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FINANCIAL ASSURANCE AND DISHARMONY IN ENVIRONMENTAL LAW: HOW MANY MOVING PARTS ARE TOO MANY?

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More than 35 years ago, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including section 108(b), which required the Environmental Protection Agency (EPA), within five years—December 11, 1985—to set rules for facilities handling hazardous substances “to establish and maintain evidence of financial responsibility consistent with the degree of risk associated with the production, transportation, storage or disposal of hazardous substances.” 42 U.S.C. § 9608(b)(1). The priority was to be given facilities (and owners and operators) posing the greatest risk. Id.

More than 30 years have passed since that deadline without EPA proposing rules. The delay made EPA an easy target. In settling litigation about the delay, EPA committed to propose such rules for the mining industry by the end of 2016. EPA will also decide by the end of 2016 whether to propose such CERCLA financial assurance rules for chemical manufacturing; petroleum and coal products manufacturing; and electric power generation, transmission, and distribution industries.

Thus, by the end of 2016, EPA will be proposing rules with potentially large financial impacts on hard rock mining and perhaps three more large sectors of the manufacturing economy, as well as on the insurance industry. Those rules and the issues they raise will be the subject of an upcoming webinar, currently scheduled for April. That program will not be the last one, given the great complexity of EPA’s task.

While the concept of these rules is reasonable—to provide insurance or other financial protection for hazardous substance releases—EPA will face the hard job of trying to harmonize these rules with many different sets of environmental and insurance laws. Whatever EPA decides is likely to trigger a great deal of litigation, not only about the scope of the rules, but later about their application in the field.

Here are some of the hard issues EPA will confront in preparing the rules:

• How does one harmonize the financial assurance rules for the hard rock mining industry with state reclamation and bonding laws? And does the restoration and reclamation contemplated in such mining laws meet federal CERCLA standards for remedying hazardous substance contamination?

• For chemical manufacturers, how are these rules to be reconciled with rules under the Resource Conservation and Recovery Act
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(RCRA) subtitle C, governing hazardous waste treatment, storage, and disposal facilities? The definition of hazardous substance under CERCLA is much more sweeping than RCRA’s definition of hazardous waste.

- For the petroleum industry, how will these requirements harmonize with rules under section 311 of the Clean Water Act for financial responsibility? Do those rules under section 311 get extended more widely, far beyond the maritime context? And how does CERCLA’s “petroleum exclusion” get factored into this equation?
- For the electric power industry, how will these financial assurance rules harmonize with new rules addressing storage of coal ash? And how do state utility rate commissions to account for the additional costs of such financial assurance, particularly if utilities either choose to self-insure or are forced to do so by the insurance market?
- Finally, insurance is primarily regulated by the states, a matter of law that has resulted in coverage litigation for environmental cleanup in every state in the Union. How are different state insurance requirements to be harmonized across the country with this new EPA requirement, even one which may address only the mining industry to start?

These are difficult requirements to harmonize, particularly on a simultaneous basis. And anyone who thinks it will be simple to write clear federal insurance requirements and apply them in the field, should meditate on the launch of the Obamacare website. There are a great many moving parts.

As environmental practitioners we should be paying close attention to these developments. They will affect not only the day-to-day advice we give in connection with superfund litigation, but also the questions about potential liability we ask in connection with mergers and acquisitions, as well as our assessment of contaminated real property.

Register Today

This one-day Superfund Master Class is a must attend for experienced Superfund practitioners. Leaders from the Environmental Protection Agency and the Department of Justice will come together with their non-governmental counterparts to discuss, and perhaps find solutions to, emerging and continuing legal issues and obstacles within the CERCLA context. The format will encourage interactivity, and a key goal for the day will be identifying paths forward to develop consensus on improvements to the Superfund process. CERCLA is not going away, and the next 35 years must be as or more efficient and effective than the first.
Enacted in December 1980, the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 et seq. (CERCLA)—known as Superfund—had two major goals: (1) to clean up hazardous waste sites, and (2) shift the costs to “responsible” parties. The law has arguably had as much influence on American corporate behavior as all the other environmental laws combined. It features a radical liability scheme that with only a little exaggeration can be summarized thus: liability is strict, joint, several, retroactive, and perpetual. It has spawned prodigious amounts of litigation by both the government and private parties. And the amounts of money involved are large enough to grab the attention of any corporate CEO. This paper seeks to provide some insight into how well the law has succeeded in meeting its goals, identifies a number of significant programmatic challenges that lie ahead, and reviews recent case law that continues to shape our understanding of the liability scheme.

I. Past Accomplishments, Current and Future Trends

Accomplishments (as of 9/30/15):

- 49,751 sites assessed (out of 51,791 sites currently in the database)
- 1767 proposed, final, and deleted National Priorities List (NPL) sites; 1177 of those sites (67 percent) have all construction complete
- 12,927 removal actions taken at 9582 sites (NPL and non-NPL)
- $23.4 billion in EPA cleanup expenditures; plus $34.3 billion worth of cleanup work by potentially responsible parties (PRPs); plus $6.9 billion in cost recovery
- >1.4 million acres of land determined to be protective for people and > 470,568 acres determined ready for anticipated use (cumulative totals through 9/30/14; more recent figures are not yet available).

NPL Listings: The number of new sites added to the NPL on an annual basis had been decreasing for several years (2004–2007 average = 13/year final listings), but increased again in the next six years (2008–2014 average = 19.7/year final listings). The earlier decreases had various causes: state referrals had decreased as states managed sites themselves; federal funding for so-called pipeline activities (pre-remedial site assessment work) decreased; the Superfund Alternative Approach (SAA) was used for a number of sites; and some EPA policy documents included the statement that NPL listing was the “last resort” for achieving a site cleanup. However, in 2015 the number of new sites added to the NPL dipped again to just 10. See http://www2.epa.gov/superfund/final-national-priorities-list-npl-sites-state.

Conditions that may have contributed to the higher number of NPL listings in recent years include increased state referrals to EPA due to budget restrictions; and increased number of bankruptcies, especially during the period 2009–2010, leading to more “orphan” sites (sites for which there are no viable responsible parties). Additionally, EPA revised its Superfund Program Implementation Manual (SPIM) to delete the above-referenced statement that an NPL listing is the “last resort” for cleanup. See the “Change Log” for appendix A, available at http://www.epa.gov/superfund/action/process/spim11/pdfs/Change_Log_SPIM_2011_FINAL.pdf.

The percentage of overall cleanup funding
provided by potentially responsible parties (PRPs) has varied somewhat over the years. As the figures above show, across the history of the program PRPs have paid approximately 70 percent of all site cleanup costs (primarily through PRP-lead cleanups, but also accounting for cost recovery).

The “average” site that has been added to the NPL in recent years is, arguably, more complex and/or more costly than in the past. Compared to the early years of the Superfund program, in recent years smaller and/or less complex sites have more often been retained by states and handled under their own Superfund-analog programs, or their Resource Conservation and Recovery Act (RCRA) or brownfields programs. As “traditional” waste sites have been addressed, there has been increased attention to “mega-sites” (e.g., large mining sites, urban waterways, and large area groundwater contamination sites, where cleanup costs can run into the hundreds of millions or even billions of dollars).

Funding for remedial action (RA) has decreased significantly. Funding was essentially flat from the mid-1990s to 2009, resulting in reduced buying power over time. By 2008, at over half of the “fund-lead” sites (i.e., those without PRPs able to pay for the work) with work ready to begin, construction could not be started because of lack of funding. The American Recovery and Reinvestment Act of 2009 (ARRA, known as the “Stimulus” Act) provided an additional $600 million for Superfund remedial action. This enabled EPA to start construction at all fund-lead sites that were ready.

Appropriations for remedial action were reduced significantly in federal fiscal years 2012, 2013, and 2014. In FY2011 the funding level was $605 million; by FY2014 (and in FY2015) this figure dropped to about $500 million, nearly a one-fifth reduction in three years. As a result of resource constraints, there were no new federally funded construction starts in 2012. Though the situation improved somewhat in 2013 through 2015, there continue to be a significant number of sites that are ready for construction but for which funding is not available. At this writing there are some 20 sites around the country that are ready for construction to start, but for which federal funding is not available.

Very costly cleanups (e.g., $50 million or more) are often funded on an incremental basis over time. For example, a $300M+ fund-lead cleanup may be stretched out over 10 to 15 years, with $20–$30M provided each year. This introduces inefficiencies, but has in the past allowed a more balanced program with both new RA starts and ongoing cleanups being funded in any given year.

Ongoing cleanups represent the first priority for continued funding in any given year; that is, they typically have a higher priority than starting a new cleanup project. The fraction of available RA funding required to maintain all the ongoing cleanups has grown because the pace of adding them has exceeded the pace of completing them. At times during recent years this fraction has approached 100 percent of the RA budget (and could exceed 100 percent in future years). This means that it has not been possible to fund the start of construction at many of the new fund-lead sites that are ready to go, while still continuing all ongoing cleanups at their usual pace. As noted above, in several recent years few or no new fund-lead RA starts were possible.

