b. EPA Facility Response Plans

A subset of the SPCC-regulated community is required to prepare a Facility Response Plan (FRP). Owners and operators of “any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines” must prepare and submit a facility response plan to EPA. [FN26] The FRP requirement states a facility may pose a “substantial harm” if it:

- (i) has a total oil storage capacity greater than or equal to 42,000 gallons and it transfers oil over water to/from vessels; or
- (ii) has a total oil storage capacity greater than or equal to 1 million gallons and meets one of the following conditions: (A) does not have *6-8 sufficient secondary containment for each aboveground storage area; (B) is located at a distance such that a discharge from the facility could cause “injury” to fish, wildlife, and sensitive environments; (C) is located at a distance such that a discharge from the facility would shut down a public drinking water intake; or (D) has had, within the past five years, a reportable discharge greater than or equal to 10,000 gallons. [FN27]

The FRP rule also requires that plans must be: (1) consistent with the National Contingency Plan and any applicable area contingency plans; (2) identify an individual with authority to implement removal actions; (3) describe training, testing and unannounced drills; (4) be updated periodically; and (5) be submitted to EPA for approval after each significant change. [FN28] Additionally, EPA may, at its own discretion, determine whether a facility could reasonably be expected to cause significant and substantial harm to the environment because of its location. [FN29] One of the most challenging aspects of developing a FRP is that owners and operators are responsible for calculating plans for small, medium, and worse-case spill scenarios. [FN30] Operators often turn to sophisticated overland flow and other models to make these calculations. For upstream operators conducting exploration or production activities, this can be a particularly difficult challenge since production volumes may change over the life-cycle of a well or well pad.

c. U.S. Department of Transportation Facility Response Plans

Pipeline operators not subject to SPCC or FRP requirements often must prepare spill response plans pursuant to Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations. [FN31] Specifically, 49 C.F.R. § 194 requires a response plan for any “onshore oil pipeline that, because of its location, could reasonably be expected to cause substantial harm, or *6-9 significant and substantial harm to the environment by discharging oil into or on any navigable waters of the United States or adjoining shorelines” [FN32] The regulations set criteria for determining if a pipeline segment can be expected to cause significant and substantial harm. [FN33] There are exemptions. [FN34] For example, a pipeline that is ten miles or less in length, is less than 6.5 inches in diameter, has not experienced a release of 1,000 barrels or two reportable releases within the past five years, and is not in the proximity to navigable waters, drinking water intakes, or an environmentally sensitive area is excluded from DOT FRP requirements. [FN35]

DOT FRP requires each operator to identify specific pipeline segments which can cause significant and substantial harm to the environment in the event of a discharge of oil. FRP also requires operators to calculate worse-case discharge scenarios and develop a response plan for that discharge which is consistent with the National Contingency Plan and any applicable Area Contingency Plan. [FN36] Under the program, pipeline operators must ensure that adequate response resources are available to mitigate a worse-case scenario discharge and ensure that pipeline personnel understand their responsibilities and receive the appropriate training to recognize conditions that are likely to worsen emergencies. [FN37]

d. EPA/DOT Memorandum of Understanding

EPA and DOT rely on Memorandums of Understanding (MOUs) to clarify specific jurisdictional facilities. In 2000, EPA and DOT clarified the jurisdiction of breakout tanks and bulk storage tanks. [FN38] Under the 2000 Breakout Tank Memo, DOT jurisdiction can extend to the *6-10 valves and pressure relief devices that connect the facility to the main transmission line. [FN39] In certain instances, DOT and EPA will have joint jurisdiction over a breakout tank or bulk storage facility. [FN40] EPA acknowledges the definition of “facility” as it applies to the SPCC rule is flexible and can bring certain pipeline segments into dual jurisdiction depending on how an operator defines the facility under the SPCC. [FN41] For this reason, owners and operators should consult the attachments in the 2000 Breakout Tank Memo, and subsequent jurisdictional updates, for additional guidance as to which spill regulations may apply to your facility. [FN42]

II. Sources of Liability

Liability for a release of oil can result from the CWA, its amended provisions under the Oil Pollution Act, the PSA, state enforcement, or third-party actions.

a. Clean Water Act

i. *Penalties for Discharging Without a Permit*

Section 301(a) prohibits the discharge of any pollutant by any person from any point source into navigable waters without a permit. [FN43] By definition, a “pipe” is a point source. [FN44] The United States typically seeks penalties for oil spills under Section 311, which prohibits the discharge of oil into regulated waters. However, a pipeline discharge may also subject an operator to liability for discharging without a permit. [FN45]

*6-11 EPA may pursue administrative penalties under Section 309 for Section 301 violations of discharging pollutants from a point source without a permit. [FN46] Class I fines are not to exceed \$16,000 per violation with a maximum penalty of \$37,500. Class II fines are limited to \$16,000 per day of violation with a maximum penalty of \$187,500. [FN47] Contested Class I cases are heard by a regional judicial officer, while administrative law judges hear Class II cases. [FN48] The penalty is based on the nature of the offense, circumstances, gravity, the violator's ability to pay, the violator's prior history of violations, the degree of culpability, and the economic benefits or savings. [FN49] Administrative penalties under the CWA have been imposed not only for releases of oil, but for produced water and waste spills. [FN50] Given the per-day method of calculating penalties, the potential liability under the CWA is often very large. For example, in *Sierra Club v. Cedar Point Oil Co.*, 73 F.3d 546 (5th Cir. 1996), the potential maximum penalty for oil spills was \$20,225,000. As a practical matter, courts rarely impose the maximum amount allowable under the statute, due to application of the penalty mitigation factors. These factors could lead to a significant discount from the maximum potential penalty. Thus, for example, in *Cedar Point*, the actual amount imposed was \$186,000.

The United States may seek civil penalties and injunctive relief in federal court. The maximum civil penalty is not to exceed \$37,000 per day for each violation. [FN51] The penalty factors are basically identical to those applied in administrative cases. [FN52]

*6-12 ii. *Penalties for Oil and Hazardous Substances Spills*

Section 311 prohibits (1) the discharge; (2) of oil or a hazardous substance; (3) into or upon designated waters of the United States; (4) in a harmful amount. [FN53] A discharge includes, but is not limited to, spilling, leaking, pumping, pouring or dumping of oil or a hazardous substance. [FN54] Designated waters include navigable waters of the United States (including territorial seas) and adjoining shorelines.

Under what is colloquially known as the ‘sheen test,’ any discharge of oil causing a sheen is “determined to be harmful.” [FN55] In considering the sheen test, courts hold that whether a discharge (even a *de minimis* release) resulted in actual harm is irrelevant to Section 311 liability. [FN56]

EPA may pursue Class I and Class II administrative penalties for violations of Section 311, in amounts identical to permit violation cases. EPA may sue in federal court to seek higher penalties than authorized in an administrative setting or to request injunctive relief. [FN57] The same civil penalty factors are considered in the administrative and judicial context, as set forth in Section 311(b)(8). A civil penalty may not be judicially imposed if a civil penalty has been administratively imposed under Section 311(b)(6).

Two approaches are generally taken to calculating CWA penalties. The “top down” approach starts with the maximum applicable penalty, and deducts the penalty based on the mitigating factors. [FN58] The “bottom-up” approach starts at the economic benefit of a violator, and *6-13 adjusts up or down based on the other factors from Section 311(b)(8). [FN59] The process of weighing the penalty factors in statute is considered “highly discretionary.” [FN60]

There are four types of conduct subject to civil penalties which oil and gas operators may trigger. [FN61] Civil penalties for failure to remove a discharge can amount up to \$37,500 per day or up to \$2,100 per barrel of oil discharged. [FN62] Owners and operators are also subject to civil penalties for failure to comply with an order or regulation. Failure to perform such action can also subject an operator to a \$25,000 per day fine or an amount up to three times the costs incurred by the Oil Spill Liability Trust Fund. [FN63]

Finally, CWA authorizes stringent judicial civil penalties for discharges that are the result of gross negligence or willful misconduct. [FN64] For such discharges, a court can impose a penalty of not less than \$100,000 and not more than a \$3,000 per barrel of oil penalty. [FN65] Gross negligence requires only objective proof: “[w]hile ordinary negligence is a failure to exercise the degree of care that someone of ordinary prudence would have exercised in the same circumstances, gross negligence is an extreme departure from the care required under the circumstances or a failure to exercise even slight care.” [FN66] Significantly, ordinary negligence does not trigger the more stringent civil penalties under Section 311. [FN67] However, courts have observed that a higher *6-14 standard of care will apply when the “magnitude of potential harm is great in terms of severity.” [FN68]

iii. Criminal Liability for CWA Violations

While not the focus of this Article, Section 309(c) authorizes criminal penalties and imprisonment for: (1) violations of the general ban on oil discharges set forth in Section 311(b)(3); (2) false statements; (3) a negligent or knowing discharge of a pollutant from a point source without a permit; or (4) a discharge of a pollutant from a point source without a permit done with knowing endangerment. [FN69] The Supreme Court recognizes unique evidentiary requirements for ‘knowing’ and ‘willful’ criminal conduct [FN70]--meaning knowledge of facts but not knowledge of the law is generally sufficient to establish criminal liability (assuming the violation is voluntary and not the result of an accident). In the context of criminal liability involving a CWA permit, courts have determined the United States does not need to prove a defendant knew their actions violated the terms of a permit or the CWA. [FN71] The negligent discharge of oil in violation of Section 311(b)(3), or a negligent discharge of a pollutant without a permit from a point source is subject to a fine between \$2,500 and \$25,000 per day of violation, imprisonment up to one year, or both. [FN72] Knowing violations and knowing endangerment under CWA can result in significantly higher penalties and from three to fifteen years of imprisonment. [FN73]

***6-15** b. Oil Pollution Act of 1990

Although passed by Congress in the immediate aftermath of the 1989 Exxon Valdez incident, the Oil Pollution Act of 1990 (OPA) was the culmination of a decade-long effort by Congress to unify federal oil spill response authorities, including under Section 311 of the CWA. [FN74] Recognizing that liability and its related compensation schemes for oil pollution damage were a patchwork of federal and state laws, OPA expanded preparedness requirements and increased liability for discharges of oil.

OPA imposes liability for oil discharged or oil which poses a substantial threat of a discharge into navigable waters or shorelines. [FN75] Courts generally recognize that liability under OPA is strict, joint, and several. [FN76] To demonstrate that a party is liable, the government must prove that: (1) the defendant is a responsible party; (2) for the facility; (3) from which oil was discharged, or from which there was a substantial threat of discharge; (4) into or upon navigable waters or adjoining shorelines; and (5) that the discharge resulted in removal costs and damages. [FN77] There are limited defenses. Upstream and midstream operators should consider whether the third-party defense is available if, for example, a contractor or third-party caused a rupture of a pipeline. [FN78] Finally, covered costs and damages include removal costs, natural resource damages, real or personal property damage, subsistence use, revenues, profits and earnings, or public services.

***6-16** OPA also authorizes the federal government to recover natural resource damages (NRD). [FN79] Trustees can recover NRD for the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of damaged natural resources plus the reasonable cost of assessing those damages. [FN80] There is typically a three-phase procedure for assessing NRD resulting from spills under OPA, the pre-assessment phase, restoration planning phase, and restoration implementation phase. However, the government maintains discretion on a case-by-case basis for assessing NRD procedures. [FN81]

c. PHMSA Liabilities

The PSA provides DOT with the authority to develop and enforce minimum federal safety standards for gas and hazardous liquid pipelines. The Office of Pipeline Safety within PHMSA is responsible for the enforcement of PSA and its subsequent legislative amendments. [FN82] PHMSA has jurisdiction over pipeline facilities and the transportation of gas and hazardous liquids (including oil and petroleum products) by pipelines in or affecting interstate commerce. [FN83] The agency also manages a state pipeline safety certification program which allows states to administer and enforce PHMSA safety standards for intrastate pipeline facilities. [FN84] However, any additional safety standards states adopt for intrastate pipeline facilities must be compatible with federal standards. [FN85]

***6-17** PHMSA has promulgated regulations establishing minimum safety standards for gas and hazardous liquid pipelines. [FN86] In addition to its rulemaking authority, PHMSA has broad authority to conduct investigations, make reports, issue subpoenas, conduct hearings, require the production of records, and conduct research related to pipeline safety. [FN87] Operators of pipeline facilities must also comply with administrative orders and requirements for addressing hazardous conditions. [FN88] A corrective action order (COA) may require operators to suspend, restrict use, test or repair a pipeline facility if PHMSA determines operation of the facility “is or would be hazardous to life, property, or the environment.” [FN89] A COA may even direct operators to relieve an employee when the actions of the employee may have substantially contributed to a pipeline incident. [FN90] In addition to corrective action orders, PHMSA may issue notices of probable violation (NOPVs), notices of amendment (NOAs); warning letters, and notices of proposed safety order. [FN91] NOPVs are common enforcement tools that PHMSA issues following a routine inspection which allege specific safety violations. [FN92] Operators can respond to NOPVs and may request an administrative hearing. [FN93] Following oversight activities, PHMSA may also issue NOAs which allege inadequacies in an operator's plans or procedures and require specific remedies. [FN94] Finally, a notice of proposed safety order is used to notify operators that a pipeline facility is in a condition that poses a threat to pipeline integrity, public safety, or the ***6-18** environment. [FN95] Remedies under this type of order can include requirements for testing, inspection, or repairs.

The maximum civil penalty for a single violation is \$209,002 for each day the violation continues, or \$2,090,022 for a related series of violations of federal pipeline safety law. [FN96] Persons knowingly and willfully violating the Act, pipeline safety regulations, or orders can be subject to criminal liability including criminal fines or imprisonment. [FN97]

d. Third-Party Claims

Citizen suits are also authorized by the CWA to obtain injunctions and civil penalties, “payable to the United States Treasury, against any person found to be in violation of ‘an effluent standard of limitation’ under the Act.” [FN98] CWA provides two avenues for citizen suits. First, Section 505(a)(1) grants citizens the right to bring an action against any person for violating an effluent standard (or order issued with respect to an effluent standard). [FN99] Parties may also bring a suit against EPA for failure to perform non-discretionary duties. [FN100] Under this particular right of action, citizen suits are often used to enforce the mandatory duties EPA must perform under CWA section 303(c), (d), and in spill cases, claims that rest on the discharge of pollutants without a permit.

