

Rockwell Wins Battle Of Experts In Kalamazoo River PCB Case

The United States District Court for the Western District of Michigan has held that Rockwell International, Inc. (Rockwell) was not a significant contributor of polychlorinated biphenyl (PCB) contamination to the Kalamazoo River's sediments and, therefore, assessed no cleanup costs against Rockwell in a contribution action under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) brought by the Kalamazoo River Study Group (KRSG). KRSG is an unincorporated association of four paper companies identified as the principal sources of PCB contamination in the Kalamazoo River due to their past paper recycling and deinking operations from the period of 1950 through 1975. The court ruled that KRSG presented little credible evidence on the quantity of PCBs released by Rockwell in its historical discharges of oils to the Kalamazoo River. The court held that the PCB releases by the KRSG members were more than sufficient to justify imposing the entire cost of the cleanup on them.

Background

In 1990, a 35 mile stretch of the Kalamazoo River and a three-mile portion were listed on the National Priorities List (NPL) by the United States Environmental Protection Agency due to PCB contamination. The Michigan Department of Natural Resources (MDNR) identified three paper mills as the primary contributors to the PCB contamination. The three paper mills entered into an administrative order by consent (AOC) with MDNR in 1990 to fund and conduct a remedial investigation/feasibility study (RI/FS) of the NPL site, which was expanded to include 95 miles of the Kalamazoo River. Although it did not sign the AOC, a fourth paper mill, also became a member of the KRSG and agreed to participate in the RI/FS.

In Phase I of the case, the court held that the contribution of PCB by the members of the KRSG to the NPL site, “individually and together, are in nature, quantity and durability sufficient to require imposing the costs of response activities for the NPL site on each of those four parties.” The court also held in Phase I that, in light of the concentration of PCBs at the outfall of Rockwell’s “Oil Flotation House” and the presence of PCBs in the oil handling areas of Rockwell’s property, “Rockwell’s release of PCBs to the river was more than incidental or sporadic.” Although the court observed that Rockwell’s release of PCBs appeared to be minimal in comparison to the release by KRSG’s members, it held that both KRSG’s members and Rockwell were liable under CERCLA for PCB contamination at the NPL site.

Through August 1999, KRSG had spent approximately \$21 million for work relating to the RI/FS, of which approximately \$8.6 million related to work downstream of Rockwell’s facility and for general investigation of the entire 95 miles of the NPL site. KRSG had also paid MDNR’s successor agency, the Michigan Department of Environmental Quality (MDEQ), approximately \$3.1 million in oversight costs for the same period, of which approximately \$1.2 million were attributable to the investigation of the NPL site in general.

Applicable Law

Section 113(f) of CERCLA, governing the allocation of response costs under a contribution action, provides: “[i]n resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the court determines are appropriate” The court recited the following nonexhaustive list of factors, known as the “Gore factors,” that courts have applied under Section 113(f):

- (1) the ability of the parties to demonstrate that their contribution to a discharge, release or disposal of a hazardous waste can be distinguished;
- (2) the amount of the hazardous waste involved;
- (3) the degree of toxicity of the hazardous waste involved;
- (4) the

degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste; (5) 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 (6) the degree of cooperation by the parties with the Federal, State or local officials to prevent any harm to the public health or environment.

The court further stated that (i) “[c]ourts are not required to make meticulous findings as to the precise causative contribution each of the parties have made to a hazardous site,” (ii) a CERCLA claimant “has the burden of proving its case by a preponderance of the evidence,” and (iii) under “an appropriate set of circumstances, a [party’s] fair share of the response costs may be zero.”

Relative Contribution

KRSG argued that Rockwell was responsible for contributing 20% of the estimated 50,000 pounds of PCBs in Lake Allegan on the Kalamazoo River, downstream of Rockwell’s plant. This was based upon KRSG’s assertion that PCB Arochlor 1254 discharged by Rockwell was 3 to 4 times more toxic than the PCB Arochlor 1242 discharged by KRSG’s members. KRSG further argued that Rockwell should be allocated a 13% share of the current and future general river investigation costs upstream of the Rockwell facility and a 40% share of the current and future costs of investigating downstream of the facility, plus prejudgment interest. Rockwell argued that, because its PCB releases were so small as to be negligible, its equitable share of the costs should be zero.

The court explained the distinctions important to the case between PCB Arochlor 1242 and 1254. PCB Arochlor 1242 was predominantly associated with paper recycling operations such as those performed by the members of KRSG. It was used as an ink carrier or solvent in

carbonless copy paper from 1957 – 1971. It is also associated with hydraulic fluids and heat transfer fluids.

