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UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL and the TOXIC SUBSTANCES CONTROL ACCOUNT,

Plaintiffs,

v.

NL INDUSTRIES, INC., et al.,

Defendants.

No. 2:20-cv-11293-SVW-JPRx

PLAINTIFFS' PRETRIAL BRIEF FOR PHASE III DIVISIBILITY TRIAL

Judge:	Stephen V. Wilson
Action Filed:	December 14, 2020
Trial Date:	August 1, 2023, at 9 a.m.

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I. Introduction

The remaining Defendants are presumed to be jointly and severally liable under CERCLA for Plaintiffs' response costs. Now, each Defendant seeks to avoid joint and several liability with the affirmative defense of divisibility. This rarely proved, scientifically demanding, and intensely factual defense addresses whether "there is a reasonable basis for determining the contribution of each cause to [the] single harm." *See Burlington N. & Santa Fe Ry. Co. v. United States* (*BNSF*), 556 U.S. 599, 614 (2009) (quotations omitted).

Defendants do not come close to meeting their heavy burden under controlling precedent. Critically, Defendants' experts offer only incomplete divisibility analyses that contravene the Ninth Circuit's command that a defendant must account for "the *entirety* of contamination at a site." *See Pakootas v. Teck Cominco Metals, Ltd. (Pakootas IV)*, 905 F.3d 565, 592 (9th Cir. 2018) (emphasis added). This failure alone is fatal to Defendants' divisibility defenses, which also suffer from other incurable flaws. Defendants' faulty divisibility analyses reflect that the relevant contamination at the Vernon Plant and in the Industrial Area—a complicated site with an incomplete history that experiences commingled contamination caused by nearly nine decades of industrial activities—defies any attempt to develop a rational and complete divisibility framework.

Even though Defendants do not prove divisibility, the Court will soon have an opportunity to reconsider Defendants' arguments during the forthcoming equitable allocation phase. There, the Court will have "broad discretion" to adjudge the parties' relative fault "using such equitable factors as the court determines are appropriate," instead of under the rigid apportionment framework that governs now. *See TDY Holdings, LLC v. United States*, 885 F.3d 1142, 1147, 1149 (9th Cir. 2018) (quotations omitted); *see also Pakootas IV*, 905 F.3d at 596 (noting that an unsuccessful divisibility proponent can instead make equitable allocation arguments under CERCLA Section 113(f)).

To summarize: the defense experts take conflicting and inconsistent approaches to divisibility, but their analyses share a few common points of failure. First, Defendants' experts use the wrong unit of analysis for their divisibility analyses. The Ninth Circuit's instructions are clear: any divisibility analysis should apply a two-step apportionment test to "*the entirety of contamination at a site*." *Pakootas IV*, 905 F.3d at 592 (emphasis added). None of Defendants' experts apply the two-step apportionment test to the entirety of the contamination at hand—the contamination at the Vernon Plant and in the Industrial Area.[1]

Instead, at best, Defendants' experts attempt to apportion liabilities for small subsets of the entirety of the contamination. Even though some out-of-circuit courts have recognized this approach of splitting the entire harm at a contaminated site into sub-harms, the Ninth Circuit has not. In any event, no defense expert has satisfied the heavy burden that out-of-circuit courts have imposed on parties that seek to split the entire harm at a contaminated site into sub-harms.

Second, Defendants' divisibility analyses are incomplete. As discussed, the Ninth Circuit has required a divisibility analysis to account for "*all of the harm*," or contamination. *Id.* at 594 (quotations omitted) (emphasis added). The defense experts—both individually and collectively—ignore key sub-harms (i.e., they ignore important aspects of the contamination at the Vernon Plant and in the Industrial Area). Defendants therefore do not satisfy their burden under controlling precedent.

Also, most of the defense experts assess only the causal contributions of the party or parties that retained them. But the Supreme Court has held that "[a] defendant asserting a divisibility defense must show that 'there is a reasonable basis for determining the contribution of *each cause* to a single harm.'" *Pakootas IV*, 905 F.3d

[1] *See* ECF No. 854 at 2 (Court's order describing its holding after the Phase II trial that Plaintiffs proved release causation for the Vernon Plant's above-ground structures, soil, and groundwater down to the Bellflower Aquiclude, and for the Industrial Area).

at 595 (quoting *BNSF*, 556 U.S. at 614) (emphasis added); *accord* ECF No. 103 at 4 (July 19, 2021 Order). The defense experts' incomplete analyses of causation prevent the Court from conducting a sufficiently robust divisibility analysis that considers each contributor.

Third, no Defendant attempts to divide the harm caused by federally permitted releases from the harm caused by non-federally permitted releases. This is fatal to Defendants' federally permitted release defense.

For these and other reasons that Plaintiffs will present at the Phase III trial, no Defendant satisfies their substantial burden to prove divisibility. Therefore, Defendants are jointly and severally liable for Plaintiffs' response costs under CERCLA. The Court may rely on equitable principles to determine the parties' relative fault at a future phase of this litigation.

II. Legal Standards

A. Defendants Bear a Substantial Burden on a Rarely Successful Defense.

After the Phase II trial, the Court held that Plaintiffs had established the seven remaining Defendants'[2] *prima facie* liability under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). *See* ECF No. 854 at 1. For such defendants, "CERCLA liability is ordinarily joint and several, except in the rare cases where the environmental harm to a site is shown to be divisible." *Pakootas IV*, 905 F.3d at 588.[3]

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[2] Clarios, LLC ("Clarios"); Gould Electronics Inc. ("GEI"); Kinsbursky Bros. Supply, Inc. ("KBI"); NL Industries, Inc. ("NL"); Oregon Tool, Inc. (f/k/a Blount, Inc.) ("Oregon Tool"); Ramcar Batteries, Inc. ("Ramcar"); and Trojan Battery Company, LLC ("Trojan"). *See* ECF No. 854 at 1.

[3] Because the California Hazardous Substances Account Act ("HSAA") does not impose true joint and several liability, there is no divisibility defense under the HSAA. *See Fireman's Fund Ins. Co. v. City of Lodi*, 302 F.3d 928, 946 (9th Cir.

Under Ninth Circuit precedent, a defendant seeking divisibility must show (1) that the "relevant 'harm'"—"the entirety of contamination at a site that has caused or foreseeably could cause a party to incur response costs"—"is theoretically capable of apportionment," and (2) if so, that "the record provides a 'reasonable basis' on which to apportion liability." *Pakootas IV*, 905 F.3d at 588–89, 592 (citing *Restatement (Second) of Torts* § 433A(1)(b) (Am. L. Inst. 1965)). These two steps, which tend to merge in practice,[4] together address the ultimate question of whether "there is a reasonable basis for determining the contribution of each cause to [the] single harm." *BNSF*, 556 U.S. at 614 (quotations omitted).