To commence a third-party action, the plaintiff must: (1) provide a sixty-day advanced notice to the alleged violator, the state in which the alleged violation is occurring, and the EPA before filing suit; (2) demonstrate state or federal officials are not “diligently prosecuting” a civil or *6-19 criminal action against the alleged violator for the same action; [FN101] and (3) bring the action in the federal district court where the source that caused the alleged violation occurred. [FN102] Parties must also demonstrate constitutional standing--and if an organization, meet the requirements for organizational standing. [FN103]

Courts have also consistently held that oil is a pollutant for the purposes of the CWA, including triggering liability under Sections 1311 and 1321. [FN104] For example, in one citizen-suit, a court acknowledged that oil seeping into the Gulf of Mexico from a production well that became detached from its platform and buried in mud following a hurricane satisfied the required discharge of a “pollutant” element for a CWA cause of action. [FN105]

An important defense stems from CWA's authorization of citizen suits against a person “alleged to be in violation” of the Act. [FN106] The Supreme Court has held that citizen suits must allege an ongoing violation (beyond the date the plaintiff files the complaint) or allege there is a reasonable likelihood that the defendant will violate the CWA again in the future. [FN107] As a result, operators generally are not subject to third-party suits under the CWA for a one-time release. However, an important qualification--discussed below--concerns ongoing migration in the environment of previously discharged pollutants. In addition, when there is a history of past violations, a court may find a reasonable likelihood of a future violation because of a facility's *6-20 operational procedures or maintenance history. [FN108] Prevailing parties may recover the costs of litigation and attorney's fees under citizen suits. [FN109]

III. Trends in Enforcement Involving Pipeline and Upstream Spill Incidents

a. Enforcement Through Federal Consent Decrees Continues Apace

The vast majority of government claims arising from alleged violations of environmental or pipeline safety laws are resolved by settlement, resulting in an administrative consent order, a federal court consent decree, or a state settlement. This is especially the case involving spill incidents from upstream and midstream operations. By their nature, a spill will result in visible impacts, often to a natural resource or to a private landowner's property. These cases often garner significant publicity, and involve multiple claims based on statutes allowing for enormous penalties. The agencies will usually seek injunctive relief that imposes burdensome operational changes and constraints on the manner in which a company conducts business. The residual risk of NRD can dwarf the penalty and injunctive relief claims. Statutory defenses are limited, and there is relatively little case law precedent involving challenges to liability in the spill scenario. The facts underlying a pipeline or upstream incident usually are complex, and highly technical, requiring outside expert assistance in understanding root-causes. As in every case, internal investigations invariably result in the discovery of careless emails or other facts without context that will come to light in responding to agency information requests or in

litigation. For these and other reasons, settlement is the typical outcome, although often preceded by litigation, discovery, and hard-fought negotiations.

Attachment A is a chart of federal court consent decrees arising out of notable pipeline or upstream spill incidents since 2002, typically involving oil. These are spill cases that involve *6-21 claims arising under the CWA or OPA. The chart identifies the case, the nature of the release, the civil penalty, and the injunctive relief. We refer to the chart as the “Remedy Chart.” The Remedy Chart provides a useful case study of trends in how EPA has leveraged oil spill settlements. The Remedy Chart does not include administrative settlements which, as explained above, generally are subject to penalty caps, and do not involve ongoing federal court jurisdiction. Not surprisingly, DOJ and EPA routinely traverse the consent decree path in high-profile, high volume, interstate pipeline or off-shore spill incidents, and obtain significant fines and injunctive relief. But there has been a trend toward federal court resolution in cases involving lower spill volumes (*e.g.*, 500-5000 barrels). Also, the federal government has pursued federal consent decrees in cases involving upstream spill incidents, and releases of material other than oil, such as flowback and drilling chemicals. In addition, it is not uncommon for EPA and DOJ to combine several incidents, over a long period, into one consent decree.

b. Pipeline Safety Injunctive Relief is a Significant Component of EPA Settlements

The Remedy Chart includes a column identifying injunctive relief. Beginning in the 2000 time-frame, CWA consent decrees resolving pipeline spill incidents began to include injunctive relief mandating changes to pipeline safety programs and measures. This trend has continued, and injunctive relief in most settlements involving an interstate pipeline leak or rupture now focuses on pipeline safety. Indeed, a notable trend is that EPA often relies on 49 C.F.R. Part 195 regulations and standards as the foundation for injunctive relief, adding pipeline operation and maintenance that go beyond what PHMSA has required by rule. Examples include:

- Update Supervisory Control and Data Acquisition functionality;
- Installation of computational pipeline monitoring leak detection or other pilot leak detection programs;
- *6-22 • Relocate or replace pipeline segments in high impact and risk areas;
- Modify and enhance existing Part 195 Integrity Management Plans, to exceed regulatory requirements in specified aspects;
- Replace breakout tanks to provide sufficient capacity and secondary containment;
- Agree to treat certain pipeline segments as susceptible to seam failure as defined in PHMSA regulations;
- Enhance control room functionality (*e.g.*, alarms and training);
- Implement an in-line inspection based spill prevention program to identify features which pose a leak or rupture threat, including calculation of predicted burst pressure of all crack features and corrosion features identified by in-line inspections;
- Install remote controlled valves or other equipment;
- Implement spill preparedness and training to exceed Part 194 Facility Response Plan requirements.

The Remedy Chart also reveals that EPA has obtained pipeline safety-type injunctive relief in cases involving leaks from spills from storage tanks. Examples include new or enhanced requirements in the areas of integrity management, leak detection (line balancing, installation of flow meters), corrosion control, buried line integrity testing, monthly aerial inspections, and increased safety measures for tanks, such as remote monitoring of volumes.

c. The Threat of Natural Resource Damages Enforcement is Growing

In the past three decades, many oil spill incidents impacting waters resulted in NRD claims and settlements. [FN110] Historically, and not surprisingly, larger spills have resulted in higher value NRD settlements than smaller spills. [FN111] Similarly, Trustees have tended to calculate higher NRD *6-23 damages in cases where high-use, sensitive environments were impacted, and injury to wildlife is unquestioned. [FN112]

The Remedy Chart indicates that Federal and State Trustees continue to pursue NRD claims arising from oil spill incidents, particularly involving pipeline releases that impact major rivers or other waters.

d. PHMSA Continues Aggressive Use of CAO Authority

As outlined above, PHMSA has an arsenal of enforcement weapons, ranging from notices of probable violation (NOPVs), to corrective action orders (CAOs), to emergency orders authority to conditions or practices alleged to present an imminent hazard to public health and safety or the environment. [FN113] PHMSA's Office of Pipeline Safety has an online database summarizing administrative actions taken to enforce 49 C.F.R. Part 192 (natural gas pipelines) and Part 195 (hazardous liquids pipelines) regulations. [FN114] PHMSA typically enforces through the issuance of a NOPV, as evidenced by the 953 cases filed between 2002 and 2017. These actions often are paired with a proposed compliance order. The operator may contest the NOPV and proposed order, which can result in an informal hearing. In some cases involving a fatality or injury, or a significant release into major water, PHMSA has obtained fines in excess of \$1.0 million, with severe compliance order relief.

The NOPV and proposed administrative order process is informal and does not expressly allow for discovery. Nevertheless, the operator has thirty-days to seek a hearing, which often is not set for several months after the request. [FN115] Further, the proposed compliance order is just that, a proposed order, and therefore, is effectively stayed pending a hearing and final order. In *6-24 stark contrast, PHMSA may issue a CAO without prior notice and with precious little due process after that. A CAO recipient must request a hearing within ten days, and the hearing “should” be conducted within fifteen days of the request. [FN116] Clearly, an operator dealing with a pipeline incident, while on the receiving end of a CAO, and forced into a hearing in less than a month, is unlikely to be adequately prepared to mount an adequate defense.

To sustain a CAO, PHMSA must establish (1) that continued operation of the pipeline “is or would be hazardous to life, property, or the environment;” and (2) that “failure to issue the order expeditiously will result in likely serious harm to life, property, or the environment.” [FN117] These dual burdens of proof have not constrained PHMSA's use of its CAO authority. While much less common than NOPV's and proposed compliance orders, PHMSA issued 134 CAO's between 2002 and 2017, averaging about eight per year since 2010. A review of the CAO cases indicates that most have involved a pipeline rupture incident. In these matters, PHMSA often orders an indefinite shut-down of the pipeline, performance of metallurgical analyses on the failed pipe segment, completion of a root-cause failure analysis, and extensive pipeline integrity testing across the pipeline system. CAO's often impose pressure restrictions after start-up, and significant ongoing reporting obligations. While some operators have appealed a CAO and gone to a hearing, in every recent case, PHMSA upheld the finding that continued operation of the pipeline was hazardous, and imposed all or substantially all of the corrective action that was ordered.

*6-25 e. Spill Incidents Foster Increasingly Aggressive Third-Party Litigation and Pipeline Opposition

Operators should keep in mind that the contents of a spill report can be used by third-party claimants. [FN118] Landowners can typically bring common law tort claims for nuisance, trespass, and negligence against an operator for damages on private property. [FN119] In some jurisdictions, a landowner may claim that certain activities are “inherently dangerous” in order to bring a strict liability claim for a pipeline spill. [FN120] Corporate officials may even face liability from shareholder suits based on allegedly misleading comments made following a spill regarding the scale of the release or the veracity of the response effort. [FN121] Third parties are also increasingly relying on litigation to halt pipeline construction and approval. Recently, a federal district court halted construction of a pipeline in Louisiana after plaintiffs

secured a preliminary injunction by demonstrating evidence that the Corps did not adequately justify how its required off-site mitigation compensated for the loss of wetlands caused by the pipeline, and did not thoroughly assess pipeline leak risks. [FN122]

IV. Preparing for Pipeline and Upstream Spill Incidents and Responding to Claims: Topical Trends and Practice Tips

a. An Effective Crisis Management Plan Should Include Communication and Litigation Risk Management Elements

The first stage in an upstream or midstream release incident is the emergency response. First, and foremost, operators should protect employees by removing them from the zone of danger, and the public if there is a risk of an off-site release. Second, the operator should stop *6-26 the release-- whether by plugging the well, extinguishing the fire, shutting valves, or implementing spill response measures such as booming. While all of this is happening, operators must be cognizant of their spill notification obligations, which tend to be characterized by regulation as “immediate.” [FN123]

The second stage of the incident life-cycle is remediation. Operators should know in advance of an incident who they will engage to conduct emergency spill response, or at least keep a list of trusted contractors with sufficient resources to respond. Operators should also have relationships with trusted environmental consulting firms who are experienced with large-scale incidents and interacting with government agencies. It is critical that the contractor have the capacity to generate and maintain a well-organized, accessible sampling and analysis database that includes links to underlying documents, such as lab reports. Often the database will be made available online to agency representatives. Many contractors have sophisticated GIS and other visual interpretive tools to map streams and impacted areas, and plot data. These are important in easily communicating impacts and priorities. Any significant spill event will result in some sort of government request for “all environmental data” related to the incident. Operators will find it invaluable to work with a contractor who has generated an easily transferrable, user-friendly, and defensible sampling and analysis database.

Many operators have a crisis management plan that incorporate reporting, containment, emergency response, and remediation. However, crisis management involves critical challenges that often are not included in planning and training. Consider that in the immediate aftermath of an incident, many well-meaning company employees may be asking themselves the following questions or, worse, not even thinking about these matters at all:

*6-27 • Things are moving fast. I need to send multiple texts and emails about what caused the leak, how much was spilled and cleanup efforts. It's OK to speculate about our maintenance practices, when we should have discovered the spill, and how bad the spill might be. After all, no one can ever look at our confidential business emails or documents, right?

• I expect that many agency representatives, from EPA, PHMSA, the U.S. Coast Guard, and state agencies, will be on the scene. It's too hard to coordinate these contacts through a central person. We want to be cooperative. So is it OK if our people in the field just talk to them about what happened?

• The lawyers are getting in the way. We just want to do what's right and can handle this ourselves.

• Can our contractors talk to the agency representatives?

• I want to take videos of the spill aftermath and cleanup, and narrate what I am seeing. Is that ok?

• I'm really concerned about this incident and want to make a point-- should I write my opinions in the incident report or root cause analysis?

• If I just copy the lawyer, it's privileged, right?

• It's too hard to keep track of the massive amount of electronic data, sampling, paperwork, and pipeline operating data that someone might someday ask us to give them. We can just worry about that later, if there's an investigation, right?

- If something later determined to be important inadvertently gets lost or deleted, that sort of honest mistake is not a big deal, right?
- I have no responsibility to preserve data generated by our cleanup and remediation contractors, right?
- We discovered some bird and fish carcasses outside of the immediate spill impact area. We're not sure if the mortality was associated with the spill. Can we ignore them?
- I heard that natural resource “trustees” were out at the incident location. Do I need to worry about that? After all, we are going to fully cleanup areas impacted by the spill, and I'm sure we'll have to pay a fine. That's going to be the end of it, right?

These are reasonable questions that, in the authors' experience, commonly arise in the fast-paced and high-pressure aftermath of a release incident. The hard truth is that the failure to prepare employees to think about and resolve them can lead to careless internal electronic *6-28 communications, inconsistent and speculative conversations with regulators, premature statements about fundamental issues such as causation, spill volume and environmental harm, loss of privilege, public relations mishaps, and lax document control. Time and again, these are the issues that make the resolution of litigation that arises from spill incidents in the upstream and midstream sectors intractable. These are fundamental *communication* and *litigation risk management* considerations for a crisis management plan.

For example, an effective crisis management communication plan should include procedures for centralizing field communications with agency representatives by designating a crisis manager. This will assure consistency in responses, and appropriate involvement of legal counsel for questions or as a referral source for the agency representative if necessary. Centralized communication minimizes the risk of careless statements, and maximizes the ability to cooperate while protecting company interests given the potential for litigation. Accuracy and completeness are often sacrificed at the altar of giving a speedy response. The crisis manager, in coordination with legal counsel, can balance these interests.

An operator's crisis management plan should include steps to minimize litigation risk. As this paper has established, upstream and midstream spill incidents present unique litigation challenges, not present in ordinary litigation. For example, a pipeline rupture and release to water may quickly result in significant claims by multiple stakeholders. First, multiple agencies have jurisdiction (*e.g.*, EPA, PHMSA, states). Second, each agency has a statutory mandate to fulfill, subjecting the operator to multiple and sometimes overlapping remedies, such as penalties for the same incident, and draconian injunctive relief that extends beyond the pipeline at issue. Statutory defenses are also limited. The agencies have tremendous information gathering authorities, and will invoke them through statutory document requests, or, in litigation, *6-29 discovery. It is not unusual for EPA to issue a CWA Section 308 information request in response to a spill that requires the production of hundreds of thousands of pipeline operational records, environmental data, biological information, notes, consultant records, and any variety of additional documents. NRD may trail the civil penalty and injunctive relief claims by years, and result in alleged liability that dwarfs the former. The threat of parallel criminal proceedings could complicate the desire for open civil settlement communication. Third parties can pursue multiple claims. For all these reasons, complete resolution of claims associated with a pipeline spill incident will be elusive.

A crisis management plan can minimize litigation risk in the immediate aftermath of an incident. The plan may include training about responding to agency questions, and about internal and external email etiquette. Operators may consider training about document preservation, such as proactive education about the severe penalties arising from “spoliation.” Indeed, the “star witness” in a pipeline rupture case is the pipeline segment that ruptured. PHMSA invariably will request that the ruptured piece of pipe be subjected to multiple tests, such as metallurgical analysis. Operators should preserve the equipment associated with the cause of the incident, and establish appropriate chain of custody. Employees should be educated about the importance of maintaining the attorney-client privilege, as well as the limitations of privilege.

b. Closely Evaluate CWA “Waters of the US” Jurisdiction

Liability for discharges of regulated substances under the CWA accrues when the discharge is into a WOTUS or adjoining shoreline. The definition of WOTUS is a hotly contested issue, in many forums. As previously mentioned, EPA and the Corps rule defining a WOTUS is currently beset by political, legal, and legislative challenges. One controversial issue of particular *6-30 importance to upstream and midstream operators with facilities in semi-arid environments is the regulatory status of intermittent streams and dry washes. EPA's 2015 WOTUS rulemaking indicated that if a feature has a bed and bank and an ordinary high water mark, and the feature could contribute flow to a WOTUS, then the feature would be considered a jurisdictional “tributary.” [FN124] As a result of litigation and administrative action, the 2015 rule is not in effect. EPA has stated that the definition of “waters of the United States” currently in effect is the definition promulgated in 1986/1988, implemented consistent with subsequent Supreme Court decisions and guidance documents.” [FN125]

In *Rapanos v. United States*, the Supreme Court plurality criticized the Corps' interpretation of WOTUS to the extent it covered “washes and arroyos' of an ‘arid development site,’ located in the middle of the desert, through which “water courses . . . during periods of heavy rain.” [FN126] Justice Kennedy's critique of this interpretation did not go this far, suggesting “torrents thundering at irregular intervals through otherwise dry channels” could constitute waters of the United States. Nonetheless, he noted that instances where irregular (not seasonal) ephemeral flows qualify as waters of the United States should be the exception rather than the rule. [FN127] In SPCC and FRP planning, reporting, and liability defense, operators should develop an advanced understanding of the current regulatory status of semi-arid or desert features that may carry water only seasonally or intermittently until the regulatory landscape over WOTUS settles, or at least offers some certainty.

