UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

YANKEE GAS SERVICES CO.,	:	
Plaintiff,	:	
v.	:	No. 3:10-cv-580 (MRK)
UGI UTILITIES, INC.,	:	
Defendant.	:	

MEMORANDUM OF DECISION

In this case, the Court is asked to decide how the cost of environmental cleanup at the Waterbury North Manufactured Gas Plant should be allocated between its current owner, the Yankee Gas Services Company ("Yankee Gas"), and UGI Utilities, Inc. ("UGI"), the operator of the plant during its heyday a century ago. Yankee Gas brought this suit under § 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601-9675 ("CERCLA"), seeking to impose liability on UGI for the pollution—particularly, tar and oil pollution—at the facility, which UGI leased and operated from either 1884 or 1889 until 1914. UGI subsequently filed a contribution counterclaim against Yankee Gas under CERCLA § 113(f), which allows courts to "allocate response costs among liable parties using such equitable factors as the court determines are appropriate." 42 U.S.C. § 9613(f)(1).

This is the not the Court's first encounter with this litigation. In a previous and related case, the parties agreed to try their dispute in two phases. *See Yankee Gas Servs. Co. v. UGI Utils., Inc.*, 616 F. Supp. 2d 228, 231 (D. Conn. 2009), *aff'd*, 428 F. App'x 18 (2d Cir. 2011). The first phase, which required a four-day trial and resulted in a lengthy opinion, *see id.*, addressed questions about statutes of limitations and UGI's derivative and direct liability for pollution at thirteen manufactured gas plants, or MGPs, throughout Connecticut. The Court will not revisit the issues that it addressed in that first opinion.

The second phase was to have focused on the allocation of remediation costs among any potentially responsible parties. *See id*. at 232. Yet because the Court had granted judgment for UGI with respect to nine of the MGPs and Yankee Gas had dropped its claim with respect to three more, *see id.* at 277, 232, only one facility remained: Waterbury North. UGI agreed that it had operated the Waterbury North MGP for a certain number of years, but it reserved the right to argue that Yankee Gas had not shown that any contamination occurred at Waterbury North during those years. However, before launching into phase two of the trial, the parties asked for a postponement in order to carry out further investigations of the Waterbury North site. The Court instead entered final judgment on the issues decided in the first phase and severed the second phase of the dispute, requiring the parties to file their claims and counterclaims as a new case—that which is presently before the Court.

In August and September 2011, three days of testimony and an additional several hours of closing arguments were offered. As it did after the last trial, *see id*. at 233, the Court takes this opportunity to commend the professionalism and civility of both parties' counsel throughout this process. The small mountain of exhibits in this case would have been far less traversable without their able guidance.

Having carefully reviewed the documentary evidence and testimony presented to it, the Court is now able to decide the several disputed issues that remain in this matter. First, whether Yankee Gas and UGI are jointly and severally liable for the tar pollution at Waterbury North. The Court holds that they are. Second, whether Yankee Gas has incurred costs consistent with the National Contingency Plan. The Court holds that it has. Third, whether UGI assumed all liabilities of, or de facto merged with, the United Gas Improvement Company ("UGIC"), thus becoming liable for any damage that may have occurred between 1884 and 1889. That is a close question, but the Court finds that Yankee Gas has met its burden of showing a de facto merger. Fourth, whether there is a basis to allocate between UGI and Yankee Gas for the pollution on the site's three areas: the Holders, the Tailrace, and the so-called Areas Beyond the Holders. The Court concludes that there is a basis for allocation between UGI and Yankee Gas; the details of this allocation are discussed in detail in Part V below. Fifth, whether the allocation should include an owner's share. The Court concludes that it should. Finally, whether UGI should get the benefit of insurance proceeds and rate recovery that Yankee Gas has receiveed. The Court holds that UGI should get the benefit of an allocable share of insurance proceeds but not of Yankee Gas's rate recovery.

I.

What follows in this section are the Court's findings of fact in accordance with Rule 52 of the *Federal Rules of Civil Procedure*. The Court will begin with a general overview of manufactured gas production and the companies in question. The Court will also make additional findings of fact in connection with the various issues discussed in the sections to follow.

Manufactured Gas Plants ("MGPs"). During the heyday of manufactured gas production—between 1816 and 1960—approximately 1,000 to 1,500 MGPs were built and operated in the United States. *See* Ex. 1 at 9. Prior to the development of natural gas supplies and transmission systems during 1940s and 1950s, virtually all fuel and lighting gas used in the United States was manufactured at MGPs using one of three basic processes: (1) coal gas, which was produced from thermal destruction of coal in the absence of air; (2) oil gas, which was manufactured by enriching super-heated air with carbureted petroleum; and (3) carbureted water gas ("CWG"), which was made by blowing steam through red hot coke and/or coal to create water gas, followed by spraying (carbureting) petroleum into the hot water gas to enrich it. *Id.* CWG was the dominant process used in Connecticut (and nationwide) after the 1890s and is the process for which UGI had an exclusive patent. CWG was the process used at Waterbury North during UGI's lease; prior to that lease, Waterbury North used coal gas.

Both tar and oil—referred to today as "non-aqueous phase liquids" or "NAPLs"—were generated as byproducts from all three manufactured gas processes. *See id.* at 10. Other byproducts included wastewater, purifier wastes, ash, clinker, and coke. *See id.* at 12. The amount of byproducts produced was substantial. Tar, in particular, was produced by the millions of gallons over the lifetime of an MGP. *See id.* at 10-11. Many of these byproducts were valuable in their own right and were collected and sold by the MGPs. Tar, known as "black gold," was sold for use as fuel, as well as for roofing, wood treating, road surfacing, dyes, medicines, disinfectants, explosives, and chemicals such as benzene and naphthalene. *See id.* at 17, 22. The recovery and sale of these byproducts was practiced throughout the MGP industry and was essential to their profitability. *See id.* at 19.

However, as both Plaintiff's and UGI's experts have testified, it was difficult to operate MGPs without some leakage of tar and oil into the environment. *See id.* at 12; Ex. 2246 at 5. Although MGPs attempted to minimize leakage (not for environmental reasons but because of the monetary value of the byproducts), tar and oil could—and often did—enter the environment during many stages of the CWG process. Leakage also routinely occurred as a consequence of the demolition of former MGPs. These various forms of contamination remain hazardous for decades or even centuries after entering the environment.

UGI's History. The Court reviewed the history of UGI in its earlier opinion. *See Yankee Gas*, 616 F. Supp. 2d at 235-37. UGI played a key role in the establishment of CWG as the preeminent process for gas manufacturing in the eastern half of the United States. The CWG process was invented in 1872 by Thaddeus Lowe, a former consultant to President Lincoln and Chief Aeronaut of the Union Army's Balloon Corps. Mr. Lowe's new method produced gas with more illuminating power at less cost than coal gas processes. In order to maximize the profit potential of the CWG process, Mr. Lowe teamed with other businessmen and investors to form the United Gas Improvement Company ("UGIC") in 1882. In agreements dating between 1882 and 1885, Mr. Lowe sold the exclusive right to sell, manufacture, and install the CWG process to UGIC; he served as chief engineer of the new company.

Like most corporate charters of the day, UGIC's charter did not allow it to own stock in other companies. After several years of trying to circumvent this restriction through the use of trusts, UGIC formed another corporation called the Union Company, which purchased the corporate charter of the Union Contract Company at a sheriff's sale. This charter, granted to the Union Contract Company by a special act of the Pennsylvania legislature in 1870, allowed the purchase and ownership of stock in other corporations. In 1885, the charter rights and franchisees of the Union Contract Company were transferred to the Union Company. In April 1888, the Union Company changed its name to The United Gas Improvement Company ("TUGIC"), which became UGI in 1968. UGI admits that it is the corporate successor to TUGIC.

A disputed question in this case is whether UGI is also the corporate successor to UGIC. The parties agree on at least the following facts. On July 5, 1888, TUGIC resolved to enter into a transaction to purchase UGIC's assets. The parties have not found the purchase and sale contract by which TUGIC acquired UGIC. However, there are board minutes and an FTC report that refer to the acquisition. The TUGIC Board resolved to purchase:

> from said United Gas Improvement Company all its assets and property, real and personal, including unfinished contracts, accounts, goodwill, and stock on hand and shall in payment therefor issue to George Philler, Trustee, its capital stock of a par value of $50 per share as follows, viz at the rate of $4,000,000 of said stock at par for all the property of said company subject to all the indebtedness and obligations of said company.

Ex. 565 at 100,436. The transfer of assets and liabilities was completed on April 1, 1889. *See* Ex. 1104 at 038069. TUGIC assumed $7,206,640.69 in assets (which did not include the cancellation of an intercompany UGIC debt of $8,811.11), in addition to taking over $670,745.03 in UGIC surplus, while assuming $2,544,706.77 in liabilities from UGIC. *See id*. at 038070. Thus the net value of the acquisition was $4,000,000.00, which TUGIC paid with capital stock. *See id.*

Following the asset acquisition in 1889, TUGIC and UGIC continued to exist as distinct entities, maintaining their own boards of directors and holding separate meetings—although Yankee Gas claims that UGIC was a shell corporation, and UGI's counsel was unsure as to precisely what business UGIC conducted. In 1915, UGIC changed its name to the Pennsylvania Gas Appliance and Patent Company. *See* Ex. 1124 at 131. This company was dissolved in 1918, as it "had transacted no business for some years." Ex. 566 at 101,140-101,141.