Rockwell discharged its industrial wastewater into the Kalamazoo River after treatment in an “Oil Flotation House” from 1945 until the early 1960s. Rockwell’s wastewater contained sludge, heavy metals, process wastes, oil, machine coolants, oily wastewater, and spent cutting oils. Rockwell had no records indicating that it had purchased quench oil, cutting oil, or hydraulic oil containing PCBs. Further, there was no evidence that Rockwell conducted any high-temperature operations that would have benefited from the fire-resistant qualities of PCB containing oils. Also, beginning in the early 1960s, Rockwell made increased use of water soluble oils in its processes, which were unlikely to have contained PCBs because PCBs do not readily mix with water. At that time, Rockwell discharged its waste into a soluble oil separation pond, the effluent of which was tested by MDNR in 1976 and 1986 and shown to not contain PCBs. Rockwell’s property, however, is contaminated with PCBs, predominantly with Arochlor 1254, although Arochlors 1242 and 1260 are also present.

Rockwell, however, kept no records of its oil purchases from the 1940s to the 1970s, nor did it test its incoming oils or wastewater discharge for PCBs until after 1971. The court noted that, because of this lack of information, the parties were unable to precisely calculate Rockwell’s PCB discharge and its contribution of PCBs to the Kalamazoo River sediment. The court stated that some reasonable inference could still be drawn from the available evidence. Considering that PCB-containing oils cost more and were not needed in Rockwell’s operations and the relatively low levels of PCBs on Rockwell’s property, the court stated that it was unlikely that Rockwell intentionally purchased PCB-containing oil. Nevertheless, it was likely that Rockwell purchased oil containing PCBs because they were commonly contained in oil prior

to 1970 and if Rockwell had purchased recycled oils, those oils very well could have contained PCBs. Further, Rockwell's expert testified that non-PCB oils purchased by Rockwell could have been contaminated with traces of PCB from residues left in tankers that had also transported PCB-containing oils.

Amount of Waste

KRSG's expert estimated that Rockwell discharged between 5,000 and 10,000 pounds of PCBs to the Kalamazoo River. This estimate was based upon data showing Rockwell's oil discharges to the river in 1965 and Rockwell documents identifying the amount of hydraulic and cutting oils that Rockwell historically stored and reclaimed. KRSG's expert extrapolated the data, which was collected on two days in 1965, to calculate that Rockwell discharged 520,695 gallons of oil over a 32-year period. KRSG's expert then used the concentration of PCBs present in PCB hydraulic oils and PCB cutting oils manufactured by Monsanto to conclude that Rockwell was responsible for a discharge of a minimum of 5,000 to 10,000 pounds of PCBs.

The court characterized KRSG's expert's calculations as "highly speculative." The court stated that it was not persuaded that the calculations were very probative because the 32-year estimate was an extrapolation from only one data point. The court stated that a single measurement should not be the basis for extrapolation to a multi-year period without sufficient corroborative evidence that the single point was representative of discharges over the period. The court further questioned KRSG's expert's reliance on the concentration of PCBs in oils that would have been purchased from Monsanto for their PCB-containing quality when the evidence did not support the assumption that all of the hydraulic and cutting oils purchased by Rockwell were Monsanto PCB-containing oils.

In addition, the contamination present at Rockwell's property did not support KRSG's expert's assumptions. A layer of "light non-aqueous phase liquid" (LNAPL) is floating on the groundwater beneath Rockwell's property, but no "dense non-aqueous phase liquid" (DNAPL), which would sink below the water table, is present. The court observed that if the oils purchased by Rockwell contained as much PCB in them as posited by KRSG's expert, the oils would have been found as a DNAPL on the Rockwell property. Further, the LNAPL present had only 9 parts per million (ppm) of Arochlor 1254 present in it. The court stated that Rockwell's expert testified convincingly that it would have been impossible for the Monsanto cutting oil, with a PCB concentration of 50,000 ppm, or the Monsanto hydraulic oil, with a 500,000 ppm PCB concentration, to be reduced to the 9 ppm concentration found in the LNAPL on the Rockwell property. Rockwell's expert testified that the low level of PCBs found on Rockwell's property more likely resulted from oils that were incidentally contaminated with PCBs.