A related issue is the status of groundwater as a WOTUS. This is an important issue in defending CWA citizen suits if, for example, oil from a ruptured pipeline seeps into *6-31 groundwater, and migrates to surface water. To establish a violation of Section 309 of the CWA, a plaintiff must allege: (1) the discharge (*i.e.*, addition); (2) of a pollutant; (3) into navigable waters; (4) from a point source; (5) without a permit. [FN128] In *Upstate Forever v. Kinder Morgan Energy Partners, LP*, 252 F.Supp.3d 488 (D.S.C 2017), an environmental group alleged that petroleum products from a pipeline leak soaked into the ground, impacted groundwater, and that a plume of contamination migrated via the groundwater into a WOTUS. The plaintiff alleged that this constituted a discharge of a pollutant from a “point source” into a WOTUS without a permit. [FN129] The defendant moved to dismiss, arguing that groundwater is not a “point source” and that the pipeline did not discharge into a WOTUS. As to the first issue, district court agreed that a pipeline can be a “point source.” [FN130] However, the court ruled that groundwater carrying a pollutant is non-point source pollution. Second, the court ruled agreed that the CWA does not regulate discharges into groundwater even if that groundwater is hydrologically connected to surface waters. [FN131] Because the defendant did not discharge *directly* into the alleged WOTUS, there was no violation of Section 309 of the CWA.

Prior to *Upstate Forever*, many courts had grappled with the regulatory status of hydrologically connected groundwater under the CWA. In *Village of Oconomowoc Lake v. Dayton Hudson Corp.*, 24 F.3d 962 (7th Cir. 1994), the defendant sought to build a six-acre artificial pond that would retain stormwater containing petroleum products and other pollutants while ““exfiltrating” the water to the ground below. [FN132] The Court of Appeals held that, “[n]either the Clean Water Act nor the EPA's definition asserts authority over ground waters, just because *6-32 these may be hydrologically connected with surface waters.” [FN133] Several district courts have reached the same conclusion, while some have decided otherwise. [FN134] In one case involving a pipeline, the court ruled that “the unpermitted discharges of pollutants through spills, leaks, and other releases into the groundwater and into the wetland area at the [operator's] site before [the operator] obtained its NPDES permit violated the CWA,” [FN135]

In *Rice v. Harken Exploration Co.*, 250 F.3d 264 (5th Cir. 2001), landowners brought an action against an oil and gas lessee seeking damages under OPA. The landowners specifically claimed that the lessee discharged and continued to discharge hydrocarbons into groundwater, and that the groundwater would migrate into WOTUS. [FN136] The Fifth

Circuit held that groundwater was not protected under OPA as “navigable water.” [FN137] Thus, the landowners could not recover under OPA for discharges of oil to groundwater itself. The court did not decide whether a discharge into groundwater that is hydrologically connected to a WOTUS is regulated under OPA. However, the court ruled that the plaintiff “failed to produce evidence of a close, direct and proximate link between [defendant's] discharges of oil and any resulting actual, identifiable oil contamination of a particular body of natural surface water that satisfies the jurisdictional requirements of the OPA.” [FN138] The court therefore granted summary judgment for the defendant.

***6-33** The Ninth Circuit Court of Appeals very recently addressed this issue in *Hawai'i Wildlife Fund v. County of Maui*, 881 F.3d 754 (9th Cir. 2018). There, the plaintiffs-appellees filed a citizen suit under the CWA, arguing that the County of Maui violated the CWA by discharging pollutants from its injection wells at a wastewater treatment facility which subsequently migrated into the Pacific Ocean. [FN139] A tracer dye study established a hydrological connection between the groundwater beneath the facility and the ocean. [FN140] The County argued that a point source is not regulated under the CWA unless the point source itself conveys the pollutants directly into the navigable water. In this case, the County asserted, no CWA jurisdiction existed because the wells discharged into groundwater, and then indirectly into the Pacific Ocean. [FN141] The Court of Appeals disagreed, holding that an indirect discharge from a point source to a navigable water is sufficient to create CWA liability. [FN142]

Another WOTUS issue that, surprisingly, may arise in defending against CWA or OPA claims arising from a spill incident, is whether discharges to *land* should be considered in resolving a claim. Often, if not typically, a pipeline or other facility leak starts some distance away from water and then travels overland to a WOTUS. In many cases, some or most of the spilled material never reaches the water. The oil, for example, may remain on the ground, the subsurface, or in groundwater, never impacting jurisdictional water.

In *United States v. Colonial Pipeline Co. Inc.*, 242 F. Supp. 2d 1365 (N.D. Ga. 2002), the federal government sued Colonial Pipeline under the CWA for civil penalties arising out of twenty separate spills of oil and other petroleum products from a pipeline. Colonial Pipeline moved for summary judgment as to six of the discharges at issue, arguing that it was subject to ***6-34** civil penalties for only the amount of oil discharged into or upon navigable waters or adjoining shorelines, but not the total amount that escaped the pipeline, much of which remained on land. [FN143] The court ruled that the civil penalty would be “based upon the entire amount of oil or hazardous substance released into the environment” because all of the oil was ““discharged” within the meaning of the CWA. [FN144]

The issue arose again more recently in *United States v. Citgo Petroleum Corp.*, 697 F.Supp.2d 670 (W.D. La. 2010). In that case, a release of oil and water occurred when rainfall overwhelmed the storage capacity of tanks associated with a wastewater treatment unit at a refinery. The government, citing *Colonial Pipeline*, argued that the civil penalty must be based on the total volume discharged from CITGO's tanks, not on any lesser amount that reached waters or adjoining shorelines, because the term “discharge” is defined in Section 311 to include “any spilling, leaking, pumping, pouring, emitting, emptying or dumping . . .” [FN145] Citgo countered that oil or water that was captured in secondary containment should not be included in the district court's penalty calculations. Citgo explained that a release of oil from CITGO's primary containment (the tanks) to CITGO's secondary containment (the dike) is not a release for purposes of the CWA. Citgo noted that the CWA and its regulations “do not even require such a release to be reported to the regulators.” [FN146] At trial, government experts testified that a total of 510,000 barrels of waste water and oil was discharged from the tanks, of which, over 300,000 barrels reached the water. Citgo presented evidence that only 54,000 barrels impacted the water, and that this should form the basis for any penalty calculation. The Court found that “the amount ***6-35** discharged is in the range of fifty-four (54,000) barrels” and that “the method of calculation that arrived at this amount to be more reasonable and credible.” [FN147] It therefore appears that the court rejected the argument that the penalty calculation should be based on the entire volume discharged from the tanks.

In analogous circumstances, in *Gatlin Oil Co. v. United States*, 169 F.3d 207 (4th Cir. 1999), a company challenged a determination by the Coast Guard National Pollution Funds Center (“NPFC”) that the company was not entitled to compensation under OPA for removal costs and damages arising from an oil spill. In that case, the spill had two separate components: (1) after the oil was spilled, vapors caused a fire that destroyed several structures; and (2) that same

discharged oil ultimately flowed into navigable waters. [FN148] The U.S. Coast Guard refused to pay out from the fund for the first component, because that component was not the result of actual, identifiable oil contamination of navigable waters or adjoining shorelines. Instead, the U.S. Coast Guard only agreed to pay out for the “removal costs and damages that resulted from the discharge of oil into navigable waters or from a substantial threat of discharge into navigable waters.” [FN149] The Fourth Circuit upheld the U.S. Coast Guard's interpretation of OPA, which distinguished the OPA components of the incident from the non-OPA components of the same incident. [FN150]

The *Citgo* case also raised the fundamental question: can water be oil? In that case, a significant portion of the released wastewater consisted of water, and not oil, even though the solution was a mixture. The parties hotly contested whether the mixture was “oil” under the *6-36 CWA, which defines “oil” as “oil of any kind or in any form, including but not limited to,” “sludge” and “oil mixed with wastes other than dredged spoil.” [FN151] For example, Citgo argued on appeal that the government's expert conceded that “the 411,000 barrels of wastewater discharged would have contained only 160 total barrels of oil if the water had the same concentration of oil and grease as did a wastewater sample taken during the release (337 parts per million).” [FN152] The Fifth Circuit addressed and did not reject the district court's use of 54,000 barrels of oil discharge as the basis for calculating the penalty. [FN153]

The same issue could arise in a spill incident involving produced water. Produced water is principally composed of water, sodium chloride, and other trace minerals brought to the surface along with oil or gas during production. Produced water can also contain petroleum hydrocarbons derived from crude oil. EPA has asserted in settlement documents that produced water is “oil” under the CWA, although without any legal analysis. [FN154] Nevertheless, there is at least a colorable argument that only the trace oil in produced water, and not the entire volume, should be considered in calculating a CWA penalty.

c. Effect of State Settlements

EPA may “overfile” on a state settlement, essentially seeking to penalize an operator a second time for the same incident. The CWA bars such a suit if “a State has commenced and is diligently prosecuting an action under a State law comparable to this subsection.” [FN155] A comparable provision in the citizen suit context frequently has been interpreted by courts, with *6-37 considerable deference to state law, and precluding the citizen suit in several cases. [FN156] Courts have not addressed the issue extensively in EPA overfilling cases, but operators should be aware of the opportunity to argue the defense if a state settlement has preceded federal action. In a recent OPA case, [FN157] the Louisiana Department of Environmental Quality issued a compliance order and notification of potential penalties. The Fifth Circuit rejected the “diligent prosecution” bar, finding that the state's prosecution was “at best, desultory.” [FN158] Nevertheless, the result may have been different if the defendant had actually settled with the state and paid a penalty, or was actively negotiating to do so. In addition, the amount paid to the state should be considered a mitigating factor in any federal penalty action. Consequently, operators should strategically evaluate options for separately resolving spill-related claims with a state.

d. Prepare Early for Natural Resource Damage Claims

As outlined above, NRD claims under OPA have become a powerful tool in oil spill enforcement. Yet the risk of NRD claims is often overlooked in the aftermath of a release incident. Parties understandably focus on the urgent requirements to respond, contain and then begin remediation. Operators may believe that the remedy stage, because it will remove contaminants or reduce them to acceptable levels, will, in combination with a fine, make the public whole. Unfortunately, from the government's standpoint, that is often not the case, especially when oil is discharged into a waterway. Indeed, a review of NRD settlements has revealed over eighty cases where Trustees recovered NRD arising from oil spills. [FN159] In at least half of these cases, the spill volume did not exceed 2000 barrels, and in many cases, the volume *6-38 was less than 500 barrels. NRD is now a vibrant aspect of any oil spill that reaches water in a material volume.

The time to prepare for a NRD case is not months or years after the incident when Trustees typically approach responsible parties seeking assessment and restoration costs. Instead, early planning, including a systematic data gathering plan by an NRD consultant in the immediate aftermath of an incident, and early engagement with Trustees, may be critical in minimizing NRD. Environmental response teams do not necessarily have the same goals or training as a team that is charged with collecting NRD data.

Calculating the nature and scope of NRD injury is complex, involves both scientific and economic expertise, and generally involves three steps. [FN160] The first step, a scientific one, identifies the natural resource and whether it has been injured by the oil spill. NRD seeks to restore the natural resource to its pre-injury baseline condition and compensate the citizenry for the lost use of the resource until restoration to baseline is complete. Baseline is not, however, the pre-spill condition of the injured resource, such as the waterway. [FN161] Thus, it is important to gain an early understanding of “baseline” conditions in the affected area, and how the spill may (or may not) have affected those conditions.

The second step, also a scientific one, attempts to measure the effects of the spill on ecological resources. It is prudent to have a wildlife plan in place whereby field personnel document the lack of injury to birds, fish, and other habitat, such as sediments and shoreline upland. Likewise, lawyers and consultants involved in responding to a spill should assure that a defensible sampling and analysis data gathering, quality control, and management system is in place to collect and preserve chemical evidence critical in evaluating whether compensable NRD has occurred. *6-39 Planning and implementation of these first two steps in any NRD situation should begin at the outset of an incident, and not months or years later, as often happens because of the delay in action by Trustees.

The third step is the rub, and involves how to calculate the dollar amount needed to compensate for the injured resources. This may involve primary restoration, which is the cost to restore the actual resource that was damaged so that it can provide the same level of service it did at baseline, or compensatory restoration, to provide a substitute resource that provides like-kind services. [FN162]

Trustees use Habitat Equivalency Analysis (HEA) to determine how much restoration is needed. [FN163] HEA is an accounting model used to calculate the ecological service losses from past, ongoing, and future injuries (the debit side of the model) and the future service gains from proposed restoration needed to equal the debit (the credit side of the model). A Trustee and a defendant typically disagree about the existence, scope, and severity of the injuries and thus the debit and credit sides of the equation. [FN164] The scientific uncertainty results from the complex methodologies at issue, the fact that small differences in the same methodology can create huge valuation differences, bias, and the involvement of multiple disciplines, from biology, to ecology, to toxicology, to risk assessment, and economics. It is imperative that an operator develop a data set early during investigation and remediation to persuasively advocate that service loss from the injury was limited and that any restoration should be minimal.

*6-40 Delay in confronting NRD often results in a situation where Trustees commence assessment studies, reaching conclusions about alleged injury and restoration. The authors' experience is that these studies often exaggerate the harm. The Trustees become deeply anchored in their technical and legal positions, making settlement difficult. To avoid this, operators should consider early engagement with Trustees. The focus should always be on “getting to restoration” instead of incurring costs to conduct more and more studies. To the extent assessment is necessary--which it often is--operators and Trustees can enter into cooperative assessments to coordinate the work (although the operator will pay for it).