The first step is "primarily a question of law" that depends on "certain embedded factual questions that must necessarily be answered." *Pakootas IV*, 905 F.3d at 588–89. These factual questions include (1) the "type of pollution [that] is at issue," (2) "who contributed to that pollution," and (3) "how the pollutant presents itself in the environment after discharge." *Id.* at 589 (quoting *United States v. NCR Corp.*, 688 F.3d 833, 838 (7th Cir. 2012)). The defendant must provide "details about the nature of the harm," such as "when the pollution was discharged to [the] site," the location of the pollutants, and the "substances' chemical and physical properties." *Id.* at 591 (quotations omitted). Those properties include "the relative toxicity, migratory potential, degree of migration, and synergistic capacities of the hazardous substances at the site." *Id.* (quotations omitted).

2002). Instead, the HSAA has other doctrines that may limit a defendant's liability, including equitable allocation, that a defendant may invoke to limit the amount of response costs they pay. *See* Cal. Health & Safety Code § 25366.

[4] *See Von Duprin LLC v. Major Holdings, LLC*, 12 F.4th 751, 763 (7th Cir. 2021) ("Although the case law has described these [divisibility] inquiries as proceeding in two distinct steps, it is often easier and more practical to think of them as blending together and interrelated.").

The second step, which is "purely a question of fact," addresses whether the record provides a reasonable basis to apportion liability. *Id.* at 589. Methods of apportionment vary with the facts of each case but are "most commonly [based on] volumetric, chronological, or geographic factors." *Id.* at 595. In all cases, "the record must support a reasonable assumption that the respective harm done is proportionate to the factor chosen to approximate a party's responsibility." *Id.* (quotations omitted).

"At both steps," a defendant's burden "is 'substantial' because the divisibility analysis is 'intensely factual.'" *Id.* at 589 (citation omitted). "The necessary showing requires a fact-intensive, site-specific assessment, generating concrete and specific evidence." *Id.* (quotations and citation omitted). That rigorous analysis assures the court that the defendant has developed and proved a rational method to accurately measure each contributor's role in causing the overall harm. *Cf. BNSF*, 556 U.S. at 614, 615 n.9 (a defendant must "determin[e] the contribution of each cause to a single harm" and "establish[] a fixed amount of damage for which they are liable" (quotations omitted)).

"[P]roving divisibility is a very difficult proposition" because site contamination is "by [its] very nature . . . normally incapable of any logical, reasonable, or practical division." *United States v. Hercules, Inc.*, 247 F.3d 706, 717 (8th Cir. 2001) (quotations omitted).[5] "As a practical matter, joint and several liability often reflects the norm in complex environmental cleanup cases because most circumstances reveal numerous disposers of waste over long periods of time where after-the-fact identification of who contributed what and thus who caused what portion of the present-day harm at issue is exceptionally difficult to ascertain with reliability."

[5] *Accord Metro. Water Reclamation Dist. of Greater Chi. v. N. Am. Galvanizing & Coatings, Inc.*, 473 F.3d 824, 827 n.3 (7th Cir. 2007) ("The only exception to joint liability is when the harm is divisible, but this is a rare scenario."); *Chem-Nuclear Sys., Inc. v. Bush*, 292 F.3d 254, 261 (D.C. Cir. 2002) (divisibility is a "very difficult proposition" (quotations omitted)).

Von Duprin LLC, 12 F.4th at 763. As the Court is aware, that is precisely the case for the Vernon Plant and the Industrial Area, which were polluted by the Plant's activities over a nearly nine-decade operational period.

In *Pakootas IV*, the Ninth Circuit emphasized the rarity of successful divisibility defenses. It observed that a scholarly survey had "count[ed] only four decisions finding divisibility out of 160 cases"—fewer than three percent. *See Pakootas IV*, 905 F.3d at 588 (citing Martha L. Judy, *Coming Full CERCLA*, 44 New Eng. L. Rev. 249, 283 (2010)). The court stressed that a proponent of divisibility must methodically account for a wide range of factors to prove divisibility and lauded the district court because it had "properly 'refused to make an arbitrary apportionment for its own sake.'" *See id.* at 596 (quoting *BNSF*, 556 U.S. at 614–15).

B. The Divisibility Analysis Must Consider the *Entirety* of Site Contamination.

Divisibility focuses on "the environmental harm to a site." *Pakootas IV*, 905 F.3d at 588. The Ninth Circuit has admonished that the proper unit of analysis—"the relevant 'harm'"—"is *the entirety of contamination at a site* that has caused or foreseeably could cause a party to incur response costs." *Id.* at 592 (emphasis added). Thus, any divisibility argument that ignores some subset of the harm at a contaminated site is incomplete.

Pakootas IV underscores this point. There, the Ninth Circuit confronted river contamination that had settled on the riverbed, deposited on the banks, built up in the sediment, and polluted the water itself. *See id.* at 572–73. A defendant offered the testimony of a divisibility expert who proposed "two methods for apportioning liability for the River's pollution," as well as "a third possible method" that "he ultimately did not use." *Id.* at 587–88. The first method examined only metals contamination in the river's sediment; the second method considered only the water itself; and the third method would have covered "any 'placement of hazardous substances'" in the river system. *Id.* at 587–88.

The Ninth Circuit rejected the first two methods because they did not comport with the principle "that the presence of contaminants throughout the Site is the relevant harm." *Id.* at 592. The expert, the court noted, should have used but did not use the "third apportionment method." *Id.* Also, the expert's analysis was incomplete because he had failed to consider whether there was a threat of a further release of the hazardous substances already in the river system and to account for the presence of deeper contaminated layers of sediment. *See id.* More significantly, the expert had failed to consider that different wastes were physically commingled at the site. *See id.* at 592–93. Ultimately, instead of providing a comprehensive apportionment analysis, the defendant had myopically "consider[ed] the effects of its waste in isolation from the other contaminants at [the] site" and thereby failed to meet its burden to prove divisibility. *Id.* at 593 (quoting *United States v. Alcan Aluminum Corp.*, 315 F.3d 179, 187 (2d Cir. 2003)). And the Ninth Circuit "fully agree[d] with the district court that 'because [the defendant] ha[d] failed to account for *all of the harm* at the [river] Site, it cannot prove that harm is divisible.'" *Id.* at 594 (emphasis added).

C. The Ninth Circuit Has Not Recognized that a Site's Contamination May Be Divided into Multiple, Distinct Sub-Harms.

The Ninth Circuit in *Pakootas IV* applied the two-step divisibility test to the entirety of the contamination at a site. 905 F.3d at 588, 592 (holding that "[t]he divisibility analysis involves two steps"). None of Defendants' experts have similarly applied the two-step test to the totality of the contamination at hand.

Instead, the defense experts have focused on subsets of contamination at the Vernon Plant and in the Industrial Area. Accordingly, Defendants necessarily rely on out-of-circuit cases holding that, instead of applying the two-step divisibility test to the entirety of the contamination at a site, a defendant may attempt to split the contamination into multiple, distinct sub-harms for apportionment purposes. *See, e.g.*, *Hercules, Inc.*, 247 F.3d at 717–18. Plaintiffs have searched for—and been unable to locate—Ninth Circuit district court decisions that adopt this harm-splitting approach.