The facts surrounding this period of UGI's history are discussed in more detail in Part IV, below.

Waterbury North MGP. The Waterbury North facility is located in an industrial area of Waterbury, Connecticut at the southwest corner of the intersection of Interstate 84 and Jackson (Race) Street, along the Naugatuck River. The eastern part of the site is generally flat. This is the portion of the site on which gas production and storage took place during the facility's operational years. The western side of the site is more densely vegetated, and it drops sharply down to the River.

In 1854, the Waterbury Gas Light Company was created to manufacture and sell gas.[1] It built the Waterbury North MGP and began operations there that same year. Waterbury Gas Light and its corporate successors, Yankee Gas among them, have owned the Waterbury North facility ever since. Coal gas was manufactured at Waterbury North from 1854 through 1883. From 1883 through 1928, carbureted water gas was manufactured.

In an 1884 lease, UGIC acquired rights to operate the Waterbury North MGP for ten years. In 1889, UGIC's assets, including the 1884 lease, were purchased by TUGIC—which, again, both parties acknowledge to be UGI's predecessor. Since the parties dispute whether UGIC is UGI's predecessor, one question the Court must settle is when UGI's operation of Waterbury North began: 1884 or 1889. That question is discussed in Part IV, below.

In 1894, UGI (as TUGIC) entered into a twenty-year lease with the Waterbury Gas Light to lease Waterbury North. UGI was obligated to pay Waterbury Gas Light $15,500 annually from April 1894 to April 1896, $18,000 annually from April 1896 to April 1899, and $20,500 annually from 1899 to 1914, in addition to paying Waterbury Gas Light's taxes and a $3,250 annual fee as the interest on Waterbury Gas Light's outstanding bonds. Ex. 2125 at UGICT017688-89. Although UGI transferred its beneficial interest under the lease to other parties beginning in 1901, UGI has agreed that it continued operating the Waterbury North facility until its lease ended in April 1914. UGI therefore operated Waterbury North for a total of either twenty-five or thirty years, depending on whether or not UGIC is considered UGI's

[1] Although Waterbury Gas Light was not founded until 1854, the parties treat 1853 as the first year of gas production in Waterbury, perhaps because Waterbury Gas Light seems to have succeeded another business already operating there. *See* Ex. 1949. *Compare* Stipulation of the Parties [doc. # 57-3] ¶ 27, *with id.* ¶ 37. The Court follows the parties' lead in treating 1853 as the first year of operations and production.

predecessor for the purposes of CERCLA liability. From April 1914 onward, Waterbury North was operated by Waterbury Gas Light and its successors, who continued to manufacture gas there until 1928, at which point gas manufacturing was moved to another facility, Waterbury South. Waterbury North was used for storing gas from Waterbury South from 1928 through at least 1938. In more recent decades, Waterbury North has been used as a site for vehicle maintenance and storage; including school bus storage.

In 1905, during its lease period, UGI purchased a triangular piece of land between the Naugatuck River and what was then the boundary of the Waterbury North facility. The land was never developed, and UGI deeded it to Waterbury Gas Light at the expiration of UGI's lease in 1914. This was UGI's only ownership role at Waterbury North. The triangular piece of land abutted a tailrace, which maps as early as 1868 show leading from a brass factory upstream from the Waterbury North facility down to the Naugatuck Ricer. The tailrace appears on a map from 1907 but is not depicted on a 1915 map. *See* Ex. 541. Theories of what might have happened to the tailrace and how that may have impacted the pollution on site were the subject of much discussion at trial. The Court discusses the Tailrace Area of the site further in Section V.D.

Several structures at Waterbury North also played an important role at trial and deserve mention. A holder, commonly referred to as Holder 1, was built on the property by 1868. Its sheet metal wall has been observed to be approximately 50-55 feet in diameter. Based on extant maps and aerial photography, we know that Holder 1 must have been demolished sometime between 1921 and 1934. *See* Ex. 2295 at 13. Thus, Holder 1 was operational throughout UGI's lease period but it was demolished well afterward. A second holder, referred to here as Holder 2, appears on a 1879 map of Waterbury as well as a 1921 map. Like Holder 1, Holder 2 must have been demolished before 1934, when an aerial photograph shows it gone. *See id.* at 18. Finally, a third holder, Holder 3, was constructed in 1892 and demolished sometime between 1956 and 1959. *See id*. at 20. The Court will follow the parties in referring frequently to the "Holder Areas," as well as property "Beyond the Holder Areas." In each case, the "Holder Areas" should be taken to mean the area once occupied by Holders 1, 2, and 3. Cost allocation for the Holder areas is discussed further in Section V.C, while costs for the Area Beyond the Holders are allocated in Section V.B.

CERCLA Response Costs. Yankee Gas has taken several steps thus far to assess the environmental damage at Waterbury North. A Coal Tar Study was done in 1987-1988 to "determine the potential impact of coal tar deposits . . . on human health and the environment." Ex. 174 at 061865. The study involved 90 borings, generally drilled to 20 feet, which were used to evaluate soil conditions and locate coal tar deposits. Information gleaned from the test borings led to the placement of 37 monitor wells, drilled at 10 locations on site. The study also included analyses of river water, sediment, groundwater, soil chemistry, and air quality. The study found deposits of coal tar approximately 8.5 feet thick in the top 25 feet of soil on about 1.1 acres on site. *Id.* Yankee Gas has located invoices totaling $113,121.30 for payments made to the 1987-1988 investigation's two primary contractors. *See* Exs. 548, 549, 617.

In 1997-1998, Yankee Gas commissioned Shell Technology Ventures, Inc. to perform a Site Characterization Study, or Geophysical Investigation, of Waterbury North. *See* Ex. 543. The study used ground penetrating radar surveys to locate underground pipes, holder walls, large buried objects, and coal tar contamination. *See id*. at 067177. Yankee Gas has not been able to locate invoices related to this study.

In June 2010, Yankee Gas solicited competitive bids and proposals for a Phase II/Phase III Comprehensive Environmental Site Investigation of Waterbury North that would be consistent with Connecticut Department of Environmental Protection guidelines. *See* Ex. 620. AECOM was awarded the contract, and it based its preliminary understanding of the site on the 1987-1988 Coal Tar Study. *See* Ex. 622 at 1-1. The point of AECOM's study was to identify areas of concern on site (Phase II), then to determine (in Phase III) the extent and degree of soil and groundwater impact, as well as the rate of NAPL migration, if any. To do so, AECOM used the Tar-specific Green Optical Screening Tool (TarGOST) developed by Dakota Technologies, which uses green laser light to excite the fluorescence of polycyclic aromatic hydrocarbons found in tars and oils. The response intensity picked up by the TarGOST sensor provides a measure of the amount of NAPL present. *See* Ex. 625 at 4. AECOM successfully installed 152 TarGOST probes on site during the study it conducted between August and December 2010. The report AECOM prepared provided significantly more information on the environmental damage at Waterbury North than was previously known. The 2010 study will form the basis of a Remedial Action Plan which AECOM will eventually produce for Waterbury North. Yankee Gas has documented expenses amounting to $396,859.85 for the AECOM Phase II/Phase III Site investigation. *See* Exs. 638-644.

Yankee Gas has documented two additional expenses which it claims are related to the eventual remediation of the Waterbury North site. Yankee Gas paid $8,480 in dues to the Electric Power Research Institute in 2008 and 2009. Yankee Gas claims that EPRI provides Yankee Gas with research opportunities to partner with other utilities to evaluate site investigation and remedial tools and technologies. Yankee Gas also paid $1,223.40 to Environmental Recovery, LLC for help locating potentially responsible parties for the contamination at Waterbury North. *See* Ex. 552.

The Court will return briefly in Part III to the question of whether these costs count as necessary costs of response under CERCLA. *See* 42 U.S.C. § 9607(a)(4)(B).

II.

A.

CERCLA was enacted in 1980 to address the "serious environmental and health risks posed by industrial pollution." *Burlington Northern & Santa Fe Ry. Co. v. United States*, 129 S. Ct. 1870, 1874 (2009). CERCLA's purpose was to "promote the timely cleanup of hazardous waste sites and to ensure that the costs of such cleanup efforts were borne by those responsible for the contamination." *Id.* (quotation marks omitted). To that end, CERCLA imposes strict liability for environmental contamination upon several broad categories of potentially responsible parties, among them the owner and operator of a facility and any party who owned or operated a facility at a time when hazardous substances were disposed of there. 42 U.S.C. § 9607(a)(1)-(2); *see also Burlington Northern*, 129 S. Ct. at 1878. The relevant question under CERCLA is not whether the owner or operator *itself* deposited the hazardous material on the property; whether it did or not, the owner or operator can be forced to clean up the material or to reimburse the government for the cost of doing so. *See id.*; *Niagara Mohawk Power Corp. v. Chevron U.S.A., Inc.*, 596 F.3d 112, 120 (2d Cir. 2010).

