

**UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA**

CYPRUS AMAX MINERALS COMPANY,)
)
 Plaintiff,)
)
 v.)
)
 TCI PACIFIC COMMUNICATIONS, LLC,)
)
 Defendant.)

Case No. 11-CV-0252-CVE-CDL

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Plaintiff Cyprus Amax Minerals Company (Cyprus) filed this case seeking contribution from TCI Pacific Communication, LLC (TCI) under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 et seq. (CERCLA). Cyprus’ claims concern the historical operations of two zinc smelting facilities near Collinsville, Oklahoma, and Cyprus seeks to recover a share of the costs that it incurred as a part of a soil sampling and cleanup program in Collinsville to remove hazardous substances associated with historical zinc smelting operations. The complaint (Dkt. # 2) alleged cost recovery claims under CERCLA against TCI Pacific Communications, LLC (TCI) under theories that TCI was a former owner or operator of a smelting facility (count I) and that TCI arranged for the disposal of a hazardous substance (count II). Cyprus also sought contribution from TCI under former owner or operator (counts III, V) and arranger (count IV, VI) theories of liability under CERCLA. Cyprus requested a declaratory judgment (count VII) that TCI is liable for a share of future costs that Cyprus will incur for the remediation of hazardous substances in Collinsville, and Cyprus also alleged a claim for unjust enrichment (count VIII).

Viacom, Inc. (Viacom), CBS Corporation, and CBS Operations, Inc. were also named as defendants in the original complaint.

TCI filed a motion (Dkt. # 53) seeking a determination that Kansas law or federal common law applied to Cyprus' request to pierce the corporate veil of a predecessor company of TCI, New Jersey Zinc Company (NJZ). The Honorable Gregory K. Frizzell granted the motion and determined that Kansas law governed the issue of piercing the corporate veil. Dkt. # 89. The case was reassigned to the Honorable John E. Dowdell. Cyprus filed an amended complaint (Dkt. # 106) naming TCI and CBS Operations, Inc. as defendants, but the amended complaint did not add any new claims. Defendants filed a motion to dismiss CBS Operations, Inc. as a defendant and to dismiss certain claims against TCI. Judge Dowdell ruled that CBS Operations, Inc. should be terminated as a party, and that counts I, II, and VIII of the amended complaint should be dismissed. The case was randomly reassigned to the undersigned after Judge Dowdell recused.

Following the ruling on the motion to dismiss, the claims remaining for adjudication are counts III through VII of the amended complaint. Cyprus seeks contribution under a theory that TCI is liable as a former owner or operator of a facility where a hazardous substance was released, and counts IV and VI seek contribution under a theory that TCI is liable as an arranger of the disposal or treatment of a hazardous substance. Count VII requests a declaratory judgment for a share of future response costs that Cyprus may incur. The Court issued an opinion and order (Dkt. # 183) finding that the former Tulsa Fuel and Management Company (TFMC) was the alter ego of NJZ, and TCI does not dispute that it is the successor in interest to NJZ. The Court subsequently denied both parties' motions for summary judgment. Dkt. # 244. A non-jury trial was held February 26 to

March 2, 2018. Having considered the evidence and submissions of the parties, the Court hereby enters its findings of fact and conclusions of law.

FINDINGS OF FACT

I. Background of Historical Zinc Smelting Operations Near Collinsville

1. The Bartlesville Zinc Smelter (BZ Smelter) operated from 1911 to 1918 and was located approximately one mile from Collinsville. Cyprus admits that the BZ Smelter was owned by the Bartlesville Zinc Company, which is a former subsidiary of a corporate predecessor of Cyprus. Dkt. # 106, at 5.

2. The Tulsa Fuel and Manufacturing Company Zinc Smelter (TFM Smelter) was owned by TFMC, and the TFM Smelter was located approximately a quarter-mile from the BZ Smelter. The TFM Smelter was located about one and one-quarter miles from Collinsville, and it operated from 1911 to 1926. Id. The Court determined in a prior opinion and order (Dkt. # 183) that TFMC was the alter ego of NJZ and that Cyprus could assert CERCLA contribution claims against TCI for any liability for the release of hazardous substances at the TFM Smelter site.

3. The BZ Smelter and the TFM Smelter used horizontal retort furnaces to extract zinc from zinc ore. Dkt. # 302, at 3. The raw material was first placed in a roaster to remove sulfur and sulfur dioxide, and the material was then placed in a furnace block for the extraction of the zinc. Dkt. # 310, at 20. Retorts were placed against the furnace block and condensers were used to cool the zinc vapor into molten zinc. Id. at 21. Each retort was approximately four feet long and eight inches wide, and a retort was about one inch thick. Dkt # 310, at 22.

4. The smelter operations generated three types of waste. First, the roasting facilities and furnace blocks generated air emissions that were vented from the smelter through roof vents or

smokestacks. Dkt. # 302, at 3; Dkt. # 310, at 21. Second, the smelting process also resulted in the creation of solid waste in the form of used or broken retorts, condensers, and refractory bricks. Id. at 21-22. Another form of solid waste was retort residue generated by the smelting process, and the retort residue would have been scraped from retorts and left in a residue pile on site. Id. at 22.

5. Defendant's historical expert, Jennifer Stevens, Ph. D., testified that there was a high demand for zinc in 1912, but the industry took a downturn in 1913. Dkt. # 313, at 22. However, the demand for zinc increased in 1914 at the beginning of World War I, because European smelting facilities closed during the war and the United States increased zinc production to meet the increased demand. Id. at 23.

6. The Bartlesville Zinc Company owned a 220 acre tract of land located about one mile from Collinsville, and the BZ Smelter occupied approximately 40 acres of the site. Dkt. # 307, at 132; Defendant's Ex. 166, at 166.0002. According to a report issued by the United States Geological Survey (USGS), the BZ Smelter was the largest zinc smelter operating in the United States for the year 1912, and it had a smelting capacity of 8,604 retorts. Defendant's Ex. 12, at 012.0006. The BZ Smelter retort capacity increased by 2,688 retorts in 1915, and the USGS reported that the BZ Smelter was the largest zinc smelter in the world. Defendant's Ex. 45, at 045.0040.

7. The TFM Smelter was located on a smaller parcel of land and, in 1912, the TFM Smelter had a smelting capacity of 6,232 retorts. Plaintiff's Ex. 93, at CA-C0086233. The smelting capacity of the TFM Smelter remained relatively consistent until 1922 when there was a sharp drop in the demand for zinc, and the TFM Smelter gradually cut production until it closed permanently in 1926. Dkt. # 311, at 101-02.

Cleanup of Smelter Sites

8. In the early 1990s, the Oklahoma Department of Environmental Quality (ODEQ) began to investigate whether the BZ Smelter site would be eligible for the federal Superfund program and, in September 1995, it issued a site inspection narrative report for the BZ Smelter site. Dkt. # 307, at 52; Plaintiff's Ex. 267. The report notes that the BZ Smelter is close in proximity to the former TFM Smelter and that both smelter sites "share a common surface water pathway and a common air/particulate dispersion pathway." Plaintiff's Ex. 267, at CBS_OPS-107027. The report identified Cyprus as the potentially responsible party (PRP) for the BZ Smelter site. Soil sampling found elevated levels of metals in the soil within the boundaries of the BZ Smelter and also within a nearby residential neighborhood. Id. at CBS_OPS-017031. The report noted that it was not possible to attribute offsite contamination to the BZ Smelter or the TFM Smelter, because the smelters shared common pathways of dispersion and both facilities generated the same types of waste materials. Id.

9. In May 1996, Cyprus and ODEQ entered into a consent agreement in which Cyprus agreed to perform a focused remedial investigation and feasibility study (RI/FS) of the BZ Smelter site, and TFMC and its successors were identified as PRPs for contamination on or near the BZ Smelter site. Plaintiff's Ex. 270, at 1-3. Cyprus' contractor, Exponent, prepared a Focused Remedial Investigation Report, and the primary exposure pathways for contaminants included "incidental ingestion of soil, inhalation of airborne particulates from soil, and dermal contact with soil (quantified for cadmium only)." Joint Ex. 5, at CBS_OPS-019452. The report concluded that exposure to contaminated soil was the primary "medium of concern" from the perspective of preventing harm to people on or nearby the BZ Smelter site. Id. at CBS_OPS-019453. The feasibility study focused solely on remedial actions for the cleanup of contaminated soil. Joint Ex. 6, at CBS_OPS-016894.

10. In 1992, the Oklahoma State Department of Health opened an investigation into potential contamination at the TFM Smelter site, and a site inspection report issued by ODEQ in September 1994 found that no measures had been taken to prevent the offsite migration of contaminants from the TFM Smelter site. Plaintiff's Ex. 263; Plaintiff's Ex. 264, at TFDEQ014723. The report noted the potential for offsite aerial migration of contaminants, but this was not within the scope of the site inspection. Id. at TFDEQ014738. Soil and water sampling revealed elevated levels of arsenic, lead, and cadmium on-site, and there was a substantial volume of smelter waste that had been left at the site after the TFM Smelter ceased operations. Id. at TFDEQ014723.

11. The United States Environmental Protection Agency (EPA) conducted its own Hazard Risk Scoring for the TFM Smelter site and placed the TFM Smelter site on the National Priorities List. Dkt. # 307, at 49-50. The EPA entered into a cooperative agreement with ODEQ for remediation of the TFM Smelter site, and ODEQ became the lead agency for the site. Id. at 50. ODEQ hired Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) to complete a RI/FS for the TFM Smelter site.