The nature and scope of NRD in an oil spill case will depend on typical factors such as the amount of oil spilled, the type of habitat impacted, recreation closures, and harm to wildlife or endangered or sensitive species. Trustees, however, are broadening their scope in oil spill cases. For example, Trustees may focus more closely on the nature of the oil spilled (*e.g.*, arguing that Bakken crude is more toxic), and the season when the incident occurred (*e.g.*, probing whether data collected during a release in winter is adequate to estimate harm). An obvious, but often debated question surrounding oil spills to flowing rivers is: where did the oil go? Another trend is for Trustees to conduct laboratory toxicity testing

on fish or other species allegedly present at the time of a spill. For example, elaborate toxicity testing has been done in the aftermath of the Deepwater Horizon incident, in which test organisms were exposed to samples of released oil in various states of weathering. [FN165] These efforts are inherently difficult--if not fraught with uncertainty--because of replication issues surrounding the volume of oil in a particular space, chemical concentrations in the water column, ocean or river conditions, movement of species, *6-41 exposure duration, and other issues that arise in any laboratory testing effort to recreate a dynamic environment.

e. Fair Notice and Deference

The “fair notice” doctrine holds that the regulations and public statements published by PHMSA or any other agency must identify with “ascertainable certainty” the standards with which the agency expects the regulated community to conform. [FN166] If the agency has failed to provide an ascertainably certain interpretation of a regulation, then the agency cannot enforce the regulation. In *U.S. v. Chrysler Corp*, 158 F.3d 1350 (D.C. Cir. 1998), the court held that “Chrysler cannot be required to recall cars for noncompliance with Standard 210” if the company “had no notice of what [the Department] now says is required under the standard.... Chrysler might have satisfied [The Department] with the exercise of extraordinary intuition or with the aid of a psychic” but these “possibilities are more than the law requires.” In *Diamond Roofing Co. v. Occupational Safety & Health Review Comm'n*, 528 F.2d 645, 649 (5th Cir. 1976), the court explained that fair notice is especially important when “a violation of a regulation subjects private parties to criminal or civil sanctions;” in such circumstances, “a regulation cannot be construed to mean what an agency intended but did not adequately express.” The fair notice principle is not a facial challenge to a regulation, but is grounded instead on the agency's failure to communicate a regulatory interpretation with ascertainable certainty to the regulated community.

The manner in which agencies communicate their interpretations of a regulation also helps define the boundaries of agency deference. While agency deference is a complex subject, it is well-established that an agency's interpretation of an ambiguous regulation is entitled to *6-42 deference, [FN167] while interpretation of an unambiguous regulation is not entitled to deference. [FN168] However, even if a regulation is ambiguous, there are exceptions to the general rule granting agency deference. For example, no deference is warranted when the agency's interpretation is “plainly erroneous or inconsistent with the regulation.” [FN169] Deference is also inappropriate when there is reason to suspect that the interpretation “does not reflect the agency's fair and considered judgment on the matter,” such as where “the agency's interpretation conflicts with a prior interpretation.” [FN170] Similarly, if an interpretation is offered for the first time in an enforcement proceeding and threatens to “impose potentially massive liability . . . for conduct that occurred well before that interpretation was announced,” no deference applies. [FN171] Likewise, an interpretation that reflects a “post hoc rationalizatio[n] advanced by an agency seeking to defend past agency action against attack” is not entitled to deference.

These cornerstones of administrative law--fair notice and deference--can be important lines of defense in regulatory enforcement cases, as demonstrated by a recent appeal of a PHMSA order to the Fifth Circuit Court of Appeals. In *ExxonMobil Pipeline Co. v U.S. Department of Transportation*, 867 F.3d 564 (5th Cir. 2017), the operator's pipeline ruptured and caused a release. The rupture was caused by seam failure in a segment of the pipeline. PHMSA alleged (among other related rules) that ExxonMobil violated 49 C.F.R. § 195.452, which requires that pipeline operators “consider” manufacturing information and seam type in establishing its pipeline assessment schedule, along with many other factors (previous integrity assessments, pipe size, coating type and condition, etc.). [FN172] The rule does not specify what type of inspection *6-43 method should be used when seam failure is determined to present a threat. In conducting its evaluation under 49 C.F.R. § 195.452, ExxonMobil used a seam-failure susceptibility methodology that was developed in a PHMSA commissioned report. The issue for the court was the meaning of “consider” in the context of 49 C.F.R. § 195.452(e)(1). [FN173] PHMSA basically claimed that the type of pipe at issue--low frequency electric resistance welded steel pipe (LF-ERW)--should have been “deemed” susceptible to seam failure due to unique risks dating back to the manufacturing of the pipe prior to the 1970's.

The Fifth Circuit ruled that PHMSA was owed no deference because the regulation was unambiguous. [FN174] On the merits, the court ruled that the term “consider” did not require an operator to deem certain types of pipe as susceptible to seam failure. Instead, the regulation required ExxonMobil to “carefully undergo an informed decision-making process in good faith, reasonably taking into account all relevant risk factors in reaching a decision.” ExxonMobil did so by using the PHMSA commission methodology for evaluating the risk of seam failure. The fact that the release occurred, the court said, “did not necessarily mean that ExxonMobil failed to abide by the pipeline integrity regulations in considering the appropriate risk factors.” [FN175]

The Court ruled that no deference was warranted even if the regulation was ambiguous because PHMSA's interpretation failed the fair notice test. [FN176] The court observed that ExxonMobil relied on a methodology that had been developed by a PHMSA contractor, and that PHMSA had never faulted ExxonMobil for using that tool. Furthermore, the regulation was “process-based,” requiring only that an operator consider a list of factors in ranking pipelines, with the ultimate decision on whether a segment was susceptible to seam failure up to the *6-44 operator. [FN177] PHMSA had not provided ExxonMobil with fair notice of its interpretation, expressed in the litigation for the first time, that LF-ERW pipe should be deemed susceptible to seam failure in the context of 49 C.F.R. § 195.452.

f. Responding to PHMSA Administrative Enforcement

As described above, PHMSA has powerful enforcement tools, including the ability to issue draconian measures such as a shut-down order without notice and with very little opportunity to mount a defense. The NOPV and CAO data available on the PHMSA website indicates that most operators do not appeal either action, which results in a Final Order, and requirement to perform corrective action work on a pipeline and pay a penalty. The authors' perspective and experience is that operators should always consider the potential upside of proceeding to a hearing. As with any administrative hearing, the process is very different than typical litigation. The trier of fact is a PHMSA employee, there is little discovery, the hearing is usually short (less than a day), and the method of presentation is informal. Of course, since the hearing is before the very agency that will render the decision, the odds are stacked against the operator from the outset. In addition, some enforcement cases are based on solid facts and regulatory authority, leaving little room to maneuver.

Still, the operator can treat the hearing as a mini-trial, entering exhibits into the record, preparing exhibit notebooks for the hearing officer, developing demonstrative exhibits, and cross-examining PHMSA witnesses, such as the inspector. In particular, the operator typically will have a better grasp of the facts and the facility at issue. Since the hearing will have very relaxed rules of evidence (if any), there is no bar on leading a company witness on direct examination, and no apparent foundational or evidentiary rules applicable to exhibits or testimony. Furthermore, many PHMSA regulations are performance-based, allowing for *6-45 flexibility in explaining how the operator has complied. The inspector may be cross-examined as to communications and admissions during the inspection, interpretations of the regulations, and other matters. Pre-hearing and post-hearing briefs can be filed. Such preparation can result in a robust administrative record that increases the chance for success on appeal. In addition, a more formal and focused airing of facts and legal issues can narrow the dispute and open the door to settlement.

g. The Suzuki Problem in EPA Administrative Settlements

Companies have typically favored administrative settlements over consent decrees because the former is constrained by penalty caps, usually involve less onerous injunctive relief, and do not require court approval or oversight. 40 C.F.R. § 22.18 governs the procedures for a quick resolution and settlement of certain EPA administrative proceedings. These regulations define the scope of resolution or settlement, and specifically state that the resolution is limited to liability for Federal civil penalties:

Full payment of the penalty proposed in a . . . settlement pursuant to paragraph (b) of this section shall not in any case affect the right of the Agency or the United States to pursue appropriate injunctive or other equitable relief

or criminal sanctions for any violations of law. . . . [S]ettlement pursuant to paragraph (b) of this section shall only resolve respondent's liability for Federal civil penalties for the violations and facts alleged in the complaint. [FN178]

The regulations governing final administrative orders by EPA reiterate the limitation on the scope of release discussed above. 40 C.F.R. § 22.31(a) states that the “final order shall not in any case affect the right of the Agency or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law.”

The Environmental Appeals Board (EAB) recently rejected a proposed consent agreement which included a statement that EPA “covenants not to sue Respondents for injunctive or other *6-46 equitable relief for the violations and facts alleged in this matter.” [FN179] The EAB found that this language was in conflict with other language in the settlement document, as well as 40 C.F.R. § 22.18(c) and § 22.31(a). In determining EPA could not release liability for injunctive relief, the EAB analyzed the preamble to the promulgation of § 22.18 and § 22.31, noting that those documents specifically recognized that the regulations “reserve[] the Agency's right to pursue injunctive relief or criminal sanctions” upon approving a settlement. The EAB noted that it had previously ratified consent agreements containing releases for injunctive relief, but determined that those did not serve as precedent because the EAB did not directly address the issue in its ratification. There is no legal restriction on obtaining a release and covenant not to sue for injunctive relief in federal court consent decrees. Consequently, operators should consider this difference in evaluating settlement options.

h. Supplemental Environmental Projects Going by the Wayside?

EPA has long-encouraged the use of Supplemental Environmental Projects (SEPs) in settlements, and upstream and midstream facility spill incident enforcement typically includes a SEP component. SEPs permit an operator to voluntarily agree to complete environmentally beneficial projects related to a violation to mitigate or offset the cost of a penalty. [FN180] EPA's SEP policy encourages the agency to consider SEPs early in the settlement process. [FN181]

Recent policy changes by the Trump Administration have affected the viability of SEPs. A June 5, 2017 memorandum from Attorney General Sessions prohibited the payment of settlement funds to third parties. [FN182] This may have implications for future agreements involving SEP's *6-47 because many provisions involve payments to groups to perform work to benefit the environment. [FN183] After the Attorney General announced this new policy, the Environment and Natural Resources Division (ENRD) of the U.S. Department of Justice (DOJ) issued guidance on the application of the 2017 memorandum to cases handled by ENRD. The guidance created a limited exception to third-party payments when the payments directly remedy harm to the environment.

The practical import of the 2017 memorandum was on display in a recent Clean Air Act case involving Harley-Davidson, which agreed to pay a \$12 million civil penalty in addition to injunctive relief and a requirement to spend \$3 million on an Emissions Mitigation Project. [FN184] That Project required Harley-Davidson to give \$3 million to the American Lung Association to replace wood-burning appliances with newer models that produced lower pollutant emissions. After the 2017 memorandum was issued, DOJ withdrew the decree because the mitigation project did not conform to the policy prohibiting payments to third parties. A replacement consent decree was lodged on July 20, 2017. [FN185]

V. Leak Detection Looms Large on the Horizon

As discussed above, both EPA in civil settlements under the CWA, and PHMSA in corrective action enforcement, increasingly impose new or additional requirements to install and operate enhanced leak detection systems. PHMSA proposed to expand Part 195's leak detection requirements in January 2017, pointing to recent pipeline rupture incidents linked to a lack of adequate leak detection. However, the proposal was put on hold by the Trump Administration's *6-48 regularly review of all recently published and proposed rules. [FN186] Although the future of the leak detection proposal remains uncertain, if the rule prepared by PHMSA in 2017 becomes effective, it would expand leak detection requirements to all covered pipelines in both HCAs and non-HCAs. [FN187]

a. Current and Proposed Leak Detection Requirements

The term “leak detection” encompasses a wide variety of techniques to identify potential loss of pipeline integrity. The term is somewhat of a misnomer, in that a “leak” can be a very small (*e.g.*, pinhole) event for which there is no “leak detection” short of observation or some non-destructive testing technique. Leak detection technology has proven effective mostly in minimizing significant releases from pipeline ruptures. It is important to understand that no leak detection system can prevent leaks. Furthermore, leak detection exists on a continuum of measures to prevent and respond to incidents, ranging from industry-standard construction, to high-quality inspection, maintenance, and operation practices, including personnel training in the field and control center, and spill prevention and response. In 2015, the University of North Dakota Energy & Environmental Research Center (EERC) issued a useful report summarizing leak detection technologies. [FN188] Previously, in 2012, a PHMSA leak detection study investigated types of leak detection technologies, and their feasibility in practice. [FN189] As these reports *6-49 document, the systems generally range from simple line balancing to more sophisticated computer based algorithms and even external detection equipment:

- Line balancing, which is a conservation of mass technique that compares the mass injected into a pipeline with the mass delivered from that pipeline. Any significant difference between these two measurements might suggest that there is a pipeline loss.
- Line balancing can be done manually by technicians visiting well sites or pipeline discharge and receipt points and recording data in a log book or entering it into a computer.
- Most transmission pipeline operators automate this process with flow computers, which transmit data to a central control center via Supervisory Control and Data Acquisition technology, which allows for near-continuous monitoring of operating conditions and enhanced capability for line balancing.
- This can be coupled with Computational Pipeline Monitoring (CPM), a software program that applies an algorithm to meter or other sensor data (*e.g.*, pressure and flow) to determine if conditions are consistent with loss of integrity. If so, an alarm alerts a controller to the situation.
- Progressively more sophisticated techniques, such as volume balancing and real-time transient modeling elements, can theoretically enhance leak detection capability. More advanced methods require more understanding of fluid dynamics and pipeline operating conditions.
- External leak detection systems include infrared sensors and fiber optic cables either attached directly to the outside of the pipe or are next to the pipe.

PHMSA currently requires leak detection only for liquids pipelines located in high consequence areas (HCAs). [FN190] Regulations do not prescribe a certain leak detection technology. Instead, the rule is performance-based, requiring an operator to consider several factors in evaluating the selection of a leak detection system, such as the characteristics and history of the pipeline, the capabilities of the available leak detection systems, and the location of emergency response personnel. [FN191]

*6-50 In addition, 49 C.F.R. § 195.452(i)(4) states that if an operator determines that an emergency flow restricting device (EFRD) is needed on a pipeline segment to protect a HCA in the event of a hazardous liquid pipeline release, an operator must install the EFRD. In making this determination, “an operator must, at least, consider the following factors--the swiftness of leak detection and pipeline shutdown capabilities, the type of commodity carried, the rate of potential leakage, the volume that can be released, topography or pipeline profile, the potential for ignition, proximity to power sources, location of nearest response personnel, specific terrain between the pipeline segment and the high consequence area, and benefits expected by reducing the spill size.” [FN192] PHMSA has issued advisory bulletins regarding leak detection and emphasized the importance of effective leak detection capabilities. [FN193] In the

absence of a computer-based leak detection system, pipeline operators are encouraged to perform “periodic line balance calculation[s]...and take any other necessary actions required to ensure public safety and protect the environment.” [FN194]

PHMSA has adopted an industry standard for any operator--whether operating a segment within or outside a HCA--that installs a computational pipeline monitoring (CPM) leak detection system. [FN195] CPM generally comprises a software program that assimilates pipeline monitoring data, such as pressure and flow, and utilizes an algorithm to determine if conditions are consistent with a release. [FN196] Operators that choose to implement CPM on a pipeline must comply with API Recommended Practice 1130, which establishes industry standards for CPM design, testing, and operation.