As the Second Circuit has noted, however, "CERCLA does provide property owners an avenue of reprieve; it allows them to seek reimbursement of their cleanup costs from others in the chain of title or from certain polluters—the so-called potentially responsible parties ('PRP's)." *Niagara*, 596 F.3d at 120. "Specifically, CERCLA permits cost recovery actions under § 107(a) by the government and certain private parties against potentially responsible parties; contribution actions under § 113(f)(1) for parties who have been sued under § 106 or § 107; and contribution actions under § 113(f)(3)(B) for parties that have entered an administrative or judicially approved settlement with the United States or a state." *Schaefer v. Town of Victor*, 457 F.3d 188, 194 (2d Cir. 2006). The first and second of these avenues of reprieve are the ones employed in the present case.

When CERCLA was originally enacted, § 107(a) was the only remedy available. Under that provision, a private party can sue another for indemnity, and those found responsible for the environmental harm are held jointly and severally liable unless they prove that a reasonable basis exists for the apportionment of costs. *See Burlington Northern*, 129 S. Ct. at 1881; *Schaefer*, 457 F.3d at 195. As the Supreme Court recently made clear, "apportionment is proper when there is a reasonable basis for determining the contribution of each cause to a single harm"; equitable considerations play no role in this determination. *Burlington Northern*, 129 S. Ct. at 1881, 1882 n.9.

In the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613, 1647-48, Congress added § 113(f) to CERCLA, formalizing the common law right to contribution *between* PRPs—a right which courts had previously found to be implied in the statute. *See Key Tronic Corp. v. United States*, 511 U.S. 809, 816 (1994) (citing district court cases). Section 113(f) allows that:

> Any person may seek contribution from any other person who is liable or potentially liable under section 9607(a) of this title, during or following any civil action under . . . section 9607(a) of this title. Such claims shall be brought in accordance with this section and the Federal Rules of Civil Procedure, and shall be governed by Federal law. In resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the court determines are appropriate.

42 U.S.C. § 9613(f)(1).

In sum, these statutory provisions interact as follows. A § 107(a) action allows the plaintiff to pass off all response costs to any defendant found liable. But if the plaintiff itself is a liable party, the defendant can "blunt any inequitable distribution of costs by filing a § 113(f) counterclaim." *United States v. Atl. Research Corp.*, 551 U.S. 128, 140 (2007). At that point, resolving the § 113(f) counterclaim requires an "equitable apportionment of costs among the liable parties, including the PRP that filed the § 107(a) action." *Id.* (citing *Atl. Research Corp. v. United States*, 459 F.3d 827, 835 (8th Cir. 2006) ("CERCLA, itself, checks overreaching liable parties: If a plaintiff attempted to use § 107 to recover more than its fair share of reimbursement, a defendant would be free to counterclaim for contribution under § 113(f).")); *see also Consol. Edison Co. of N.Y. v. UGI Utils., Inc.*, 423 F.3d 90, 100 n.9 (2d Cir. 2005). In other words, once a § 107(a) claim is met with a § 113(f) counterclaim, the action has been effectively converted into an allocation of costs made on the basis of "such equitable factors as the court determines are appropriate." 42 U.S.C. § 9613(f)(1); *see also Niagara Mohawk*, 596 F.3d at 121 n.8; *N.Y. State Elec. & Gas Corp. v. FirstEnergy Corp.*, 808 F. Supp. 2d 417, 489 (N.D.N.Y. 2011) ("*NYSEG*").

B.

Explaining the interaction of these two statutory provisions helps shed light on a question often debated, and occasionally misunderstood, by the parties in this case: namely, their respective burdens of proof. As an initial matter, each party bears the burden of showing that its opponent is liable under the terms of § 107(a). Yankee Gas must do this because it brings its claim under that Section, while UGI has the same burden because the language in § 113 allows for contributions only from "any other person who is liable or potentially liable under section 9607(a) of this title," 42 U.S.C. § 9613(f)(1).

Establishing CERCLA liability is not a difficult task, however. Notably, it does not require that "a specific defendant's waste cause incurrence of clean-up costs." *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 721 (2d Cir. 1993). As the Second Circuit has said, "[t]he traditional tort concept of causation plays little or no role in the liability scheme."[2] Instead,

> CERCLA requires a plaintiff to establish: (1) defendant fits one of the four classes of responsible parties outlined in § 9607(a); (2) the site is a facility; (3) there is a release or threatened release of hazardous substances at the facility; (4) the plaintiff incurred costs responding to the release or threatened release; and (5) the costs and response actions conform to the National Contingency Plan set up under the Act and administered by the EPA in order to prioritize hazardous substance release sites throughout the nation.

B.F. Goodrich Co. v. Murtha, 958 F.2d 1192, 1198 (2d Cir. 1992) ("*Goodrich II*"). The two (of four) "classes of responsible parties" that are relevant in the present case are "the owner and operator of . . . a facility," 42 U.S.C. § 9607(a)(1), and "any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of," 42 U.S.C. § 9607(a)(2).

Once liability is established, the question is how to allocate that liability. Here the burdens of proof become more complicated. Yankee Gas has argued that UGI "bears the burden of proof for allocation or apportionment in a cost recovery action." Pl.'s Pretrial Br. [doc. # 56] at 3. In support, it cites as "dispositive" *Burlington Northern*, in which the Supreme Court held that a defendant in a § 107(a) claim bears the burden of showing a "reasonable basis" on which the environmental damage at a site can be divided and the liability apportioned. *Burlington Northern*, 129 S. Ct. at 1881. If the defendant does this, it "will be held liable only for the harm

[2] Causation does, or can, play a role in the *allocation* of liability, however. In this respect, as the Second Circuit has noted, causation enters the case "through the backdoor, after being denied entry at the frontdoor." *Alcan*, 990 F.2d at 722.

the court finds it caused." *Goodrich Corp. v. Town of Middlebury*, 311 F.3d 154, 170 n.16 (2d Cir. 2002) ("*Goodrich III*").

Yankee Gas also claims that a party seeking contribution under § 113(f) "'bears the burden of proof' to show that 'the court must allocate response costs among liable parties in an equitable manner.'" Pl.'s Pretrial Br. [doc. # 56] at 3 (quoting *Goodrich III*, 311 F.3d at 168). This is not quite right. The Second Circuit case quoted actually says:

> [T]he statute envisions a two-part inquiry: First, the court must determine whether the defendant is "liable" under CERCLA § 107(a); Second, the court must allocate response costs among liable parties in an equitable manner. The party seeking contribution bears the burden of proof at both prongs of the court's inquiry.

Id. (citation omitted). Yankee Gas's paraphrase suggests that a claimant somehow needs to show the court that it *should* allocate costs among liable parties. The Second Circuit says instead that the court "*must* allocate response costs among liable parties," *id.* (emphasis added), and this makes sense. After all, once two parties have met their burden of showing that the other is liable under CERCLA, it would be strange to think that a court might then refuse to allocate costs equitably between the two liable parties. Nor would it make sense to say that one party had a burden of proving that the court should allocate equitably. The question then is: what burden *does* a § 113(f) counterclaimant retain in the second prong of the inquiry mentioned above?

The answer requires a careful distinction between the apportionment discussed in *Burlington Northern* and the allocation at issue in *Goodrich*. Apportionment is a way of avoiding the joint and several liability that would otherwise result from a successful § 107(a) claim; allocation, under § 113(f), is the equitable division of costs among liable parties. To apportion is to request separate checks, with each party paying only for its own meal. To allocate is take an unitemized bill and ask everyone to pay what is fair.

Of course, the two can work in tandem—or rather, sequentially. A party might provide a reasonable basis for taking certain costs off the table—those which the party can show it did not cause—and then proceed to an equitable allocation of any costs that remain. But the point here is to distinguish the types of burdens that litigants face at each stage. While the party seeking apportionment clearly has the burden of showing why its liability should be limited to "a fixed amount," *Burlington Northern*, 129 S. Ct. at 1882 n.9, it is unclear what it would mean for a party to have the burden of proof as to allocation generally. A party can offer reasons favoring one allocation over another, and those may or may not convince the court. Certainly a party has a burden of proving any fact which it wants the court to rely upon in deciding what is equitable. But if the court does not agree to the allocation proposed by the party bringing the § 113(f) counterclaim, the Court certainly needn't then default to the other party's proposed allocation instead. Rather than worrying about burdens of proof, liable parties simply need to present their best evidence and arguments as to what allocation proves most equitable.

III.

The Court does not need to linger long on the one burden of proof which the parties unquestionably *do* have: that of establishing each other's liability under CERCLA. The parties are agreed, and the Court finds as a fact, that Waterbury North is a site "where a hazardous substance has . . . come to be located." 42 U.S.C. § 9601(9) (defining "facility" for the purposes of CERCLA). The parties agree, and the Court also finds as fact, that Yankee Gas is the current owner and operator of Waterbury North.