12. Burns & McDonnell issued its RI/FS report in August 2007, and the entire TFM Smelter site consists of just more than 60 acres of land. Plaintiff's Ex. 288, at CBS_OPS-026722. Approximately 30,000 cubic yards of waste material, such as broken retorts and condensers, had been left on the site after TFMC ceased operations in 1926, and the waste piles were not covered. Id. Although previous investigations noted higher levels of many metals, the contaminants of potential concern for the remedial investigation were arsenic, cadmium, lead, and zinc. Id. at CBS_OPS-026724. Burns & McDonnell conducted sampling on-site and offsite and concluded that

contamination at the TFM Smelter site had caused elevated levels of one or more metals at offsite locations. Id. at CBS_OPS-026725.

13. Soil sampling was conducted outside the TFM Smelter site to determine “the presence and extent of contamination due to potential aerial distribution of metals from the TFM smokestack and historical placement.” Id. at CBS_OPS-026726. The data did not support a finding that aerial dispersion of contaminants from the TFM Smelter was a likely pathway for higher metal levels in offsite properties. Id. Instead, Burns & McDonnell concluded that the historical placement of smelter waste in the community was the likely cause for the presence of contaminants in the soil, because smelter waste was visible in adjacent properties with metal levels in excess of the screening levels. Id. at CBS_OPS-026811.

14. The EPA hired CH2M Hill to conduct a supplemental RI/FS to “1) to obtain sufficient data to evaluate the potential soil contamination of offsite residual properties resulting from the use of smelter waste as fill material and 2) to evaluate the potential soil contamination of the area surrounding the site resulting from the release and dispersion of airborne particulates” Plaintiff’s Ex. 301, at CA-C0042553. CH2M Hill developed an air dispersion model to guide in the selection of sites for soil sampling, but the supplemental RI/FS noted that there was little historical information concerning the operation of the TFM Smelter. Id. at CA-0042585. CH2M Hill knew the period of operation of the facility and the approximate location of emission sources, but it did not know certain details about the furnaces, the size of the particulates, the exhaust temperature, and velocity and emission rates for the particulates. Id. CH2M Hill relied on local meteorological data and known information about the location of the emission sources, and it made assumptions concerning the unknown variables to complete the air dispersion modeling. Id. The modeling

provided contour plots showing where higher amounts of particulates would likely have impacted, and the greatest deposition was on-site or very near the TFM Smelter site. Id. at CA-C0042586. Some amounts of particulates were likely carried downwind, and the modeling estimated that 0.6 percent of the maximum deposition could have been carried one and a half miles from the TFM Smelter site. Id.

15. CH2M Hill collected soil samples from residential properties in Collinsville and also conducted more focused sampling in an attempt to determine if aerial dispersion was a likely pathway for the distribution of contaminants from the TFM Smelter. Id. at CA-C0042595. Sampling was also conducted at 201 residential properties to assess the extent to which smelter waste was used as fill material by local residents in Collinsville, and 10 of the properties had an excess level of lead, arsenic, or cadmium. Id. at CA-C0042653. Visible smelter waste was present at two of the locations, and the other eight properties were located in an older part of Collinsville that was directly north of the TFM Smelter site. Id. at CA-C0042654. Out of the eight properties without visible smelter waste, CH2M Hill concluded that five of these properties were located near older roads that were made using smelter waste. Id. As for aerial dispersion of particulates, the targeted sampling did not reveal contamination in the areas that were most likely to be affected according to CH2M Hill's air dispersion modeling, and the evidence did not support a finding that airborne particulates were the cause of contamination near the TFM Smelter site. Id. Instead, contaminated residential soil was likely attributable to the historical placement of smelter waste, and there was no discernable trend or pattern to the placement of these materials. Id. at CA-C0042655.

16. In November 2008, the EPA issued a Record of Decision (ROD) for the TFM Smelter site selecting a remedy for the cleanup of approximately 200,000 cubic yards of soil and waste material

located at the site. Joint Ex. 10, at CA-C0031129. ODEQ performed the remedy selected by the EPA, which included the excavation of contaminated soil and waste materials at the site. Dkt. # 307, at 70. The remedy focused on the cleanup of the TFM Smelter site, and the EPA deferred to ODEQ for cleanup of offsite residential properties. Id.

The 2009 Consent Decree

16. On May 28, 2009, ODEQ filed a case in the United States District Court for the Northern District of Oklahoma seeking judicial approval of a proposed consent decree between ODEQ and Cyprus. Oklahoma Department of Environmental Quality v. Cyprus Amax Minerals Company, 09-CV-326-TCK-FHM (N.D. Okla); Plaintiff's Ex. 320.

17. The consent decree defines the "Site" to be remediated as follows:

"Site" shall mean all residential properties, commercial properties, houses of worship, childcare facilities, alleys, vacant fields, parks and schools located within the corporate limits of the City of Collinsville or within one mile of such limits or anywhere Waste Materials from the former Bartlesville Zinc Company Smelter Site have come to be located. "Waste Materials" shall mean (1) any "hazardous substance" under § 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any "pollutant or contaminant" under § 101(33) of CERCLA, 42 U.S.C. § 9601(33); and (3) any "waste" under [OKLA. STAT. tit. 27A, §§ 1-1-201(16)].

ODEQ had used a similar definition of "Site" for the cleanup of other smelter sites, and ODEQ believed that limiting the "Site" to properties within Collinsville only would exclude potentially contaminated residential properties. Dkt. # 307, at 95.

18. Cyprus agreed to develop and implement a remedial action work plan within 60 days of the date the consent decree became effective. Plaintiff's Ex. 320, at CBS_OPS-018251. In exchange, ODEQ agreed not to sue or bring any other civil or administrative actions against Cyprus. Id. at CBS_OPS-018258. The consent decree provided Cyprus protection from the contribution claims

of other PRPs to “the fullest extent allowed by law,” but the consent decree does not prevent Cyprus from seeking contribution from other PRPs. Id. at CBS_OPS-018261.

19. Pursuant to the consent decree, Cyprus agreed to remediate 10 properties on an expedited basis that had been identified as having exceedances of lead, arsenic or cadmium during the initial sampling. Joint Ex. 17, at CBS_OPS-021803; Dkt. # 307, at 71-72. ODEQ wanted these properties cleaned up as soon as possible, because these were “high access” areas such as parks and schools and children would likely come into contact with contaminated soil. Dkt. # 307, at 71-72, 79-80. Two additional properties where daycare facilities were located were added to the interim remedial action as more soil sampling was conducted in Collinsville. Joint Ex. 17, at CBS_OPS-019768. The remedy requested by ODEQ was the removal of soil to a depth where the average concentration of lead, arsenic, and cadmium were below screening levels, and this included the removal of any visible smelter waste on the properties. Joint Ex. 16, at CBS_OPS-021807. Cyprus completed the work in 2010 and 150 cubic yards of smelter waste were removed from 5 of the remediated properties. Joint Ex. 17, at CBS_OPS-019771.

The Collinsville Soil Program

20. On February 20, 2009, the ODEQ issued the Collinsville Soil Program (CSP) Action Memorandum for the evaluation of potential smelter impacts within Collinsville and adjacent areas. Joint Ex. 11, at CBS_OPS-013214. ODEQ “identified a need to assess and, if necessary, cleanup areas outside the two smelter sites,” and ODEQ listed “[h]istoric smelter emissions and transport of smelter material offsite” as the pathways for migration of contaminants from the smelters to offsite areas. Id. at CBS_OPS-013215. ODEQ stated that approximately five percent of properties that had been evaluated contained concentrations of at least one metal in excess of the CSP remediation

standards, and there was no discernable pattern for the distribution of the contaminants. Id. The number of properties needing remediation could not be determined until additional sampling was completed. Id.

21. The CSP Action Memorandum explains that sampling of residential properties would be conducted on a voluntary basis, and Cyprus would engage in community outreach to inform residents of the availability of soil sampling under the CSP. Id. at CBS_OPS-013216. Each property would be divided into yard areas and soil samples at various depths would be taken from each area, and any yard area containing average metal concentrations in excess of the CSP remediation standards would be remediated. Id. at CBS_OPS-013217. Cyprus agreed to perform the remedy selected by ODEQ as part of the consent decree, and a copy of the CSP Action Memorandum was attached to the consent decree.

22. Cyprus' contractor, Shaw Environmental, Inc. (Shaw), prepared a Soil Sampling and Analysis Plan for the CSP, and the study area for the CSP was approximately 48 square miles. Joint Ex. No. 14, at CA-C0031635; Dkt. # 314, at 48-49. The study area was divided into subareas referred to as "Downtown" and "Surrounding Area," and the entire study area included approximately 8,000 properties. Joint Ex. No. 24, at CA-C0399876. Properties were eligible for sampling under the voluntary soil sampling program if the property was developed or planned for development for private or public use and there was sufficient accessible area for sampling and excavation. Id. Undeveloped and industrial properties were not included with the scope of the soil sampling program. Id. ODEQ requested that Cyprus focus on the Downtown subarea due to the higher volume of exceedances in that area, but contaminated properties were spread throughout the study area. Dkt. # 307, at 79, 88.

23. Shaw developed a Remedial Action Work Plan based on recommendations from ODEQ and the EPA that a comprehensive soil remediation program was needed to protect local residents from high concentrations of metals in the soil that could not be explained by natural causes alone, and the higher levels of metals were attributed to the presence of the two former zinc smelting facilities near Collinsville. Joint Ex. 18, at CBS_OPS-021429. The objective of the CSP cleanup was to “excavate and replace soil within individual yard areas at a given property where soil concentrations of arsenic, cadmium, or lead exceed the [ODEQ] remediation standards. Id. at CBS_OPS-021430. However, as laid out in the Soil Sampling and Analysis Plan, a large scale sampling program was necessary to identify properties with metal exceedances, and the sampling was part of the remedy that ODEQ was requiring Cyprus to perform under the CSP. Joint Ex. 14, at CA-C0031634.