Since fiscal year 2010 the president has proposed reauthorization of the Superfund tax. The tax, which provided the income for the original Superfund, lapsed in 1995 and has not been reauthorized since. Since then, funding for the Superfund program has come largely from general revenues of the United States, with a smaller contribution from cost recovery. Reinstatement of the tax would not guarantee increased appropriations by Congress, but it would presumably make it easier for Congress to maintain the historic funding levels or increase appropriations should it wish to do so. In any event, Congress has so far declined to reinstate this tax, and there is little likelihood that will change in the near future.
In September 2015 the Government Accounting Office (GAO) released a report titled “Trends in Federal Funding and Cleanup of EPA’s Nonfederal National Priorities List Sites” (see http://www.gao.gov/products/GAO-15-812), finding that “federal appropriations to the . . . Superfund program generally declined from about $2 billion to about $1.1 billion in constant 2013 dollars from fiscal years 1999 through 2013.” The report notes that the largest amount of cleanup funds were spent in EPA Region 2 (where the author of this article works); and that sites in New Jersey alone accounted for over 25 percent of cleanup expenditures.

Fewer Starts and Completions: The annual number of remedial action (RA) “starts” and construction completions (CC—defined as the date when construction of the final RA at the site is completed) have decreased in recent years. As of 9/30/14, two-thirds of the sites on the NPL have achieved CC. Non-CC sites are, on average, more complex than those that have achieved CC. Of the non-CC sites, about 40 percent are federal facilities (generally large/complex); or high cost (> $50 million). By contrast, federal facilities and high-cost sites make up only about 12 percent of all sites with CC. Non-CC sites average 4.2 operable units (OUs)/site; CC sites average 1.8 OUs/site. (Note that large or complex sites are often divided into multiple “operable units” or OUs. For example, OUs at a site might include source control, groundwater cleanup, off-site contaminated sediment management, and wetlands restoration, each of which might have a separate remedial action. Large federal facilities can have dozens of OUs.) Sixty percent of non-CC sites have construction under way, but at only 12 percent of these is it the final construction project, i.e., the final OU (citing FY2009 data, but the situation is little changed since then.)

Construction completion was for two decades the main metric for measuring the progress and success of the Superfund program, having replaced “site deletions” in the 1990s. An arguably more informative metric was added in 2011: the number of RAs completed. Since a given site may have multiple RAs, the last of which may—for various reasons—not be completed for many years, this metric is more indicative of ongoing cleanup progress at the site than the CC.

II. Superfund Settlement Negotiations

The duration of negotiations for RD/RA (remedial design and remedial action) increased significantly over the past two decades. The average duration of RD/RA negotiations from 1990 to 1993 was 197 days. The average duration of RD/RA negotiations from 2004 to 2009 was 449 days.

In 2012 EPA’s Office of Enforcement & Compliance Assurance (OECA) issued its Revised Policy on Managing Duration of RD/RA Negotiations, with minor revisions to an earlier 2009 interim policy. (See the Revised Policy, which made only minor revisions, available at http://www.epa.gov/enforcement/cleanup/documents/policies/superfund/rev-rdra-neg-timeline-2012.pdf). An evaluation of progress under the interim policy, published in May 2012, revealed that the average duration of RD/RA negotiations in the period from 2010 to 2011 dropped to 269 days. However, the data set from which this figure is derived was acknowledged to be relatively small. (See http://www.epa.gov/enforcement/cleanup/documents/superfund/factsheet/rdra-eval-results-2012.pdf.)

Under previous agency policy, “rigid” negotiation time frames required regional offices to secure headquarters concurrence for extensions of deadlines. The procedure under the current policy is intended to be both more flexible, and more effective at controlling the excessive duration of negotiations.

The enforcement program is to be engaged earlier in the remedial process—specifically, at the proposed plan stage. A “negotiation plan” is to be developed, starting prior to the record of decision (ROD). The plan is to include benchmarks and target deadlines. Importantly, the negotiation plan is to identify a trigger for issuance of a unilateral administrative order (UAO) when negotiations
have been unsuccessful; indeed, the use of UAOs is encouraged as a “key component to expediting the RD/RA negotiation process.” The policy explicitly states that a UAO should be issued if settlement is “unreasonably” delayed. Target timelines for the various steps in the process are included in the policy.

III. Regulatory and Guidance Developments

In December 2012 EPA issued its “Revised Enforcement Guidance Regarding the Treatment of Tenants Under the CERCLA Bona Fide Prospective Purchaser Provision.” (See http://www.epa.gov/enforcement/cleanup/documents/policies/superfund/tenants-bfpp-2012.pdf.) This guidance provides that EPA will exercise its enforcement discretion to not pursue tenants for preexisting contamination, provided:

1. they are not, and other than the lease have no affiliation with, owners, operators, disposers, generators, or transporters; and
2. they take reasonable steps with respect to the contamination; they do not impede response actions; and they cooperate with authorities.

This guidance is very important to developers of renewable energy (e.g., solar photovoltaic arrays) on contaminated sites such as landfills. The renewable energy developer is typically a tenant of the owner of the contaminated site. For obvious reasons, such developers and their investors are unwilling to become potentially responsible parties for the underlying site. If they were outright purchasers of the property, the bona fide prospective purchaser provision of CERCLA (42 U.S.C. § 9607(r)) would protect them from liability, providing they exercised all appropriate inquiries before acquiring the site. This guidance expresses EPA’s intention to treat tenants in the same manner.

In May 2014 EPA issued its “groundwater remedy completion strategy” (http://www.epa.gov/superfund/health/conmedia/gwdocs/pdfs/EPA_Groundwater_Remedy_Completion.pdf). Ninety percent of all active Superfund sites involve groundwater remediation, which is often complex and costly, and not always fully successful. The document is essentially an exit strategy for groundwater cleanups, which can take many years or even decades to complete. The guidance emphasizes that it does not alter or supersede existing Superfund regulations or guidance, but is merely intended to promote national consistency in applying existing regulations and guidance. Nevertheless, by ensuring that the “exit strategy” is more explicitly articulated, some observers may conclude that adherence to the guidance could occasionally lead to earlier termination of groundwater remedies that have reached a point of diminishing returns or are only asymptotically approaching their objectives.

The draft lays out five key steps for development and implementation of the strategy: (1) understand the site conditions (this may include updating the conceptual site model from when it was first developed during the remedial investigation/
feasibility study (RI/FS); (2) design site-specific remedy evaluations (e.g., determine if treatment units are working as intended, plume concentrations decreasing as expected, and plume shrinking as anticipated); (3) develop performance metrics and collect monitoring data (metrics may include site-specific remedy performance criteria, hydrogeologic parameters, or contaminant concentration trends); (4) conduct remedy evaluations (using the metrics and data to answer the site-specific evaluation questions); and (5) make management decisions regarding the progress of the remedy and, in particular, whether any changes should be made. Changes may involve remedy optimization, or an alternate response approach if performance data indicate that remedial action objectives (RAOs) may not be achieved in a reasonable time frame. Depending on their level of significance, such changes could require an explanation of significant differences or even an amendment to the record of decision (ROD).

Remedy evaluations of this sort will not be performed just once, but should be conducted throughout the life cycle of the remedy. At a minimum it is likely that they would be conducted in conjunction with the statutorily mandated five-year reviews.

IV. The GE v. EPA UAO Litigation; and UAOs After Sackett

Ending a decade of litigation, in 2011 the U.S. Supreme Court rejected General Electric’s legal challenge to EPA’s authority to issue unilateral administrative orders (UAOs) to PRPs under section 106 of CERCLA. General Electric Co. v. Jackson, http://www.supremecourt.gov/orders/courtorders/060611zor.pdf. The justices let stand the D.C. Circuit Court’s ruling that upheld EPA’s power to issue UAOs directing PRPs to clean up hazardous waste sites that pose an imminent and substantial threat to public health. General Electric Co. v. Jackson, 610 F.3d 110 (D.C. Cir. 2010). In its petition to the Supreme Court, GE argued that the orders violated constitutional due process rights, and coerced compliance. The government opposed GE’s petition and argued, as it had before, that the law provided sufficient procedural safeguards; parties have multiple opportunities to challenge EPA’s assertions that a party is a PRP; and/or parties may contest the issuance of an order at multiple stages of the process. The Department of Justice also noted that a PRP can choose not to comply with an order; at that point it is up to the agency to seek to enforce such order in federal court, if it so chooses. The government noted that the court of appeals also correctly rejected GE’s contention that “collateral market reactions” (i.e., negative effects on stock price, brand value, or credit rating) to the issuance of an order deprive a PRP of a “protected property interest.”

This case, originally brought in 2000, became a “systemic” challenge to the constitutionality of CERCLA since it did not challenge any particular cleanup but, instead, challenged the CERCLA statute and program as a whole. (Note that virtually identical challenges have been brought in three other cases and all were decided in favor of EPA. See, Goodrich Corp. v. U.S. (third-party complaint), 581 F.3d 865 (9th Cir. 2009); United States v. Capital Tax Corp. No. 04-C-4138, 2007 WL 488084 (N.D. Ill. Feb. 8, 2007) (unpublished); Raytheon Aircraft Co. v. United States, 435 F. Supp. 2d 1136 (D. Kan. 2006.).) Nevertheless, the impetus for this case was very likely GE’s concerns over EPA’s cleanup plan for the Hudson River. Moreover, on December 31, 2010—just days after filing its petition to the Supreme Court for a writ of certiorari in this case, but after years of dispute with EPA about the Hudson River cleanup—GE agreed to carry out one of the largest environmental dredging programs in history, requiring the removal of about 2.6 million cubic yards of PCB-contaminated sediment from a 40-mile stretch of the upper Hudson (north of Albany, N.Y.). Based on information provided by GE, EPA estimates the cost of the project at about $2 billion, the highest dollar value of any Superfund settlement. In late 2015 the sixth and final season of work concluded, with over 2.75 million cubic yards having been dredged, and some 310,000 pounds of PCBs having been removed from the river—twice as
much as originally projected. All water quality and similar standards established for the project were regularly met.