Further, the Court finds that Yankee Gas has already incurred costs—those described in Part I, *supra*—in responding to the release of hazardous substances at Waterbury North. Because "initial monitoring, assessment, and evaluation expenses are recoverable even absent any subsequent recoverable response costs," *City of New York v. Chem. Waste Disposal Corp.*, 836 F. Supp. 968 (E.D.N.Y. 1993) (collecting cases), the costs of the 1987 Coal Tar study, the 1997 Shell study (had any been documented), and the 2010 AECOM study are all found to be "necessary costs" "consistent with the national contingency plan," as CERCLA requires. *See* 42 U.S.C. § 9607(a)(4)(B); *Sealy Conn., Inc. v. Litton Indus., Inc.*, 93 F. Supp. 2d 177, 183-96 (D. Conn. 2000). Costs of the Coal Tar study and AECOM study shall be allocated in the manner described in Part V of this opinion.

The only remaining question, then, is whether UGI operated Waterbury North at a time in which hazardous materials were disposed of there. In its previous opinion, the Court noted that

> as both Plaintiff's and UGI's experts testified at trial, it was difficult to operate MGPs without some leakage of tar and oil into the environment. Although MGPs attempted to minimize leakage (not because of the then-unknown environmental consequences but because of the monetary value of the byproducts), tar and oil could—and often did—enter the environment during many stages of the CWG process.

Yankee Gas, 616 F. Supp. 2d at 235. In his updated written testimony for this trial, Yankee Gas's expert, Dr. Neil Shifrin, reiterated his opinion that leaks and spills, both of tar and oil, would have occurred on site throughout UGI's operational period. Ex. 618 at 4. Dr. Shifrin opined, and the Court agrees, that "it is virtually certain that contamination occurred while UGI operated the Waterbury North MGP." *Id.* at 5.

UGI's expert, Mr. Vandeven, himself acknowledged that "it was virtually impossible for an MGP to operate without some leaks and spills," Ex. 2295 at 13, and that "it is not possible to say there were absolutely no leaks or spills of tar at the Waterbury facility while UGI was operating it," *id.* at 2. He added three provisos, however: first, that the impossibility of operating without leaks or spills does not imply that leaks or spills occurred at any particular period, *id.* at 13; second, that "there is no concrete evidence of any specific leaks or spills during that time, much less any significant ones," *id.*; and third, that "many of the releases of tar or oil at an operating MGP would have been minor releases of small volume that would not have persisted over the many decades since the MGP operated and would not have resulted in contamination that necessitates remediation today," *id.* at 8; *see also id.* at 12.

Whether true or not, this last argument—that any releases during UGI's operational period would not have caused the present need for remediation—is not relevant to UGI's liability under CERCLA. As the Second Circuit has made clear, "[w]hat is *not* required" to establish liability under § 107(a) is a showing that "a specific defendant's waste caused incurrence of clean-up costs." *Alcan Aluminum*, 990 F.2d at 721 (emphasis in original); *see also Niagara Mohawk*, 596 F.3d at 131 ("A party seeking to establish liability under CERCLA need not even show a specific PRP's waste caused cleanup costs."). "The traditional tort concept of causation plays little or no role in the liability scheme." *Niagara Mohawk*, 596 F.3d at 131.

Given the way MGP facilities operate, the Court finds as a fact that leaks and spills of tar and oil must have occurred at Waterbury North during the 25 to 30 years in which UGI operated the facility. Thus, UGI is a liable party under CERCLA § 107(a). Since it and Yankee Gas are both liable parties, the Court, after resolving one more threshold issue, will turn in Part V to the allocation of costs between them.

IV.

The parties dispute the period of UGI's involvement at Waterbury North. As already described, the dispute turns on whether UGI is the corporate successor of UGIC, which operated Waterbury North from 1884 to 1889. If it is, then UGI is liable for a period of operations at the Waterbury North facility totaling thirty years: 1884 to 1914. UGI contends, however, that its acknowledged predecessor, TUGIC, did not assume the CERCLA liabilities of UGIC when it purchased UGIC's assets in 1889. UGI therefore accepts liability for only twenty-five years' involvement at Waterbury North: 1889 to 1914. The resolution of this dispute is complicated by the fact that the transaction documents are missing from UGI's ordinarily meticulous set of historical records. So while the facts that follow are not disputed, they are incomplete and, as a result, subject to sharp dispute as to what lesson the Court should draw from them.

Yankee Gas acknowledges that "both state and federal standards recognize that an asset purchaser is typically not liable for the seller's liabilities." Pl.'s Pre-Trial Br. [doc. # 56] at 5. However, common law establishes four exceptions to this general rule. As the Second Circuit has said, "a corporation acquiring the assets of another corporation only takes on its liabilities if . . . the successor expressly or impliedly agrees to assume them; the transaction may be viewed as a de facto merger or consolidation; the successor is the mere continuation of the predecessor; or the transaction is fraudulent." *New York v. Nat'l Servs. Indus., Inc.*, 352 F.3d 682, 685 (2d Cir. 2003); *see also id.* ("[W]hen determining whether liability under CERCLA passes from one corporation to another, we must apply common law rules and not create CERCLA-specific rules."). In arguing that UGI should be held responsible for UGIC's liabilities, Yankee Gas claims that TUGIC, UGI's predecessor, expressly or impliedly agreed to assume UGIC's liabilities, that TUGIC and UGIC had a de facto merger, and that TUGIC was the mere continuation of UGIC. The Court, like the parties, will treat the second and third of these claims as synonymous.[3]

[3] Neither of the parties has argued that anything here turns on the distinction between a "de facto merger" and "mere continuation," and the Court sees no reason to distinguish them. *See Collins v. Olin Corp.*, 434 F. Supp. 2d 97, 103 (D. Conn. 2006) (finding, under Connecticut law, that "analysis of a 'mere continuation' and a 'de facto merger' may be treated together"); *Fiber-Lite Corp. v. Molded Acoustical Prods. of Easton, Inc.*, 186 B.R. 603, 608 (E.D. Pa. 1994) (finding, under Pennsylvania law, that "the continuity exception . . . is actually subsumed by the de facto merger exception").

A.

As the First Circuit has held, "to transfer CERCLA liability," the transaction agreement "must contain language broad enough to allow [a court] to say that the parties intended to transfer either contingent environmental liability, or all liability." *John S. Boyd Co. v. Boston Gas Co.*, 992 F.2d 401, 406 (1st Cir. 2003). Several facts in the record support Yankee Gas's contention that TUGIC assumed UGIC's liabilities in full in the 1889 transaction. Minutes from a UGIC Stockholders Meeting on September 9, 1889 state TUGIC's intention to "give to [UGIC] its obligation in writing to pay and discharge *all* the debts, obligations and undertakings of this company." Ex. 562 at 990 (emphasis added). Minutes from TUGIC note that it would acquire UGIC's property "subject to *all* the indebtedness and obligations of said company." Ex. 557 at 437 (emphasis added). A Federal Trade Commission Report from 1933 claimed that TUGIC "purchased the assets and assumed all the liabilities of" UGIC in 1889. Ex. 157 at 038060. Finally, Yankee Gas offered written and oral testimony by Professor Jonathan Macey,[4] a professor of corporate law who testified that a corporation in the 1880s could structure an acquisition to assume all liabilities or to leave certain liabilities behind—just as now. *See* Tr. at 10-12. Professor Macey also testified that "TUGIC could not have carved out CERCLA liability in its acquisition because the CERCLA statute creating such liability had not even been contemplated." Ex. 619 at 4.

UGI argued convincingly against this last point by observing that TUGIC could have carved out CERCLA liability simply by refusing to assume any unknown future obligations. The Court agrees. Further, according to UGI, this is precisely what TUGIC did. UGI points to the fact

[4] UGI has objected to this testimony, claiming that Professor Macey offered legal conclusions that are the Court's to make. To sidestep the objection, Professor Macey made clear at trial that his contribution was simply to provide historical context for the facts in the record. The Court has considered his testimony solely to that extent.

that TUGIC described itself as undertaking "all obligations *heretofore made* and entered into" by UGIC, Ex. 557 at 438 (emphasis added), thereby distinguishing obligations "heretofore made" from any unknown future or contingent liabilities, such as liability under CERCLA. UGI notes as well that the 1933 FTC report provided by Yankee Gas details to the penny the assets acquired and liabilities assumed in TUGIC's transaction with UGIC. *See* Ex. 157 at 03870. UGI argues that the precise quantification of the liabilities assumed ($2,544,706.77) precludes the possibility that TUGIC might have assumed unknown future contingent liabilities.

The Court finds that the facts before it on the question of assumed liabilities are in complete equipoise. Descriptions of TUGIC assuming "all the indebtedness and obligations" of UGIC," or "assuming all [its] liabilities" are matched by contemporaneous descriptions of the transaction that seem to limit it to UGIC's carefully valued, "heretofore made" obligations. On this question, the scales are equally weighted, but the burden of proof rests on Yankee Gas (by its own admission). Thus, the Court is unable to find that TUGIC agreed to assume all of UGIC's liabilities, including its future liability under CERCLA, when it acquired UGIC's assets in 1889.

B.