That is perhaps unsurprising because this approach is in tension with the *Pakootas IV* court's insistence that any apportionment analysis must focus on "the entirety of contamination at a site" or "the overall site contamination." *See* 905 F.3d at 592 (quotations omitted).

Even if the Court were to permit the Defendants to attempt to prove divisibility by splitting the entirety of the contamination into sub-harms, out-of-circuit courts—as discussed below—have imposed a heavy burden on defendants who advocate for such splitting. Typically, those courts have required defendants to meet a "substantial burden" "requiring concrete and specific evidence of causation of separate and distinct harms to the environment." *New York v. Next Millennium Realty, LLC*, 160 F. Supp. 3d 485, 513 (E.D.N.Y. 2016) (quotations omitted). Defendants have not attempted to, and cannot, satisfy this burden.

D. Unsuccessful Divisibility Arguments May Be Reconsidered During the More Flexible Equitable Allocation Process.

The divisibility inquiry is technical, stringent, and inflexible. Courts refuse to water down the applicable requirements by "mak[ing] an arbitrary apportionment for its own sake," or injecting "equitable considerations" that do not belong in the analysis. *See BNSF*, 556 U.S. at 614, 615 n.9 (quotations omitted).

To safeguard defendants from unfair results, a court may reconsider unsuccessful divisibility arguments during the equitable allocation process. *See PCS Nitrogen Inc. v. Ashley II of Charleston LLC*, 714 F.3d 161, 182 (4th Cir. 2013) ("any inequity arising from the unavailability of apportionment" was "mitigate[d]" by the availability of equitable allocation); *Pakootas IV*, 905 F.3d at 596 (defendant's unsuccessful divisibility arguments could be reasserted as equitable allocation

arguments under CERCLA Section 113(f)).[6] Moreover, if any Defendant believes that a third party that is not part of this litigation (for example, another arranger or transporter that sent hazardous waste to the Vernon Plant) should pay for some portion of Plaintiffs' response costs, that Defendant may—as the Court has stressed—assert third-party contribution claims in this action or a separate contribution action. *See* ECF No. 103 at 8 (July 19, 2021 Order) ("[I]f Defendants seek to establish the liability of the absent owners in this proceeding or another, they may bring a third-party complaint under Rule 14 or a separate contribution action under 42 U.S.C. § 9613(f).").

Finally, Defendants might argue that it is inequitable that Exide Technologies—the Plant's final owner and operator—went bankrupt and abandoned the Vernon Plant because of "mounting" environmental liabilities, leaving others to pay for response costs. *See In re Exide Holdings, Inc.*, No. 20-11157-CSS, 2021 WL 3145612, at *1 (D. Del. July 26, 2021). But the Delaware bankruptcy court accounted for the Vernon Plant cleanup when confirming Exide's bankruptcy plan and made available a substantial amount of Exide's money to pay for cleanup costs. *See id.* at *2, *9–11. In other words, Exide may be absent from this litigation, but it has been taken into account.

In any event, Exide's absence from this litigation is not a legally relevant reason to find divisibility or otherwise depart from CERCLA's joint and several liability framework. One of Congress's "primary purposes" in passing CERCLA was to solve the problems associated with "abandoned waste disposal sites" like the Vernon Plant; Congress established CERCLA's strict liability scheme to help shift "the ultimate cost of cleaning up these disposal sites" from the public to responsible parties like the

[6] *Cf. Von Duprin LLC*, 12 F.4th at 767 ("It seems easiest to think of the [equitable] allocation analysis as more flexible and softer than the apportionment [i.e., divisibility] analysis . . . .").

Defendants. *Kaiser Aluminum & Chem. Corp. v. Catellus Dev. Corp.*, 976 F.2d 1338, 1340 (9th Cir. 1992). Therefore, Exide's bankruptcy only underscores the importance of "constru[ing] CERCLA liberally to achieve these goals." *Id.*

III. Argument

Defendants cannot show that the contamination at and surrounding the Vernon Plant falls within the fewer than three percent of cases where the harm is divisible. *Cf. Pakootas IV*, 905 F.3d at 588 (citing Judy, *Coming Full CERCLA*, 44 New Eng. L. Rev. at 283). The Vernon Plant and Industrial Area are precisely the sort of site where the contamination is not readily divisible. Perhaps because of this difficulty, Defendants' experts try to apply divisibility principles to purported sub-harms or subsets of the contamination rather than the entirety of the contamination at the Vernon Plant and in the Industrial Area. As explained, only out-of-circuit courts have recognized this approach. And in any event, Defendants' experts have not even attempted to satisfy the requirements that these out-of-circuit courts have imposed upon CERCLA defendants to show that some aspect of contamination is a separate, distinct sub-harm for apportionment purposes.

Defendants' divisibility analyses are also impermissibly incomplete. None of the Defendants "account for *all of the harm* at" the Vernon Plant and in the Industrial Area. *See id.* at 594 (emphasis added). And Defendants fail to properly account for "each cause" that contributed to the harm at hand. *See id.* at 592 (quotations omitted). These incomplete analyses do not and cannot establish that the harm is theoretically capable of apportionment or that there is a reasonable basis in the record to apportion liability.

Finally, the defense experts' analyses are marred by a range of flaws. These shortcomings further demonstrate both that the contamination at the Vernon Plant and in the Industrial Area is not theoretically capable of apportionment, and that Defendants have not identified a reasonable basis in the record to measure each contributor's role in causing that harm.

A. This Is Precisely the Sort of Site Where the Contamination Is Not Readily Divisible.

Defendants cannot prove divisibility because the contaminated area—the Vernon Plant and the Industrial Area[7]—is not the sort of site where harm is theoretically capable of apportionment, or for which there is a reasonable basis in the record to apportion liability. Indeed, the commingling of contamination here gives rise to a presumption that apportionment is impossible.

The case law shows that proving a divisibility defense is difficult verging on impossible where complicating factors prevent a defendant from accurately apportioning causal responsibility for contamination. These factors include:

- Where different sources and types of pollution have become commingled. In such circumstances, there is a rebuttable presumption that apportioning liability is infeasible. *See Pakootas IV*, 905 F.3d at 592–93 ("Mixing of pollutants . . . does create a rebuttable presumption of [indivisible] harm.").[8] The presumption is especially strong where pollutants have different toxicity levels and migratory potential.[9]
- The presence of "numerous disposers of waste over long periods of time," such

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[7] The relevant contaminated area is that which reflects "*the entirety of contamination at a site that has caused* or foreseeably could cause *a party to incur response costs*, suffer natural resource damages, or sustain other types of damages cognizable under section 107(a)(4)." *Pakootas IV*, 905 F.3d at 592. The Court found after the Phase II trial that CERCLA's release-causation element (that releases from the Vernon Plant caused Plaintiffs to incur response costs) was satisfied as to the Vernon Plant, its topsoil, its subsurface down to the Bellflower Aquiclude (i.e., excluding the Exposition Aquifer), and the Industrial Area. *See* ECF No. 854 at 2.

[8] *Accord In re Bell Petroleum Servs., Inc.*, 3 F.3d 889, 901 (5th Cir. 1993) (divisibility arguments "rarely succeed" when there is commingling).