The D.C. Circuit Court’s decision considered three major claims by GE:

**Facial Constitutional Claim:** The court held that the statute provides constitutionally sufficient process because by refusing to comply with a UAO, a PRP can force EPA to go to court to enforce the orders where the refusal is subject to a good faith or reasonable grounds defense and the imposition of penalties is subject to judicial discretion. The court’s upholding of the facial constitutionality of CERCLA is consistent with three other federal circuit court decisions. *Employers Ins. of Wausau v. Browner*, 52 F.3d 656 (7th Cir. 1995); *Solid State Circuits, Inc. v. EPA*, 812 F.2d 383 (8th Cir. 1987); *Wagner Seed Co. v. Daggett*, 800 F.2d 310 (2d Cir. 1986). These cases have determined that CERCLA is facially constitutional because there are ample and adequate opportunities to seek meaningful judicial review before deprivation of any property rights.

**Pattern and Practice Claim:** The court quickly disposed of the merits of the pattern and practice claim. The court found that “consequential” injuries, those resulting from market reactions to a UAO, are insufficient to merit constitutional protection. These “consequential” injuries include stock price, brand value, and cost of financing, all of which, GE had contended, are adversely affected by the issuance of a UAO.

**Coercion:** With regard to GE’s “coercion” argument, the court found that the pattern and practice claim added little to GE’s facial challenge since, regardless of EPA’s policies, the statute still has adequate and ample judicial review protections. In addition, based on the information collected during an extended discovery phase, the court rejected GE’s argument that the high incidence of UAO compliance evidences coercion because instances of noncompliance are sufficiently numerous to suggest that PRPs are not, in fact, forced to comply. Of 1638 then most recent UAOs there were 75 instances of noncompliance—a rate of 4.6 percent. Further, in light of the extensive procedures for EPA to follow before issuing a UAO, the court noted that recipients may be complying in large numbers not because they feel coerced, but because they believe that UAOs are generally accurate and would withstand judicial review.

Importantly, the Supreme Court’s 2012 decision in *Sackett v. EPA*, 132 S. Ct. 1367 (2012) (available at http://www.supremecourt.gov/opinions/11pdf/10-1062.pdf) did not undermine the GE decision. In Sackett the Court considered whether an administrative order issued under the Clean Water Act was final agency action that could be challenged in court by the recipient. The Supreme Court voted 9-0 to hold that EPA’s order directing the Sacketts to remove fill material from a disputed wetlands area was final, ripe, and immediately reviewable under the Administrative Procedure Act. Justice Scalia wrote the relatively short opinion, which focused entirely on the finality question under the APA. The opinion notes that nothing in the Clean Water Act makes EPA administrative orders issued under section 309(a) unreviewable. This is relevant to GE’s challenge of the unreviewability of CERCLA enforcement orders prior to EPA enforcement. CERCLA section 113(h), unlike the Clean Water Act, specifically precludes pre-enforcement review of an EPA cleanup order issued under section 106 of CERCLA. *Sackett* does not undermine or in any way call into question the Court’s decision just nine months earlier not to accept GE’s appeal from the D.C. Circuit Court opinion.

**V. The Burlington Northern Decision and Progeny**

On May 4, 2009, the Supreme Court handed down its decision in *Burlington Northern & Santa Fe Railway Co., et al. v. United States, et al.*, 129 S. Ct. 1870. The decision is of major significance with respect to two areas of Superfund jurisprudence: “arranger” liability, and divisibility or apportionment of harm. After the decision there
was widespread speculation that it would result in much additional litigation and could result in fewer and, for the government, less favorable settlements; some commentators even suggested the decision was the death knell for CERCLA joint and several liability. Seven years later we have indeed seen more litigation, but the government’s ability to achieve satisfactory settlements does not appear to have been significantly impacted. Some defendants have escaped “arranger” liability, but few have been successful in persuading courts to apportion liability.

**Facts of the Case: Brown & Bryant (B&B)**

Brown & Bryant (B&B) operated an agricultural chemical packaging and distribution company in California. The company started operation in 1960. In 1975 it extended its operations to an adjacent, smaller parcel of land owned by two railroad companies (the corporate predecessors of Burlington Northern and Union Pacific railroads, two chief defendants in the case). B&B continued operations at the combined parcel until 1989.

B&B purchased agricultural chemicals from manufacturers including Shell and Dow. From Shell it purchased chemicals named DD and Nemagon, and from Dow it purchased Dinoseb. Some of the chemicals were purchased in bulk, and arrived by common carrier (truck or rail). Upon arrival the chemicals were transferred from the tank trucks or rail cars to bulk storage tanks for later repackaging and resale. Spills occurred during the transfer operations, as well as elsewhere on the site, causing soil and groundwater contamination.

In due course, B&B became a Superfund site. DD, Nemagon, and Dinoseb were the contaminants of principal concern. By the early 1990s, EPA and California had spent some $8 million on cleanup work. The railroads, under order from EPA, had spent a further $3 million. (Significant additional expenditures would later be necessary for a complete cleanup.) In 1992 the railroads sued B&B to recover costs; and EPA and California sued the railroads and Shell for cost recovery. The cases were consolidated.

**The District Court Ruling:** The court held both railroads and Shell liable. Based on facts adduced at trial—but not briefed or argued by any of the parties—the court held the harm to be divisible, and apportioned liability. The court apportioned 6 percent of the liability to Shell, and it apportioned 9 percent of the liability to the two railroads. The court calculated the railroads’ apportioned share using the following arithmetic calculations:

- 0.19, the fraction of the total land on which B&B operated that was owned by the railroads; multiplied by . . .
- 0.45, the fraction of the total time B&B operated during which those operations included the railroad parcel; multiplied by . . .
- 0.66, representing the fact that only two of the three contaminants of principal concern had been managed on the railroads’ property; multiplied by . . .
- 1.5, representing a 50 percent “margin of error” factor.

Thus, \( (0.19 \times 0.45 \times 0.66 = 0.06) \times 1.5 = 0.09 \), or 9 percent, which the court concluded was the railroads’ apportioned share of liability. The court also concluded, albeit based on imprecise evidence, that no more than about 10 percent of all the B&B spills occurred on the railroads’ property. The court noted that this was generally consistent with the 9 percent apportioned share that it had calculated using the three chosen factors of geography, time, and contaminants.

**Appeal to the Ninth Circuit:** Shell argued that it should not be held liable at all because it was not an entity that had “arranged for disposal . . . of hazardous substances” at the B&B facility (the phrase from section 107(a)(3) that is commonly rendered in shorthand as establishing “generator” liability). The railroads argued they should not be liable either, and/or that their apportioned share should be smaller. The governments argued that the harm was not divisible and apportionment was therefore inappropriate. The circuit court held that Shell was liable as an “arranger” as found by the
district court. The circuit also held that there was not a reasonable basis for apportioning the liability of the defendants, and they should therefore be held jointly and severally liable.

The Supreme Court Decision: The Court held that Shell was not liable as an “arranger,” observing that the term is not defined in CERCLA so it should have its ordinary meaning. The Court held that the word “arrange” implies “action directed to a specific purpose” and therefore liability as an arranger would attach only if one takes “intentional steps to dispose of hazardous substances.” Acknowledging that Shell knew of the spillage at B&B, the Court held that “knowledge alone is insufficient to prove that an entity ‘planned for’ disposal, particularly when the disposal occurs as a peripheral result of the legitimate sale of an unused, useful product.” The Court noted that Shell took a number of steps to encourage B&B to reduce the likelihood of spills. The Court did observe that circumstantial evidence can be sufficient to prove intent: “In some instances, an entity’s knowledge that its products will be leaked, spilled, dumped or otherwise discarded may provide evidence of the entity’s intent to dispose of its hazardous wastes.” Note that this acknowledgement by the Supreme Court is relevant when considering whether the Aceto decision, discussed further in the text below, is still good law.

The High Court also held that the district court had a reasonable basis for apportioning liability. The Court noted with apparent approval the long line of cases holding that the standard of liability under CERCLA is joint and several, unless the harm at the site is divisible and can reasonably be apportioned, and that the burden is with the defendants to prove that “a reasonable basis for apportionment exists.” The Court quoted with approval the RESTATEMENT OF TORTS, holding that when “two or more causes produce a single, indivisible harm, ‘courts have refused to make an arbitrary apportionment for its own sake, and each of the causes is charged with responsibility for the entire harm’.” The Court nevertheless concluded that in this instance the district court had a reasonable basis for apportioning the railroads’ liability at 9 percent. The Court confirmed that equitable considerations play no role in divisibility analysis, which is a purely legal issue. (Equitable considerations may be employed to allocate costs in contribution actions among jointly and severally liable parties, but not to apportion legal liability.)