To determine whether there was a de facto merger between TUGIC and UGIC, the Court is faced with a test that is largely the same under federal common law and that of Connecticut and Pennsylvania, the state where the transaction took place.[5] As the Second Circuit has explained:

> At common law, the hallmarks of a de facto merger include: (1) continuity of ownership; (2) cessation of ordinary business and dissolution of the acquired corporation as soon as possible; (3) assumption by the purchaser of the liabilities ordinarily necessary for the uninterrupted continuation of the business of the acquired corporation; and (4) continuity of management, personnel, physical location, assets, and general business operation.

[5] Neither of the parties has suggested that anything turns on the choice of law determination here.

Nat'l Serv. Indus., 460 F.3d at 209; *cf. Collins,* 434 F. Supp. 2d at 103 (listing nearly identical factors under Connecticut law); *Cont'l Ins. Co. v. Schneider, Inc.*, 810 A.2d 127, 135 (Pa. Super. Ct. 2002) (same under Pennsylvania law).

Arguing that the TUGIC-UGIC transaction qualifies as a de facto merger, Yankee Gas has shown that TUGIC purchased UGIC's assets using $4 million of TUGIC stock. *See* Ex. 557; *cf. Nat'l Serv. Indus.*, 460 F.3d at 210 n.2 ("The continuity-of-ownership element typically is satisfied where the purchasing corporation pays for the acquired assets with shares of its own stock."). After the transaction was completed, six of seven TUGIC directors were also UGIC directors. Both companies held their annual directors meetings at the same location. Exs. 566, 595. The business at most of UGIC's meetings consisted only of electing new officers and directors. *See* Ex. 563.

Yankee Gas also finds it significant that UGI dates its corporate existence to the year UGIC was organized. In its History of the United Gas Improvement Company, a UGI document drafted in 1955, UGI stated that "U.G.I. is a public utility operating company, the parent company of which was organized June 1, 1882, under the general laws of the State of Pennsylvania as United Gas Improvement Company. . . ." Ex. 529 at UGICT020976; *see also* . Ex. 107 at UGISC002492. A self-published book entitled *UGI Corporation: The First 100 Years* was published in 1982; it describes UGIC as being "folded into the new entity, The United Gas Improvement Company [TUGIC], in 1889." Ex. 117 at UGICT005726.

Finally, Yankee Gas points to the 1933 FTC report, which said that from the date of sale, "April 1, 1889, the operations of [UGIC] were those of The United Gas Improvement Company." Ex. 157 at 038072. To this, UGI responds by noting a handwritten edit on the same report which changed the sentence "United Gas Improvement Company was merged with The

United Gas Improvement Company" to "United Gas Improvement Company sold all its assets and property to The United Gas Improvement Company." *Id.* at 038069. The FTC also referred to UGIC as "the old company" when referring to its lease of Waterbury North. *See* Ex. 1608 at 038707.

UGI highlights the facts that UGIC continued in existence after selling its assets, that it took the trouble of changing its name in 1915, and that it only dissolved in 1918, twenty-nine years after its transaction with TUGIC. *See* Ex. 157 at 038072. UGI also underscores that TUGIC referred to other, contemporaneous transactions as consolidations—a word which Professor Macey took to be equivalent to mergers—and yet none of the records still in existence use that word when referring to the TUGIC-UGIC transaction. *See* Tr. Day 1 at 20. (However, as part of the historical context he provided, Professor Macey did note that in 1889, labeling a transaction a merger did not have the significant tax and other consequences that it now has. *See* Tr. Day 1 at 21.)

All four of the common law factors need not be present in order for there to have been a de facto merger. *See Nat'l Serv. Indus.*, 460 F.3d at 213; *Collins*, 434 F. Supp. 2d at 104; *Schneider*, 810 A.2d at 135. Indeed, all four are not satisfied here. UGIC's continued existence for twenty-nine years after the asset sale means that the second of the de facto merger factors points strongly in UGI's favor. However, the payment with shares of stock, the overlap in boards of directors, the fact that UGIC did not, as far as UGI's counsel knew, conduct any business during the post-transaction years, and TUGIC's broad assumption of liabilities—at least those "heretofore made"—together suggest that a de facto merger occurred. The Court thus finds that Yankee Gas has met its burden of proof in showing that UGI should be held liable for UGIC's 1884 to 1889 operations at Waterbury North. Recognizing that this is a close question, however, the Court describes in footnotes throughout this opinion the few ways its allocation would change should a higher court disagree with this determination and release UGI from liability for these five years.

V.

Having settled these preliminary matters, the Court can now turn to the central issue in this case: the allocation of past and future response costs at Waterbury North. Allocation of costs under § 113(f) is an "equitable determination based on the district court's discretionary selection of the appropriate equitable factors in a given case." *Goodrich III*, 311 F.3d at 170; *cf.* 42 U.S.C. § 9613(f)(1) ("In resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the court determines are appropriate."). "The Second Circuit has declined to compile a mandatory list of factors for consideration" by the district court, *Nashua Corp. v. Norton Co.*, 116 F. Supp. 2d 330, 352 (N.D.N.Y. 2000); instead, Section 113(f)'s "expansive language … affords a district court broad discretion to balance the equities in the interests of justice," *Bedford Affiliates v. Sills*, 156 F.3d 416, 429 (2d Cir. 1998).

Courts generally trot out two lists of factors when considering allocation under CERCLA. The so-called "Gore Factors" come from the legislative history surrounding three failed bills (one sponsored by then-Congressman Al Gore) that together informed CERCLA when the latter was "hastily enacted" in 1980. *Niagara Mohawk*, 596 F.3d at 130 n.23; *see also United States v. Davis*, 31 F. Supp. 2d. 45, 63 (D.R.I. 1998). The Gore Factors include:

> (1) The ability of the party to demonstrate that his contribution to the release can be distinguished; (2) The amount of hazardous substance involved. Of course, a small quantity of highly toxic material, or above which releases or makes more dangerous another hazardous substance, would be a significant factor; (3) The degree of toxicity of the hazardous substance involved; (4) The degree of involvement of the person in the manufacture, treatment, transport, or disposal of the hazardous substance; and (5) The degree of cooperation between the person

> and the Federal, State, or local government in preventing harm to public health or the environment from occurring from a release. This includes efforts to mitigate damage after a release occurs.

Niagara Mohawk, 596 F.3d at 130 (quoting S. Rep. No. 96-848, at 345-46 (1980)).

The second set of factors commonly invoked are those that Judge Torres enumerated in *United States v. Davis*, 31 F. Supp. 2d at 63. The "Torres Factors" include:

> 1. The extent to which cleanup costs are attributable to wastes for which a party is responsible.
> 2. The party's level of culpability.
> 3. The degree to which the party benefitted from disposal of the waste.
> 4. The party's ability to pay its share of the cost.

Id. Another district court in this Circuit has noted that the "'Gore factors are most relevant in academic and theoretical analysis of the way Superfund liabilities should be allocated. But in the real world Judge Torres' list of four critical factors often provides the basis upon which Superfund allocations are made.'" *New York v. Solvent Chem. Co.*, 685 F. Supp. 2d 357, 442 (W.D.N.Y. 2010) (quoting Robert P. Dahlquist, *Making Sense of Superfund Allocation Decisions: The Rough Justice of Negotiated and Litigated Allocations*, 31 Envtl. L. Rep. 11098, 11099 (2001)).

CERCLA cases are a diverse bunch, and the Gore and Torres factors necessarily suit some better than others. *See Envtl. Transp. Sys., Inc. v. ENSCO, Inc.*, 969 F.2d 503, 509 (7th Cir. 1992) ("[I]n any given case, a court may consider several factors, a few factors, or only one determining factor . . . depending on the totality of circumstances presented to the court."). Here, the Court finds no distinguishable hazardous substances: both Yankee Gas and UGI were engaged in tar-producing manufactured gas operations. Nor does the Court find any relevant difference between the companies in their cooperation with the government to prevent or mitigate damage. The fact that this case involves pollution from a time much less environmentally aware than our own means that neither company can be expected to have taken the steps to avoid or mitigate damage that each would now be expected to take. Finally, the parties have acknowledged that they both have the ability to pay their share of the costs in this matter.

This leaves, broadly, two of the factors above: (1) the extent to which each party can show that it was (or was not) responsible for damage at the various portions of the Waterbury North site; and (2) the extent to which the party benefitted from the disposal of the waste. The Court also finds relevant a third factor, related to the second: (3) the extent to which a party will benefit from the cleanup efforts. These are the three factors that guide the Court's allocation in this case.

The third factor—benefit from cleanup—is the most clear-cut, for it points exclusively to Yankee Gas. As the site's current owner, Yankee Gas is the party which will obviously benefit from the remediation efforts at Waterbury North and any future development that remediation makes possible. Thus, the Court begins its allocation in Section A, below, by considering the extent to which Yankee Gas should be assigned an "owner's share" of the remediation costs throughout the site.

The first and the second factors together require the Court to find some way of approximating the damage wrought and benefit reaped by the parties over time periods in which the actual damage and benefits cannot be known with any certainty. In response, the parties have proposed different methods of approximation: one based primarily on the percentage of time each party operated the Waterbury North facility, the other based on the percentage of Waterbury North's total gas production that each produced during their time in control. The Court weighs the merits of these approximation methods in Sections B and D below.