***6-51** PHMSA proposed in 2015 to amend Section 195.134 to require that all new hazardous liquid pipelines be designed to include leak detection systems. [FN197] PHMSA did not impose prescriptive leak detection requirements. As with the existing rule, the proposed rule is performance-based, requiring consideration of the same factors now listed in 49 C.F.R. § 195.452(i)(3). This is consistent with the fact that pipeline configuration and operational factors vary by geographic location, and that other variability exists, including fluid or product differences, batching, and other operational conditions. Due to these factors, any type of prescriptive approach to standards for leak detection is difficult to achieve. Citizens' groups claimed that this regulation “includes no acceptance criteria” and “is virtually unenforceable.” [FN198] PHMSA disagreed with this comment and declined to impose specific technologies for leak detection. However, PHMSA noted that it will be studying this issue. [FN199]

The industry commenters agreed that the existing standards for leak detection systems, such as API-AOPL Recommended Practice 1165 (SCADA), Recommended Practice 1167 (Pipeline Alarm Management), and Recommended Practice 1168 (Control Room Management) are appropriate standards to utilize for leak detection systems. [FN200] PHMSA declined to incorporate API Recommended Practice 1167 (Pipeline Alarm Management), citing concerns about the adequacy and enforceability of the standard. [FN201]

Other more novel technologies, such as forward looking infrared radar (FLIR), were encouraged by certain commenters. For example, a commenter claimed that FLIR can detect changes in temperature near a pipeline from a winter leak, even under snow, and that it can be ***6-52** used from aerial patrols. [FN202] Other stakeholders noted, however, that these new technologies have not been proven in service on large volume transmission pipelines. Nevertheless, infrared technology has become commonplace in the upstream industry for detecting vapor leaks from thief hatches and pressure relief devices on tanks. PHMSA has attempted to impose FLIR camera technology for oil spill detection in administrative enforcement proceedings. [FN203] Therefore, operators should be aware of this developing trend in potential leak detection methodology.

State rules also provide insight about the possible future path of pipeline leak detection regulatory actions. The Alaska Department of Environmental Conservation (ADEC) requires that:

- (a) a crude oil transmission pipeline must be equipped with a leak detection system capable of promptly detecting a leak, including: (1) if technically feasible, the continuous capability to detect a daily discharge equal to not more than one percent of daily throughput; (2) flow verification through an accounting method, at least once every 24 hours; and (3) for a remote pipeline not otherwise directly accessible, weekly aerial surveillance, unless precluded by safety or weather conditions. (b) the owner or operator of a crude oil transmission pipeline shall ensure that the incoming flow of oil can be completely stopped within one hour after detection of a discharge. [FN204]

Alaska's leak detection requirement, applied in conjunction with its developed best available technology (BAT) regulations, provide an example of how state requirements may go beyond federal pipeline safety standards.

b. Gathering Lines Present Unique Issues for Leak Detection

The EERC Report noted that its survey of leak detection technology was based on interstate pipelines. The EERC Report also cautioned against extrapolating from the use and study of leak technology in transmission pipeline context, because of the unique operating characteristics of *6-53 gathering lines. Unlike transmission pipelines with very few branches, gathering systems have tens to hundreds of pipeline connections which comprise the gathering line network. This causes extreme variability in gathering line flow conditions which affects the ability to accurately balance inlet and outlet measurements and evaluate the potential for a leak.

For example, gathering lines receive oil or produced water from tanks. These tanks usually are automated--meaning the flow into the gathering line is inconsistent and variable. [FN205] Production from wells changes over time and new wells are often added to existing gathering lines. Gathering lines in rolling or hilly topography further create voids in the line. Gathering line systems, therefore, are constantly transitioning in flow, pressure, and line-packing. The system in one area may be slack, while in another area may be under pressure and filled. [FN206] This variability in line fill may create discrepancies between measurements of fluids pumped into the system and those received at the oil terminal or disposal facility. EERC concluded that “[a]t this time, no technology has demonstrated undisputed reliability in detecting spills on interstate pipelines, much less on more problematic gathering lines.” [FN207] In a recent PHMSA case, an operator successfully challenged a CAO requirement that required modification of a leak detection system, based on arguments that PHMSA did not understand the dynamic nature of the system. [FN208]

VI. Conclusion

The United States' energy infrastructure is a critical component of the oil and natural gas supply chain, powering our economy and moving us toward energy independence. Safe operation of that infrastructure is a high priority for the industry, the regulators, and the public. *6-54 Taken in context, pipeline release incidents are rare, and generally involve small volumes. Nevertheless, enforcement and other liability ramifications can be a stranglehold on business operations in the event of a major incident. Repeat, smaller incidents pose similar risks. The stakes are increasing as small but vocal opposition now threatens the construction of new pipelines and production infrastructure. The industry should be ever-vigilant in preventing spill incidents, relentlessly responding if they occur, and preparing for claims from federal, state, and third-party stakeholders.

*6-55 ATTACHMENT A

Clean Water Act Remedy Chart

	CASE	TYPE OF DISCHARGE	CIVIL PENALTY	INJUNCTIVE RELIEF	TYPE
1.	<u>U.S. v. Transcontinental Gas Pipeline Corporation</u> (S.D. Tex. 2002) (Consent Decree link)	Alleged discharge of lubricating fluids and hydrocarbon liquids into open pits at compressor stations servicing interstate natural gas pipeline. No specified volume. Storm water discharge violation.	\$1.4 million civil penalty	Remediation requirements: (1) test for groundwater contamination; (2) complete a storm water monitoring program; and (3) conduct storm water sampling.	Midstream - multiple compressor stations

2.	<p><u>U.S. v. ExxonMobil Oil Corporation</u> (C.D. Cal. 2002) (Consent Decree link)</p>	<p>Alleged release of approximately 1,777 barrels of crude oil from a ruptured pipeline on golf course and Santa Clara River, California.</p>	<p>\$4.7 million civil penalty</p>	<p>N/A</p>	<p>Midstream - pipeline rupture</p>
<p>As Divided:</p>					
<p>- \$2.65 million U.S. Department of Interior (Trustees- NRD)</p>					
<p>- \$150,000 U.S. Fish & Wildlife Service (Restoration Fund)</p>					
<p>- \$600,000 U.S. Department of Justice (Civil Penalty)</p>					
<p>- \$600,000 California Department of Fish & Game (Damages)</p>					
<p>- \$50,000 California Department of Fish & Game (Monitoring)</p>					
<p>- \$250,000 California Department of Fish & Game (Civil Penalty)</p>					
<p>- \$75,000 National Fish and Wildlife Foundation (Response Activities)</p>					

- \$75,000
California
Regional
Water Quality
Control Board
(Cleanup)

- \$125,000
California
Regional
Water Quality
Control Board
(Studies)

- \$125,000
California
Regional
Water Quality
Control Board
(Monitoring)

3.	<p><u>U.S. v. Olympic Pipeline Company, and Shell Pipeline Company (W.D. Wash. 2003) (Shell Consent Decree link) (Olympic Consent Decree link)</u></p>	<p>Alleged release of over 230,000 gallons (5,475 barrels) of gasoline from a ruptured pipeline into Hanna and Whatcom Creeks, Washington.</p>	<p><u>Shell Civil Penalties:</u></p>	<p>Other Relief requires Shell to perform the requirements from the following: (1) Modified Criterion for Evaluating Strength of Corroded Pipe; (2) API 1110 Pressure Testing of Liquid; (3) API 1161 Qualification of Liquid Pipeline Personnel; (4) API 1130 Computational Pipeline Monitoring; (5) ASME Code for Pressure Piping; (6) ASME Corroded Pipeline Manual; and (7) NACE Control of External Corrosion.</p>	<p>Downstream - refined product pipeline discharge and explosion</p>
			<p>\$5 million in civil penalties</p>		

Olympic Civil Penalties:

\$2.5 million in civil penalties

Shell estimated cost \$62 million to conduct a five year program to perform spill-prevention work on Shell's pipelines across seven states.

Olympic bound to requirements of Appendix: (1) ASME Code for Pressure Piping; (2) ASME Corroded Pipeline Manual; (3) Management of Change Process; (4) Inspection and Maintenance Program; and (5) Controller Training Program.

Olympic estimated cost of \$15 million to conduct a spill-prevention program on the pipeline where the spill occurred.

4.	<p><u>U.S. v. Colonial Pipeline Co.</u> (N.D. Ga. 2003) (Consent Decree link)</p>	<p>Consent decree primarily addresses three alleged separate releases by operator: (1) 22,800 barrels of diesel fuel into the Reedy</p>	<p>\$34 million civil penalty</p>	<p>Operator shall amend its Integrity Management Program pursuant to 49 C.F.R. § 195.452.</p>	<p>Downstream - refined products pipeline</p>
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River in South Carolina; (2) 1,275 barrels of fuel oil into the Tennessee River and Goose Creek in Tennessee; and (3) 450 barrels of gasoline into Bear Creek in Georgia.

Incorporation of provisions to address cathodic protection, right-of-way reclamation, depth-of-cover surveys, and exposed or shallow pipe into operator's Maintenance Manual.

Operator shall develop a written Damage Prevention Program.

Estimated \$30 Million Cost for Environmental Upgrades.

5.	<u>U.S. v. Sunoco, Inc. and Sun Pipeline Co.</u> (E.D. Pa. 2005) (Consent Decree link)	Alleged discharge of 4,571 barrels of crude oil into a wetland impoundment and adjoining shoreline within a national wildlife refuge.	\$2,742,600 civil penalty	Operator agrees to pay \$865,000 natural resource damages.	Midstream - pipeline
6.	<u>U.S. v. Mid-Valley Pipeline Company</u> (E.D. Ky. 2006)	Alleged discharge of 6,251 barrels of crude oil into the Kentucky and	\$2.57 million civil penalty for Ohio River discharge as divided:	Operator agrees to perform measures to enhance spill response	Midstream - crude oil pipeline rupture

Ohio Rivers.
 Second alleged
 discharge of
 1,500 barrels of
 crude oil into
 Campit Lake
 near Claiborne
 Parish,
 Louisiana.

preparation
 and will
 reimburse the
 Commonwealth
 of Kentucky
 \$120,000 in
 response costs
 for the Ohio
 and Kentucky
 River release.
 Operator must
 also donate
 \$230,000 to
 a non-profit
 organization
 dedicated to
 improving the
 environment
 in Kentucky.
 Settlement is in
 addition to \$9.5
 million spent
 in response
 action to the
 Kentucky
 release.

- \$1.4 million
 to U.S.
 Department
 of Justice

- \$1.17 million
 to the State
 of Kentucky

\$300,000 civil
 penalty for
 Campit Lake
 discharge.

Operator
 provided \$2.2
 million in
 response and
 restoration
 costs and
 \$26,000
 reimbursed
 federal
 response
 costs for the
 Louisiana
 release.

7. U.S. v. Kinder
 Morgan Energy
 Partners, L.P.

Three alleged
 releases of
 diesel fuel,

\$3.79 million
 Civil Penalty
 as divided:

Operator
 required
 to attend

Downstream
 - refined

(E.D. Cal.
2007) ([Consent
Decree link](#))

jet fuel, and
gasoline
in various
waterways
in California
(4,785 barrels
total).

quarterly
meetings with
EPA Regional
staff to discuss
its Spill
Prevention,
Response or
Reporting
Practices.
Operator
agrees meetings
may involve
discussion of
implementation
of integrity
management
plan
requirements
pursuant
to PHMSA
Consent
Agreement.

products
pipeline

- \$1.59
million U.S.
Department
of Justice

- \$1.36 million
California
Water
Resources
Control
Board-Waste
Discharge
Permit Fund

- \$834,218
California
Department of
Fish and Game

- \$14,576
U.S. Fish and
Wildlife Service

Operator
agrees not to
make material
amendments
to its Spill
Prevention,
Response or
Reporting
Practices
that are less
protective of
covered waters
without EPA
approval.

\$170,000
Remediation
Costs as
divided:

- \$22,466 to California Department of Fish and Game (Response Cost for Donner Discharge) Operator also agrees to request PHMSA approval of its Close Interval Survey modification schedule pursuant to operator's consent agreement with PHMSA.

- \$96,150 California Department of Fish and Game (Response Cost for Suisun/Oakland Discharge)

- \$51,400 to California Department of Fish and Game (Monitoring) Operator to pay \$1.15 million Natural Resource Damages

8.	<u>U.S. v. TE Products Pipeline Company, LLC and Teppco Crude Pipeline, LLC (E.D. Tex. 2007) (Consent Decree)</u>	Four alleged releases between 2001 and 2005: (1) 2,575 barrels of Jet A fuel discharged into Neches River, Texas; (2) 500 barrels gasoline discharged into Moro Creek, Arkansas; (3) 2,497 barrels of Jet A fuel discharged into tributary of Sabine River, Texas; and (4) 898 barrels of crude oil discharged into tributary	\$2.86 million civil penalty	Operator agrees to complete a close interval survey (CIS) of certain segments of pipeline and submit CIS report.	Downstream - refined products pipeline
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of Red River,
Oklahoma.

Operator to take corrective action where cathodic protection fails to confirm with industry standards.

Operator shall install remote surveillance cameras at pump stations and report to EPA when completed.

Operator shall update SCADA system by installing computational leak detection functionality and report to EPA when completed.

9.	<u>U.S. v. Meridian Resource & Exploration LLC</u> (W.D. La. 2007)	Alleged release of 747 barrels of crude oil discharged into Weeks Bayou and the Intracoastal Waterway.	\$504,000 civil penalty	Operator shall complete a written inventory of its pipelines at the Weeks Island field.	Midstream - crude oil pipeline
				Operator shall implement a visual inspection and testing program requiring employees to visually inspect all portions of lines located on land and accessible by foot or located open waterways and accessible by boat	

				Operator shall add corrosion inhibitor treatments to active lines, install corrosion coupons to monitor corrosion, and install cathodic protection.	
				Operator agrees to implement a volume tracking program to monitor in-out flow volumes.	
10.	<u>U.S. v. Valero Refining-Texas</u> (S.D. Tex. 2008) (<u>Press Release link</u>)	Alleged release of 3,400 barrels of crude oil into the Corpus Christi Ship Channel, Texas.	\$1.65 million civil penalty	Operator required to perform \$300,000 supplemental environmental project (SEP) which includes the construction of a boat ramp to aid emergency response efforts in the vicinity of the spill.	Midstream - crude oil pipeline
11.	<u>U.S. v. Magellan Midstream Partners</u> (D. Kan. 2008) (<u>Consent Decree link</u>)	Eleven alleged discharges of petroleum products between 1999 and 2006 in six states. Estimated 17,000 barrels released into regulated waters.	\$5.3 million civil penalty	Operator agrees to implement leak and rupture detection efforts including the development of a pilot computerized leak detection system; purchase and install a SCADA system; and create a leak response operating	Midstream - crude oil pipeline

procedure for submission to EPA and PHMSA.

Operator also agrees to perform \$750,000 in mitigation efforts to address external threats to the pipeline including relocating, recovering, or replacing pipeline segments in high impact and risk areas.