[9] *See Chem-Nuclear Sys., Inc. v. Bush*, 139 F. Supp. 2d 30, 38 (D.D.C. 2001) ("[W]here wastes of varying (and unknown) degrees of toxicity and migratory potential commingle, it simply is impossible to determine the amount of environmental harm caused by each party." (quotations omitted)).

that "after-the-fact identification of who contributed what and thus who caused what portion of the present-day harm at issue is exceptionally difficult to ascertain with reliability." *See Von Duprin LLC*, 12 F.4th at 763.

- Where the contaminated area is geographically large, and where there are many liable parties. *See Pakootas v. Teck Cominco Metals, Ltd.* (*Pakootas II*), 868 F. Supp. 2d 1106, 1119 (E.D. Wash. 2012) (noting that the U.S. Supreme Court's finding of divisibility in *BNSF* occurred only under "unique facts" where there were only "two small parcels of property" totaling 4.7 acres at issue, and only two liable parties were at stake), *aff'd*, *Pakootas IV*, 905 F.3d 565.
- Where the materials sent to a contaminated site contained different types and concentrations of hazardous substances. *See id.* at 1118–19.
- Where the character of pollution-causing operations evolved with time and hazardous substances were released into the environment at different rates over time. *See id.* (distinguishing *In re Bell Petroleum Servs., Inc.*, 3 F.3d at 901–03, which found divisibility at a simple site involving only one pollutant that affected only groundwater, and where the three successive owners of the only pollution source had "conducted essentially the same operations").
- Where hazardous "materials were moved from location to location" at a site. *See United States v. Cap. Tax. Corp.*, 545 F.3d 525, 535 (7th Cir. 2008).[10]
- Where the historical record of hazardous substance releases and contamination at a site is incomplete. *See Von Duprin LLC*, 12 F.4th at 765 (rejecting divisibility defense because "the record d[id] not establish when or in what amounts any of this pollution occurred").

[10] *Accord PCS Nitrogen Inc.*, 714 F.3d at 183 (affirming district court's determination that divisibility analyses must account for "*both* the initial disposals of hazardous substances *and* any secondary disposals that occurred over time").

All of these complicating factors are present at the Vernon Plant and in the Industrial Area, making the harm theoretically incapable of apportionment and depriving the Court of a reasonable basis in the record to apportion liability. As Plaintiffs' experts Dr. Frederic Quivik and Dr. W. Richard Laton explain, the contamination at the 13.5-acre Vernon Plant and in the abutting Industrial Area is the product of nearly nine decades of industrial activities. Critically, the Vernon Plant itself changed and evolved significantly over its history because of construction, demolition, and expansion activities. Multiple industrial activities were conducted at different locations at the Vernon Plant over time, including an older secondary lead smelter in the South Yard, a newer secondary lead smelter in the North Yard, an aluminum secondary smelter, a metal extrusion operation, and industrial disposal pits.

These industrial activities involved many different processes that released pollution. Lead-bearing hazardous waste was received and stored; lead-acid batteries were broken apart; sulfuric acid from batteries and slag from smelting activities were dumped; the volatile organic compound trichloroethylene ("TCE") was spilled or dumped during metal extrusion; lead-bearing materials were smelted and refined; lead and other heavy metals were released to the air through both process and fugitive emissions; and waste was stored in piles or buried in pits at the Plant. Over the decades, the Plant had several owners—NL's predecessor Morris P. Kirk & Son, Inc.; NL; GEI's predecessor Gould Inc. ("Gould"); GNB Inc.; and Exide Technologies. During this time, many generators and transporters delivered their waste to the Vernon Plant, including all five of the arranger/transporter Defendants (Clarios, KBI, Oregon Tool, Ramcar, and Trojan).

The historical record of the activities at the Vernon Plant is incomplete. Indeed, none of the experts can state with confidence the year in which the Plant began operating in the South Yard, or the year that activities began in the West or North Yards. However, it is well-established that between the 1920s and the 2010s, industrial

processes at the Plant evolved, releasing hazardous substances at different rates and in different areas.

These Vernon Plant operations have undisputedly caused pervasive and commingled contamination at the Vernon Plant and in the Industrial Area.[11] For example, soil contamination is present at a wide range of depths. Acidic conditions caused by sulfuric acid dumping have caused lead and other heavy metals to mobilize and migrate downward. Hazardous substances have been—or may have been—redistributed due to industrial processes; subsurface migration; demolition and construction activities; and other processes. *Cf. Pakootas IV*, 905 F.3d at 592–93 ("Mixing of pollutants . . . does create a rebuttable presumption of [indivisible] harm.").

Therefore, the Vernon Plant and the Industrial Area comprise precisely the sort of contaminated site where apportionment is nearly impossible. At minimum, the commingling of contamination creates a presumption that apportionment is infeasible.

B. No Defendant Has Justified Dividing the Contamination into Separate Sub-Harms.

As discussed, the Ninth Circuit has recognized only a two-step divisibility test that applies to the entirety of the contamination at a site. *Pakootas IV*, 905 F.3d at 588, 592 ("The divisibility analysis involves two steps"). However, no Defendant applies the two-step test to all the contamination at the Vernon Plant and in the Industrial Area. Instead, the defense experts split the contamination up and address subsets of it in isolation. For example, some defense experts separately address the contamination in each of the Vernon Plant's different "yards," or separately analyze the Plant's above-ground, subsurface, soil gas, and groundwater pollution.

[11] Except for the groundwater beneath the Bellflower Aquiclude, pursuant to the Court's order following the Phase II trial. *See* ECF No. 854 at 2.

Accordingly, Defendants' divisibility theories necessarily depend on the aforementioned, out-of-circuit case law recognizing that a defendant may attempt to split the entirety of site contamination into separate and distinct sub-harms for apportionment purposes. *E.g.*, *Hercules, Inc.*, 247 F.3d at 717–18. Even assuming this approach is available in the Ninth Circuit, no Defendant meets the heavy evidentiary burden that out-of-circuit courts have imposed for parties to prove that site contamination is comprised of separate and distinct sub-harms. As Plaintiffs have identified in earlier briefing, *see* ECF No. 531 at 13–17; ECF No. 575 at 3–4, out-of-circuit courts have required a defendant seeking to split site contamination into multiple sub-harms to satisfy a "substantial burden" "requiring concrete and specific evidence of causation of separate and distinct harms to the environment," *see Next Millennium Realty, LLC*, 160 F. Supp. 3d at 513 (quotations omitted). A defendant may not meet its "burden of demonstrating" the existence of "distinct harm[s]" by showing merely that the harm "can loosely be divided into [multiple] general [geographic] areas." *See Bd. of Cnty. Comm'rs of Cnty. of La Plata v. Brown Grp. Retail, Inc.*, 768 F. Supp. 2d 1092, 1117 (D. Colo. 2011). Rather, a defendant must show that a subset of contamination is spatially, chemically, and/or physically separate and distinct from the rest. *E.g.*, *Hercules, Inc.*, 247 F.3d at 717–18 (courts have found distinct harms when parties have proved "non-contiguous" areas of contamination or "separate and distinct [] plumes of groundwater contamination" (quotations omitted)); *Hatco Corp. v. W.R. Grace & Co.-Conn.*, 836 F. Supp. 1049, 1087 (D.N.J. 1993) ("[T]he harms must be separate and independent.").