Finally, the first of the factors—responsibility for damage—requires that the Court separate out the three areas at Waterbury North which the parties have distinguished in their briefing and at oral argument. These are: the Area Beyond the Holders, the Holders, and the Tailrace. Because the parties have offered distinct (and often conflicting) causal accounts of the damage at each of the three areas, the Court discuss its allocation for each of the areas in turn in Sections B, C, and D.

Section E summarizes the Court's allocation and provides an allocation method for those costs which cannot be assigned to any of the three areas just mentioned.

A.

Courts frequently assign an "owner's share" of remediation costs under CERCLA. *See, e.g.*, *NYSEG*, 808 F. Supp. 2d at 533, 535; *Halliburton Energy Servs. v. NL Indus.*, 648 F. Supp. 2d 840 (S.D. Tex. 2009); *Alcan-Toyo Am., Inc. v. N. Ill. Gas Co.*, 881 F. Supp. 342 (N.D. Ill. 1995). Pursuant to the provisions in CERCLA that hold owners liable for environmental damage on their property, 42 U.S.C. § 9607(a)(1)-(2), courts have assigned owners responsibility "simply by virtue of being the landowner." *United States v. R.W. Meyer, Inc.*, 932 F.2d 568, 571 (6th Cir. 1991). It should be said, however, that a judge concurring in *R.W. Meyer*, the case just quoted, argued that assigning an owner's share was appropriate only because "the court viewed the landowner status in combination with other relevant factors." *Id.* at 577 (Guy, J., concurring); *see also Halliburton*, 648 F. Supp. 2d at 868.

Factors additional to the simple fact of ownership can vary. Courts sometimes look at whether the owner knew of the environmental damage its lessee was inflicting. *See, e.g.*, *Weyerhaeuser Co. v. Koppers Co.*, 771 F. Supp. 1420, 1424 (D. Md. 1991). At other times they consider benefits the landowner may have received from the contractual relationship beyond rental fees. *See Halliburton*, 648 F. Supp. 2d at 869. In this case, the most relevant consideration is the fact that Yankee Gas plans to use Waterbury North as a training facility for its employees once remediation efforts are complete. *See* Tr. at 398. Thus, as Waterbury North's owner, Yankee Gas stands to benefit from the cleanup at that site.

At trial, Yankee Gas's argument that an owner's share would be inappropriate in this case was significantly undermined by its expert's admission at trial that he had recommended a 20% owner's share in another recent case; Dr. Shifrin also referred to 20% as a "very typical owner's share." Tr. at 188. Worse still for Yankee Gas, Dr. Shifrin was unable to offer any reason whatsoever as to why he hadn't suggested an owner share in this case, or why this case should be treated differently than others in which he has testified. *See* Tr. at 187. UGI has requested an owner's share of 30% to 40%.

This is not a case in which the owner of the site was blind to the kind of operations that were being carried out on its property or the pollutants that those operations necessarily produced. After all, Yankee Gas operated Waterbury North for decades before UGI took over operations in the 1880s. What is especially relevant here is the fact, already mentioned, that Yankee Gas stands to reap the benefits of the cleanup efforts that are planned at Waterbury North, just as it reaped the benefits of its lease and, presumably, its use of the site as a storage location for oil-dripping buses. Thus, the Court finds it appropriate to allocate a 25% owner's share to Yankee Gas. This share applies to all areas at the site. Thus, the site-specific allocations discussed in the subsequent three sections are allocations of the 75% of costs that remain after the owner's share has been taken out. Put more mathematically, the percentage of costs assigned to UGI in Sections B, C, and D must, in each case, be multiplied by 75%. The percentages assigned below to Yankee Gas must be multiplied by 75%, then 25% (for the owner's share) must be added to the result. A chart in Section E shows the allocations with the owner's share included.

B.

The "Beyond the Holders Area" refers to the operational areas of Waterbury North that are not among those identified by Yankee Gas's expert, Dr. Neil Shifrin, either as Areas 1-3 ("The Holders") or Area 4 ("The Tailrace"). *See* Ex. 625 fig. 3; Ex. 645 at 11. The pollution in these areas is mostly oil (a light non-aqueous phase liquid, or "LNAPL"). Dr. Shifrin attributes the LNAPL in these areas to leaks and spills of oil that was used as a feedstock to generate carbureted water gas. Ex. 618 at 3. UGI's expert, Mr. Jay Vandeven, also testified at trial that leaks and spills were a likely cause—though he claimed that these might have continued to occur after Waterbury North stopped manufacturing gas. In other words, there might have been post-operational, in addition to operational, leaks and spills beyond the holders, especially during the demolition activities that continued at Waterbury North through 1965. *See* Tr. Day 2 at 444-445; Ex. 2314 at 3.

These divergent causal stories about how oil came to pollute the Beyond the Holders Area lead to different proposed methods of allocation. Because Dr. Shifrin believes that oil was leaked and spilled during the operational period and was thus tied to gas production, his proposed allocation is based on the percentage of total gas production that occurred under each party's watch. This allocation method requires a fair amount of estimation, as gas production data are known for only 30 of the 75 years of gas production at Waterbury North. *See* Ex. 541 at 10. Since gas production data are not available prior to 1890, Dr. Shifrin suggests a straight-line extrapolation for the earlier years, drawing a line from 0 in 1852 (the year before production began) to 60 million cubic feet in 1890 (the first year with known data). This averages out to 30 million cubic feet of gas production—that is, half of the first known year's production—for every year from 1853 to 1889. Dr. Shifrin fills in other gaps in the data in a similar way. *See* Ex. 541 at 11; *id.* Tbl. 1. Were the Court to use gas production as the approximation method, UGI would be responsible for 45.3% of the remediation costs in the Area Beyond the Holders.[6]

Meanwhile, Mr. Vandeven, who attributes some damage to post-operation demolition activities, urges the Court to consider the parties' respective years of control over the site instead of gas production. This requires the Court to decide what ending date to use. UGI argues that the proper end date is 1965, when demolition—and the leaks and spills UGI claims were associated with demolition—ended at Waterbury North. Yankee Gas responds that, even if the Court uses years as its metric, it should still only consider the years of operation, 1853-1928. These two approaches lead to significantly different allocations, though both attribute a smaller share to UGI than did the gas production ratio. If the end date is 1965, as UGI urges, UGI would be responsible for 30 years (1884-1914) out of 112 (1853-1965), or 26.8%. If the end date is 1928, as Yankee Gas would have it, UGI would be responsible for 30 years out of 75, or 40%.[7]

The Court is concerned that Dr. Shifrin's proposed gas production ratio does not take into account the possibility of leaks and spills occurring after 1928, when operations ceased. *See* Tr. at 175. Dr. Shifrin testified that the "quality of the fluid" in the holders changed after that time, so that only wastewater was leaking. *Id*. But he has also testified that it is impossible to

[6] This calculation takes the total amount of gas production which Dr. Shifrin attributes to UGI from 1884 to 1914—5,075 million cubic feet—and divides it by the total estimated gas production at Waterbury North: 11,214 million cubic feet. *See* Ex. 541 at 12. Were UGI to prevail on the question of successor liability, *see* Part IV, *supra*, the estimated 150 million cubic feet of gas produced from 1884 to 1889 would need to be subtracted from UGI's share. If UGI is not held responsible for that period, its proportion of gas production at Waterbury North falls to 43.9%.

[7] If UGI is not held responsible for the 1884-1889 period, the percentages above would fall to 22.3% and 33.3%, respectively.

distinguish "tar spilled or buried beyond operational equipment when it was demolished" from "operational leaks and spills." Ex. 541 at 6. Given this testimony and that of Mr. Vandeven, the Court finds it likely that leaks, spills, and demolition activities after the operational era contributed to the pollution in the Beyond the Holder Area. For this reason, the Court finds that UGI's proposed allocation is the more equitable one. The Court allocates 26.8% of the response costs that have been or will be incurred in the Beyond the Holder Area to UGI. Yankee Gas shall be responsible for 73.2% of those costs.

C.

The parties have much greater agreement on the responsibility for response costs associated with former Holders 1, 2, and 3. Even Yankee Gas acknowledges that it bears responsibility for the lion's share of those.

Holders 1 and 2 were operational throughout the period in which UGI operated Waterbury North. Holder 3 was constructed in 1892, during UGI's operational period. All three of the Holders were demolished after UGI's involvement at Waterbury North ended. Thus, response costs resulting from the demolition of the holders should be borne by Yankee Gas.

As Dr. Shifrin testified at trial, *see* Tr. at 57-58, the standard procedure for demolishing a holder at an MGP would have involved first emptying its liquid contents in order to sell the valuable tar. Holders could not be completely emptied, however, and so there would be some congealed and hardened tar left on the holders' bottom and sides. Dr. Shifrin testified that six to twelve inches of residual material could be left on the bottom of the holders. *See* Tr. 260. Once the holders were emptied as much as possible, the holder walls above ground level would be knocked down into the holder. The knocked-down walls and other debris would be used to fill the hole, which would then be covered with dirt and leveled off.