Is Joint and Several Liability Still the Default Standard? The Supreme Court indicated it was so. At the time, some commentators expected that the High Court’s approval of the apportionment carried out by the district court would open the door for apportionment in many more cases. There has, indeed, been a considerable amount of litigation about divisibility, and in a few cases responsible parties have been successful in defeating joint and several liability; but the floodgates have certainly not opened. An overview of lower court opinions on this question follows below.

The Burlington Court’s Flawed Arithmetic. While the Supreme Court accepted the district court’s arithmetic, it did not mandate it. Other trial courts rendering a decision on apportioned shares would be free to consider alternative and more sophisticated approaches. This author contends that the Burlington trial court’s arithmetic was fundamentally flawed. The central problems presented by the court’s approach (which was not informed by input from either the plaintiffs or the defendants) are (1) the fact that multiplying any two or more fractions together, as the court did, inevitably leads to a smaller and smaller result, so that the more factors you include, the smaller the resulting liability; and (2) the result is very likely to yield a total liability, among all parties (including the orphan share) of less than 100 percent.

To understand how a superficially reasonable process can yield such an absurd result, consider this simplified example: Imagine a site at which two different, viable parties operated on a given property for two equally long, successive periods—say, 10 years each. During each 10-year period, the same amount of contamination, with
a comparable level of toxicity, was released on the site; thus each operator accounts for half the total contamination. Assuming apportionment is appropriate at all, common sense would dictate that each party is 50 percent liable. But using the Burlington trial court’s approach, for each party one would multiply a 100 percent geographic or spatial share times a 50 percent temporal share times a 50 percent contaminant share, yielding a 25 percent share for each party, for a total share by both parties of just 50 percent of the overall site costs. This would leave the government to pick up the remaining 50 percent of the costs, even though there are no “orphan shares” here. Even adding a 50 percent uncertainty factor only increases the PRP’s apportioned shares to 37.5 percent each, for a total of 75 percent between the two.

As noted, whenever you multiply two fractions together the result is a smaller fraction, a fact that may have eluded both the Burlington trial court and the Supreme Court. What is most important about any numerical approach to apportionment is that the total “shares”—including any orphan share(s)—must add up to 100 percent, no more and no less. The Burlington trial court’s approach fails entirely on this crucial test. Note, for further analysis of this point, see Walter Mugdan, The Burlington Court’s Flawed Arithmetic, 40 ENVTL. L. REP. NEWS & ANALYSIS 10637 (2010); and William C. Tucker, All Is Number: Mathematics, Divisibility, and Apportionment Under Burlington Northern, FORDHAM ENVTL. L. REV., Fall 2010.

Is the Aceto Line of Cases Still Good Law with Respect to “Arranger” Liability? In U.S. v. Aceto, 872 F.2d 1373 (8th Cir. 1989), manufacturers were held liable for spills on the property of a repackager. There are important distinctions from Burlington, however, suggesting that Aceto is still good law. In Aceto, the manufacturers retained ownership of the chemicals throughout the repackaging and subsequent reshipment processes. By contrast, Shell simply sold a useful product to B&B, a type of transaction that has long been held to not give rise to “arranger” liability. As noted above, in Burlington the Supreme Court wrote: “In some instances, an entity’s knowledge that its products will be leaked, spilled, dumped or otherwise discarded may provide evidence of the entity’s intent to dispose of its hazardous wastes.” The Aceto manufacturers did not take any precautions against spillage, and had knowledge of the likelihood of spillage; indeed, they had “tolling agreements” with the repackager, which recognized that a certain amount of spillage (and thus product loss) would occur. The RESTATEMENT OF TORTS, cited with approval by the Supreme Court in Burlington, was also cited by the Aceto court for its proposition that those who employ independent contractors to perform abnormally dangerous activities will be subject to strict liability for the harms therefrom. In other words, an entity cannot escape liability by contracting out dangerous parts of a process.


Potential Impacts on the Superfund Program:
At the Brown & Bryant site, Shell was absolved of liability altogether, and the railroads were made to pay only 9 percent of the cleanup costs. The operator, B&B, is defunct and without resources. The result is that the taxpayers—federal and state—will end up paying the lion’s share of the cleanup costs. If apportionment were found to be appropriate at a significant number of Superfund sites, there would be a concomitantly larger “orphan share” that would need to be paid by the taxpayers in order to achieve a cleanup. This share would be magnified further if the apportionment calculations use the same flawed methodology adopted by the Burlington trial court (i.e., multiplying a series of fractions, the result of which will always be a still smaller fraction; the sum of all such fractions will generally not equal 100 percent).
“Mixed funding,” a mechanism contemplated by CERCLA but not frequently employed in the past, could perhaps become a more important tool in the Superfund arena. Mixed funding settlements are those pursuant to which PRPs and the government share the costs of a cleanup. Section 122 of CERCLA, 41 U.S.C. section 9622, authorizes such settlements—the Superfund can be used to pay RPs to perform cleanup work. (Note that the government’s decisions on use of the fund in this manner are not judicially reviewable. CERCLA §122(b)(2), 42 U.S.C. § 9622(b)(2).) A result of the Burlington decision could therefore be a greater drain on available federal and state cleanup funds, and a concomitant decrease in the number of sites cleaned up.

**Lower Court Decisions:** There have been dozens of district court opinions, and a growing number of circuit court opinions, that have interpreted or applied Burlington. The author is indebted to his colleagues in EPA’s Office of Site Remediation Enforcement for compiling the information on which these very brief summaries are based. Any errors that may be contained in these summaries are, however, solely the author’s responsibility.

 Defendants have had some success escaping “arranger” liability. The courts have agreed that these cases are fact driven; most have focused on trying to ascertain the intent or purpose of the alleged “arranger,” but the analyses have led to sometimes inconsistent outcomes. Following are a few examples of how courts have ruled:

- **Lockheed Martin Corp. v. United States**, 2014 U.S. Dist. LEXIS 56927 (D.D.C. Apr. 24, 2014). In the context of a decision allocating costs, the district court discussed the scope of arranger liability and found the United States liable as an arranger where it exercised control over a federal contractor’s waste disposal activities, but not where the United States merely owned wastes the contractor improperly disposed of.

- **United States v. D.S.C. of Newark Enterprises, Inc.**, 2013 U.S. Dist. LEXIS 82446 (D.N.J. June 12, 2013). Morton International made asbestos brake linings at a site in Newark. Morton sold the property to D.S.C. in 1974; it later leased the property back from D.S.C. and still later sold the business as a going concern to Friction. After the sale, asbestos remained in the baghouses at the factory, and subsequently became the source of asserted Superfund liability. The court held Morton not liable: it must have had the intent, as opposed to mere knowledge, that at least a portion of the asbestos product be disposed of during the “arranged for” process. The court noted that the contract of sale to Friction did not “specifically and intentionally concern the waste.”

- **EPEC Polymers, Inc. v. NL Indus.**, 2013 U.S. Dist. LEXIS 74642 (D.N.J., May 28, 2013). NL operated a plant on one side of the Raritan River, into which it discharged radioactive wastes. The U.S. Army Corps of Engineers later dredged sediments contaminated with these radiological materials and placed the dredged spoils on EPEC’s property on the opposite side of the river. EPEC sued NL as an “arranger.” NL argued it did not arrange with the Army Corps for disposal of the hazardous substances from its facility onto EPEC’s property or elsewhere. The court held that NL’s relevant action was the discharge of waste into the river. The fact that NL may not have intended to have the Army Corps move the waste onto EPEC’s side of the river was not important.

- **Carolina Power & Light v. 3M Co., et al.**, 921 F. Supp. 2d 488 (E.D.N.C. Feb. 1, 2013). A defendant that sold used transformers containing PCBs to Ward, a company that reconditioned them, was not liable as an “arranger.” They were sold not for scrap, but because they could be refurbished and resold as transformers. Even if the defendants knew of the PCBs and the likelihood of leaking, “knowledge alone is insufficient to prove an entity
‘planned for’ the disposal . . . ,” and they were held not liable as “arrangers.”

- **Duke Energy Progress, Inc. v. Alcan Aluminum Corp.**, 2013 U.S. Dist. LEXIS 65165 (E.D.N.C. May 6, 2013). Sending transformers for repair may imply the intent to dispose necessary for arranger liability. Defendants allegedly owned the used transformers, and the PCBs they contained, throughout the entire repair process (similar to the situations in the older *Aceto* case). Repairing the transformers necessarily required removing and discarding the PCB oils, thus tending to support a finding of arrangement for disposal.

- **NCR Corp. v. George A. Whiting Paper Co.**, 2014 U.S. App. LEXIS 18441 (7th Cir. Sept. 25, 2014). The Seventh Circuit affirmed the district court’s decision finding NCR not liable as an arranger for selling PCB-containing paper scraps to recycling mills that disposed of the PCBs into the Fox River. The court held these transactions constituted the sale of a useful product into a competitive market, even though the sales proceeds did not cover the costs incurred in preparing the by-product for sale to the recycling mills. The court did not believe that NCR’s corporate predecessor, a company known as ACPC, was simply trying to dispose of the scraps, or that ACPC was being compelled to get rid of them. Even though these transactions got the scraps out of ACPC’s factory, the sales were for more than “token amounts” in terms of price. In addition, after ACPC sold the scraps to the recycling mills, what was ultimately done with the PCBs embedded in them “was completely out of the seller’s hands.”