Memphis Zane May Associates v. IBC Manufacturing Co., 952 F. Supp. 541 (W.D. Tenn. 1996), illustrates the weight of a defendant's burden to prove distinct sub-harms. There, the court found that certain defendants had borne the "difficult" burden of showing that two zones of groundwater contamination were distinct and separate sub-harms for divisibility purposes. *Id.*at 548. The defendants met this burden only with uncontroverted evidence of two non-"commingl[ed]" areas of groundwater

contamination comprised of "distinct pollutants that are geographically separated." *Id.*; *see United States v. Broderick Inv. Co.*, 862 F. Supp. 272, 277 (D. Colo. 1994) (similarly finding distinct sub-harms when a defendant submitted expert testimony establishing two separate groundwater pollution plumes "emanating from" two different areas that had not "merged with" each other).

Here, no Defendant has disclosed expert testimony showing separate and distinct sub-harms at the Vernon Plant and in the Industrial Area. The defense experts instead assume without any analysis that the contamination can be divided into sub-harms. That is insufficient.[12] Moreover, Defendants cannot prove the existence of distinct sub-harms because the Plant's three yards and the Industrial Area (and their structures, subsurface, and groundwater) have commingled contamination that were caused by a common set of polluting activities. At the Plant itself, pollution was likely moved across yards, and surface pollution migrated downward into the soil and—in many instances—into groundwater.

In sum, each Defendant's apportionment theory necessarily depends on dividing the Vernon Plant and Industrial Area's contamination into distinct sub-harms. Even if the Court were to follow the out-of-circuit law authorizing defendants to split the entirety of the contamination into sub-harms, no Defendant has developed expert testimony supporting such splitting.

C. Defendants' Divisibility Analyses Are Incomplete.

Attempting to avoid "grappling with the complexity inherent in a CERCLA cost-recovery case as wide-ranging as this one," *see Von Duprin LLC*, 12 F.4th at 765, Defendants offer expert opinions that are incomplete in two ways.

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[12] *Cf. Axel Johnson Co. v. Carroll Carolina Oil Co.*, 191 F.3d 409, 418 (4th Cir. 1999) ("Courts have uniformly refused to divide widely contaminated properties like the one at issue here into separate facilities in response to a party's claim to be responsible for contamination in only certain parts of the property.").

First, every Defendant falls short of their burden to prove that the harm is theoretically capable of apportionment because they fail to account for "*the entirety of contamination at a site* that has caused or foreseeably could cause [Plaintiffs] to incur response costs." *See Pakootas IV*, 905 F.3d at 592 (emphasis added); *accord id.* at 593 (defendant "did not carry its burden of showing that the harm is theoretically capable of apportionment by simply considering the effects of its waste in isolation from the other contaminants at a site" (quotations omitted)).

City of West Sacramento v. R and L Business Management, No. 2:18-cv-00900-WBS-EFB, 2020 WL 5545272, at *5–7 (E.D. Cal. Sept. 16, 2020), is illustrative. Even though that case involved a much smaller and simpler contaminated site, the district court rejected a defendant's divisibility defense because its expert had failed to account for the "entire harm," as *Pakootas IV* requires. *See id.* at *6. The defendant's expert had tried to perform an apportionment analysis for the entire 0.3-acre parcel that was the source of the contamination but had failed to account for possible contamination "beyond the property line." *See id.* at *1, *5–6. Thus, the defendant's apportionment analysis failed to "fully define[] the contamination at the Site," violating *Pakootas IV*'s command to account for the entirety of the contamination. *See id.* at *6.

So too here. None of Defendants' experts comprehensively analyze all the contamination at the Vernon Plant and in the Industrial Area that caused Plaintiffs to incur response costs. *See* ECF No. 854 at 2 (Court's release-causation finding). While some experts' analyses are broader than others, all of them are incomplete, as Plaintiffs detail below. For example, no defense expert assesses the contamination of exposed soils "beyond the property line" in the Industrial Area. *Cf. City of W. Sacramento*, 2020 WL 5545272, at *6. "Because [each Defendant] has not addressed the relevant harm"—the entirety of site contamination—"in the first instance, it has failed to establish as a matter of law that the relevant harm is a single harm divisible in terms of degree." *See Pakootas II*, 868 F. Supp. 2d at 1117. "Simply put, because

[each Defendant] has failed to account for all of the harm at the [] Site, it cannot prove that the harm is divisible ('theoretically capable of apportionment')." *Id.* at 1117–18 & n.13.

Second, most of the defense experts offer only incomplete analyses because they do not consider all the myriad causes of contamination. Divisibility requires a showing that "there is a reasonable basis for determining the contribution of *each cause* to a single harm." *See Pakootas IV*, 905 F.3d at 595 (quoting *BNSF*, 556 U.S. at 614) (emphasis added). However, rather than evaluating the various causes of the contamination, most of Defendants' experts focus on trying to absolve the Defendant or Defendants that retained them. The Ninth Circuit has disapproved of such an approach. *See Pakootas IV*, 905 F.3d at 593 (defendant "did not carry its burden of showing that the harm is theoretically capable of apportionment by simply considering the effects of its waste in isolation from the other contaminants at a site" (quotations omitted)). That is because a court cannot—either in theory or in practice—apportion liability without having a sufficiently complete understanding of the various contributors to that harm.

The following analysis details how each defense expert's analysis is incomplete.

Dr. William G. Cutler (KBI, Oregon Tool, Ramcar, and Trojan). Dr. Cutler, a geologist, fails to account for large swaths of the contamination at the Vernon Plant, and altogether fails to consider Industrial Area contamination. To the extent Dr. Cutler focuses on some of the contamination at the Plant, he fails to properly examine its causes.

Dr. Cutler states that the subsurface contamination of soil, soil gas, and groundwater at the Vernon Plant all occurred before 1986 because the Plant was "fully paved" after that date. *See* ECF No. 754-1 ¶ 3(a)–(b) (Dr. Cutler's Phase II trial

declaration).[13] Dr. Cutler also opines that metals contamination in the Vernon Plant's subsurface is distinct from volatile organic compound ("VOC") contamination there, and that surface contamination is distinct from subsurface contamination. Dr. Cutler thus ignores the above-ground structures at the Plant and the Industrial Area. Dr. Cutler likewise does not address the causes of the Plant's contamination.

Dr. Andy Davis (NL). Dr. Davis—as he did during the Phase II trial—offers opinions beyond his expertise. Accordingly, Plaintiffs have moved to exclude parts of Dr. Davis's testimony. *See* ECF No. 871. In any event, Dr. Davis does not address the entirety of the contamination at the Vernon Plant and in the Industrial Area, nor assess each cause of the harm.