12.	<p><u>U.S. v. Plantation Pipe Line Company</u> (W.D. N.C. 2008) (Consent Decree link)</p>	<p>Four alleged discharges: (1) 100 barrels jet fuel entered Accotink Creek, Virginia; (2) 20 barrels of oil entered Hooff Run, Virginia; (3) 788 barrels gasoline entered tributary of East Sandy Creek, Georgia; and (4) 97 barrels of gasoline entered Paw Creek, North Carolina.</p>	<p>\$725,000 civil penalty as divided:</p>	<p>No specific injunctive relief sought; operator agrees, however, to replace all pipeline monitoring detectors. Estimated \$1.3 million cost for spill prevention safeguards.</p>	<p>Downstream - refined products pipeline</p>
			<p>- \$715,000 U.S. Department of Justice</p>		
			<p>- \$10,000 North Carolina Department of Environment and Natural Resources</p>		

13.	<u>U.S. v. Explorer Pipeline Company</u> (S.D. Tex. 2009) (Consent Decree link)	Alleged release of over 6,568 barrels of jet fuel discharged into Turkey Creek, Texas.	\$3.3 million civil penalty	N/A	Downstream - refined products pipeline
14.	<u>U.S. v. Citation Oil & Gas Corp.</u> (D.Wyo. 2009) (Consent Decree link)	Alleged release of 597 barrels of crude oil and produced water into the North Fork Powder River, Wyoming.	\$280,000 civil penalty	<p>Operators agree to prepare and submit for approval to EPA a written inventory of all above-ground facilities and pipeline components.</p> <p>Operators also agree to submit a facility inspection, maintenance, and replacement plan designed to prevent discharges from components identified in the Facility Inventory.</p> <p>Operators agree to conduct buried line integrity testing, implement a risk management analysis plan, and develop and implement a training program and SPCC Plan.</p> <p>Estimated \$580,000 cost for spill prevention controls.</p>	Upstream - oil and gas production

15.	<p><u>U.S. v. Anadarko Petroleum Co. (D.Wyo. 2009) (Consent decree link)</u></p>	<p>At least 35 alleged releases between 2003 and 2008 of 31,300 barrels of oily water and crude oil which resulted in observable sheens in northeast Wyoming waterways.</p>	<p>\$1.05 million civil penalty</p>	<p>Operator agrees to submit to EPA independent certifications that alleged deficiencies in SPCC requirements were corrected.</p>	<p>Upstream - oil and gas production</p>
				<p>Operator agrees to submit to EPA Facility Response Plans for identified facilities and address deficient secondary containment measures at facilities.</p>	
				<p>Operator agrees to develop and implement a Facility Integrity and Release Mitigation Program addressing internal-corrosion chemical treatment, internal pipeline monitoring of corrosion-causing bacteria, oxygen testing, cathodic protection, failure analysis, and ultrasonic testing. Operator also agrees to perform twice monthly aerial</p>	

				inspections, weekly surface inspections of drainages, and daily inspections of batteries and LACTs at identified facilities.	
				\$8 million estimated cost of implementing injunctive relief and revising spill containment plans.	
16.	<u>U.S. v. Pacific Pipeline Systems, LLC</u> (C.D. Ca. 2010) (<u>Consent Decree link</u>)	Alleged release of 3,393 barrels of crude oil into Pyramid Lake and Posey Canyon Creek, California due to landslide.	\$1.3 million civil penalty	Operator agrees to complete compliance requirements including: (1) permanently relocate certain pipeline segments; (2) modify the repair criteria for facilities under the Integrity Management Plan; and (3) increase ground inspections.	Midstream - crude oil pipeline
17.	<u>U.S. v. Plains All American Pipeline, L.P.</u> (S.D. Tex. 2010) (<u>Consent Decree link</u>)	Ten alleged releases of crude oil between 2004 and 2007 in four states amounting to 6,510 barrels.	\$3.25 million civil penalty	Operator agrees to implement Enhanced Integrity Management and Corrosion Control measures. Operator agrees to perform enhanced pipeline leak detection including	Midstream - crude oil pipeline

weekly aerial patrols and implement computational pipeline monitoring for leak detection.

Operator agrees to replace breakout tanks to provide sufficient capacity and secondary containment and preserve certain recordkeeping and compliance staff.

Upgrades estimated to cost \$41 million across 10,420 miles of crude oil pipeline.

18.	<p>U.S. v. Nustar Pipeline Operating Partnership (Consent Decree link) (D. Neb. 2010)</p>	<p>Operator allegedly failed to prepare and maintain Facility Response Plans for eight onshore oil storage facilities in Nebraska, Kansas, and Iowa.</p>	<p>\$450,000 civil penalty</p>	<p>Operator shall conduct training exercises in accordance to guidelines for EPA regulated onshore non-transportation facility guidelines, document such exercises, and for three years have oil spill response organizations identified in the Operator's Facility Response Plan participate in equipment deployment drills.</p> <p>Operator shall implement</p>	<p>Midstream - oil storage facility</p>
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a \$762,302 supplemental environmental project requiring the installation and operation of a DataCheck™ Alarming System to monitor tank volume at each facility.

19.	<p><u>U.S. v. BP Exploration (Alaska) Inc.</u> (D. Alaska 2011) (Consent Decree link)</p>	<p>Two alleged releases of approximately 5,000 barrels of crude oil into navigable waters at Prudhoe Bay, Alaska.</p>	<p>\$25 million in civil penalties (includes CAA penalties)</p>	<p>Operator agrees to develop and implement a Pipeline System-Wide Integrity Management Program. Program elements include data collection, pipeline inspections, risk assessment rankings, GIS information collection, risk mitigation, and pipeline system repairs.</p> <p>Operator agrees to research pilot leak detection programs and hire an independent monitoring contractor.</p> <p>Operator agrees to update its employee training course to include asbestos awareness information.</p>	<p>Upstream - oil gathering lines</p>
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				\$60 million estimated cost of implementing PHMSA's integrity management program.	
20.	<u>U.S. v. MOEX Offshore LLC</u> (E.D. La. 2012) (Consent Decree link)	MOEX was a 10% owner of the Deepwater Horizon rig that released an estimated 4.9 million barrels of oil into the Gulf of Mexico.	\$70 million civil penalty as divided: - \$45 million U.S. Department of Justice - \$5 million State of Alabama - \$5 million State of Florida - \$6.75 million State of Louisiana - \$5 million State of Mississippi - \$3.25 million State of Texas	Operator agrees to implement a \$20 million supplemental environmental project (SEP) to support land acquisition and habitat protection programs.	Upstream - offshore exploration
21.	<u>Transocean Settlement</u> (E.D. La. 2013) (Consent Decree link ; Amendment link (2013); Second Amendment link (2015))	Blowout at the Macondo Well resulted in the alleged release of an estimated 4.9 million barrels of crude oil.	\$1 billion civil penalty	Operator agrees to measures for improving performance and preventing recurrence.	Upstream - offshore exploration

22.	<u>U.S. v. XTO Energy</u> (M.D. Penn. 2013) (Consent Decree link)	Alleged discharge of anywhere from 150 barrels to 1,366 barrels of flowback and produced waste water from a natural gas exploration well into an unnamed tributary of Sugar Run, Pennsylvania.	\$100,00 civil penalty	Operator agrees to use best efforts to recycle flowback fluid and produced water associated with exploration activities. Operator's flowback fluid in Pennsylvania can only be disposed at waste treatment facilities with a federally-enforceable NPDES permit.	Upstream - drilling and exploration activities
				Operator agrees to recycle flowback fluids to the maximum extent practicable and report volumes recycled for operations in West Virginia.	
				Operator agrees to submit a work plan to implement spill prevention measures for storage tanks, provide adequate secondary containment for tanks during well completion, implement measures to prevent spills from interconnected mobile tanks, install remote monitoring of permanent	

				production tanks, not store flowback fluids in open top tanks or pits, and secure all permanent production tank valves with locks.	
				Operator agrees to develop and implement a standard operator procedure for loading and unloading tanks. \$20 million estimated operator cost of performing injunctive relief.	
23.	<u>U.S. v. Coffeyville Resources Refining & Marketing</u> (D. Kan. 2013)	Alleged discharge of approximately 2,145 barrels of crude oil, diesel fuel, and oily water from several sources within the Coffeyville, Kansas petroleum refinery.	\$566,244 civil penalty	Operator agrees to pay \$1,746,256 in response costs.	Midstream - discharges at refining facility
				Operator agrees to retain third-party to perform a vessel audit at refinery.	
				Operator agrees to retain third-party to perform hydrofluoric acid audit and install a hydrofluoric acid detection	

				system at the refinery.	
				Operator agrees to perform a Hazard Process Analysis	
				Operator agrees to update its Risk Management Plan.	
				Operator agrees to retain third-party to perform CAA risk management program audit.	
				Operator agrees to reimburse the OSLTF \$1,746,256 in response costs.	
24.	<u>U.S. v. Lion Oil Company</u> (W.D. Ark. 2013).	Alleged discharge in exceedance of NPDES permit for zinc, lead, selenium, total dissolved solids, and sulfides at its El Dorado, Arkansas petroleum refinery.	\$504,000 civil penalty	Operator agrees to complete pipeline to carry effluent to its Ouachita River facility.	Midstream - NPDES violation
				Operator agrees to meet total dissolved solids and sulfide reduction requirements.	
25.	<u>U.S. v. Delta Fuels, Inc. and Knight Enterprises, Inc</u> (N.D. Ohio 2013)	Alleged overflow of approximately 103,000 gallons of gasoline (the "Spill")	\$582,500 civil penalty	Operator agrees to reimburse \$4,354,768 to the Oil Spill	Downstream - refined product storage overflow

from an aboveground storage tank at a bulk petroleum storage and distribution facility.

Liability Trust Fund.

Operator agrees to have injunctive relief performed under the consent decree be performed by a Project Manager hired subject to approval by EPA.

Operator shall complete the statement of work described in Appendix A. Tasks included providing adequate containment, conduct tank repairs, schedule inspections, drain accumulated rainwater/ snow from containment facilities, implement a plan to respond to future oil spill cleanups, submit an environmental management system plan, and provide incident command system training to employees.

26.	<u>U.S. v. ExxonMobil Pipeline</u>	Alleged release of 3,190 barrels of crude oil	\$3.19 million civil penalties Operator also	Operator agrees to treat the northern	Midstream - crude oil pipeline
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	<u>Company</u> (E.D. Ark. 2014) (<u>Consent</u> <u>Decree link</u>)	into Lake Conway and unnamed creeks, Arkansas.	agrees to pay \$1 million civil penalty to State of Arkansas and a payment of \$280,000 to the State of Arkansas for litigation costs.	segment of its Pegasus Pipeline as susceptible to “longitudinal seam failure” within the meaning of PHMSA regulations. Operator agrees to provide supplemental spill response training for its Pegasus Pipeline first responders and assemble three caches of spill response supplies for future response needs. Operator agrees to fund \$600,000 in supplemental environmental protection.	
27.	<u>U.S. v.</u> <u>ExxonMobil</u> <u>Pipeline</u> <u>Company</u> (M.D. La. 2014)	Alleged discharge of 2,800 barrels of crude into Bayou Cholpe near Baton Rouge, Louisiana.	\$1.4 million civil penalty	Operator agrees to replace pipeline segments and complete response action pursuant to Louisiana Department of Environmental Quality and U.S. Department of Transportation.	Midstream - crude oil pipeline
28.	<u>U.S. v.</u> <u>Superior Crude</u> <u>Gathering</u> <u>Inc.</u> (S.D. Tex. 2014).	Alleged discharge of oil from two crude oil storage tanks at the Superior Crude storage facility in Ingleside, Texas.	\$1.61 million civil penalty	N/A	Midstream - crude oil storage facility

29.	<u>U.S. v. Archers Daniels Midland</u> (S.D. Iowa 2014)	Alleged violation of NCP at five crude storage facilities in Missouri, Nebraska, and Iowa. Alleged Section 402 storm water violations at three of five of the same facilities.	\$430,000 civil penalty	Operator shall comply with Facility Response Plan requirements.	Midstream - oil storage facility
				Operator agrees to perform response training and drills for onshore non-transportation facilities.	
30.	<u>U.S. v. ATP Oil & Gas</u> (E.D. LA. 2014).	Alleged unauthorized discharge from offshore platform of oil and chemicals.	\$1 million civil penalty	Operator shall remove and permanently seal the dispersant injection connection from the wastewater discharge outfall pipe.	Upstream - offshore exploration and production
				Operator agrees to submit at least 30-days in advance of any future exploration or development that operator has sufficient wastewater treatment equipment and operational plans to meet and maintain NPDES permit discharges; surface production-	

				<p>safety systems are adequate; and operate in a safe-matter.</p> <p>Operator agrees to have an independent, third-party audit performed prior to any future discharges of wastewater at facility.</p> <p>All reports of compliance by operator shall be submitted by a corporate official.</p>	
31.	<u>U.S. v. Chevron Pipe Line Co. (D. Utah 2014)</u>	Two alleged releases of crude oil and condensate from separate pipelines near the Great Salt Lake.	\$875,000 civil penalty	N/A	Midstream - crude oil pipeline
32.	<u>U.S. v. Cottonwood Creek Inc. (D. Wyo. 2015)</u>	Alleged discharge of approximately 162 barrels of oil from storage facility into an unnamed tributary of the Nowood River, Wyoming.	\$170,000 civil penalty	N/A	Midstream - crude oil storage facility
33.	<u>U.S. v. Sunoco Pipeline L.P. (S.D. Tex. 2016) (Consent Decree link)</u>	Two alleged discharges: (1) release of 1,900 barrels of crude oil near Mont Belview, Texas; and (2) 1,742 barrels of crude oil from the Cromwell Tank Farm.	\$850,000 civil penalty	Operator agrees to complete a one-time non-destructive examination (NDE) on all covered facility's in-station piping for internal corrosion.	Midstream - crude oil pipeline

Operator shall identify and prioritize in-station piping for conducting future scheduled NDEs based on risk.

Operator agrees to implement its dead-leg removal and line flushing program.

Operator agrees to certify with EPA that all employees at its Sugar Land Control Room have completed all PHMSA training and Operator's control room management (CRM) training.

34.	U.S. v. Orb Exploration LLC (M.D. La. 2016) (Consent Decree Link)	Three alleged discharges of crude oil that occurred at operator's Frog Lake and Crocodile Bayou facilities located in the Louisiana Atchafalaya River Basin.	\$615,000 civil penalty U.S. Department of Justice \$100,000 civil penalty Louisiana Department of Environmental Quality	Operator agrees to provide at least 24 hours of advance notice to the U.S. Coast Guard prior to any transfer operation at Operator's oil transfer facilities.	Midstream - crude oil pipeline
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Operator agrees to complete an economic feasibility study of the Frog Lake Facility.

Operator shall inspect the length of

the transfer pipeline weekly for three years and after each transfer operation.

Operator agrees to install flow meter gauges at both ends of the oil transfer pipeline, raise the height of the containment barrier at the deck of the oil storage barge at Frog Lake, and report to EPA and the Louisiana Department of Environmental Quality on the status of compliance with the consent decree.

35.	<u>U.S. v. Central Florida Pipeline</u> (M.D. Fla. 2016)	Alleged pipeline release of diesel and jet fuel into a creek in Hillsborough County, Florida.	\$492,000 civil penalty	N/A	Downstream - refined products pipeline
36.	<u>U.S. v. Enbridge Energy</u> (S.D. Mich. 2016) (<u>Consent Decree link</u>)	Two alleged discharges: (1) Line 6B release of 20,082 barrels of oil into Talmadge Creek and Kalamazoo River near Marshall, Michigan; and (2) Line 6A release of 6,427 barrels of oil into tributary of Des Plaines River near	\$61 million civil penalty for Line 6B Discharge \$1 million civil penalty for Line 6A Discharge	Operator enjoined from operating or allowing another party to operate the original Line 6B for transporting oil or any hazardous substance. Operator not precluded from removing pumps or other	Midstream - crude oil pipeline

Romeoville,
Illinois.

equipment for
reuse.