- **United States v. Fed. Res. Corp.**, 2014 U.S. Dist. LEXIS 97511 (D. Idaho, July 14, 2014). The court held the United States was not liable as an “arranger” for permitting and overseeing mine operations because it did not intend to dispose of mining waste rock, notwithstanding that it may have had knowledge of the disposal.

- **Mark Heim v. The Estate of Donald Heim**, 2014 U.S. Dist. LEXIS 46297 (N.D. Cal. Apr. 2, 2014). A dry cleaning equipment manufacturer was held not liable as an “arranger” because providing an instruction manual for the equipment did not establish active involvement or control over disposal, by the purchasers of the equipment, of the hazardous substances used therein.


Defendants have generally been less successful overcoming traditional joint and several liability, though there are some notable exceptions. In some cases it appears the courts have confused legal “apportionment” and equitable “allocation.” Examples include:

- **Reichhold v. United States Metals Refining Co.**, 2009 WL 1806668 (D.N.J. June 22, 2009). The court cited *Burlington* in doing what it characterized as “apportioning” liability in a CERCLA section113 contribution action, basing its decision on equitable considerations. The Supreme Court, however, stated that equitable considerations have no role in apportionment. The Reichhold court purported to apportion liability when it should instead have been carrying out an equitable allocation.

- **PCS Nitrogen Inc. v. Ashley II of Charleston LLC**, 714 F.3d 161 (4th Cir. Apr. 4, 2013). The district court’s denial of two defendants’ apportionment arguments was entirely consistent with *Burlington*. PCS presented five apportionment methods based on various volumetric and temporal considerations. Despite being supported by expert testimony, the Fourth Circuit
found that PCS’s apportionment methods presented insufficient evidence regarding PCS’s relative contributions to the harm at the site under a purely causation-based standard. In particular, PCS failed to adequately account for the secondary disposals that occurred through the spread of contamination throughout the site by various earth-moving activities over the years. Another defendant in the case, a company known as RHCE, having been held liable as a current operator under CERCLA, argued that it should be apportioned zero liability because no disposal of hazardous substances occurred during its operation of the facility. In rejecting this position, the Fourth Circuit acknowledged that adopting such an argument would be in direct contradiction to the strict liability principles and limited liability defenses available to current operators under CERCLA. On Nov. 4, 2013, the Supreme Court rejected PCS’s petition for certiorari, *PCS Nitrogen Inc. v. Ashley II of Charleston LLC*, U.S., No. 13-139. (The Fourth Circuit’s decision allowed RHCE to raise apportionment in response to being sued in contribution under section 113 of CERCLA. Footnote 9 of the *Burlington* decision confirms that principles of divisibility and apportionment play no role in section 113 contribution actions. Rather, contribution actions allow equitable considerations, leaving apportionment as a defense to the presumption of joint and several liability in section 107 cost recovery suits. The circuit court should have dispensed with RHCE’s apportionment argument without considering it on the merits.)

- *United States v. NCR Corp.* (“Fox River”), 688 F.3d 833 (7th Cir. Aug. 3, 2012). NCR failed to prove the harm was capable of apportionment because PCB levels contributed by NCR caused sufficient contamination to warrant the cleanup of river sediments. The court described this case as an example of “multiple sufficient causes” of environmental harm. NCR’s expert asserted NCR had only contributed about 6 percent to 9 percent of the PCBs in the river. The court held, however, it did not follow that NCR was only responsible for 6 percent to 9 percent of the cleanup costs. Had NCR been the only party to dump PCBs into the river, the river would still have to be dredged and capped, because PCB levels contributed by NCR exceeded EPA’s threshold. There was no linear correlation between the cost of cleanup and the level of PCBs in the river. Once the PCBs reached a threshold level, cleanup became necessary. The court concluded that in this case, “contamination traceable to each defendant” is the proper measure of harm, though other measures of harm may be appropriate in different circumstances. This legal conclusion was confirmed after an 11-day bench trial (2013 U.S. Dist. LEXIS 62265 (E.D. Wis. May 1, 2013)). However, in *United States v. P.H. Glatfelter Co.* , 2014 U.S. App. LEXIS 18436 (7th Cir. Sept. 25, 2014), the Seventh Circuit reversed the district court’s ruling from that trial, finding that the harm by NCR is theoretically capable of apportionment and remanding for further proceedings. On May 15, 2015, the district court in *U.S. v. NCR Corp.*, Case No. 10-C-910, ruled that in view of the circuit court’s opinion, NCR indeed established its divisibility defense. This is a case where only one contaminant—PCBs—is present; there are records sufficient to provide reliable estimates of the amounts of PCBs discharged by the various PRPs; and those various PRPs are all viable and involved in the case. The court held that NCR showed the harm was theoretically capable of division, and that NCR was able to suggest a reasonable basis on which to apportion its share of the remediation. (The apportionment basis suggested by NCR was, essentially, the relative amounts of PCBs contributed by the PRPs.) BUT WAIT,
THERE’S MORE! In a further twist, on October 19, 2015, the district court reversed its May 15 decision, holding instead that NCR had not demonstrated a reasonable basis for not being held jointly and severally liable. Ruling on motions for reconsideration, the court analyzed expert opinion testimony and ultimately concluded that “NCR has failed to meet its burden to demonstrate both that the harm is theoretically capable of divisibility and that there is a reasonable basis for apportionment.” Slip op. at 9.

• The City of Gary v. Paul Shafer d/b/a Paul’s Auto Yard and Paul’s Auto Yard, Inc., 2011 WL 3439239 (N.D. Ind. Aug. 5, 2011). The court determined that defendant’s time of operation of the site represented 3.95 percent of the total time during which contamination occurred; and that the maximum area that defendant could have contaminated was 0.24 percent of the total volume of contaminated soil at the site. Ignoring its own calculation of the time of operation, the court concluded that defendant owed only 0.24 percent of the total response costs. However, throughout the opinion the court used the terms “allocation” and “apportionment” interchangeably. It is therefore unclear whether the court apportioned legal liability under CERCLA section 107 or equitably allocated costs under section 113; read in context, it appears that the court was actually doing the latter.

• 3000 E. Imperial, LLC v. Robertshaw Controls Co., 2010 WL 5464296 (C.D. Cal. Dec. 29, 2010). Following trial the district court declined to apportion defendant’s liability based on geographic and temporal apportionment theories due to insufficient evidence regarding the relationship between such metrics and the harm defendant caused; the court found the defendant jointly and severally liable under CERCLA.

• Pakootas v. Teck Cominco Metals, Ltd., 2012 WL 1133656 (E.D. Wash. Apr. 4, 2012). The defendant failed to prove the harm is theoretically divisible or present a reasonable factual basis for determining the relative amount of the harm it caused. The United States filed an amicus brief in this case, arguing that Burlington did not alter the law regarding divisibility under CERCLA. The court agreed, ruling further that plaintiffs “have no burden with regard to divisibility/apportionment. The burden belongs solely to Teck.”

VI. Bankruptcy and Superfund

In 2009 we witnessed a nearly 40 percent rise in business bankruptcies from 2008 filings (from 38,651 in 2008 to 58,721 in 2009). In 2010, the total number of bankruptcies (business and non-business) continued to rise (from 1,402,816 in 2009 to 1,596,355 in 2010). (See United States Courts, Bankruptcy Filings Down in Fiscal Year 2011, Nov. 7, 2011, available at http://www.uscourts.gov/News/NewsView/11-11-07/Bankruptcy_Filings_Down_in_Fiscal_Year_2011.aspx.) The trend changed, with an 8 percent decline in 2011 (1,467,221, down from the 2010 high). Though the decline continued in 2012, the total number of cases remained quite significant. See United States Courts, Bankruptcy Filings Down in Fiscal Year 2012, Nov. 7, 2012, available at http://news.uscourts.gov/bankruptcy-filings-down-fiscal-year-2012. Bankruptcy cases filed in federal courts for fiscal year 2012 were down 14 percent from cases filed in FY 2011. Id. Bankruptcies such as ASARCO, W.R. Grace, Tronox, Lyondell, Chemtura, Chrysler, and General Motors (GM) have involved major U.S. companies that owned and/or operated a significant number of contaminated facilities. The automotive sector bankruptcies, in particular, presented the United States with a unique set of challenges. Aside from the billions of dollars infused into Chrysler and GM in order keep the companies afloat through their respective reorganizations, the United States and the affected states have been heavily involved in resolving the issues surrounding the real estate left with the reorganized entities, including the contaminated plants, industrial facilities, and other holdings. For further analysis of recent bankruptcy

The Tronox Bankruptcy: Tronox, a multinational chemical company, was created in 2005–2006 through a spin-off from Kerr-McGee Corporation (KM). Several months after the spin-off was completed, Anadarko Petroleum Corporation purchased Kerr-McGee (KM) for $18 billion. Tronox commenced chapter 11 bankruptcy proceedings on January 12, 2009. The United States filed proofs of claim on behalf of EPA to recover, inter alia, past and future environmental response costs relating to 18 sites in seven regions. Pursuant to a February 2011 bankruptcy settlement between Tronox, the United States, 22 states, six local governments, and the Navajo Nation, these governments received, among other consideration, approximately $300 million in cash and an 88 percent stake in the fraudulent conveyance case that Tronox had brought against its former parent company, KM, and KM’s current parent company, Anadarko. See U.S. EPA, Tronox Incorporated Bankruptcy Settlement, available at http://www.epa.gov/compliance/resources/cases/cleanup/cercla/tronox/index.html.