Dr. Davis assumes that the harms in buildings, pavement, sub-surface, and groundwater in each of the Vernon Plant's three "yards," as well as harms in the Industrial Area, are "separate areas of contamination" from each other. However, Dr. Davis has not explained why these different areas represent distinct sub-harms. And Dr. Davis's list of "separate areas of contamination" is incomplete because he fails to consider the soil contamination in exposed parts of the Industrial Area that are not covered by buildings and pavement.

Dr. Davis then cherry-picks facts (for example, he ignores the slag buried beneath five feet in the West Yard); performs a superficial analysis of the contamination (for example, by apportioning contribution by years of ownership); and assigns NL an arbitrarily low share of causal responsibility for each purportedly "separate area[] of contamination" (for example, by assigning NL only 48% responsibility for the contamination in the West Yard where NL operated a huge disposal pit). Revealingly, Dr. Davis uses very different apportionment methods in different parts of his analysis to skew his results in NL's favor.

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[13] As discussed below, the Court has already rejected Dr. Cutler's opinions on that issue. *See* ECF No. 854 at 2.

Dr. Davis's analysis is also incomplete because he does not satisfactorily and fully explain the various causes of the contamination. Rather, Dr. Davis focuses almost exclusively on minimizing NL's and its predecessor's role.

Robert ("Rory") S. Johnston (NL). Mr. Johnston—whose opinions Plaintiffs have likewise moved to exclude as unqualified and irrelevant, *see* ECF No. 871—speculates that in the future, DTSC *might* address the subsurface harm at the Vernon Plant by repairing and enhancing the asphalt pavement that covers much of the site. Mr. Johnston does not perform any detailed analysis of the subsurface contamination, including soil, soil gas, and groundwater contamination; consider the contamination of above-ground structures; or account for Industrial Area contamination. Worse, Mr. Johnston fails to analyze any of the causes of contamination. Mr. Johnston therefore fails to perform anything resembling a divisibility analysis for any part of the Vernon Plant or the Industrial Area, much less the entirety of the contamination as required by *Pakootas IV*.

Steve McGinnis (GEI). Like Dr. Davis, Mr. McGinnis does not use the entire contaminated area as his unit of analysis. Instead, Mr. McGinnis begins by ignoring the Industrial Area and any surface contamination at the Vernon Plant, thus limiting his analysis to only the subsurface contamination at the Plant. He then—without explanation—summarily assumes that the contamination in each of the Plant's three yards poses a distinct harm, and also assumes that metals contamination (including lead) and VOC contamination (including TCE) pose distinct harms in each of the three yards. He thus fragments his apportionment analysis into six sub-harms,[14] then purports to assign different percentages of fault for those sub-harms to the "NL Operational Period" (the period NL and its predecessor owned and operated the Plant),

[14] These are North Yard metals contamination; North Yard VOC contamination; South Yard metals contamination; South Yard VOC contamination; West Yard metals contamination, West Yard VOC contamination.

the "Gould Operational Period" (the period Gould, GEI's predecessor, owned and operated the Plant), and the "GEI/Exide Operational Period" (the period after Gould owned and operated the Plant).

Problematically, Mr. McGinnis does not account for the fact that assigning causal responsibility for the Plant's harm is not just about estimating how much contamination was added to the Vernon Plant during different time periods. Also, Mr. McGinnis fails to consider how the arranger and transporter Defendants—as well as others that sent materials to the Plant—contributed to the harm there. Thus, Mr. McGinnis plainly fails to develop "a reasonable basis for determining the contribution of *each cause* to a single harm." *See Pakootas IV*, 905 F.3d at 595 (quotations omitted).

Dr. Kristen R. Robrock (Clarios). Dr. Robrock addresses only subsurface lead and TCE contamination and opines that they are distinct from each other, even if they exist in the same location. She does not account for any other contamination at the Vernon Plant, such as the above-ground contamination of the Plant's built structures or Industrial Area contamination. Nor does Dr. Robrock provide any proposed methodology for identifying each contributor to the subsurface lead and TCE contamination and then apportioning liability among them.

Dr. Shahrokh Rouhani (GEI). Dr. Rouhani performs a series of statistical analyses that address only North Yard soil contamination. He does not consider any above-ground contamination or groundwater contamination in the North Yard; any contamination in the West or South Yards; or any contamination in the Industrial Area. He thus does not offer an apportionment analysis that addresses the entirety of the contamination, as *Pakootas IV* requires. Dr. Rouhani also fails to perform a complete analysis of which contributors are causally responsible for causing the North Yard's existing soil contamination.

Timothy S. Simpson (KBI, Oregon Tool, Ramcar, and Trojan). Mr. Simpson opines that the *amount of lead-bearing materials* that KBI, Oregon Tool,

Ramcar, and Trojan sent to the Vernon Plant is divisible from the total amount of such materials recycled at the Plant over its years of operation. In so doing, Mr. Simpson ignores what contamination actually exists at the Plant and in the Industrial Area. And Mr. Simpson does not justify why the mass of lead-bearing materials sent to the Vernon Plant by a particular person provides a basis to determine their causal contribution to the *contamination*.

* * * *

As the foregoing analysis demonstrates, Defendants' experts offer only incomplete divisibility analyses. They do not account for all the contamination at the Vernon Plant and in the Industrial Area. And Defendants' experts do not adequately consider each of the myriad causes of the contamination at issue. They therefore do not show that the harm is theoretically capable of apportionment, much less identify a reasonable basis in the record to apportion liability.

D. The Defense Experts' Analyses Suffer from Additional Flaws.

The defense experts' analyses suffer from additional flaws. These shortcomings reflect both that the contamination at the Vernon Plant and in the Industrial Area is not theoretically capable of apportionment and that Defendants have not identified a reasonable basis in the record to measure each contributor's role in causing that harm.

Plaintiffs identify some of the most significant problems below. Plaintiffs will further illustrate these and other shortcomings through cross-examination at trial, deposition transcript designations, rebuttal testimony, and post-trial briefing.

1. Dr. Cutler, Dr. Davis, Mr. Johnston, and Dr. Robrock's Improper Focus on Potential Remediation Methods

Dr. Cutler, Dr. Davis, Mr. Johnston, and Dr. Robrock each focus on the potential remediation methods that might be used at the Vernon Plant to argue for divisibility. However, as discussed in Plaintiffs' motion *in limine* pertaining to Dr. Davis and Mr. Johnston, *see* ECF No. 871, an expert's speculation about potential

future response actions does not bear upon the question of how to apportion liability for existing contamination among those that caused it.

For example, Dr. Cutler opines about whether the methods for investigating and remediating metals contamination are different from the methods for investigating and remediating VOC contamination. But any such difference would not help the Court determine how responsibility for the entire contamination at hand (or even a sub-harm) may be apportioned among those that caused it.

Likewise, Dr. Davis and Mr. Johnston opine about how DTSC should remediate the subsurface contamination at the Plant, and whether constructing a cap over it would sufficiently remedy the problem. As discussed in Plaintiffs' motion *in limine*, *see* ECF No. 871, these opinions have nothing to do with how much causal responsibility each contributor should bear for the contamination that undisputedly exists and must be somehow remediated, whether by using a cap or some other method.