Because both sides accept that this demolition process is responsible for the bulk of the problems in the Holder Area, the only dispute is to what percentage should be allocated to UGI based on the residual tar left over from the operational period. UGI has proposed a 4% allocation, a figure it arrives at because its expert testified at trial that UGI should get "no more than a couple of percent," Tr. at 472, and UGI estimates that 10% of the tar is likely from gas production operations—of which UGI should be responsible for 45.3%, as described in the previous Section. Though Yankee Gas and its expert have not been entirely forthcoming with a proposed allocation for the Holder Area, *see, e.g.*, Ex. 645 at 13, Dr. Shifrin, upon questioning from the Court at trial, attributed 50% of the tar in the Holders to operations as opposed to demolition. Multiplying that 50% by UGI's percentage of total gas production, Dr. Shifrin attributed "approximately 20 percent" of the Holder costs to UGI. Tr. at 261-62.

The Court has little hard evidence to rely on in deciding between these proposed allocations. However, Dr. Shifrin's estimate, made almost in passing and not anticipated or repeated in any written testimony or briefs, cannot be credited. Yankee Gas presented no reason for the Court to believe that half the tar in the Holders was leftover from operations. The amount caused by demolition, on the other hand, is easy to see. The Court will therefore allocate 4.5% of the costs in the Holder Area to UGI (45.3% of 10%), with 95.5% going to Yankee Gas.[8] This is a rough estimate, but one that will have to do given the state of the evidence.

One final issue regarding the Holders remains. UGI and its expert, Mr. Vandeven, have claimed that test borings penetrated the bottom of at least two of the holders during Yankee Gas's 1987 site investigation. Mr. Vandeven claims that the holes in the bottom of the holders "created a pathway for any tar . . . to flow through . . . into the subsurface, below the holder bottoms." Tr. at 457. As a result, UGI claims that any remediation costs for tar found below Holders 1, 2, and 3

[8] UGI would be responsible for 4.4% if it is not held liable for the 1884-1889 period.

should be included in the Holder Area and allocated according to the Holder Area ratio, not the ratio associated with the Area Beyond the Holders.

Yankee Gas vigorously disputes this so-called "dragdown" theory. It points to evidence from boring logs which show clean soil directly beneath the holder bottoms. *See* Ex. 615. Further, testimony from Justin Mosquera, the Project Manager for the 2010 AECOM study, emphasized that borings placed around the perimeter of the holders did not show any kind of plume coming from the holders and migrating. Tr. at 314. Mr. Mosquera explained at trial that even if the 1987 borings penetrated the bottom of the holders, natural debris could have "acted as a plug." Tr. at 315. Also, standing water in the bottom of the holders suggests that it is unlikely that boring holes are allowing tar to leak through the holder bottoms. *See* Tr. at 315-16; Ex. 625 at 11. Given the boring log data and the credible testimony of Mr. Mosquera at trial, the Court will limit its Holder Area allocation to the area within the confines of former Holders 1, 2, and 3. Any remediation needed for material below the holder bottoms will be counted among the Beyond the Holders costs and allocated according to the percentages laid out in Section V.B.

D.

Nineteenth-century maps show a tailrace leading from a brass factory that neighbored the Waterbury North MGP down alongside the Waterbury North site to the Naugatuck River. *See* Ex. 625, App. A. When the parties and the Court refer to the "Tailrace Area" here, however, the reference includes both the area where the tailrace used to run as well as a triangular parcel of land between the tailrace and the Naugatuck—land that UGI purchased in 1905. This is the area marked as Area 4 on Dr. Shifrin's map of the site. *See* Ex. 541, fig. 2.

Though Dr. Shifrin originally speculated that a lagoon may have contributed to the tar which suffuses this area, he and Yankee Gas have now offered a new explanation: that UGI bought the triangular parcel so that it could use that land as well as the tailrace as waste disposal areas, particularly after Waterbury passed an ordinance in 1897 prohibiting gas works from "corrupt[ing] the water." Ex. 546; Ex. 541 at 6. In support of this theory, Yankee Gas has offered maps from 1879, 1895, 1899, 1901, 1906, and 1907, all of which depict the tailrace. Ex. 625, App. A. A railroad map from June 30, 1915 does not show the tailrace, however, and neither does a drawing of the site from 1917 or a map from 1922. Yankee Gas contends that these maps provide evidence that the tailrace was filled in and disappeared sometime between 1907 and 1915. All but the final fourteen months of this period fall within UGI's period of operations at Waterbury North.

Yankee Gas speculates that UGI would have filled in the tailrace soon after acquiring the triangular parcel of land alongside the river, because otherwise it would have only be able to access that parcel via a small bridge that appears in the 1907 map. Yankee Gas also makes much of a map from 1904 that shows an overflow pipe extending from Holder 3 to the Tailrace Area. *See* Ex. 625 at 5. One of its witnesses, Mr. Mosquera, testified that the overflow would have "contained emulsified tar, NAPL globules, [and] lighter phase NAPLs." Tr. at 311. Based on the his 2010 Study, Mr. Mosquera said that there was "a fairly contiguous film of NAPL on the bottom of the tailrace from the operational period, followed by fill that was deposited as things were razed throughout the site, and they filled [the tailrace] in." *Id.*

Yankee Gas and UGI both emphasize Waterbury Gas Light meeting minutes from April 1915, which mention two possibly relevant items: (1) an unnamed part of the Waterbury North property that is "at present very valuable as a dump for our ashes," and (2) a proposed new holder to be built, possibly, in the area along the river. While UGI points to these minutes to suggest that Yankee Gas was dumping ash, Yankee Gas uses them to suggest that a large holder could not have been built on the triangular parcel if the tailrace had not already been filled. Because Yankee Gas alleges that UGI filled the Tailrace, it asks the Court to assign UGI 100% of the responsibility for that area.

UGI and its expert, Mr. Vandeven, claim that the Tailrace area was a general dumping ground, especially for ash, throughout the operational period, and then became a dumping ground for tar-saturated material during demolition of the plant. Ex. 2295 at 26. Mr. Vandeven testified that this is consistent with AECOM's description of the area as containing "slag, cobbles, steel debris, ash, and clinker underlain by sands containing some silt and gravel." *Id*. UGI urges the Court to find that the tar at the Tailrace was deposited there over the entire course of the Waterbury North facility's existence and, thus, to assign UGI only 15.8% of the costs of Tailrace remediation. It arrives at this number by dividing UGI's years of operation (starting in 1889, as UGI prefers, rather than 1884) by the total number of years from 1853 to the present.

As captivated as the Court was by the historical maps dug up by Yankee Gas, it is not sure that they can bear the full evidentiary weight that Yankee Gas has placed upon them. Assigning 100% of the Tailrace costs to UGI is unreasonable. For one thing, even if the tailrace was filled by 1915—and this itself requires the Court to accept that the railroad map from that year didn't simply omit the tailrace inadvertently—this leaves at least fourteen months in which Yankee Gas could have been responsible for filling it. Secondly, insofar as tar came into the tailrace channel through plant operations, this could have occurred before 1889 as well as afterwards. Finally, Yankee Gas's maps seem to show the tailrace disappearing entirely—from the property near the brass factory as well as on Waterbury North's site. This is somewhat puzzling on Yankee Gas's theory.

That said, evidence from boring logs and more recent test trenching suggest that the tar that has been found in the Tailrace Area is deep—often at 15 feet, sometimes down to 70 feet, and seldom at shallow depths. *See, e.g.*, Tr. at 51, 311; Ex. 541, Fig. 5; Exs. 547, 623-24. This is consistent with Yankee Gas's theory that tarry materials were placed in the Tailrace Area before the debris that is now observed above it. The presence of possibly large amounts of tar in layers below those in which the debris can be found points, if not to Yankee Gas's preferred story, at least to the conclusion that demolition activities are not the source of the tar in the Tailrace Area.

Thus, although the Court once again does not feel that it has the evidence necessary to make anything close to an exact allocation, the Court finds that responsibility for the tar in the Tailrace Area should be shared between the parties. Moreover, the allocation should be based on operations at Waterbury North, not demolition activities. Lacking a better method, the Court will assign responsibility based on the gas production ratios discussed in Section V.B. The gas production ratios are tied more closely to operations than any of the other proposed allocation methods. As such, they have the virtue of corresponding, at least roughly, to the cause of the pollution at Waterbury North, as well as to the respective benefits which each party derived from MGP operations. The Court thus assigns UGI 45.3% of the remediation costs tied to the Tailrace Area to UGI, with 54.7% going to Yankee Gas.[9]

E.

In summary, the allocation of costs at the various areas of Waterbury North, once Yankee Gas's owner's share is included, are as listed in the chart that follows. In each areas, the following formulas were used:

$$\text{Yankee Total Allocation}_{\text{AREA X}} = 25\% + ((75\%) \text{ x } (\text{Yankee Area Allocation}_{\text{AREA X}}))$$

$$\text{UGI Total Allocation}_{\text{AREA X}} = (75\%) \text{ x } (\text{UGI Area Allocation}_{\text{AREA X}})$$

[9] If not held liable for 1884-1889, UGI's share drops to 43.9%.

As an example, had the costs been split 50-50 in a given area, the final allocation for that area would be 62.5% (Yankee Gas) and 37.5% (UGI), once 50% was multiplied by 75% and, in Yankee Gas's case, 25% was then added to the result.