24. To encourage participation in the voluntary soil sampling program, Cyprus established a local office in Collinsville and published announcements in The Collinsville News. Joint Ex. 24, at CA-C0399879. Cyprus held two open house events at the Collinsville high school and set up a website with information about the soil sampling program. Id. At the request of ODEQ, Cyprus also sent letters to each owner of a property eligible for sampling and sent representatives to make door-to-door contact with Collinsville residents. Id. at CA-C0399880; Dkt. # 307, at 77-78. Out of 7,968 eligible properties, Cyprus conducted sampling at 3,492 properties and a total of 78,786 samples were taken during the CSP. Joint Ex. 24, at CA-C0399885.

25. Sampling for the CSP primarily concluded by June 2013, and soil cleanup of contaminated properties took place between August 2012 and September 2013. Id. at CA-C0399888. A total of 322 residential properties had an exceedance of lead, arsenic, or cadmium, and three non-residential

properties also had exceedances of lead and arsenic Id. at CA-C0399886. Certain properties had an exceedance of a single metal, such as arsenic, and ODEQ required Cyprus to remediate all properties, because ODEQ viewed the presence of a high concentration of a single metal as a significant risk to human health and safety. Dkt. # 307, at 89-90. ODEQ did not independently determine the cause of the presence of a hazardous substance at each property unless Cyprus requested a consultation, and ODEQ relied on the findings in the CSP Action Memorandum that waste material from the smelter sites was responsible for contamination within the CSP study area. Id. at 17.

26. In one instance, Cyprus made a request to ODEQ to be relieved from remediating certain properties with metal exceedances, because the exceedances were likely not attributable to waste materials from the smelter facilities. Cyprus' project manager, Alicia Voss, believed that two adjacent properties referred to as the Tillman and Vargas properties had metal exceedances for reasons other than smelter waste, and she advised ODEQ that these properties were outside the scope of the CSP. Dkt. # 308, at 102-03. The properties were located at the site of a former coal strip mine, and arsenic was found at all levels of the soil due to shale and coal deposits. Id. at 103-104. ODEQ agreed that Cyprus was not required to perform soil remediation at these properties. Id. at 106.

TCI Declined to Participate in the Cleanup of the TFM Smelter and the CSP

27. Cyprus' original complaint named TCI, Viacom, CBS Corporation, and CBS Operations, Inc. as defendants. Jeffrey Groy, senior counsel for CBS Corporation, testified that NJZ merged into another entity known as "Gulf and Western," and TCI is the corporate successor to Gulf and Western. Dkt. # 311, at 77. Viacom Inc., CBS Corporation, and CBS Operations, Inc. had a

corporate relationship with Gulf and Western or a related entity, Paramount Communications, Inc., and Viacom, Inc., CBS Corporation, and CBS Operations, Inc. communicated with the EPA or ODEQ concerning potential liability for the TFM Smelter site and offsite areas affected by hazardous substances disposed of at the TFM Smelter site. See Dkt. # 2, at 12-13.

28. On April 13, 1995, Cyprus sent a letter to Viacom requesting that it agree to voluntarily participate in a cleanup of the TFM Smelter and offsite areas, because Viacom had a close connection to NJZ and the TFM Smelter. Plaintiff's Ex. 491. Cyprus stated that the BZ and TFM Smelters shared the same waterways and airways, and it would be beneficial for Cyprus and Viacom to cooperate with at least the offsite cleanup. Id. Viacom took the position that it had no corporate relationship with TFMC and, even if there were a relationship, the TFM Smelter was no longer operating when Viacom acquired NJZ. Plaintiff's Ex. 492.

29. ODEQ sent a follow-up letter to Viacom's attorney, Groy, supplying documentation showing that NJZ exercised a significant level of control over the operations of TFMC, and ODEQ invited Viacom to participate in a voluntary cleanup of the TFM Smelter site. Plaintiff's Ex. 493. Groy responded that the evidence provided by ODEQ did not demonstrate that NJZ exercised any control over the operations of TFMC, and Groy asserted that a court would not be likely to pierce the corporate veil to impose liability on a successor entity of NJZ. Plaintiff's Ex. 494.

30. In April 1999, the EPA sent a request for information to Viacom about contamination located at the TFM Smelter, and the EPA subsequently sent a formal invitation for Viacom to participate in the cleanup of the TFM Smelter site. Plaintiff's Ex. 497, 498. Groy met with representatives of the EPA, but Viacom declined to commit to participating in a cleanup of the TFM Smelter site. Plaintiff's Ex. 499.

31. The EPA remained in contact with Groy about the potential cleanup of the TFM Smelter site, and Viacom continued to assert that NJZ and its corporate successors had no liability for the disposal of hazardous substances by TFMC. Plaintiff's Ex. 503. In 2009, ODEQ sent a letter to Groy affirmatively stating that the corporate successors of NJZ were liable for the cleanup of the TFM Smelter site and offsite impacts caused by the disposal of hazardous substances at the TFM Smelter. Plaintiff's Ex. 513. TCI, Viacom, CBS, Corporation, and CBS Operations, Inc. have refused to participate in the cleanup of the TFM Smelter site or the CSP, and Groy testified that the Court's opinion and order (Dkt. # 183) finding that TFMC was the alter ego of NJZ had no effect on TCI's decision regarding NJZ's liability for the disposal of hazardous substances by TFMC. Dkt. # 311, at 79.

II. Elements of CERCLA Liability

Covered Person

32. The Court must initially consider whether TCI is a "covered person" for the purpose of CERCLA liability. An entity may be deemed a "covered person" if it is the "owner or operator of a vessel or facility" where a hazardous substance was disposed or it was "the person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substance were disposed" 42 U.S.C. § 9607(a). Cyprus also argues that TCI could be liable under a theory that TCI "by contract, agreement, or otherwise arranged for disposal or treatment" of a hazardous substance. Id. However, Cyprus acknowledged during its closing argument that arranger liability will not apply if the Court determines that the smelter facilities and the study area of the CSP are one facility for the purpose of CERCLA liability. Dkt. # 319, at 19. The Court previously determined that the term "facility" includes the two smelter sites and the study area of the

CSP, and the evidence presented at trial has not caused the Court to revisit this finding. Dkt. # 244, at 19. Therefore, arranger liability does not apply in this case and judgment should be entered in favor of TCI on these claims (Counts IV and VI).

33. TFMC was the owner of the TFM Smelter, and TFMC was a subsidiary of NJZ. The Court determined in a prior opinion and order that TFMC was the alter ego of NJZ, and TCI is the successor entity to NJZ. Dkt. # 183. Therefore, TCI may be held liable for contribution to Cyprus under a former owner or operator theory if Cyprus can show that hazardous substances disposed of at the TFM Smelter were found in the CSP study area and those hazardous substances caused Cyprus to incur response costs.

34. The parties' dispute on this element of CERCLA liability primarily focuses on whether TCI disposed of a hazardous substance within the CSP study area. The evidence presented at trial focused on two potential pathways for smelter waste to move from the TFM Smelter to areas within or near Collinsville. First, Cyprus argues that air emissions from the TFM Smelter were carried north from the smelting facilities, and particulates containing hazardous substances deposited in the soil in Collinsville. Second, Cyprus argues that waste materials from the TFM and BZ Smelters were taken from the smelter facilities by members of the community and were intentionally placed in the soil within the CSP study area.

Aerial Dispersion

35. The parties dispute whether direct air emissions can legally constitute a plausible migration pathway of particulates from the TFM Smelter to the CSP study area. In a prior opinion and order, the Court determined that air emissions generated by operation of a smelter facility do not qualify as "disposal" under § 9607, but the Court left open the possibility that fugitive air emissions from

waste intentionally placed on the TFM Smelter site could have been a contributing factor in the dispersion of contaminants. Dkt. # 244, at 17. Due to the volume of evidence presented concerning air emissions at trial, the Court will consider as a factual matter whether aerial dispersion of contaminants from smokestacks or furnaces at the TFM Smelter actually impacted or deposited within the CSP study area.

36. The EPA and ODEQ believed that aerial dispersion of particulates from the BZ and TFM Smelters could have been a potential migration pathway for contaminants, and the EPA retained CH2M Hill to investigate this possibility. Plaintiff's Ex. 301, at CA-C0042553. The EPA directed CH2M Hill to "[d]evelop[] an air dispersion model to guide in the selection of soil sample locations" and to "[o]btain[] signed access agreements to permit CH2M Hill onto residential properties to collect soil samples" Id.

37. CH2M Hill performed aerial dispersion modeling and determined that sites within 1.5 radial miles of the TFM Smelter would most likely have been affected by airborne particulates from the smelter site. Id. at CA-C0042554. CH2M Hill obtained the necessary agreements and conducted sampling at 201 residential properties and 10 undisturbed air dispersion locations, and CH2M Hill found 18 metal exceedances at 10 residential properties. Id. Two of the residential properties contained visible smelter material and the EPA concluded that the exceedances at the remaining eight properties were likely due to the historical placement of smelter waste material. Id. at CA-C0042555.