Operator
agrees to
replace 292
miles of its Line
3 from Neche,
North Dakota
to Superior,
Wisconsin.

Operator
agrees to
submit a plan
to EPA for
conducting
hydrostatic
pressure testing
of pipeline
components.

Operator shall
implement
an in-line
inspection
based spill
prevention
program
to identify
features which
pose a leak or
rupture threat.
Operator shall
complete a
review of in-
line inspection
information
it collects
and identify
features
requiring
excavation.
Operator
agrees to
calculate the
predicted burst
pressure of all
crack features
and corrosion
features
identified by in-
line inspections.

Operator
agrees to
perform
measures to

prevent spills
in the four-
mile portion
crossing the
Straits of
Mackinac
(Enbridge Line
5).

Operator
shall operate
a feature
integration
database for
all pipelines in
the Lakehead
System.

Operator
agrees to
assess the
implementation
of leak
detection
technologies
including
computational
pipeline
monitoring
technologies,
installation
of flowmeters
at all location
where oil enters
Pipeline 3,
installation
of pressure
transducers,
and
establishment
of certain
leak detection
sensitivity
requirements.

Operator
agrees to
implement
leak detection
requirements
for control
room
operations
including alarm
notification
and response
requirements.

Operator shall complete training exercises to test and practice responses to major inland oil spills that impacts a water body.

Operator agrees to install 14 new remote controlled valves on the Lakehead Pipeline System.

Operator shall, at its own expense, conduct an independent third party to conduct a verification of operator's compliance with the consent decree. \$110 million estimated cost of implementing injunctive relief.

37.	<p><u>U.S. v. Magellan Pipeline Company</u> (N.D. Okla. 2017) (Consent Decree link)</p>	<p>Three alleged incidents: (1) release of 482 barrels of gasoline into Bayou Pierre near Texas City, Texas; (2) release of 1,529 gasoline, 655 barrels jet fuel, and 650 barrels of diesel fuel into Jarvis Creek from parallel pipelines near Nemaha, Nebraska;</p>	<p>\$2 million civil penalty</p>	<p>Operator agrees to cleanup discharge at Nemaha site pursuant to Nebraska state law. EPA may elect to takeover response if state unable to continue oversight of the cleanup.</p>	<p>Downstream - refined products pipeline</p>
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and (3) 1,861
barrels of diesel
fuel discharged
into Constant
Creek near
El Dorado,
Kansas.

Operator
agrees to
implement an
annual training
program for
employees
engaged in
preventing
third party
damage to
any operator
facility.

Operator
agrees to
develop a
database which
collects pipeline
integrity
and risk
management
information.

Operator
agrees to
submit to EPA
an Integrity
Management
Plan which
incorporates
the lessons
from the El
Dorado site
root cause
failure analysis.

Operator
shall create
and maintain
a website
containing
information
concerning the
releases.

\$16 million
estimated cost
to perform
injunctive
relief.

38.	U.S. v. Sunoco Pipeline L.P. (N.D. Ohio 2017) (Consent Decree link)	Alleged discharge of 1,950 barrels of gasoline near Wellington, Ohio.	\$990,000 civil penalty	N/A	Downstream - refined products pipeline
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The views expressed in this paper are solely those of the author (or authors).

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[FN1]. PAUL W. PARFOMAK, CONG. RESEARCH SERV., RL44201, DOT'S FEDERAL [PIPELINE](#) SAFETY PROGRAM: BACKGROUND AND KEY ISSUES FOR CONGRESS 1 (2016) [hereinafter *Parfomak*].

[FN2]. *Id.* at 1.

[FN3]. ASSOCIATION OF OIL PIPE LINES, 2017 ANNUAL LIQUIDS [PIPELINE](#) REPORT: [PIPELINE](#) SAFETY EXCELLENCE PERFORMANCE REPORT & STRATEGIC PLAN 2017-2019 7 (2017), http://www.aopl.org/wp-content/uploads/2017/04/2017-API-AOPL-Pipeline-Safety-Report_low-1.pdf [hereinafter *AOPL Report*].

[FN5]. Consent Decree, *United States v. XTO Energy Inc.*, Case No. 4:13-cv-01954, 2013 WL 3809936 (M.D. Pa. July 18, 2013).

[FN6]. Alex Wolf, *XTO Inks \$400K Pa. Deal Over Fracking Spill Charges*, LAW360 (Aug. 4, 2016).

[FN7]. *Atchafalaya Basinkeeper v. U.S. Army Corps of Engineers*, Case No. 18-23-SDD-EWD, 2018 WL 1202893 (M.D. La. Mar. 8, 2018) (granting preliminary injunction where NEPA Environmental Assessment did not contain sufficient analysis of the environmental impact of possible oil spills).

[FN8]. Michael Phillis, *2nd Cir. Won't Reconsider NY's Nix of \$683M Gas Pipeline*, LAW360 (Oct. 20, 2017).

[FN9]. Keith Goldberg, *W. Va. Regulators Halt \$4.2B ETP Pipeline Work Over Pollution*, LAW360 (March 14, 2018).

[FN10]. 40 C.F.R. § 112.7.

[FN11]. 33 U.S.C. § 1321(j)(1).

[FN12]. 40 C.F.R. § 112.1.

[FN13]. 40 C.F.R. § 112.9.

[FN14]. 40 C.F.R. § 112.2.

[FN15]. 40 C.F.R. § 112.7(c).

[FN16]. 40 C.F.R. § 112.7(h); 40 C.F.R. § 112.8(c)(2); and 40 C.F.R. § 112.12(c)(2). Under § 112.1(d)(5) a bulk storage container is any container used to store oil with a capacity of 55 gallons or more.

[FN17]. Oil Pollution Prevention; Spill Prevention, Control, and Countermeasure (SPCC) Rule-Amendments, 74 Fed. Reg. 58784, 58793 (Nov. 13, 2009).

[FN18]. 40 C.F.R. § 112.7(k).

[FN19]. Consent Decree, *United States v. Nustar Pipeline Operating Partnership, L.P.*, Case No. 8:10-cv-00106 (D. Neb. Apr. 26, 2010).

[FN20]. 40 C.F.R. § 112.7(e)(3)(1973).

[FN21]. Oil Pollution Prevention and Response; Non-Transportation-Related Onshore and Offshore Facilities; Final Rule, 67 Fed. Reg. 47042, 47051 (July 17, 2002). EPA enforced these regulations against operators of production facilities. See *Texaco Exploration & Prod., Inc.*, 1999 WL 33597706, at *4-5 (D. Utah May 26, 1999) (finding that the EPA's allegation that a plan had “inadequate provisions regarding...protection for buried piping [and] capping of out-of-service pipes” was “adequate to state a claim for relief” for violation of the regulation).

[FN22]. 40 C.F.R. § 112.8(d)(1).

[FN23]. 40 C.F.R. § 112.1.

[FN24]. U.S. ENVIRONMENTAL PROTECTION AGENCY, SPCC GUIDANCE FOR REGIONAL INSPECTORS 36 (Dec. 16, 2013), https://www.epa.gov/sites/production/files/2014-04/documents/spcc_guidance_fulltext_2014.pdf [hereinafter *SPCC Guidance*].

[FN25]. 40 C.F.R. § 112.2.

[FN26]. 40 C.F.R. § 112.20.

[FN27]. 40 C.F.R. § 112.20(f).

[FN28]. Generally 40 C.F.R. § 112.20; see also U.S. EPA, *Key Elements to Include in a Facility Response Plan (FRP)*, <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/key-elements-include-facility-response-plan-frp>.

[FN29]. 40 C.F.R. § 112.20(c).

[FN30]. 40 C.F.R. § 112.20(h)(5).

[FN31]. See Exec. Order No. 127777, *Implementation of Section 311 of the Federal Water Pollution Control Act of October 18, 1972, as Amended, and the Oil Pollution Act of 1990*, 56 Fed. Reg. 54757 (Oct. 18, 1991).

[FN32]. 49 C.F.R. § 194.3.

[FN33]. *Id.*

[FN34]. 49 C.F.R. § 194.101(b).

[FN35]. *Id.*

[FN36]. 49 C.F.R. § 194.107.

[FN37]. 49 C.F.R. § 194.115 & 117.

[FN38]. Memorandum from Stephen D. Luftig, Dir., Office of Emergency & Remedial Response, U.S. Env'tl. Prot. Agency to Dep't of Transp., Office of Pipeline Safety Reg'l Dirs., et al. (Feb. 4, 2000), http://www.windot.com/docs/federal/hrm/HRM/Jurisdiction_over_Breakout_Tanks_Bulk_Oil_Storage_Tanks_Containers_.htm [hereinafter *Breakout Tank Memo*].

[FN39]. See *Breakout Tank Memo* at Attachments 3-4.

[FN40]. *Id.*

[FN41]. Oil Pollution Prevention; Spill Prevention, Control, and Countermeasure (SPCC) Rule--Amendments, 74 Fed. Reg. 58784, 58793 (Nov. 13, 2009).

[FN42]. See U.S. EPA, *EPA Jurisdiction at Complexes* (2013), https://www.epa.gov/sites/production/files/2014-04/documents/h_2013_epajurisdictionatcomplexes.pdf.

[FN43]. 33 U.S.C. § 1311(a).

[FN44]. 33 U.S.C. § 1319.

[FN45]. 33 U.S.C. § 1362(6).

[FN46]. 33 U.S.C. § 1319(g)(1)(A).

[FN47]. 40 C.F.R. § 19.4; 33 U.S.C. § 1319(g)(2).

[FN48]. See 40 C.F.R. pt. 22.

[FN49]. 33 U.S.C. § 1319(g)(3).

[FN50]. *E.g.*, Consent Decree, *In the Matter of: BP Am. Prod. Co.*, CWA-08-2012-0014, 2012 WL 3142550 (July 18, 2012) (settlement of \$7,000 Class I penalty for produced water discharge of 5,873 barrels over a four-day period from natural gas production site due to failed transportation pipeline valve).

[FN51]. 33 U.S.C. § 1319(b), (d). Under the Civil Monetary Penalties Adjustment Rule, EPA may seek a ten percent increase from the amounts set forth in statute. See 40 C.F.R. pt. 19.

[FN52]. 33 U.S.C. § 1319(d).

[FN53]. 33 U.S.C. § 1321(b)(3).

[FN54]. 33 U.S.C. § 1321(a)(2).

[FN55]. *Orgulf Transport Co. v. United States*, 711 F.Supp. 344, 346 (W.D. Ky. 1989) (upholding application of the sheen test to five gallons of diesel fuel released into the Ohio River while refueling a tug).

[FN56]. *Id.* at 346-47; see also *Chevron U.S.A. Inc. v. Yost*, 919 F.2d 27, 30 (5th Cir. 1990).

[FN57]. 40 C.F.R. § 19.4; see 33 U.S.C. § 1321(b)(6)(B)(i)-(ii).

[FN58]. *United States v. Eagan Marine Corp.*, Case No. 08-C-3160, 2011 WL 8144393, at *6 (N.D. Ill. Oct. 13, 2011).

[FN59]. *Id.*

[FN60]. *United States ex. Re. Adm'r of EPA v. Citgo Petroleum Corp.*, 723 F.3d 547, 551 (5th Cir. 2013) (citing *Tull v. United States*, 481 U.S. 412 (1987)).

[FN61]. 33 U.S.C. § 1321(b)(7).

[FN62]. 33 U.S.C. § 1321(b)(7)(A).

[FN63]. 33 U.S.C. § 1321(b)(7)(B).

[FN64]. 33 U.S.C. § 1321(b)(7)(D).

[FN65]. *Id.*

[FN66]. *In re Oil Spill by Oil Rig Deepwater Horizon in Gulf of Mexico, on Apr. 20, 2010*, 21 F. Supp. 3d 657, 738-39 (E.D. La. 2014).

[FN67]. *See id.*

[FN68]. *Id.* at 731.

[FN69]. 33 U.S.C. § 1319(c).

[FN70]. *Bryan v. United States*, 524 U.S. 184 (1998).

[FN71]. *See United States v. Weitzenhoff*, 35 F.3d 1275 (9th Cir. 1994); and *United States v. Sinskey*, 53 F.3d 712, 715-17 (8th Cir. 1997).

[FN72]. *See United States v. Hanousek*, 176 F.3d 1116 (9th Cir. 1999), *cert. denied*, 120 S. Ct. 860 (2000).

[FN73]. 33 U.S.C. § 1319(c)(2), (3).

[FN74]. Congress considered the adoption of a comprehensive oil spill provision in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980 but ultimately excluded petroleum from the definition of ‘hazardous substances’ under the Act. 42 U.S.C. § 9601(14); *see also* H.R. REP. NO. 96-172, at 16-17 (1979).

[FN75]. 33 U.S.C. § 2702.

[FN76]. *Apex Oil Company, Inc. v. United States*, 208 F.Supp.2d 642, 651-52 (E.D. La. 2002); *see also United States v. Viking Resources, Inc.*, 607 F.Supp.2d 808, 830 (S.D. Tex. 2009).

[FN77]. *Viking Resources, Inc.*, 607 F.Supp.2d at 815 (citing 33 U.S.C. § 2702(a)).

[FN78]. The third-party defense applies only if due care was and the operator took precautions against foreseeable acts or omissions of the third-party. A third-party cannot be an employee or agent of the responsible party or a third-party whose act or omission occurs in connection with any contractual relationship to the responsible party. Congress adopted a new definition of ‘contractual relationship’ in 2004 to provide protections for innocent, subsequent owners of facilities similar to such provisions found in CERCLA.

[FN79]. 33 U.S.C. § 2706.

[FN80]. Oil Pollution Act, Pub. L. 101-380, § 1006(e)(1), 104 STAT. 496 (1990).

[FN81]. 15 C.F.R. § 990.14(c)(1); *see also General Elec. Co. v. U.S. Dept. of Commerce*, 128 F.3d 767, 770-71 (D.C. Cir. 1997).

[FN82]. 49 C.F.R. § 1.97.

[FN83]. 49 U.S.C. § 60101(a); *see also Five Flags Pipe Line Co. v. U.S. Dept. of Transportation*, Case No. 89-0119-JGP, 1992 WL 78773, at *6 (D.D.C. Apr. 1, 1992) (discussing the jurisdiction of the Research and Special Programs Administration [PHMSA's predecessor agency] to regulate pipeline safety under the Natural Gas Pipeline Safety Act of 1968 the court states, “the statute is clear that its jurisdiction extends to all pipeline facilities, whether intrastate

or interstate, engaged in the transportation of gas in or affecting interstate or foreign commerce--*i.e.*, to the extent of Congress's legislative jurisdiction under the Commerce Clause.”).

[FN84]. 49 U.S.C. § 60105.

[FN85]. 49 U.S.C. § 60104(c).

[FN86]. *See* 49 C.F.R. pts. 190-199.

[FN87]. 49 U.S.C. § 60117.

[FN88]. 49 U.S.C. § 60118(b).

[FN89]. 49 U.S.C. § 60112.

[FN90]. 49 U.S.C. § 60112(d).

[FN91]. U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration, Summary of Enforcement Actions, https://primis.phmsa.dot.gov/comm/reports/enforce/Actions_opid_0.html (Last Accessed March 24, 2018) [hereinafter *PHMSA Summary of Enforcement Actions*].

[FN92]. *Id.*

[FN93]. *See* 49 C.F.R. § 190 Subpart B-Enforcement.