Finally, Dr. Robrock speculates about whether the remedial techniques that DTSC may ultimately choose for metals contamination and VOC contamination will be distinct. Even assuming Dr. Robrock's testimony is helpful on this issue, that analysis does not shed any light on each contributor's role in causing any part of the contamination at the Vernon Plant or in the Industrial Area.

It is true that courts have sometimes found *past* remediation *costs* to be a proxy that can help "approximate harm." *See, e.g., United States v. NCR Corp.*, 688 F.3d 833, 840 (7th Cir. 2012); *but see United States v. W. Processing Co.*, 734 F. Supp. 930, 937 (W.D. Wash. 1990) (rejecting an argument for "apportioning CERCLA *liability* in a government enforcement case on the basis of particular costs incurred, rather than on the basis of environmental harm"). But here, none of Defendants' experts have attempted to apportion liability by using past remediation costs as a proxy for each Defendant's contribution to contamination. And Plaintiffs

have not located any case law stating or suggesting that potential *future* remediation *methods* are probative to a divisibility analysis.[15]

Washington v. United States, 922 F. Supp. 421, 429–30 (W.D. Wash. 1996), is instructive. There, the U.S. Environmental Protection Agency ("EPA") remediated a harbor polluted with commingled pollutants by "adopt[ing] different remedies for two areas." *Id.* at 427. The EPA's "placement of the dividing line" was based on the levels of toxicity observed in different sections of the harbor. *See id.* at 428 (referring to an area near a shipyard, an area near a wood treatment facility, and a less polluted "central harbor" area). The court rejected a defendant's attempt to prove divisibility based on the dividing line the EPA drew for the two different remedies. *Id.* at 429–30. The defendant's focus on "remediation methods" amounted to a "poor showing" on divisibility that did not help the court determine each contributor's role in causing the harm. *See id.* at 430.

So too here. Dr. Cutler, Dr. Davis, Mr. Johnston, and Dr. Robrock speculate about what future remediation actions might be applied to different aspects of the Vernon Plant's contamination. But those opinions simply do not bear upon the divisibility inquiry, which focuses on measuring the proportionate extent of each contributor's role in causing the entire contamination at the Vernon Plant and in the Industrial Area.

2. Dr. Cutler's Opinions that the Court Has Already Rejected

Dr. Cutler opines that all releases from the Vernon Plant to the subsurface stopped in 1986, when the Plant became mostly paved. However, the Court has already heard Dr. Cutler's argument about post-1986 releases and rejected it by resolving contested historical evidence, including evidence about the poor condition

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[15] *Cf. United States v. Burlington N. & Santa Fe Ry. Co.*, 502 F.3d 781, 798 (9th Cir. 2007) (rejecting the notion that the relevant "harm" for a divisibility analysis is the "cost of remediation"), *other portions of opinion superseded on denial of reh'g en banc*, 520 F.3d 918 (9th Cir. 2008), *rev'd on other grounds*, 556 U.S. 599 (2009).

of the Vernon Plant's stormwater system that provided a pathway for pollutants to contaminate the subsurface. After the Phase II trial, the Court credited Plaintiffs' expert Dr. Laton's testimony, *see* ECF No. 741-1 ¶¶ 28, 112–13, that releases to the subsurface continued after 1986, *see* ECF No. 854 at 2 ("Defendants did not meet their burden in showing that all releases to the subsurface stopped after 1986.").

3. Dr. Davis's Unqualified and Arbitrary Opinions

As Plaintiffs explain in their pending motion *in limine* to exclude Dr. Davis's testimony, Dr. Davis reaches beyond his expertise when attempting to opine about the present or future risks posed by the contamination in the Vernon Plant and Industrial Area. *See* ECF No. 871. Dr. Davis also is wrong to assert that Plaintiffs' potential future response actions bear upon divisibility.

In addition, Dr. Davis attempts only a superficial and arbitrary apportionment analysis for each purported sub-harm. Dr. Davis cherry-picks data; uses different apportionment methods for different purported sub-harms to minimize NL's and its predecessors' roles in causing them; does not show that his many different methodologies are reliable, *see* Fed. R. Evid. 702(c); and does not explain how his apportionment methods provide a reasonable basis to divide the relevant harm.

For example, Dr. Davis assigns NL a zero percent share of soil contamination in the Vernon Plant's North Yard area by simply ignoring evidence showing that soil removal activities in the early 1980s did not remove all North Yard soil contamination. In the same breath, Dr. Davis proposes a completely different "alternative" method to determine NL's share of responsibility for North Yard soil contamination: a temporal analysis that apportions liability based solely on the length of the time NL, its predecessor, and others owned and operated the Vernon Plant. But Dr. Davis does not justify why a temporal method reasonably approximates NL or any other party's causal contribution to North Yard soil contamination, especially given the evidence suggesting that North Yard soils were contaminated at different rates at different times. Similarly, Dr. Davis admits that NL's predecessor was responsible for dumping

massive amounts of slag and battery acid in the West Yard area of the Vernon Plant. But Dr. Davis proposes a temporal method that apportions liability for the resulting subsurface contamination among different contributors based solely on how long they owned and operated the Plant—notwithstanding that the most severe West Yard contamination undisputedly was caused by NL's predecessor, which dumped large amounts of slag and acid there.

Dr. Davis's opinions are therefore internally inconsistent and do not represent an even-handed approach to divisibility.

4. Mr. Johnston's Unqualified and Wholly Irrelevant Opinions

Mr. Johnston, an engineer who does not claim any expertise in health or environmental risk assessment, speculates about what remedies DTSC is likely to select to address subsurface contamination at the Vernon Plant, and whether a cap will prevent any future harm from subsurface contamination. As discussed, DTSC's potential future response actions are irrelevant to divisibility. And, as Plaintiffs' pending motion *in limine* explains, Mr. Johnston is unqualified to render testimony on that subject. *See* ECF No. 871.

5. Mr. McGinnis's Improper Focus on Ownership Periods and Unjustified Assumptions

Mr. McGinnis attributes the Vernon Plant's contamination to different *ownership periods*, as opposed to different *contributors*. This analysis is problematic because the purpose of apportionment is not to determine when pollution may have occurred, but rather to evaluate how much causal responsibility rests with each contributor. Mr. McGinnis makes no attempt to establish that ownership periods may serve as a scientifically and factually sound proxy to measure relative causal contributions to contamination. And Mr. McGinnis cannot simply *assume* such a proxy.

More fundamentally, Mr. McGinnis bases his opinions on modeling results and assumptions that are contradicted by sampling data. For example, Mr. McGinnis's

SESOIL model results indicate that lead migrated through soil at the extraordinarily low rate of no more than 0.06 inches per year. Yet the uncontroverted evidence shows that lead traveled at much faster rates in Vernon Plant soils, including, for example, migrating more than 40 feet in less than 60 years (i.e., a rate of at least 8 inches per year, or 133 times the rate assumed by Mr. McGinnis). Therefore, Mr. McGinnis's assumptions—and the opinions that rest on those assumptions—should be disregarded as "inconsistent with the facts as established by other competent evidence." *In re Bell Petroleum Servs., Inc.*, 3 F.3d at 904.