38. Based on the sampling, the EPA concluded that approximately five percent of offsite residential properties were potentially affected by contamination from the historical placement of smelter waste, and there was no pattern or trend in the contaminated locations that would support

a finding that aerial dispersion from the TFM Smelter was responsible for the presence of hazardous substances in Collinsville. Id. at CA-C0042655.

39. Cyprus retained Roberto Gasparini, Ph. D., to review CH2M Hill's aerial dispersion modeling, but Dr. Gasparini did not conduct his own modeling. Dkt. # 310, at 104, 115. Dr. Gasparini testified that historical air modeling requires accurate data about emission rates, particulate size and weights, the source from which the particulates were emitted, and the direction and speed of the prevailing winds. Id. at 107-12.

40. Limited meteorological data was available from the relevant time period of 1911 to 1926, and there was no historical data concerning wind speed and direction that could be used for historical air modeling. Id. at 110. To conduct historical air modeling, it is necessary to use a wind rose of the prevailing winds based on contemporary data from a meteorological site, and there were several sites from which this data could be obtained. Id. at 112-14. CH2M Hill used data from a meteorological site at Skiatook, Oklahoma, but there are also meteorological sites at Claremore, Catoosa, and the Tulsa International Airport. Id. at 118-19. Dr. Gasparini concluded that it was inappropriate to rely on data from the Skiatook meteorological station, and he believed that the Tulsa site had a longer history of meteorological data and a less obstructed location to obtain wind data. Id. at 123-30.

41. As to emission data, there was no historical data available and CH2M Hill relied on emission data from another remedial investigation of a smelter site. Id. at 132. Dr. Gasparini did not believe the data used by CH2M Hill was representative of actual emissions from 1911 to 1926, and he believed that the emission rate used by CH2M Hill was arbitrary. Id. Dr. Gasparini and TCI's air modeling expert, David Keen, both agreed that all of the air modeling performed allowed for the

potential deposition of some amount of particulates carried by the prevailing winds into Collinsville. Dkt. # 310, at 139-40; Dkt. # 314, at 26-27.

42. Even if the Court assumes that aerial dispersion is “disposal” as a matter of law, the Court finds no evidence of a pattern or trend from the actual sampling conducted in the CSP study area that would support a finding that aerial dispersion was a viable migration pathway for contaminants from the TFM Smelter. The location of contaminated properties within the CSP study area is random and not consistent with an aerial plume associated with the dispersion of airborne particulates. Aerial dispersion may have been theoretically possible under modeling performed by CH2M Hill and Dr. Keen, but Cyprus has not shown that aerial dispersion is a viable migration pathway that can be verified with evidence derived from soil sampling within the CSP study area. As noted by TCI’s expert, Jay Vandeven, the TFM and BZ Smelters operated over 100 years ago for a relatively short period of time, and intervening events such as the Dust Bowl and the passage of time would have obscured or destroyed evidence of aerial dispersion. Dkt. # 314, at 85. The Court also notes that any alleged errors in the air modeling are irrelevant, because Cyprus actually conducted sampling throughout the CSP study area and no pattern for the location of hazardous substances emerged. Cyprus has not shown by a preponderance of the evidence that aerial dispersion resulted in the disposal of hazardous substances into the CSP study area and, as a factual matter, the Court does not find that aerial dispersion of particulates is a viable migration pathway for hazardous substances to travel from the TFM Smelter to Collinsville.

Historical Placement of Smelter Waste

43. Cyprus argues that the historical placement of smelter waste on residential and other properties within the facility was a viable migration pathway for hazardous substances to have

traveled from the TFM Smelter to the CSP study area. TCI's witnesses do not dispute that this was a common practice in the relevant time period, but TCI argues that any smelter waste found in the facility came from the BZ Smelter only.

44. ODEQ's representative, Amy Brittain, testified that smelter waste was widely used by residents of Collinsville, and this practice was common to other smelter sites at which she has supervised remedial work. Dkt. # 307, at 74, 113. ODEQ tracked locations where visible smelter waste was found during its investigation. Id. at 66. The maps prepared by ODEQ were offered as demonstrative exhibits at trial and there was no pattern or trend as to the placement of smelter waste.

45. Due to the lack of a pattern or trend concerning the location of smelter waste in the community, ODEQ had concerns about children and families being exposed to harmful contaminants in smelter waste, and ODEQ encouraged the citizens of Collinsville to have their property sampled for hazardous substances associated with smelter waste. Id. at 76-77. Cyprus established an office in Collinsville to promote the CSP, and Cyprus contacted local residents and engaged in community outreach to encourage residents to participate in voluntary soil sampling. Id. at 78-79.

46. ODEQ had no way to distinguish whether visible smelter material originated from the BZ or TFM Smelter, and ODEQ assumed that any visible smelter waste found in the CSP study area could have originated from either smelter site. Dkt. # 308, at 17, 29. Cyprus' expert, A.J. Gravel, testified that there are few historical records concerning the operation of the BZ and TFM Smelters or the removal of waste from the sites. Dkt. # 310, at 17. Most of the records that are available are not primary sources, such as corporate records, but most of the information that he relied upon to form his opinions came from secondary sources such as newspapers or trade literature. Id. He also noted that the BZ and TFM Smelters were unregulated by any governmental entity, and the type of

environmental data available from government sources in the present is not available for historical smelter sites. Id. at 18.

47. Gravel testified that smelter waste was historically used by residents of communities in which a smelter operated for road and sidewalk building and smelter waste was directly placed on residential properties for various purposes, and this practice occurred “without exception” at every smelter site that he has visited. Dkt. # 310, at 26. Smelter waste was plentiful and took up space at the smelter facility, and smelter facilities regularly made the waste materials available to employees or members of the community to take home. Id. at 29.

48. Articles in the Collinsville Times discuss the use of broken retorts and clinkers as fill for building roads in and around Collinsville. On April 24, 1913, the Collinsville Times reported that local citizens formed a committee for the purpose of repairing a road using broken retorts and cinders from “the smelters.” Plaintiff’s Ex. 108. The committee members visited “the smelters” and arranged for the transportation of the broken retorts and clinkers to the place where the road was being constructed. Plaintiff’s Ex. 109. The smelters donated fifty railroad cars full of smelter waste for the project, and Gravel testified that 50 railroad cars would have equaled two and a half tons of smelter waste. Plaintiff’s Ex. 110; Dkt. # 310, at 33. Both the BZ and TFM Smelters were operating when this occurred, but the newspaper articles do not specify if the waste material came from one or both smelters.

49. The Collinsville Star reported on March 24, 1917 that a road was constructed using broken retorts and cinders from smelting facilities. Plaintiff’s Ex. 178. The first load of broken retorts was from the BZ Smelter, but the article states that 151 loads of broken retorts and 50 loads of cinders

were delivered later in the day without specifying whether the deliveries came from the BZ or TFM Smelters. Id.

50. On February 11, 1915, the Collinsville News reported that the city of Collinsville used broken retorts and cinders to repair a section of South 12th Street, and Dr. Stevens observed that this road leads to the BZ Smelter. Defendant's Ex. 50; Dkt. # 313, at 31. The article does not state whether the broken retorts and cinders came from the BZ or TFM Smelter.

51. Dr. Stevens testified about a series of newspaper articles concerning an event known as "Good Roads Day" that was held in Collinsville in March 1917. The Business Men's League in Collinsville organized an effort to improve local roads, and smelter waste from the BZ Smelter was used as construction material for the road improvements. Defendant's Exs. 82, 83, 84, 87.

52. Dr. Stevens' testimony makes little or no mention of the routine use of smelter waste by the residents of Collinsville, and her testimony is focused on large-scale community projects involving the use of smelter waste. The Court does not find that her testimony is particularly helpful or relevant to resolving whether the smelter waste actually remediated by Cyprus came from the BZ or TFM Smelter. The soil sampling and remedial work for which Cyprus seeks contribution primarily took place at residential properties, and there is no evidence submitted by either party suggesting that small-scale use of smelter waste by local residents would have been reported in local newspapers. Even if the Court assumes that Dr. Stevens is correct that smelter waste for road building came only from the BZ Smelter, the evidence cited by Dr. Stevens does not assist the Court in determining whether waste from the BZ and TFM Smelters was used by the residents of Collinsville for small-scale or residential projects.

53. Vandeven testified that the operations of the BZ and TFM smelters were substantially the same with some subtle differences, and the two facilities were essentially next door to each other. The BZ smelter had a heap-roasting operation and was larger than the TFM Smelter, but the TFM Smelter operated for a longer period of time. Id. at 46.

54. Vandeven examined the geographical features of the areas encompassing the Smelter sites and the CSP, and he noted that there were coal deposits and shale formations very close to the surface. Id. at 50-51. This results in a naturally occurring concentration of arsenic in the soil. Id. Vandeven also testified that man-made sources of lead, such as lead based fuel or paint, could also contribute to elevated lead levels in the soil. Id. at 53. The chemical signature of waste from a zinc smelter includes elevated concentrations of arsenic, lead, cadmium, and zinc. Id. at 55.

55. The BZ smelter used a “clinkering” or “heap-roasting” process in which the residue from the retorts was spread out on the ground and roasted a second time to concentrate silver in the ore. Id. at 56. The ore would then have been sent offsite for further recovery of valuable metals. Id. The TFM Smelter did not employ a similar process. Id.

56. Aerial photographs from 1943 showed the condition of the BZ and TFM Smelter sites before either site was remediated. Vandeven noted that he could not determine where most of the waste material from the BZ Smelter would have been placed, but there were visible piles of waste left at the TFM Smelter. Id. at 61. There was limited access by road to the waste piles at the TFM Smelter, and the public may have had easier access to waste materials at the BZ Smelter. Id. at 62-63.