Tronox initiated the fraudulent conveyance suit in May 2009; the United States intervened under the Federal Debt Collection Procedures Act. Plaintiffs argued that this was a “classic fraudulent conveyance case,” alleging that KM and Anadarko fraudulently transferred assets out of Tronox and thereby left Tronox with insufficient funds to pay billions of dollars of environmental liabilities under CERCLA, RCRA, and other environmental laws. First, KM took its “crown jewel” oil and gas assets away from the entity that would ultimately become Tronox and saddled Tronox with massive environmental, tort, and retiree “legacy” liabilities; then KM spun off Tronox from its corporate family; and finally KM sold itself to Anadarko for approximately $18 billion. Defendants, meanwhile,
maintained that KM had legitimate reasons to spin Tronox off. The trial featured 34 days of hearings, approximately 50 witnesses, and tens of thousands of pages of documents. See http://www.icis.com/Articles/2013/11/07/9723489/wait-on-decision-in-tronox-anadarko-19bn-lawsuit-nears-a-year.html. On December 12, 2013, the court issued its decision in favor of plaintiffs. The judge found that defendants should pay between $5.15 and $14 billion, with the exact amount to be the subject of a further hearing. Under a preexisting agreement among the plaintiffs, 88 percent of the final amount would go to pay off environmental claims against Tronox. Tronox et al. v. Kerr McGee et al., Case No. 09-10156 (ALG), Bankruptcy Court, S.D.N.Y., Dec. 12, 2013. The parties subsequently settled the case with defendants agreeing to pay $5.15 billion; the court approved the settlement on November 10, 2014. (See http://www2.epa.gov/enforcement/case-summary-settlement-agreement-anadarko-fraud-case-results-billions-environmental.)

VII. Potpourri

Citizen Suits

In Frey v. EPA (“Frey III,” 7th Circuit, May 1, 2014 (http://media.ca7.uscourts.gov/cgi-bin/rssExec.pl?Submit=Display&Path=Y2014/D05-01/C:13-2142:J:Hamilton:aut:T:fnOp:N:1338020:S:0)), the Seventh Circuit affirmed a district court decision that upheld EPA’s completed remedial actions at the Bloomington, Indiana, PCB sites. The sites were contaminated as a result of the manufacture of PCB capacitors at a Westinghouse Electric Corporation facility. A 1985 consent decree with the United States addressed six local area dumps or landfills where PCB wastes had been disposed. This case is a citizen suit action involving three of the sites where plaintiffs challenged the remedies, arguing that EPA had failed to perform a mandatory duty of conducting a remedial investigation/feasibility study (RI/FS) in selection of the remedy; the remedies were not protective of public health or the environment; and the settlement to perform the new remedies was not part of a consent decree. The Seventh Circuit held:

- The second and third stages of the cleanups are in progress, so CERCLA section 113(h)(4) prevents the courts from reviewing plaintiffs’ claims about those stages (noting that there is intra-circuit disagreement on whether CERCLA section 113(h)(4) is jurisdictional or substantive).
- CERCLA section 113(h)(4) does not serve as a bar to review of plaintiffs’ claims about the first remedial stages insofar as they are not affected by continuing cleanup efforts at the sites.
- The district court correctly granted summary judgment to EPA on plaintiffs’ claims regarding the first remedial stages (where construction is complete). The circuit court noted that its review under the citizen suit provision in CERCLA section 310(a)(2) is limited to non-discretionary acts.


Preemption . . . or Not

In CTS Corp. v. Waldburger, 134 S. Ct. 2175 (June 9, 2014), the Supreme Court held that while CERCLA explicitly supersedes state statutes of limitation for personal injury or damages caused or contributed by exposure to hazardous substances, CERCLA section 309, 41 U.S.C. section 9658, that section does not supersede state statutes of repose. The decision overturned a Fourth Circuit Court of Appeals decision. The case involved a North Carolina statute of repose that blocks a tort suit brought more than 10 years after the last culpable act of the defendant. By contrast, section 309(b)(3) of CERCLA, 41 U.S.C. section 9658(b)(3), specifies a “federally required commencement date” that is determined based on the date of discovery of the injury or damages.

Acknowledging there is substantial overlap between statutes of limitation—explicitly superseded by CERCLA—and statutes of repose,
the High Court was nevertheless persuaded by the absence of a specific reference to the latter in CERCLA section 309, and by the fact that the two types of statute have somewhat different purposes.

**Statute of Limitations**

In *Asarco LLC v. Atlantic Richfield Co.*, Civil Action No. 12-53-H-DLC (Dist. Montana, Helena Div., Aug. 26, 2014), the U.S. District Court for Montana held that the three-year statute of limitations in CERCLA applied to Asarco’s contribution claim against Atlantic Richfield, and ran from the date Asarco entered into a judicially approved settlement of its liability for environmental cleanup of an old lead smelter site, even though the settlement was under the RCRA and Clean Water Act statutes and not under CERCLA. Asarco had entered into a later judicial settlement that purported to be under CERCLA, but which imposed no different requirements than did the earlier non-CERCLA settlement.

In *Hobart Corp. v. Waste Management*, 758 F.3d 757 (6th Cir. 2014), cert denied, 2015 WL 231991 (U.S. Jan. 20, 2015), the Supreme Court declined to hear an appeal from the Sixth Circuit’s opinion ruling that CERCLA section 113 contribution claims are subject to a three-year statute of limitations, and that the “most logical” triggering event in this case was the effective date of an administrative order that the plaintiff entered into with EPA to conduct an RI/FS. This is potentially troubling because a cooperative PRP may enter into an agreement to perform an RI/FS early in the process, before much is known about the likely cost of cleanup. In the absence of that information, settlement among PRPs is likely to be more difficult.

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I. Introduction

On August 25, 2015, the Superior Court of New Jersey approved a $225 million consent judgment under the New Jersey Spill Compensation and Control Act (“Spill Act”) between the New Jersey Department of Environmental Protection (NJDEP) and ExxonMobil Corporation (Exxon) for alleged natural resource damages (NRDs) attributable to, among other facilities, Exxon’s former refineries in Linden and Bayonne, New Jersey. N.J. Dep’t of Envtl. Prot. v. Exxon Mobil Corp. (Aug. 25, 2015), available at http://www.judiciary.state.nj.us/Settlement%20Opinion.pdf. The consent judgment concluded 11 years of litigation between NJDEP and Exxon, including a 66-day trial in which NJDEP sought $8.9 billion in NRDs, but where no judgment was issued at the time of the proposed consent judgment. The court’s opinion approving the consent judgment concluded 11 years of litigation between NJDEP and Exxon, including a 66-day trial in which NJDEP sought $8.9 billion in NRDs, but where no judgment was issued at the time of the proposed consent judgment. The court’s opinion approving the consent judgment provides much needed clarity regarding NJDEP’s burden to prove NRDs, particularly primary restoration damages, and may cause NJDEP to rethink its litigation strategy for future NRD claims.

II. Spill Act NRDs

The Spill Act imposes joint and several liability for all “cleanup and removal costs” on dischargers of hazardous substances or persons “in any way responsible” for the discharge of a hazardous substance. N.J.S.A. 58:10-23.11g(c)(1). The term “cleanup and removal costs” includes the following types of NRDs: (1) primary restoration damages—“the cost to restore natural resources to their pre-discharge condition”; and (2) compensatory restoration damages—“damages for the ecological services and values lost as a result of the discharge,” including the loss of use of a natural resource. N.J. Dep’t of Envtl. Prot. v. Essex Chem. Corp., 2012 N.J. Super. Unpub. LEXIS 593, at *15 (N.J. Super. Ct. App. Div. Mar. 20, 2012). “Cleanup

NJDEP has broad rights and remedies under the Spill Act. It can clean up a discharge and then bring an action against the allegedly responsible parties; direct the responsible parties to clean up the discharge in the first instance; or require responsible parties to pay for cleanup and removal costs prior to remedial action. Id. at 399–400. If NJDEP decides to commence a civil action under the Spill Act, the statute expressly provides that NJDEP may seek, among other types of relief, “the cost of restoration and replacement, where practicable, of any natural resource damaged or destroyed by a discharge.” N.J.S.A. 58:10-23.11u(b)(4).

III. Proposed Consent Judgment

Under the consent judgment, Exxon agreed to pay $225 million to NJDEP to resolve NRD claims for the Linden and Bayonne refineries, and any NRD claims NJDEP has or may have at 16 other facilities and 1768 retail gas stations in New Jersey (excluding methyl tertiary butyl ether (MTBE) contamination claims, which are subject to a separate ongoing litigation). N.J. Dep’t of Envtl. Prot. v. Exxon Mobil Corp., slip op. at 1 (Aug. 25, 2015). In addition, Exxon agreed to satisfy its preexisting obligations under two administrative consent orders with NJDEP to remediate the Linden and Bayonne refineries. Id. at 4, 14.