The bottom line is that Mr. McGinnis is forced to supply unreasonable and unfounded assumptions to account for significant gaps in the historical record. He does not know the volume of releases during most of the years that the Vernon Plant operated, does not know the extent to which contaminated soil was removed from the North Yard in 1980, and does not even know the year in which the Vernon Plant began operating in each of three yards it eventually occupied. These gaps, which are unavoidable because the Vernon Plant operated for nearly nine decades, force Mr. McGinnis with no choice other than to attempt "an arbitrary apportionment for its own sake." *BNSF*, 556 U.S. at 614–15.

6. Dr. Robrock's Inaccurate Opinions that Draw False Distinctions

Dr. Robrock testifies that because subsurface TCE contamination in the unsaturated zone (i.e., the subsurface outside of aquifers) is gaseous, and because subsurface lead contamination is non-gaseous, TCE and lead contamination are distinct from each other. But Dr. Robrock's testimony is misleading because TCE and other soil gases beneath the Vernon Plant occupy the *interstices*—the gaps—in lead-contaminated soil. Therefore, the soil gas and lead problems are commingled, as she herself acknowledges. Dr. Robrock also suggests that DTSC has proposed distinct remedial actions for TCE and lead, notwithstanding that DTSC has not advanced such proposals. Dr. Robrock also assumes without foundation that DTSC's future remedial

actions for TCE and lead will be distinct, even though she admits that one possible action—soil removal—simultaneously reduces levels of both pollutants.

7. Mr. Simpson's Analysis that Fails to Address Parties' Causal Contributions to the Contamination

Mr. Simpson merely compares the mass of lead-bearing waste purportedly sent by KBI, Oregon Tool, Ramcar, and Trojan to the Vernon Plant to the total amount of lead-bearing waste recycled at the Plant over its operational period. That simplistic comparison is irrelevant to divisibility because Mr. Simpson has not shown that mass is a reasonable proxy to determine KBI, Oregon Tool, Ramcar, and Trojan's contribution to the *contamination*.

True, an assessment of each contributor's volumetric or mass contribution to site contamination can sometimes be a basis for apportionment. However, the Ninth Circuit has cautioned that such an approach is acceptable only if the defendant "show[s] a relationship between waste volume . . . and the harm at [a] site." *See Pakootas IV*, 905 F.3d at 595 (quoting *United States v. Monsanto Co.*, 858 F.2d 160, 172 (4th Cir. 1988)). Put differently, a defendant must "show[] a relationship between waste volume, the release of hazardous substances, and the harm at the site," *Monsanto Co.*, 858 F.2d at 172, and establish "that independent factors" other than the volume of waste "had no substantial effect on the harm to the environment," *see Pakootas IV*, 905 F.3d at 595 (quoting *Monsanto Co.*, 858 F.2d at 172 n.27).[16] The same principles, of course, apply if a defendant seeks to apportion based on the mass, rather than the volume, of waste.

[16] *Accord United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 811 (S.D. Ohio 1983) ("Finally, the volume of waste of a particular generator is not an accurate predictor of the risk associated with the waste because the toxicity or migratory potential of a particular hazardous substance generally varies independently with the volume of the waste.").

Mr. Simpson has not demonstrated that the mass of waste that entities like KBI, Oregon Tool, Ramcar, and Trojan sent to the Vernon Plant is a reasonable proxy for their causal contribution to the contamination. And there are good reasons to doubt that mass is a reasonable proxy. For example, Ramcar and Trojan sent spent lead-acid batteries to the Vernon Plant. *See* ECF No. 711 ¶ 9 (Ramcar); ECF No. 707 ¶ 12 (Trojan). These batteries contained sulfuric acid, a CERCLA hazardous substance. *See* 40 C.F.R. § 302.4 tbl. 302.4 (list of CERCLA hazardous substances); *see also* ECF No. 840 (Plaintiffs' Phase II post-trial brief, explaining the role of sulfuric acid). Mr. Simpson does not consider sulfuric acid *at all* in his analysis, much less account for the different roles that lead and sulfuric acid played in causing the Vernon Plant's contamination.

Mr. Simpson's analysis is flawed for another, independent reason: he assumes that hazardous waste manifests are a reliable way to determine the mass of the lead-bearing hazardous substances that any Defendant sent to the Vernon Plant. However, the evidentiary record shows that KBI, Ramcar, and Trojan each sent significant amounts of materials to the Vernon Plant without using manifests. *See* ECF No. 840 at 41–42 (Plaintiffs' Phase II post-trial brief, compiling evidence for KBI and Trojan); ECF No. 711 ¶ 26 (Ramcar's admission that it did not use manifests when shipping batteries). Mr. Simpson has not accounted for the materials that KBI, Ramcar, and Trojan sent to the Vernon Plant without documenting shipments on manifests. And because the historical record is incomplete, Mr. Simpson cannot reliably estimate the amount of lead-bearing materials that KBI, Ramcar, and Trojan sent to the Plant. Mr. Simpson's opinions should be disregarded because his assumption that manifests can be used to estimate the mass of waste shipped to the Plant is "inconsistent with record evidence." *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 n.19 (1986).

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Each defense expert's analysis has significant shortcomings that underscore that the contamination at the Vernon Plant and in the Industrial Area is not theoretically capable of apportionment, and also demonstrate that Defendants have not identified a reasonable basis in the record to measure each contributor's role in causing to that harm.

E. Defendants Have Abandoned Any Effort to Prove the Divisibility of Federally Permitted Releases.

As explained in Plaintiffs' earlier briefs, the federally permitted release defense raised by GEI, KBI, Oregon Tool, Ramcar, and Trojan—which the Court preliminarily credited after the Phase II trial—is subject to a divisibility showing whereby Defendants must show that the harm caused by federally permitted releases is divisible from the harm caused by non-federally permitted releases. *See* ECF No. 840 at 55–56. Defendants have made no effort to make this showing. They have therefore abandoned their federally permitted release defense.

IV. Conclusion

"Divisibility is the exception, . . . not the rule." *Cap. Tax Corp.*, 545 F.3d at 535. Divisibility is provable only at a small subset of simple contaminated sites where there is enough available evidence to determine how much contamination each contributor caused. *Cf. Pakootas II*, 868 F. Supp. 2d at 1121–22 (explaining the U.S. Supreme Court's analysis of a simple contaminated site in *BNSF*). It is therefore unsurprising that the contamination at the Vernon Plant and in the Industrial Area—a large, complicated site where pollution has accreted for over nine decades starting in the 1920s—is the sort of site where divisibility is infeasible. The dueling experts proffered by Defendants propose diverse and conflicting theories about how divisibility might be established. However, no expert properly accounts for the entirety of the contamination, which is the relevant unit of analysis under controlling precedent. The divisibility analyses also fail for the other reasons that are discussed above and that will be presented at trial. The Court should reject each Defendant's

divisibility defense. The Court may reconsider the defense experts' opinions at the equitable allocation phase as needed to secure equitable results.

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Respectfully submitted,

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