57. Vandeven’s opinion that smelter waste was not removed off site from the TFM Smelter relies, in part, on Dr. Stevens’ expert report. Dr. Vandeven opined that smelter waste was more

easily accessible from the BZ Smelter and it would have been difficult for members of the public to access smelter waste at the TFM Smelter. Id. at 72.

58. Gravel testified that it would not have been “newsworthy” for ordinary citizens to take smelter waste and use it for home improvement projects, and newspaper articles mention only large-scale use of smelter waste in the community. Dkt. # 310, at 37. Gravel opined that references to “smelters” in local newspapers and the common historical use of smelter material for household projects supported an inference that the citizens of Collinsville removed smelter waste from the BZ and TFM Smelters. Id. at 93.

59. The evidence is undisputed that smelter waste has been found on residential properties, and the focus of the CSP has been the cleanup of this type of smelter waste, rather than any smelter waste that was used as road construction material. The Court does not find that evidence concerning the source of smelter waste used in road construction is particularly helpful in assessing whether the citizens of Collinsville obtained smelter waste from the BZ or TFM Smelter for residential projects. Even if road building were relevant, most of the newspaper articles cited by the parties do not clearly state whether the smelter waste came from the BZ or TFM Smelter. There are significant gaps in the historical record due to the passage of time and the lack of governmental environmental records, and the Court does not construe ambiguous references in newspapers to “the smelters” to refer only to the BZ Smelter.

60. The Court finds that the placement of smelter waste in residential areas by members of the community is a viable migration pathway for the disposal of a hazardous substance within the CSP. Gravel’s testimony concerning the historical use of smelter testimony is credible and is supported by evidence showing that smelter waste has regularly been found during soil sampling conducted

during the CSP. Brittain also testified that she has worked on cleanups at other smelter sites, and residential use of smelter waste is a common feature in communities near former smelter sites. The Court also finds that it was reasonable for ODEQ to assume that visible smelter waste in the CSP study area could have come from either the BZ Smelter or the TFM Smelter. TCI has not shown that there is any means of differentiating between waste generated by the smelter facilities, and ODEQ or Cyprus was not required to tie the waste to a particular smelting facility to establish that waste from the TFM Smelter migrated into Collinsville. Cyprus has met its burden to show that TCI may be liable under CERCLA as a former owner or operator of a facility where a hazardous substance was disposed.

Release of Hazardous Substances by TCI Caused Cyprus to Incur Response Costs

61. CERCLA defines “release” as “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant).” 42 U.S.C. § 9601(22). The Court has already determined that Cyprus has met its burden to show by a preponderance of the evidence that waste materials from the TFM Smelter were placed inside the CSP study area. Based on this finding, the Court finds that the release of hazardous substances from the TFM Smelter caused Cyprus to incur response costs to sample for and remediate contamination caused by the placement of waste materials in the CSP study area.

62. Cyprus incurred a substantial amount of costs to investigate the possibility that aerial dispersion of particulates during the operation of the smelting facilities caused or contributed to the presence of hazardous substances in Collinsville. The Court has rejected Cyprus’ assertion that air

emissions from the smelter facilities constitute a plausible migration pathway for the presence of hazardous substances within the CSP study area. However, ODEQ had a reasonable basis to explore whether air emissions from the BZ and TFM Smelters caused or contributed to the presence of hazardous substances in Collinsville and, as the Court has noted in a prior opinion and order, it is not necessary for Cyprus to prove actual contamination from air emissions to recover the costs of investigating a likely cause of contamination. Dkt. # 244, at 24.

63. TCI challenges specific recovery costs incurred by Cyprus, such as the remediation of properties with single metal exceedances and sampling costs related to aerial dispersion, and TCI argues that such costs were unnecessary. However, Cyprus has met its burden to show that the release or threatened release of hazardous substances from the TFM Smelter caused it to incur response costs, and it is not necessary at this stage of the analysis for Cyprus to prove that all of its response costs are recoverable. The Court will consider TCI's arguments concerning the recovery of disputed response costs in the context of the necessity of the work and compliance with the National Contingency Plan (NCP).

Necessity of Work

64. Cyprus has the burden to show that the costs incurred in the performance of the CSP were necessary, and there must be a nexus between the costs and an actual effort to respond to environmental contamination. Cyprus claims that it incurred \$31,700,156 in costs that were necessary to respond to the release or threatened of a hazardous substance. Dkt. # 310, at 60; Plaintiff's Ex. 12A, at 1.

65. Gravel reviewed invoices submitted by ODEQ, Arcadis, Bridgewater Group, Candy Thomas & Associates, Conestoga Rovers & Associates, Dynamic Carpet Care LLC, Environmental

Restoration LLC, Brenda Stadel d/b/a Grapevine Design, Mike Cooper, Peter Webb Public Relation, Shaw Environmental, SID Steadman, and Western EcoSystems Tech, and the total amount paid by Cyprus was \$32,831,303. Plaintiff's Ex. 12A, at 1. Gravel determined that not all of the costs paid by Cyprus were necessary response costs, and he reduced this amount to \$31,700,156 for the purpose of Cyprus' contribution claim. Dkt. # 310, at 60.

66. Initial sampling results in Collinsville showed that approximately five percent of residential properties were contaminated by one or more metals associated with smelter waste. Joint Ex. 11, at CBS_OPS-013215. The BZ and TFM Smelters are located approximately one mile from Collinsville and approximately one-quarter of a mile apart from each other, and it was reasonable for ODEQ to believe that additional sampling of residential properties was necessary to determine if waste materials from the smelter sites was the cause of the contamination.

67. TCI argues that certain metals could be present in the soil in the CSP study area due to other natural and manmade causes that have nothing to do with the presence of the BZ and TFM Smelters. From about 1900 to 1920, coal mining was widespread in and around Collinsville, and coal mining took place on approximately 800 acres in the Collinsville area. Dkt. # 314, at 50; Defendant's Ex. 590. The former Collinsville Strip mine was located in the northeast area of Collinsville several miles away from the smelter facilities, but coal mining also took place near the BZ and TFM Smelters. Defendant's Ex. 558, at DX558.0305; Defendant's Ex. 590, at DX590.001. Vandeven testified that the Seminole formation and the Dawson coal deposits are located near Collinsville, and these areas have a high level of naturally-occurring arsenic. Dkt. # 314, at 50-52.

68. Vandeven testified that single metal exceedances were not necessarily caused by smelter waste, and other causes could have been lead-based paint and fuel, herbicides, treated wood, and

environmental factors such as shallow sub-surface concentrations of shale and coal. Dkt. # 314, at 50-53. Certain pesticides used in Oklahoma also contained arsenic. Deposition of John Fenn, at 116.

69. The most substantial response costs incurred by Cyprus during the CSP were the costs associated with taking almost 79,000 soil samples. Vandeven claims that Cyprus could have substantially reduced its response costs by using information already in its possession to limit the number of samples, and he challenged the size of the study area and the voluntary nature of the soil sampling program. Dkt. # 314, at 93-95. He further testified that most of the remediation costs incurred by Cyprus were attributable to arsenic-only cleanups, and he believes that the presence of arsenic alone was not indicative of smelter waste. Id. at 96-97.

70. The Court notes the large size of the CSP study area and the large number of soil samples in relationship to the amount of affected properties, but finds that this case presents a unique situation in which it was reasonable for Cyprus to incur substantial sampling costs in relation to the much smaller amount of costs incurred for actual remediation. Brittain testified that there was no discernable pattern or trend to the location of visible smelter material or the locations with exceedances of certain metals, and ODEQ determined that it was necessary for the health and well-being of people living in Collinsville to locate and remove contamination caused by smelter waste. Dkt. # 307, at 76. Contaminated properties were found throughout the CSP study area and 9.3 percent properties sampled showed exceedances for at least one the metals. Joint Ex. 24, at CA-C0399886. The evidence also shows that the overall size of the study area was approximately 48 square acres, but the vast majority of the sampling took place in the downtown area of Collinsville

where there was the greatest risk of harm to people in the community from exposure to hazardous substances.

71. The Court rejects TCI's argument that certain response costs were unnecessary due to the possibility that metals could have been present due to other causes, such as coal strip mining or naturally occurring mineral formations. Contaminants such as lead or arsenic could exist in certain areas within the CSP study area for reasons other than the operation of the former BZ and TFM Smelters, but this does not mean that smelter waste would not also be present in those same areas. The evidence establishes that smelter waste was distributed randomly throughout the community, and ODEQ, not Cyprus, determined that it was necessary for the health and safety of the residents of Collinsville to remediate properties with an exceedance of a single metal. Dkt. # 308, at 89. Vandeven testified that remedial work is generally deemed necessary if the work was ordered by a state agency. Dkt. # 316, at 37-38. TCI argues that Cyprus made no effort to determine the source of contamination found within the CSP study area, but TCI has offered no evidence that this type of analysis would have been successful or cost-effective.

72. Voss testified that there were at least two instances in which Cyprus declined to remediate arsenic-only exceedances, because the arsenic was present four feet below the surface and all the way up to the surface. Dkt. # 308, at 103. Cyprus conducted historical research and found that coal strip mining had previously taken place on the properties, and Cyprus determined that the coal mining, not smelter waste, caused the arsenic exceedance. Id. This evidence establishes that Cyprus was aware of other causes of single metal exceedances and took action to mitigate its response costs when smelter waste was not the likely cause of the exceedance.