IV. Court’s Ruling and Reasoning

A. Standard of Review

At the outset, the court noted the standard of review to be applied to a proposed Spill Act consent judgment was an issue of first impression for New Jersey state courts. Id. at 17. Some federal courts, however, had reviewed Spill Act settlements using the same criteria statutorily required by the Comprehensive Environmental Response,
Compensation, and Liability Act (CERCLA): however, that plaintiffs’ roles as trustees of the State’s resources and their responsibilities under the Spill Act did not relieve them of their burden of proof on the issue of damages.”). The consent judgment was consistent with the primary purposes of the Spill Act because it ensured the cleanup of hazardous substances, placed the financial burden of cleanup on Exxon, and promoted settlement of Spill Act claims. Exxon Mobil, slip op. at 67. Finally, the consent judgment was, in part, in the public interest because NJDEP decided “that the public interest is best served through settlement” and “that decision is entitled to deference.” Id. at 70. Environmental groups and other opponents of the consent judgment have filed an appeal of the court’s ruling.

As the court explained, although deference to NJDEP’s decision to settle the litigation must be given, the approval standard to be applied is “not without teeth.” Id. at 21–22. As applied to a NRD settlement:

[F]airness concerns the interactions among parties (settlers, non-settlers, and [NRD] trustees) and the methods trustees use to (1) calculate total damages; (2) apportion liability; and (3) calculate the amount each settler pays. Public interest and consistency with the governing statute concern whether the settlement is an appropriate mechanism for accomplishing environmental cleanup. Reasonableness links fairness with these two concepts by comparing the total recovery with the total damages estimate. Under this prong, courts examine whether the settlement amount appropriately reflects litigation risks and is a large enough sum to further the statute’s goals and the public interest.

Id. at 22–23.

B. Summary of the Court’s Analysis
In an 81-page opinion, the trial court approved the consent judgment. With respect to “fairness” considerations, the court held that the consent judgment was the product of negotiations between two highly sophisticated parties “on equal footing, and the process was open and candid,” and NJDEP’s method of calculating an adequate settlement amount was substantively fair (i.e., not arbitrary and capricious). Id. at 27, 39. The court also held that the consent judgment was reasonable, especially considering the litigation risks faced by NJDEP, including that NJDEP might not prove entitlement to any NRDs. Id. at 60–61; Essex Chem., 2012 N.J. Super. Unpub. LEXIS 593, at *19 (“The trial court correctly determined,

Notably, the court relied on N.J.S.A. 58:10-23.11u for why NJDEP must prove the “practicability” of any primary restoration plan. That section of the Spill Act lists the types of remedies available to NJDEP under the Spill Act, and among those remedies is “the cost of restoration and replacement, where practicable, of any natural resource damaged or destroyed by a discharge.” N.J.S.A. 58:10-23.11u(b)(4).
Even assuming the “where practicable” language applies to both “restoration” and “replacement” of natural resources (as opposed to “replacement” only), requiring NJDEP to prove that its primary restoration plan is “practicable” seemingly requires the agency to take at least two steps. First, NJDEP will need to discuss and vet its expert’s proposed primary restoration plan with those individuals responsible for overseeing the site remediation—personnel in NJDEP’s site remediation program (SRP) and perhaps the licensed site remediation professional (LSRP) hired by the responsible party. In the past, NJDEP did not undertake this type of coordination prior to seeking primary restoration damages as noted in the Essex case:

The trial court also correctly noted that Essex had been working with the SRP for more than two decades to remediate the contamination and had implemented its remediation technologies with SRP’s oversight and approval at a cost of about $5 million. SRP has not expressed any concern as to the pace of Essex’s remediation efforts, nor had it required Essex to remediate the site in an expedited timeframe [as NJDEP sought through primary restoration damages]. Moreover, [NJDEP] failed to establish that Essex’s proposed bioremediation plan would not work.

Essex Chem., 2012 N.J. Super. Unpub. LEXIS 593, at *19–20 (affirming NJDEP’s failure to prove primary restoration damages at trial); see also N.J. Dep’t of Envtl. Prot. v. Essex Chem. Corp., MID-L-5685-07, slip op. at 9–10 (July 23, 2010) (“the [NJDEP Office of Natural Resource Restoration (“ONRR”)] did not have any involvement with the day-to-day decisions about characterizing the extent of the contamination, did not provide any information or input into feasibility studies, nor have they . . . consulted with SRP before asking experts to recommend primary restoration strategies for the Site. This Court agrees with Essex that the lack of coordination is problematic. . . . Here, there was a history of collaboration between Essex and the SRP which was disregarded by the ONRR.”).

Second, because the restoration of natural resources to a pre-discharge condition is sometimes or even often technically “practicable,” the court’s requirement that NJDEP prove the practicability of its primary restoration plan likely requires NJDEP to prove that its plan is cost-effective. Indeed, both the trial court approving the consent judgment and the Essex Chemical appellate panel both referenced cost as a factor in evaluating primary restoration damages. Exxon Mobil, slip op. at 51; Essex Chem., 2012 N.J. Super. Unpub. LEXIS 593, at *18 (“The [trial] court found that [NJDEP] had not shown that their proposed [primary restoration] plan would justify the cost, or that the public would be harmed if Essex proceeded with its bioremediation plan. We are satisfied that there is sufficient credible evidence in the record to support the court’s findings.”).

Taken together, both Exxon Mobil and Essex Chemical strongly suggest that NJDEP cannot recover primary restoration damages if the restoration plan seeks to return the natural resource to a pre-discharge condition in a manner that does not fairly consider site-specific conditions, previous remediation work, and whether the benefits of the primary restoration plan outweigh its costs.

D. Natural Resource Service Losses Must Be Proven

At trial, NJDEP “took the position that the mere presence of contamination not only automatically equaled an ‘injury,’ but that it equaled a 100% injury” of natural resources. Exxon Mobil, slip op. at 58. This position was not new or unexpected: NJDEP has repeatedly asserted that injury alone entitles it to recovery of NRDs. See, e.g., N.J. Dep’t of Envtl. Prot. Office of Nat. Res. Restoration, http://www.nj.gov/dep/nrr/nri/nri_gw.htm (“Ground water injuries should be characterized during the remedial investigation process. This process must delineate the horizontal and vertical extent of contaminants. . . . Once characterization is complete, it is used in the ground water injury calculation to determine resource value.”).
As part of its “reasonableness” evaluation of the consent judgment, the court noted that NJDEP’s position that contamination equals 100 percent natural resource injury was inconsistent with the agency’s own regulations. Pursuant to the Technical Requirements for Site Remediation (Tech Regs)—which apply to Spill Act cases [N.J.A.C. 7:26E-1.3; N.J.A.C. 7:26C-1.4(a)(4)]—an “injury” is “any adverse change or impact of a discharge on a natural resource or impairment of a natural resource service, whether direct or indirect, long term or short, and that includes the partial or complete destruction or loss of the natural resource of any of its value.” N.J.A.C. 7:26E-1.8.

This definition, the court held, leads to two conclusions. First, NJDEP cannot merely assume that the presence of contamination necessarily results in an “adverse change or impact” on a natural resource or the “impairment of a natural resource service.” Instead, NJDEP must prove an alleged adverse change or impairment. Exxon Mobil, slip op. at 58. Second, an “injury” expressly contemplates a “partial . . . destruction or loss” of a natural resource (i.e., “losses of natural resources or their services that can be less than 100%”). Id. at 59. Consequently, NJDEP must prove the extent of any natural resource injury and service loss in order to satisfy its burden of proof, which is consistent with federal NRD regulations. See 43 C.F.R. § 11.13(e)(2) (“The purpose of [the quantification] phase is to establish the extent of the injury to the resource in terms of the loss of services that the injured resource would have provided had the discharge or release not occurred.”).

V. Takeaways

The Exxon Mobil consent judgment opinion clarifies NJDEP’s burden of proof to recover NRDs in two critical respects, both of which are likely to make NRD damage calculations more realistic and appropriate in the future.

First, NJDEP must prove the extent of any alleged natural resource injuries (i.e., natural resource service losses) and cannot merely assume that any amount of contamination results in a 100 percent service loss to the natural resource. This requirement will likely force NJDEP to focus its NRD litigation on the most significant natural resource injuries—situations where the anticipated NRDs to be recovered in litigation outweigh the cost of the agency (and its experts) performing a detailed natural resource damages assessment to identify and quantify the natural resource service losses.

Second, NJDEP must prove that the primary restoration plan underpinning its calculation of primary restoration damages is “practicable,” which will require NJDEP to consider the investigative and remedial work already performed at the site, site-specific conditions that may limit primary restoration, and the environmental benefits likely to accrue from primary restoration in comparison to the costs. Importantly, the “practicability” requirement also is likely to reduce the unfairness of NJDEP’s prior approach, where responsible parties worked cooperatively with SRP personnel to implement a remedial strategy only to have the ONRR division of NJDEP second-guess that approach and require additional remedial work as primary restoration.