[FN94]. PHMSA Summary of Enforcement Actions, *supra* note 91.

[FN95]. *Id.*

[FN96]. 49 C.F.R. § 190.223.

[FN97]. 49 U.S.C. § 60123(a).

[FN98]. 33 U.S.C. § 1365.

[FN99]. 33 U.S.C. § 1365(a)(1).

[FN100]. 33 U.S.C. § 1365(a)(2).

[FN101]. *See Washington Pub. Interest Research Grp. v. Pendleton Woolen Mills*, 11 F.3d 883 (9th Cir. 1993) (construing “diligent prosecution” narrowly).

[FN102]. 33 U.S.C. § 1365.

[FN103]. 33 U.S.C. § 1365(c)(1).

[FN104]. *United States v. Citgo Petroleum Corp.*, 697 F.Supp.2d 670, 672 (W.D. La. 2010) (discharge of oil into navigable waters violated both § 1311 and § 1321); *see also Sierra Club Lone Star Chapter v. Cedar Point Oil Co. Inc.*, 73 F.3d 546, 568 (5th Cir. 1996).

[FN105]. *Apalachicola Riverkeeper*, 954 F.Supp.2d at 454-57 (E.D. La. 2013).

[FN106]. *See* 33 U.S.C. § 1365(a)(1).

[FN107]. *Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Foundation, Inc.*, 484 U.S. 49, 50 (1987).

- [FN108]. See *Community Ass'n for Restoration of the Environment v. Henry Bosma Dairy*, 305 F.3d 943 (9th Cir. 2002).
- [FN109]. 33 U.S.C. § 1365(d).
- [FN110]. Richard W. Dunford & Melissa K. Lynes, *Predicting Natural Resource Damages from Oil Spills in the United States* (International Oil Spill Conference Proceedings, Abstract 299943, 2014) [hereinafter *Dunford & Lynes*].
- [FN111]. *Id.* at 591.
- [FN112]. *Id.* at 592 & Table 4.
- [FN113]. See Section II.c.
- [FN114]. PHMSA Summary of Enforcement Actions, *supra* note 91.
- [FN115]. 49 C.F.R. § 190.208.
- [FN116]. 49 C.F.R. § 190.233.
- [FN117]. 49 U.S.C. § 60112(e).
- [FN118]. Charles Brownman, *Hazardous Liquids Pipeline-Regulation and Due Diligence*. AMERICAN BAR ASSOCIATION (2010), <https://apps.americanbar.org/buslaw/blt/content/2010/10/0002e.pdf>.
- [FN119]. See *Henke v. Arco Midcon LLC*, 750 F.Supp.2d 1052, 1057-59 (E.D. Mo. 2010).
- [FN120]. See *Id.* at 1059.
- [FN121]. See *Reese v. Malone*, 747 F.3d 557, 550-76 (9th Cir. 2014), *rev'd on separate grounds*; see also Post-Trial Order, *In re Plains All American Pipeline, L.P.*, C.A. No. 11954-VCMR (Cel. Ch. 2017).
- [FN122]. *Atchafalaya Basinkeeper v. U.S. Army Corps of Engineers*, Case No. 18-23-SDD-EWD, 2018 WL 1202893 (M.D. La. Mar. 8, 2018).
- [FN123]. See, e.g., 49 C.F.R. § 171.15.
- [FN124]. Clean Water Rule: Definition of “Waters of the United States, 80 Fed. Reg. 37054, 37058 (June 29, 2015).
- [FN125]. <https://www.epa.gov/cwa-404/definition-waters-united-states-under-clean-water-act>
- [FN126]. *Rapanos v. U.S.*, 547 U.S. 715, 726-27 (2006).
- [FN127]. *Id.* at 769.
- [FN128]. *Committee to Save Mokelumne River v. E. Bay Municipal Util. Dist.*, 13 F.3d 305, 308 (9th Cir. 1993).
- [FN129]. *Upstate Forever v. Kinder Morgan Energy Partners, L.P.*, 252 F.Supp.3d 488, 492 (D.S.C. 2017).
- [FN130]. *Id.* at 494.
- [FN131]. *Id.* at 496-98.
- [FN132]. *Village of Oconomowoc Lake v. Dayton Hudson Corp.*, 24 F.3d 962, 964 (7th Cir. 1994).
- [FN133]. *Id.* at 965.

[FN134]. See, e.g., *Chevron U.S.A. Inc. v. Apex Oil Co., Inc.*, 113 F. Supp.3d 807, 816-17 (D. Md. 2015) (“Congress did not intend for groundwater to fall within the purview of ‘navigable water,’ even if it is hydrologically connected to a body of ‘navigable water.’”); *Cape Fear River Watch, Inc. v. Duke Energy Progress, Inc.*, 25 F. Supp.3d 798, 810 (E.D.N.C. 2014) (“Congress did not intend for the CWA to extend federal regulatory authority over groundwater, regardless of whether that groundwater is eventually . . . ‘hydrologically connected’ to navigable surface waters”); *Tri-Realty Co. v. Ursinus Coll.*, Case No. 11-5885, 2013 WL 6164092, at *9 (E.D. Pa. Nov. 21, 2013) (stating the same); see also *Sierra Club v. Va. Elec. & Power Co.*, 145 F. Supp. 3d 601, 607-08 (E.D. Va. 2015).

[FN135]. *Williams Pipe Line Co. v. Bayer Corp.*, 964 F. Supp. 1300, 1319-20 (S.D. Iowa 1997) (“Because the CWA's goal is to protect the quality of surface waters, the NPDES permit system regulates any pollutants that enter such waters either directly or through groundwater.”).

[FN136]. *Rice v. Harken Exploration Co.*, 250 F.3d 264, 265 (5th Cir. 2001).

[FN137]. *Id.* at 269-70.

[FN138]. *Id.* at 272.

[FN139]. *Hawai'i Wildlife Fund v. County of Maui*, 881 F.3d 754, 758 (9th Cir. 2018).

[FN140]. *Id.*

[FN141]. *Id.* at 762.

[FN142]. *Id.* at 765.

[FN143]. *United States v. Colonial Pipeline Co. Inc.*, 242 F. Supp. 2d 1365, 1376-77 (N.D. Ga. 2002).

[FN144]. *Id.* at 1377 (“Though the Court recognizes Defendant's desire to limit the scope of its liability, the Court does not read the statute in such a limiting manner.”).

[FN145]. Government's Mem. in Supp. of Second Mot. for Partial Summ. J., *United States v. Citgo Petroleum Corp.*, 697 F.Supp.2d 670 (W.D. La. 2010) (citing 33 U.S.C. § 1321(a)(2)).

[FN146]. Def. CITGO Petroleum Corp. Mem. In Opp'n to the United States' Second. Mot. For Partial Summ. J., *United States v. Citgo Petroleum Corp.*, 697 F.Supp.2d 670 (W.D. La. 2010).

[FN147]. Judgment at *4, *United States v. Citgo Petroleum*, Case No. 08-893, 2011 WL 13047364 (W.D. La. 2011); but see *U.S. ex rel. Administrator of EPA v. Citgo Petroleum Corp.*, 723 F.3d 547 (5th Cir. 2013) (finding district court failed to provide a reasonable approximation of economic benefit in calculating the penalty).

[FN148]. *Gatlin Oil Co. v. United States*, 169 F.3d 207, 209 (4th Cir. 1999).

[FN149]. *Id.* at 210.

[FN150]. *Id.* at 211.

[FN151]. 33 U.S.C. § 1321(a)(1).

[FN152]. Appellee-Cross-Appellant's Response Br. and Original Cross-Appeal Br. at *66, *U.S. ex rel. Administrator of EPA v. Citgo Petroleum Corp.*, 723 F.3d 547 (5th Cir. 2013).

[FN153]. *U.S. ex rel. Administrator of EPA v. Citgo Petroleum Corp.*, 723 F.3d 547, 556 (5th Cir. 2013).

[FN154]. *E.g.*, *In the Matter of: Chevron USA, Inc.*, CWA-08-2007-0001, 2006 WL 4128288, at *2 (EAD Dec. 1, 2006) (“Respondent is engaged in . . . transferring, . . . crude oil, a mixture of oil and produced water, and/or gas, which are defined as ‘oils’ as defined at § 311(a)(1) of the Act.”); *In the Matter of: Devon Energy Prod. Co.*, CWA-08-2011-0023, 2011 WL 5269502, at *2 (EAD Sept. 30, 2011) (“On November 16, 2008, Respondent discharged approximately 5,166 gallons of crude oil and produced water, defined as ‘oil’ in Section 311(a)(1) of the Act . . .”).

[FN155]. 33 U.S.C. § 1319(g)(6).

[FN156]. Jennifer Lamb, *OPA or NOPA: Restoring Cooperative Federalism in Oil Pollution Enforcement*, 65 EMORY L.J. 841, 861 (2016).

[FN157]. *United States v. Citgo*, 723 F.3d 547, 551 (5th Cir. 2013);

[FN158]. *Id.* at 550.

[FN159]. Dunford & Lynes, *supra* note 110.

[FN160]. 15 C.F.R. § 990.51(a),(b).

[FN161]. Baseline means the condition of the natural resources and services that would have existed had the incident not occurred. 15 C.F.R. § 990.30. *See New Mexico v. General Elec. Co.*, 335 F. Supp. 2d 1185, 1212 (D.N.M. 2004) (where relevant baseline was “drinkable,” federal court rejected trustee's argument that it could seek damages to return groundwater to pristine condition).

[FN162]. 15 C.F.R. § 990.30 (defining “restoration”).

[FN163]. 43 C.F.R. § 11.83 (authorizing use of HEA in Department of Interior NRD service loss calculations).

[FN164]. *United States v. Great Lakes Dredge and Dock*, 259 F.3d 1300 (11th Cir. 2001) (rejecting challenge to HEA based on quality and interpretation of the data that went into the HEA).

[FN165]. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, PLAN FOR DEEPWATER HORIZON OIL SPILL NATURAL RESOURCE INJURY RESTORATION: AN OVERVIEW 15 (April 2016), available at: http://www.gulfspillrestoration.noaa.gov/sites/default/files/wp-content/uploads/Overview_04-07-16_final-508.pdf.

[FN166]. *General Electric Co. v EPA*, 53 F.3d 1324, 1329-30 (D.C. Cir. 1995).

[FN167]. *Id.* at 1330.

[FN168]. *Auer v. Robbins*, 519 U.S. 452, 462-63 (1997).

[FN169]. *Christopher v. SmithKline Beecham Corp.*, 567 U.S. 142, 155 (2012) (quoting *Auer v. Robbins*, 519 U.S. 452, 461-62 (1997)).

[FN170]. *Id.* at 155-56.

[FN171]. *Id.*

[FN172]. *ExxonMobil Pipeline Co. v Department of Transportation*, 867 F.3d 564, 575-76 (5th Cir. 2017).

[FN173]. *Id.* at 576.

[FN174]. *Id.* at 573.

[FN175]. *Id.* at 577.

[FN176]. *Id.* at 580.

[FN177]. *Id.* at 584.

[FN178]. 40 C.F.R. § 22.18(c).

[FN179]. Consent Decree, *In re Suzuki Motors of America, Inc.*, Docket No. CAA-HQ-2016-8274 (EAB Nov. 8, 2016).

[FN180]. U.S. ENVIRONMENTAL PROTECTION AGENCY, SUPPLEMENTAL ENVIRONMENTAL PROJECTS POLICY 2015 UPDATE 1 (2015), <https://www.epa.gov/sites/production/files/2015-04/documents/sepupdatedpolicy15.pdf>.

[FN181]. *Id.* at 1.

[FN182]. U.S. DEPARTMENT OF JUSTICE, MEMORANDUM FOR ALL COMPONENT HEADS AND UNITED STATES ATTORNEYS (June 5, 2017), <https://www.justice.gov/opa/press-release/file/971826/download>.

[FN183]. U.S. ENVIRONMENTAL PROTECTION AGENCY, SECURING MITIGATION AS INJUNCTIVE RELIEF IN CERTAIN CIVIL ENFORCEMENT SETTLEMENTS (2nd Ed.) (Nov. 14, 2002), <https://www.epa.gov/sites/production/files/2016-08/documents/2ndeditionsecuringmitigationemo.pdf>.

[FN184]. Notice of Lodging of Proposed Consent Decree under the Clean Air Act, 82 Fed. Reg. 34977 (July 27, 2017).

[FN185]. Consent Decree, *United States v. Harley-Davidson Inc., et al.*, Case No. 1:16-CV-1687 (July 20, 2017).

[FN186]. Memorandum from Reince Priebus, Assistant to the President and Chief of Staff, to Heads of Executive Departments and Agencies Regarding Regulatory Freeze Pending Review (Jan. 20 2017), <https://www.whitehouse.gov/presidential-actions/memorandum-heads-executive-departments-agencies/>.

[FN187]. Pipeline Safety: Safety of Hazardous Liquid Pipelines, Docket No. PHMSA-2010-0229; Amdt. No. 195-102 RIN 2137-AE66 (Jan. 13, 2017) (pre-publication copy).

[FN188]. UNIVERSITY OF NORTH DAKOTA, ENERGY & ENVIRONMENT RESEARCH CENTER, LIQUIDS GATHERING PIPELINES: A COMPREHENSIVE ANALYSIS (2015), <https://www.undeerc.org/bakken/pdfs/EERCG#athering0#0Pipeline0#0Study0#0FinalD#ec15>. [hereinafter *EERC Report*].

[FN189]. U.S. DEPARTMENT OF TRANSPORTATION, FINAL REPORT, LEAK DETECTION STUDY-DTPH56-11-D-000001 (2012), <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/technical-resources/pipeline/16691/leak-detection-study.pdf>.

[FN190]. 49 C.F.R. §195.452(i)(3).

[FN191]. *Id.*

[FN192]. 49 C.F.R. § 195.452(i)(4).

[FN193]. U.S. DEPARTMENT OF TRANSPORTATION, PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION, ADVISORY BULLETIN ADB-10-01 PIPELINE SAFETY: LEAK DETECTION ON HAZARDOUS LIQUID PIPELINES (Jan. 26, 2010).

[FN194]. *Id.*

[FN195]. 49 C.F.R. § 195.134 (adopting Section 4.2 of API Recommended Practice 1130).

[FN196]. See <https://primis.phmsa.dot.gov/comm/factsheets/fsleakdetectionsystems.htm> (defining CPM).

[FN197]. Pipeline Safety: Safety of Hazardous Liquid Pipelines, 80 Fed. Reg. 61610, 61614 (Oct. 13, 2015).

[FN198]. *Id.* at 61624.

[FN199]. *Id.* at 61624-61625.

[FN200]. *Id.* at 61625.

[FN201]. *Id.*

[FN202]. *Id.* at 61625.

[FN203]. Corrective Action Order, *In the matter of Belle Fourche Pipeline Company*, CPF No. 5-2016-5013H (OPS Dec. 20, 2016).

[FN204]. ALASKA ADMIN. CODE tit. 18 § 75.055 (2006).

[FN205]. EERC Report *supra* note 188, at 18.

[FN206]. *Id.*

[FN207]. EERC Report *supra* note 188, at 152.

[FN208]. Post-Hearing Decision Confirming Corrective Action Order with Modifications, *In re Matter of Belle Fourche Pipeline Co.*, CPF No. 5-2016-5013H (OPS Mar. 24, 2017).
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