73. The Court notes Vandeven's criticism of the voluntary sampling program and the large number of soil samples taken during the CSP, and his opinions would have greater weight in a situation where the location of hazardous substances was known before the selection of a remedy. However, the Court agrees with Gravel's expert testimony that soil sampling was part of the selected remedy, and a larger amount of sampling than in an ordinary CERCLA cleanup can be deemed necessary under the specific facts of this case. Dkt. # 310, at 55.

75. The Court has reviewed Gravel's testimony and his summary of the costs incurred by Cyprus (Plaintiff's Ex. 12A), and finds that Cyprus incurred \$31,700,156 in necessary response costs due to the release of a hazardous substance from the BZ and TFM Smelters.

Substantial Compliance with NCP

76. The final element of a prima facie case for CERCLA liability is that the response costs incurred by Cyprus were consistent with the NCP, and the Court must determine if the cleanup conducted pursuant to the CSP substantially complied with the NCP.

77. Cyprus conducted work under the CSP pursuant to a consent decree with ODEQ and, in a previous opinion and order, the Court deferred a determination of whether Cyprus is entitled to presumption of compliance with the NCP. Dkt. # 244, at 28-30. Based on the evidence submitted at trial, the Court finds that Cyprus is entitled to a rebuttable presumption that work performed pursuant to the consent decree and ordered by ODEQ was consistent with the NCP.

78. TCI argues that Gravel is not qualified to offer expert testimony on the issue of compliance with the NCP, because he lacks training and expertise and he has not previously been qualified as an expert on this issue. Dkt. # 310, at 13. TCI claims that Gravel has not personally supervised a hazardous waste investigation or remedial action at a site, and he does not have a technical or

scientific background in actually selecting a remedy. Id. at 63-66. The Court rejects TCI's argument as to Gravel's qualifications to offer expert testimony on Cyprus' compliance with the NCP. Gravel is a senior managing director for FTI Consulting and he is the co-leader of the company's environmental solutions practice. Id. at 6. Gravel has a master's degree in international business from the University of Maryland, and his employment is focused on forensic history and environmental cost analysis. Id. at 7. Gravel has provided consulting services for businesses and governmental agencies at hundreds of sites across the United States, and he has been retained as an expert witness in 22 cases. Id. at 9-10. He has provided consulting services for cleanups of various types of smelting facilities, including zinc smelters. Id. at 11. The Court finds that Gravel is qualified to as to the issue of NCP compliance based on his education, work experience, and expertise in the cleanup of smelter sites.

79. Gravel testified that he was initially surprised at the size of the sampling area and the sampling costs when he began to form an opinion as to Cyprus' compliance with the NCP. Id. at 53-54. However, sampling did not occur in the entire 48 square mile area, and sampling was limited to approximately 7 square miles of the total sampling area of the CSP. Id. Gravel also noted that sampling usually occurs for the purpose of an RI/FS to select a remedy, but the sampling costs at issue in this case were primarily incurred to determine which specific properties needed to be remediated. Id. at 55. Gravel believes that additional testing after selection of a remedy was a cost-saving measure to avoid unnecessary remediation. Id. at 56.

80. Gravel views the CSP as an extension of the cleanup of the BZ and TFM Smelters, and the remedy selected for the CSP, soil removal, was the same remedy used for the smelter facilities. Id. at 56-57. In terms of a "CERCLA quality cleanup," the focus is on the remedy selected in order to

ensure that the remedy meets the requirements of the NCP, and the NCP is not focused on the quality or amount of sampling. Id. at 57. Gravel testified that selected remedy was protective of human health, because removal of contaminated soil was a permanent means to prevent human exposure to hazardous substances within the CSP study area. Id. Gravel also testified that the selected remedy was cost effective, and the effectiveness of the remedy was established by the use of the same remedy for the cleanup of the BZ and TFM Smelters. Id.

81. Gravel opines that the remediation work performed to complete the CSP substantially complied with the NCP, and he reached this independently of any legal presumption that could be applicable in cases where the cleanup is performed pursuant to a consent decree. Id. at 58-59. He testified that he was contacted by Cyprus before any litigation was filed to verify whether the cleanup complied with the NCP, and Cyprus wanted an independent opinion in addition to the ODEQ's approval of Cyprus' work. Id. at 59.

82. Gravel acknowledged that the EPA concluded that there was no discernable pattern of contamination consistent with aerial dispersion of contaminants within one and a half miles of the TFM Smelter, and he did not dispute the EPA's findings that any contamination found on sampled properties was likely due to the random placement of smelter waste. Id. at 73-76. ODEQ was concerned about the presence of hazardous substances within the CSP study area due to the presence of smelter waste, and ODEQ reasonably wanted Cyprus to conduct sampling in residential areas or areas that could be developed in the future. Id. at 77-78, 84-86.

83. Gravel conducted historical research and found newspaper articles and documents referencing the removal of waste materials from "smelters," but these documents did not specifically reference the "Tulsa Fuel and Manufacturing" Smelter. Id. at 90-91. Even without such a specific

reference to the TFM Smelter, Gravel opined that the removal of smelter waste from zinc smelters was such a common practice that it is reasonable to infer that smelter waste was removed from both the BZ and TFM Smelters for use in Collinsville. Id. at 92-93.

84. Vandeven was highly critical of the cleanup performed by Cyprus and he testified that the cleanup was not consistent with the NCP. He testified that any cleanup should be guided by a conceptual site model to develop an understanding of the pathways of contamination and exposure scenarios, and he believes that a conceptual site model is essential to developing a remedy that is cost-effective and protective of human health. Dkt. # 314, at 38-40. He acknowledged that it is often difficult to create a conceptual site model at older sites. Id. at 42. Vandeven testified that Cyprus had a substantial amount of data available before beginning work on the CSP, and he opined that Cyprus should have used this data to implement a more limited sampling program. Id. at 79-80.

85. EPA guidance for the cleanup of lead usually involves taking more samples closer to the known source of exposure and sampling further out in a concentric and systematic manner until clean sampling is obtained. Id. at 91. Vandeven criticized the random nature of the sampling and the size of the sampling area, and he opined that Cyprus did not do enough to consider other sources of potential contamination before conducting sampling. Id. at 92-95.

86. Vandeven concluded that the sampling and cleanup performed by Cyprus was not consistent with the NCP. He opines that there was no evidence of aerial dispersion of particulates from the smelter, and there was no need for a widespread sampling program as part of the CSP. Dkt. # 316, at 9-11. He agreed that some of the costs incurred to remediate visible smelter material in the community could be necessary and consistent with the NCP, but this was a relatively small amount of the costs incurred by Cyprus. Id. at 11.

87. Vandeven acknowledged that remedial work is generally deemed necessary if it is ordered by a state agency. Id. at 37. He also testified that ODEQ approved of the work performed by Cyprus. Id. at 77. However, he opined that ODEQ's approval of the work does not mean that the cleanup complied with the NCP, and he concluded that the cleanup was not consistent with the NCP. Id. at 77-78.

88. The Court finds that Vandeven's criticisms of the volume of sampling and the size of the sampling area are not entitled to substantial weight, because his assertions go primarily to sampling activities related to aerial dispersion. There is overwhelming evidence in the record that the primary source of hazardous substances within the CSP study area was the historical placement of smelter waste, and the placement of smelter waste was random and not susceptible to any pattern or trend. Cyprus could not have limited sampling based on prior data, because this type of sampling would not have met ODEQ's goal of removing hazardous substances from areas of Collinsville where people would likely come into contact with the hazardous substances.

89. The Court also rejects Vandeven's opinion that Cyprus should have refrained from sampling if there were other potentially other factors present that would have explained the presence of a hazardous substance. The presence of other potential causes for the presence of a hazardous substance would not have negated the need for sampling to determine whether smelter waste was also present, and there is sufficient evidence in the record that Cyprus considered environmental factors as a cause of contamination before performing remedial work.

90. The Court finds that TCI has not rebutted the presumption that Cyprus' work substantially complied with the NCP, and Cyprus has established this element of a prima facie case of CERCLA liability.

Apportionment of Response Costs

91. The Court must next determine how the response costs should be apportioned between Cyprus and TCI. In making this determination, the Court's goal is to apportion the costs "using such equitable factors as the Court deems appropriate." 42 U.S.C. § 9613(f)(1).

92. The parties agree that neither the TFM nor BZ Smelters maintained data concerning the amount of waste generated when each smelter was operational or how much of that waste was moved offsite. Cyprus' expert, Richard White, generated a "production proxy to measure the ability of each of these two smelters to contribute waste." Dkt. # 311, at 92. White rejected the use of a mass balancing test to determine how much waste migrated into CSP study area based on the amount of waste still present at either site, because he did not have sufficient data to determine how much of different types of waste was actually generated at the TFM or BZ Smelters. Id. at 93-94.

93. The USGS kept data as to the production capacity of smelters across the country, but this data does not reflect actual utilization of any particular smelting facility and White reviewed secondary sources to determine if the TFM or BZ Smelters were running at full capacity for the full time period. Id. at 95. White performed a mathematical calculation of capacity times utilization to come up with a proxy for the amount of waste likely generated by each facility, and he made adjustments or corrections to utilization to account for strikes, work stoppages, or other events that would have affected utilization of a particular facility. Id. at 96.