These newly clarified requirements may enhance the prospects for NRD settlements and cause NJDEP to limit its NRD litigation to only those sites where the time and expense of preparing a case to prove both natural resource service losses and the cost-effectiveness or “practicability” of a primary restoration plan are justifiable given the agency’s resource and budgetary constraints.

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Decades of fire-suppression policy enacted in the western United States have slowly altered the forest ecosystems. These policies have increased vegetation density present in today’s forests, resulting in dangerous wildfire conditions. Coupled with the significant droughts that have stricken the west, wildfires now burn faster, hotter, and longer once sparked. Unfortunately, the evolutionary adaptations that allow vegetation to withstand more moderate fires cannot protect against these more serious burns.

As the nature of wildfires has changed, so has the nature of wildfire litigation. Injured landholders are now able to seek damages for multiple categories of injury, such as the loss of animals, wildlife habitats, aesthetics, scenic use, soils and sediment management, water quality, and recreation. Furthermore, the associated costs for these injuries are escalating. Two landmark wildfire cases illustrate the rate at which wildfire damage assessment and injury calculations are changing—the Storrie fire and the Copper fire, both in the state of California.

Storrie Fire

On August 17, 2000, Union Pacific workers repairing a stretch of railroad sparked a 51,000+ acre fire that burned through the Plumas and Lassen National Forests in northeastern California. Nearly half of the damaged acres were located in national forest lands; this included habitat for spotted owls, important predator species, and approximately 9000 acres of old growth forests. The Storrie fire resulted in a record $102 million settlement between the Union Pacific railroad and the federal government. U.S. Forest Serv., Storrie Fire Restoration: FY2010 Annual Report for Lassen and Plumas National Forests, available at https://fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5281438.pdf.

In addition to compensating for firefighting costs and the price of lost timber, the settlement also included $80 million for restoration costs and payment for the loss of public scenery and habitat for key wildlife species, including bald eagles, spotted owls, goshawks, and numerous fish and amphibians living in impacted waterways. The court held the federal government was entitled to full compensation for all damages that were a result of negligent conduct. United States v. Union Pac. R.R. Co., 565 F. Supp. 2d 1136, 1143 (E.D. Cal. 2008). Plaintiffs quantified damages to natural resources in federal forestlands using a habitat equivalency analysis (HEA) approach. HEA is a mathematical model that calculates discounted natural resource losses and scales restoration projects to provide equivalent natural resource service gains. This methodology was deemed admissible by the U.S. district court in California in the 2008 ruling, which took into account “the unique character of the land at issue” and subsequently that “diminution in market value is not a reasonable method of ascertaining the damages to the unique land at issue.” Id. The HEA was applied to 19,500 acres of burnt forestland and calculated environmental losses of $13.2M, or approximately $677/acre burnt.

This case established that a HEA approach could be employed by plaintiffs to support damage claims to ecosystem function and services following a wildfire comparable to the application of the methodology in natural resource damage cases brought under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Oil Pollution Act (OPA).

Copper Fire

On June 5, 2002, a crew of workers constructing water storage tanks for the city of Santa Clarita,
California, were cutting and grinding metal components when sparks produced by the electric grinder fell onto dry brush and sparked a wildfire. Fire quickly spread to the Angeles National Forest, which acts as a key refuge for a number of threatened and endangered species in an increasingly urbanized southern California landscape. By the time of containment on June 11, 2002, the Copper fire burned through 18,000 acres of national forest lands.

Expert witnesses called upon by the government testified to the degree of environmental harm caused by the wildfire. This included loss of chaparral and sage scrub ecosystems, loss of soil stability, increased incidence of flooding, and injury to threatened and endangered species such as the California condor, the bald eagle, and the California red-legged frog. Government experts, however, did not testify to the monetary value of these environmental damages, stating that “the environmental damages are ‘not susceptible to empirical calculation’ because they are ‘measured by their value to the public and for posterity.’” United States v. CB & I Constructors, Inc., 685 F.3d 827, 837 (9th Cir. 2012). Subsequently, the government left economic quantification of damages to the jury, recommending that they either apply a multiplier to the economic damages to account for environmental damages or determine a price per acre for lands burned within the national forest. The jury awarded the government a total of $28.8 million for the intangible damage to the environment, or $1600 per burned acre in the Angeles National Forest.

**Valuation of Losses and the Challenges of HEA**

Subsequent to the cases cited above, Exponent assessed the manner in which HEA was being applied to wildfire cases. See Charles Menzie et al., *Seeing the Forest Through the Trees: NRD and Dynamic Ecosystems*, ABA TOXIC TORTS AND ENVIRONMENTAL LAW COMMITTEE NEWSLETTER, Winter 2012. We argued that while HEA can serve as an organizing framework, there are enormous pitfalls and misconceptions when applying it to wildfire cases in a manner similar to what had been applied to oil and chemical spills. Most significantly, the HEA applications have missed key ecological considerations that involve the natural relationships between forest and fires and the dynamic nature of forest ecosystems. These, in our opinion, have led to gross overestimates of damages.

The key lesson from the Copper fire litigation is that valuation of damages for intangible losses to natural resources can be extreme and unpredictable if left to a jury decision. Procedures such as HEA appear to offer a more objective means for arriving at a quantification of damages than can be obtained from the judgment of jurors. However, that first impression can be deceiving and without careful consideration of all factors, and a HEA analysis can yield results that are simply wrong. Unlike application of HEA in damage cases for oil spills or releases of hazardous substances, there are several important factors related to fire ecology in forests that are not addressed in the traditional HEA process. Failure to include these factors can result in an over-estimation of losses.

A key concept in HEA is that it calculates the value of interim losses until a habitat returns to the baseline condition. In the context of application of HEA to oil spills or chemical releases, baseline, although often challenging to delineate, is simple to understand; it is the condition of the habitat that existed before the spill or release. In these applications, the return to baseline is essentially a linear process. However, in the case of a forest ecosystem, baseline is a much more fluid concept. Forests are successional ecosystems where successional stages support different assemblages of wildlife and vegetation and provide different ecological services. Fire suppression policies in the western United States have imposed an external stressor on forest ecosystems that has prevented development of typical temporal and spatial patterns of forest heterogeneity. Therefore, the preexisting condition often does not reflect a natural baseline. If the projection used in a HEA
model is that interim services are lost until the time a late-successional habitat is restored, then this approach will fail to capture the gains in service flows derived from earlier successional habitats, which potentially would result in an overestimation of compensatory habitat required.

Another critical issue is the choice of metric used in a HEA to scale service losses. The metric should be a feature of the habitat that expresses the services provided and which can be scaled to a corresponding metric used to calculate amount of restoration required. For example in an event where an oil spill coats a tidal marsh, the metric for evaluating injury and restoration may simply be acres of marsh oiled. In the case of a complex ecosystem such as a forest, it is much more difficult to identify one habitat feature that adequately represents all the lost services. In the case of the Storrie fire, the metric selected to quantify losses was the diameter of trunks of mature trees lost in the blaze. Trunk diameter is commonly measured by foresters and provides insight regarding forest structure and harvest potential of standing stock. However, it is not intuitively apparent how tree diameter represents a suitable proxy to measure losses to key wildlife species affected by the fire. The result is that the link between services lost through fire and damages applied is not established and it is unclear whether the damages amount is commensurate with the service losses.

Although a traditional HEA approach is not an accurate model for defining ecological losses following wildfires, a scientifically defensible mathematical model of ecological injury and recovery would prove useful in quantifying wildfire damages. For instance, an appropriate wildfire model should account for relevant pre- and post-burn ecological characteristics of the ecosystem to ensure that it is correctly applied and that damage quantification is accurate. Key ecological considerations that may benefit wildfire damage assessments include:

1. Identification of various ecological services affected by the fire, with particular attention to endangered species and their habitats;
2. Definition of the baseline condition of those services, recognizing that baseline conditions may differ spatially and temporally over the full extent of burnt habitat and have been affected by historical forest management;
3. Evaluation of appropriate metrics for scaling losses to affected services, recognizing that multiple metrics, and multiple models, may be required to account for all key services;
4. Incorporation of the ecological services provided by post-burn successional habitats with consideration of the projected post-recovery habitat composition; and
5. Identification of appropriate restoration options and the magnitude of restoration required to offset losses.

In conclusion, the complex effects of wildfires complicate the assessment of damages to impacted ecosystems. Decades of fire suppression have altered the landscape, increasing the severity and extent of wildfire damage; yet, at the core, wildfires are natural stressors with established successional recovery patterns. Forest ecosystems require periodic fires and have evolved in concert with them. In fact, wildland fires often serve as a “reset” button to return the ecosystems to their natural state. The positive ecosystem benefits of wildfire disturbances preclude the application of standard HEA methods, because most natural resource damage models homogenize the random recovery of a disturbed forest ecosystem and dictate the end state of succession. Therefore, while HEA models are relatively straightforward methods for oil spill- or toxicant-impacted sites, traditional HEA models are inadequate to model injury and recovery following wildfires. However, consideration of fundamental ecological premises and concepts may improve the accuracy of wildfire injury and recovery calculations, if correctly applied. As evidenced by the Copper fire decision, ecosystem services losses need scientific quantification to avoid implementation of multipliers and/or per-acre damages by a jury. Hence, although complicated,
a scientific modeling assessment of ecosystem service losses following wildfires may be essential to appropriately quantifying damages.

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