Area	**Yankee Gas**	**UGI**
Beyond the Holders	79.9%	20.1%
The Holders	96.6%	3.4%
The Tailrace	66%	34%

There may be costs that cannot reasonably be assigned to any one of these three areas. In that case, the parties shall wait to allocate unassignable costs until such time as all costs that *can* be assigned to one of the three areas above have been so assigned. The parties shall then determine the overall percentage of remediation costs paid by each; this will, of course, depend on the relative amount of remediation that ends up being needed in each of the three areas. Once the parties are able to determine the percentage of remediation costs each has paid site-wide, they shall then use that percentage as the allocation ratio for any remaining costs—that is, costs that cannot be assigned to one of the areas.

VI.

In the parties' final remaining dispute, UGI contends that its liability should be reduced by the amount of money Yankee Gas has received from two sources: an insurance settlement worth approximately $9.6 million, and rate recovery amounting to $2,216,000 per year. Yankee Gas responds that these monies should be subjected to the collateral source rule, the principle that payments made to an injured party from a collateral source like an insurance carrier should not redound to the benefit of the injurer by reducing the latter's liability. *See* Restatement (Second) of Torts § 920A(2) cmt. b (1979) ("[I]t is the tortfeasor's responsibility to compensate for all harm that he causes, not confined to the net loss that the injured party receives."). Yankee Gas argues, further, that the insurance settlement it received was paid in a lump sum, covering multiple MGP sites. Not only was the money not apportioned among the sites, Yankee Gas claims, but worse, it has already been spent elsewhere, and thus is not available to pay for the cleanup at Waterbury North.

Yankee Gas argues that Connecticut state law should govern this question, and indeed, Connecticut still adheres to the common law collateral source rule except in medical malpractice and personal injury actions. *See* Conn. Gen. Stat. § 52-225a; *Jones v. Kramer*, 267 Conn. 336, 346 (2004). Yet it does so—and it construes exceptions to the collateral source rule narrowly—"because the traditional principles of justice upon which the common law is founded should be perpetuated." *Jones*, 267 Conn. at 348. In tort, the principle of justice underlying the collateral source rule is that it is the innocent victim rather than the guilty tortfeasor who is the preferable recipient of any windfall caused by outside compensation.

To say this, however, is almost to demonstrate the common law principle's inapplicability in the context of CERCLA allocation actions. There is simply no innocent victim—aside from the environment—in this case. *See Basic Mgmt. Inc. v. United States*, 569 F. Supp. 2d 1106, 1123-24 (D. Nev. 2008) ("CERCLA contribution actions are not injury action in which the injured party is seeking compensation for damages to be made whole again. Rather, . . . the environment is the injured party.") As the Tenth Circuit has said: "[A] CERCLA contribution action is not a personal injury action by an innocent plaintiff. Instead it is a claim between two or more culpable tortfeasors, and the policy underlying the collateral source rule—to provide the innocent party with the benefit of any windfall—is simply not advanced in such cases." *Friedland v. TIC-The Indus. Co.*, 566 F.3d 1203, 1206-07 (10th Cir. 2009). The common law rationale for the collateral source rule cannot be extended to the situation presented in this case.

Further, it is not clear that Connecticut common law is what governs this question in the first place. CERCLA, as "a comprehensive federal statute that addresses liability for environmental cleanup costs," *id.* at 1206, precludes double recovery that is "pursuant to any other State or Federal Law. 42 U.S.C. § 9614; *see also NYSEG*, 808 F. Supp. 2d at 525-26. In addition to expressing Congressional distaste for double-recovery, the statute, as the Court has discussed at length already, also dictates that contribution actions under § 113(f) shall be decided according to equitable factors determined by the Court. Nothing prevents the Court from deciding, as another court in this Circuit has recently done, that "this insurance payment must be taken into consideration when making an equitable allocation [between] the parties." *NYSEG*, 808 F. Supp. 2d at 527.

Whether for one or both of these reasons, "every federal court that has addressed the issue in the context of CERCLA litigation has declined to apply the collateral source rule." *Id*. at 526; *see also Vine St., LLC v. Keeling*, 460 F. Supp. 2d 728, 765 (E.D. Tex. 2006). Adding itself to this list, the Court holds that a portion of the insurance proceeds Yankee Gas has received must be used to reduce the parties' overall liability for response costs at Waterbury North.

The question is: what portion of the insurance proceeds shall be used for this purpose? Yankee Gas received $9.6 million in insurance proceeds for environmental work, *see* Exs. 2269 at 277, 2279 at 89, although this may have been reduced to $9.2 million after legal fees were subtracted, *see* Ex. 2269 at 277. Further, this money was a global settlement, to be used for environmental cleanup at all of Yankee Gas's MGP sites. This, unfortunately, is an area in which the parties have not come forward with especially helpful evidence. The record, for example, does not indicate how many MGP sites the insurance money was meant to cover. This obviously makes it difficult for the Court to divide that money in order to determine what share should be allocated to Waterbury North.

An exhibit from the previous trial—Yankee Gas's 2001 Annual Report to the Department of Public Utility Control—listed projections of remediation and investigation costs at eleven MGP facilities *See* Ex. 2048 at 052271. Dividing $9.2 million by 11 results in a total of $836,364 per site. Lacking more detailed and recent information on Yankee Gas's MGP remediation projects, this strikes the Court as an equitable basis on which to divide the global insurance settlement Yankee Gas has received. Given money's fungibility, the fact that Yankee Gas claims to have already spent the insurance money it received is of no moment. Money saved at one facility is presumably money available at another.

The $836,364 should not redound to Yankee Gas's benefit, but neither should it become a windfall for UGI. Thus, the amount each party pays for remediation at Waterbury North must be reduced by the amount of the insurance payment, $836,364 multiplied by the percent of total cleanup costs borne by that party. In other words, when cleanup costs at Waterbury North are finally known, the parties shall determine the percent of the costs for which each has proven responsible. The amount UGI owes to Yankee Gas shall be reduced by UGI's percentage of the total costs multiplied by $836,364.

The Court takes a different course in regard to rate recovery, however. Yankee Gas expects to receive $2.682 million in rate recovery for environmental remediation costs in the years ending June 30, 2012 and June 30, 2012. This rate is set by the Connecticut Department of Public Utility Control ("DPUC"). Waterbury North is one of the Yankee Gas sites eligible for rate recovery, though rate recovery, like the insurance settlement, is not site-specific. *See* Ex. 646 at 3. DPUC has insisted that Yankee Gas look for other liable parties, such as UGI, in order to reduce the amount it will need to be reimbursed. *See id.*

As other courts have noted, the risk of double-recovery is not the same in the rate recovery context as it is with insurance. *See NYSEG*, 808 F. Supp. 2d at 528-29. Money recovered from UGI will allow DPUC to reduce the amount it allows Yankee Gas to collect from its utility customers during future rate cycles. Thus, money contributed by UGI is money that will not have to be paid by utility customers in Connecticut. The "windfall," if that is the word, goes to the rate payer, not Yankee Gas. This is in keeping with "CERCLA's goals of cleaning up environmental contamination and making sure that responsible parties, *rather than taxpayers*, bear the costs." *Marsh v. Rosenbloom*, 499 F.3d 165, 182 (2d Cir. 2007) (emphasis added); *see also Goodrich II*, 958 F.2d at 1198 ("Congress envisioned . . . [that] taxpayers [would] not [be] required to shoulder the financial burden of a nationwide [environmental] cleanup."). For this reason, the Court will not factor Yankee Gas's rate recovery into its equitable allocation in this case. *Cf. NYSEG*, 808 F. Supp. 2d at 529.

VII.

The Second Circuit has recently reiterated that in a case such as this, "the 'proper remedy for future response costs is not a present lump-sum payment of anticipated expenses but instead a declaratory judgment award dividing future response costs among responsible parties.'" *New York v. Solvent Chem. Co.*, 664 F.3d 22, 25 (2d Cir. 2011) (quoting *Goodrich III*, 311 F.3d at 175); *see also* 42 U.S.C. § 9613(g) ("[T]he court shall enter a declaratory judgment on liability for response costs or damages that will be binding on any subsequent action or actions to recover further response costs or damages.").

Thus, to summarize, the court declares, first, that UGI and Yankee Gas are both liable for response costs, consistent with the NCP, that have been or will be incurred at the Waterbury North MGP facility; and, second, that those costs are to be allocated as follows:

- For costs arising from the Holder Areas, Yankee Gas shall pay 96.6%, UGI 3.4%.
- For costs arising from the Tailrace Area, Yankee Gas shall pay 66%, UGI 34%.
- For costs arising in the Area Beyond the Holders, Yankee Gas shall pay 79.9%, UGI 20.1%.
- Costs that cannot be traced to any of these three delineated areas shall be allocated according to the percentage of overall site costs for which each Party is otherwise responsible.
- UGI's allocation of costs shall be reduced by its percentage of overall site costs multiplied by $836,364, the Court's estimate of insurance proceeds Yankee Gas has received for remediation at Waterbury North.

IT IS SO ORDERED.

/s/ Mark R. Kravitz
United States District Judge

Dated at New Haven, Connecticut: **March 30, 2012.**