94. The USGS tracked the number of retorts at each smelting facility. For example, the evidence shows that in 1912 the BZ Smelter had 5,184 retorts and the TFM Smelter had 6,232 retorts. Plaintiff's Ex. 93, at CA-C0086233; Dkt. # 311, at 97. White gathered the capacity data for the years of operation of the TFM and BZ Smelters, and the BZ Smelter later had a substantially higher

capacity during its years of operation. Plaintiff's Ex. 556, at 2. However, the TFM Smelter operated approximately eight years longer than that BZ Smelter. Id. After making adjustments for utilization, White opined that the BZ Smelter used 58,816 retorts and the TFM Smelter used 56,810 during their respective years of operation. Id. White used these numbers as a proxy for actual production of the smelters, and he concluded that the BZ Smelter was responsible for 50.87 percent of waste production and the TFM Smelter was responsible for 49.13 percent of the waste production in the Collinsville area. Dkt. # 311, at 103.

95. White also reviewed a publication called Zinc Magazine, which was printed by NJZ, and Zinc Magazine began including employment data concerning NJZ's facilities in 1923. Dkt. # 311, at 108. The data establishes that the TFM Smelter maintained a workforce through the first four months of 1926, and the workforce for the smelter in 1925 and 1926 was relatively consistent. Id. at 109. Therefore, he included the first four months of 1926 to determine the amount of waste material generated at the TFM Smelter.

96. TCI challenges the reliability of White's conclusions as to the relative amount of waste generated by the TFM and BZ smelters. However, TCI has not offered an alternative method to determine either the production capacity or actual waste generated by the smelters. There are undoubtedly gaps in the historical record that could affect each smelter's capacity or the utilization of the smelter, but White's method provides a reasonable factual basis for the Court to estimate each party's potential responsibility for contaminants found in the facility.

97. Dr. Stevens' testimony cites specific historical events that may have affected the utilization of the BZ or TFM Smelters. White considered events that affected the zinc industry as a whole when

adjusting the production of each facility, but he did not take into account more localized events that could have affected production. Dkt. # 311, at 117.

98. A January 1914 newspaper article states that two of the furnaces at the TFM Smelter had been shut off since July 1913. Defendant's Ex. 36. Dr. Stevens testified that a local newspaper article showed that 375 workers at the TFM Smelter went on strike to demand higher wages. Dkt. # 313, at 26. The newspaper article appeared in the Tulsa World on May 30, 1918. Defendant's Ex. 24. Dr. Stevens also testified that the TFM Smelter shut down briefly in 1917 due to a shortage of gas, but her testimony and a newspaper article show that the shortage of gas affected both the TFM and BZ Smelters. Dkt. # 313, at 52; Defendant's Ex. 95.

99. The demand for zinc dropped sharply after the conclusion of World War I, and the TFM Smelter shut down for a period of time in 1921. Dkt. # 313, at 58. TCI has also provided newspaper articles showing that Spanish Flu heavily impacted the residents of Collinsville in 1918, although the articles do not directly establish that the Spanish Flu affected production at the TFM Smelter. Defendant's Exs. 656, 657, 658, 659, 660.

100. The Court finds that White's methodology provides a reasonable method for determining the amount of waste material generated by each smelter facility, and his production proxy provides a starting point for the Court's apportionment of response costs. However, it is not clear from White's testimony if he took into account the more localized events referenced by Dr. Stevens that may have impacted production at the TFM Smelter, and the Court finds that a downward adjustment should be made to account for evidence provided by Dr. Stevens. TCI has shown that the demand for zinc dropped after the conclusion of World War I and there was a direct local impact that was felt at the TFM Smelter. The Court also takes into account that the TFM Smelter continued to operate until

1926 and, given the substantially longer duration of the TFM Smelter, the Court finds that the TFM Smelter was responsible for approximately 40 percent of the waste materials generated by the two smelters.

101. Certain equitable factors that are often considered when apportioning response costs are somewhat neutral in this case. For example, there is no way to distinguish between waste generated by the TFM or BZ Smelters, and the degree of toxicity of the hazardous substances is not as harmful as in some environmental contamination cases. The Court finds that each party is equally responsible for the presence of waste materials in the CSP study area, and the owners of the TFM and BZ Smelters took no steps to mitigate the spread of hazardous substances when the facilities were operational.

102. In addition to the amount of waste generated by each party, the Court finds that the most substantial factor is the degree of cooperation shown by Cyprus with state and federal officials to prevent harm to the public. In 1996, Cyprus entered into a consent agreement with ODEQ for the cleanup of the BZ Smelter site, and Cyprus agreed to cooperate with the cleanup of hazardous substances that may have migrated offsite. Cyprus fully cooperated with ODEQ in the creation and execution of the CSP, and Cyprus entered into a consent decree with ODEQ. In contrast, TCI and related entities rejected requests from the EPA, ODEQ, and Cyprus to participate in the cleanup of the TFM Smelter and the CSP study area. TCI argues that it had a “good faith legal defense” to assert that it was not liable the cleanup of the TFM Smelter and offsite areas impacted by smelter waste. In a prior opinion and order (Dkt. # 183), the Court found that TFMC was operated as the alter ego of NJZ, and the evidence supporting this finding was compelling. Much of the evidence showing NJZ’s substantial control over the operations of TFMC was in TCI’s possession when it

declined to participate in the cleanup of the TFM Smelter and the CSP study area. The Court gives this equitable factor substantial weight and will make an upward adjustment based on TCI's refusal to participate in the CSP.

103. The Court finds that Cyprus is entitled to contribution for 45 percent of the response costs it incurred during the CSP, and Cyprus will be award contribution in the amount of \$14,265,070.20.

II. CONCLUSIONS OF LAW

1. Congress enacted CERCLA in 1980 "in response to the serious environmental and health risks posed by industrial pollution," and it was intended to encourage 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." Burlington Northern & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 602 (2009).

2. "The remedy that Congress felt it needed in CERCLA is sweeping: *everyone* who is potentially responsible for hazardous waste contamination may be forced to contribute to the costs of cleanup." Chevron Mining Inc. v. United States, 863 F.3d 1261 (10th Cir. 2017) (quoting United States v. Bestfoods, 524 U.S. 51, 56 n.1 (1998)).

3. CERCLA imposes strict liability on potentially responsible parties (PRPs) for the costs of cleanup and remediation regardless of the PRP's fault. United States v. Colorado & Eastern R. Co., 50 F.3d 1530,1535 (10th Cir. 1995).

4. Liability under CERCLA does not need to be proven by direct evidence and may be inferred from the totality of the circumstances. Chevron Mining, Inc., 863 F.3d at 1271. "This is particularly true for cases involving older hazardous substance disposal, 'as eyewitness testimony or other direct evidence concerning specific disposal practices . . . is rarely available.'" Id.

5. Section 9613(f) of CERCLA provides that “[a]ny person may seek contribution from any other person who is liable or potentially liable under section 9607(a) of this title” Section § 9613(f) does not itself give rise to liability under CERCLA, and it is merely a means of apportioning liability between PRPs. Bancamerica Commercial Corp. v. Mosher Steel of Kansas, Inc., 100 F.3d 792, 800 (10th Cir. 1996).

6. To obtain contribution from a PRP, a plaintiff must initially establish that the PRP would be liable under § 9607, and then the Court proceeds to the equitable apportionment of response costs once the plaintiff has shown that the defendant is liable. Sun Co., Inc. v. Browning-Ferris, Inc., 124 F.3d 1187, 1191 (10th Cir. 1997).

7. There are five elements under § 9607 that a must be proven to make out a prima facie case of liability:

(1) that the defendant is a “covered person” under CERCLA; (2) that a “release” or “threatened release” of any “hazardous substance” at the site in question has occurred; (3) that the release or threatened release caused plaintiff to incur costs; (4) that plaintiff’s costs are “necessary” costs of response; and (5) that plaintiff’s response action or cleanup was consistent with the NCP.

Morrison Enterprises v. McShares, 302 F.3d 1127, 1135 (10th Cir. 2002). TCI does not dispute that Cyprus is a PRP who is permitted to proceed with a contribution claim against other PRPs.

8. CERCLA defines the term “facility” broadly and, under § 9601(9), a facility includes “(A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located”

A facility may include “numerous distinct parcels of land, sites, or areas, and the contaminated natural formations and objects on or in them.” Chevron Mining, Inc., 863 F.3d at 1270.

9. The Tenth Circuit has explained that a “facility” can be covered under the catch-all provision of § 9601(9)(B), even if it does not have any of the specific buildings or features referenced in § 9601(9)(1)(A). Sierra Club v. Seaboard Farms Inc., 387 F.3d 1167, 1171-72 (10th Cir. 2004).

Federal courts have construed the term “facility” in the broadest possible terms, and a facility will ordinarily encompass the entire site or area where hazardous substances came to be located. Id. at 1175. The evidence presented at trial establishes that hazardous substances from the BZ and TFM Smelters came to be located on site and offsite within the CSP study area, and the Court finds that entire area should be treated a single facility for the purpose of plaintiff’s CERCLA claim.

10. Under § 9607(a), there are four categories of covered persons:

- (1) the owner or operator of a vessel or a facility;
- (2) the person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of;
- (3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and
- (4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance”

42 U.S.C. § 9607(a).

11. The Tenth Circuit has determined that a party qualifies as an “arranger” if three elements are established: “(1) the party must be a ‘person’ as defined in CERCLA; (2) the party must ‘own’ or ‘possess’ the hazardous substance prior to the disposal; and (3) the party must, ‘by contract, agreement or otherwise,’ arrange for the transport or disposal of such hazardous substances.” Chevron Mining Inc., 863 F.3d at 1279. As to the third element, a party’s knowledge that the buyer may improperly dispose of a hazardous substance is insufficient, and arranger liability applies only if the seller intended “that at least a portion of the product be disposed of during the transfer process by one or more methods described in [42 U.S.C. § 6903(3)].” Burlington Northern and Santa Fe Ry. Co. v. United States, 556 U.S. 599, 612 (2009).

12. Cyprus also seeks to hold TCI liable under a theory that TCI is responsible for the liabilities of NJZ, and NJZ was the alter ego of a former owner or operator of the TFM Smelter. The Court has determined that TFMC was operated as the alter ego of NJZ, and TCI is the corporate successor to NJZ. Dkt. # 183. Under § 9607(a)(2), NJZ was a “person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,” and the Supreme Court has ruled that a corporate parent can be held indirectly liable in situations when a subsidiary operates a polluting facility. United States v. Bestfoods, 524 U.S. 51, 64-67 (1998). As the corporate successor to NJZ, TCI qualifies as a covered person under a former owner or operator theory.

13. In a previous opinion and order, the Court considered TCI’s argument based on Pakootas v. Teck Cominco Metals, Ltd., 830 F. 3d 975 (9th Cir. 2016), that direct air emissions do not constitute “disposal” under § 9607. Dkt. # 244, at 16-17. The Court determined that the Tenth Circuit would likely conclude that direct air emissions from a facility would not qualify as “disposal.” Dkt. # 244,

at 17 (citing United States v. Power Engineering Co., 191 F.3d 1224 (10th Cir. 1999)). The Court has also determined that there is insufficient evidence to prove as a factual matter that aerial dispersion is a viable migration pathway from the TFM Smelter to the CSP study area.

14. CERCLA defines “release” as “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant” 42 U.S.C. § 9601(22). There is no threshold amount of a release or threatened release to establish liability under CERCLA, and any amount of release is sufficient to satisfy this element. Horsehead Indus., Inc. v. St. Joe Mineral Corp., 1996 WL 33415778, *15 (N.D. Okla. Apr. 2, 1996); Dartron Corp. v. Uniroyal Chem. Co., 917 F. Supp. 1173, 1183 (N.D. Ohio 1996).

15. CERCLA response costs include “the costs of investigating and remedying the effects of a release or threatened release of a hazardous substance into the environment.” Young v. United States, 394 F.3d 858, 863 (10th Cir. 2005). However, the party seeking to recover contribution from another PRP bears the burden to show that the costs incurred are “necessary,” which means that the costs must be “closely tied” to the cleanup of a hazardous substance. Atlantic Richfield Co. v. United States, 181 F. Supp. 3d 898 (D.N.M. Feb. 9, 2016). This typically includes costs for “investigating and remedying the effects of a release or threatened release of a hazardous substance into the environment.” Young, 394 F.3d at 863.

16. In addition to showing that response costs are “necessary,” Cyprus must also show that the work it has performed is consistent with the NCP. County Line Inv. Co. v. Tinney, 933 F.2d 1508, 1512 (10th Cir. 1991). “The NCP is EPA’s regulatory template for a ‘CERCLA quality cleanup.’”

Public Serv. Co. of Colorado v. Gates Rubber Co., 175 F.3d 1177, 1181 (10th Cir. 1999). “The NCP is a long and detailed list of procedures that must be carried out by federal and state governments when they are responding to hazardous waste releases,” and most of the requirements have been made applicable to private parties performing their own cleanup at CERCLA sites. Morrison Enterprises, 302 F.3d at 1136. A cleanup performed by a private party will be considered consistent with the NCP if the cleanup substantially complies with the requirements of the NCP. 40 C.F.R. § 300.700(c)(3)(1); Public Serv. Co. of Colorado v. Gates Rubber Co., 175 F.3d 1177, 1181-82 (10th Cir. 1999).

17. A private party conducting remedial work pursuant to an administrative order issued by the EPA is entitled to an irrebuttable presumption that the work complied with the NCP. Morrison Enterprises, 302 F.3d at 1136-37. However, the same presumption does not necessarily apply to cleanups conducted pursuant to a consent decree with a state environmental agency, and the Tenth Circuit has held that a rebuttable presumption of compliance with the NCP applies when work is undertaken pursuant to a consent decree with a state agency. Id. at 1138. Other courts have applied a presumption of compliance with the NCP when a PRP conducts a cleanup pursuant to a consent decree and the state finds that the PRP conducted work in compliance with the consent decree. Niagara Mohawk Power Corp. v. Chevron USA, Inc., 596 F.3d 112, 137 (2d Cir. 2010); NutraSweet Co. v. X-L Engineering Co., 277 F.3d 776, 791 (7th Cir. 2000).

18. The Court finds that a rebuttable presumption of compliance with the NCP is applicable in this case. ODEQ and the EPA executed a Memorandum of Agreement in 1999 authorizing ODEQ to enter consent decrees with PRPs who agreed to participate in ODEQ’s Voluntary Cleanup Program. Joint Ex. 4. The EPA selected a remedy for the cleanup of the TFM Smelter site, and the

EPA deferred to ODEQ for the cleanup of offsite residential soil. Dkt. # 307, at 70. Cyprus performed remedial work pursuant to a consent decree with ODEQ, and ODEQ supervised and ultimately approved the work performed by Cyprus. Dkt. # 307, at 72-73, 99. ODEQ reported to the EPA as work progressed on the cleanup of the TFM Smelter and nearby areas affected by contamination from the TFM Smelter, and the remedial work that ODEQ directed Cyprus to perform was based on guidance from the EPA. Id. at 50, 62, 70.

19. “In resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the Court deems appropriate.” 42 U.S.C. § 9613(f)(1). “In any given case, ‘a court may consider several factors, a few factors, or only one determining factor, . . . depending on the totality of the circumstances presented to the court.’” United States v. Colorado and Eastern R. Co., 50 F.3d 1530, 1536 (10th Cir. 1995). These factors include, but are not limited to, “(i) the ability of the party to demonstrate that their contribution to a discharge, release or disposal of a hazardous waste can be distinguished; (ii) the amount of hazardous waste involved; (iii) the degree of toxicity of the hazardous waste involved; (iv) the degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste; (v) the degree of care exercised by the parties with respect to the hazardous waste concerned, taking into account the characteristics of such hazardous waste; and (vi) the degree of cooperation by the parties with the Federal, State or local officials to prevent any harm to the public health or the environment. Id. at 1536 n.5.

20. Cyprus seeks declaratory relief that it is entitled to contribution for a proportionate share of any future response costs incurred as part of the CSP. Dkt. # 106, at 36. Under 42 U.S.C. § 9613(g)(2), “the 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.” Courts have found that this requirement applies to contribution claims under CERCLA. ASARCO LLC v. Atlantic Richfield Co., LLC, 975 F.3d 859, 866 (9th Cir. 2020); New York v. Solvent Chemical Co., Inc., 664 F.3d 22, 26-27 (2d Cir. 2011); United States v. Davis, 261 F.3d 1, 46 (1st Cir. 2001). The Tenth Circuit has determined that district courts may issue a declaratory judgment as to liability for future response costs, but this does not preclude a defendant from challenging whether certain costs are recoverable under CERCLA. United States v. Hardage, 982 F.2d 1436, 1445 (10th Cir. 1992). The Court finds that Cyprus is entitled to declaratory relief as to liability for a proportionate share of any future response incurred as part of the CSP.

21. Cyprus asks the Court to impose a “recalcitrance” penalty against TCI for its refusal to participate in the CSP. Cyprus acknowledges that the failure to cooperate in a cleanup is an equitable factor that the Court may consider in the allocation of response costs, but Cyprus is seeking an upward adjustment or penalty in addition to consideration of TCI’s failure to cooperate as an equitable consideration. The Court has found no Tenth Circuit precedent support an additional penalty or upward adjustment outside of the balancing of the equitable factors, and the Court has already given substantial weight to TCI’s failure to cooperate with the EPA and ODEQ when determining the proper allocation of response costs. The Court declines to impose the “recalcitrance” penalty sought by Cyprus.

22. Prejudgment interest may be awarded to a successful plaintiff asserting a contribution claim under § 9613(f). Bancamerica Commercial Corp., 100 F.3d at 801. Prejudgment interest accrues from the “(i) the date payment of a specified amount is demanded in writing, or (ii) the date of the expenditure concerned.” Id. at 801. Cyprus requests prejudgment interest in the amended complaint

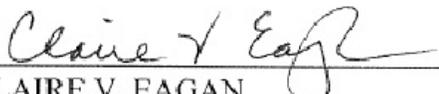
(Dkt. # 106, at 30), but Cyprus offered no evidence at trial concerning its entitlement to prejudgment interest or the amount of prejudgment interest sought. The Court will permit Cyprus to file a post-judgment motion seeking an award of prejudgment interest but, based on the record before the Court, it would be premature for the Court to find that an award of prejudgment interest is appropriate.

IT IS THEREFORE ORDERED that judgment will be entered in favor of plaintiff Cyprus Amax Minerals Company and against defendant TCI Pacific Communications, LLC as to Counts III and V of the amended complaint in the amount of \$14,265,070.20, plus post-judgment interest thereon from this date at the rate of .07 % per annum, plus the costs of this action.

IT IS FURTHER ORDERED that a declaratory judgment will be entered in favor of plaintiff Cyprus Amax Minerals Company declaring that defendant TCI Pacific Communications, LLC is liable for 45 percent of future response costs, if any, incurred by plaintiff to complete the CSP.

IT IS FURTHER ORDERED that judgment will be entered in favor of TCI Pacific Communications, LLC and against plaintiff Cyprus Amax Minerals Company as to Counts IV and VI of the amended complaint.

DATED this 31st day of March, 2021.



CLAIRE V. EAGAN
UNITED STATES DISTRICT JUDGE