The court found the opinion of Rockwell's expert to be persuasive. The court concluded that there was no basis for finding that the oils used by Rockwell contained significantly greater amounts of PCBs than was found in the LNAPL on Rockwell's property, and the concentration of PCBs in the LNAPL was more characteristic of incidental PCB contamination of the oils used by Rockwell than a steady purchase of PCB-containing oils from Monsanto.

Relying on Rockwell's expert's testimony, the court stated further that, even if one were to adopt KRSG's expert's assumptions on the volume of oil discharged by Rockwell, applying the maximum concentration of PCB detected in the LNAPL of 9.2 ppm would yield a total release of approximately 8 pounds of PCB by Rockwell. The highest concentration of PCB associated with Rockwell's facility, 35 ppm, was found in the sediment by the outfall from the Oil Flotation House. Using this number, Rockwell's total PCB release to the river would be

approximately 16 to 20 pounds. These amounts would yield a theoretical contribution by Rockwell of from 0.002 to 0.008 percent of the PCBs present in Lake Allegan downstream of Rockwell on the Kalamazoo River. Further, even if such a contribution occurred, it was negligible and did not rise above background PCB concentration in the river.

The court rejected KRSG's expert's opinion that Rockwell released from 5,000 to 10,000 pounds of PCBs to the river, finding more persuasive Rockwell's expert's estimate that the total amount of PCBs released by Rockwell did not likely exceed 20 pounds.

KRSG, however, presented very little evidence on the amount of PCBs released by its members. Therefore, the court relied heavily upon Rockwell's evidence on the issue. After reviewing the available evidence, the court concluded that, although it could not "begin to arrive at a precise figure regarding the volume of PCBs contributed by KRSG members that are still in the river," KRSG's members were responsible for hundreds of thousands of pounds of PCBs in the river.

Toxicity

KRSG attempted to argue that, because the Arochlor 1254 (the type of PCB released by Rockwell) bioaccumulation rate in fish is three to four times the bioaccumulation rate of Arochlor 1242 (the type released by KRSG's members), Rockwell's PCB releases are three to four times more toxic than KRSG's releases. Rockwell's expert testified that fish studies did not indicate that there was any additional bioaccumulation of Arochlor 1254 in the area of Rockwell's plant than upstream of the plant, a conclusion with which KRSG's expert agreed. The court ruled that the fish evidence, therefore, did not provide evidence that Rockwell contributed significant or measurable amounts of PCBs to the river. The court also noted that MDEQ establishes regulatory criteria and issues fish consumption advisories on the basis of the

presence of total PCBs, not on the presence of individual Arochlors. Accordingly, the court stated that it would follow the approach of MDEQ and treat all PCBs equally.

Next, the court observed that “[n]otwithstanding the overwhelming evidence of [KRSG’s] members’ contribution of large quantities of PCBs to the river, or perhaps because of that evidence, [KRSG] has attempted to shift this Court’s focus from Arochlor 1242 to Arochlor 1254 and from the entire ninety-five mile length of the Kalamazoo River at issue in this case to Lake Allegan, at the most downstream end of the Site.” The court observed that Rockwell was not the only potential source of Arochlor 1254 and that other potential sources included KRSG’s members and publicly owned treatment works for three municipalities, all upstream of Rockwell. The ratio of Arochlor 1242 to 1254 is approximately the same in the river sediments both upstream and downstream of Rockwell. The court further observed that if Rockwell had released significant quantities of PCBs, the relative amount of Arochlor 1254 should have increased downstream of Rockwell’s plant. Rockwell’s expert had collected and analyzed 300 samples of river sediment downstream of Rockwell. Very few of the samples had elevated levels of Arochlor 1254 and there was no increase in the levels of Arochlor 1254 near Rockwell’s plant. The court held that the absence of an increase in Arochlor 1254 downstream of Rockwell constituted credible and persuasive evidence that Rockwell was, at best, an inconsequential source of PCBs to the river.

Degree of Cooperation

The last of the Gore factors considered by the court was the degree of cooperation by the parties with governmental officials to prevent harm to the public health or the environment. The court found that none of the parties had fully cooperated, and thus concluded that the cooperation factor did not weigh in favor of one party over the other.

Conclusion

The court reiterated that, although KRSG was not required to prove its case with direct evidence or with mathematical precision, it still had the burden of proving its right to contribution by a preponderance of the evidence. The court decided that the quantity of waste contributed was the most important of the Gore factors for allocation in this case and, therefore, it must begin its analysis with an estimate of the total quantity of waste at issue and then determine the parties' relative contribution to the total amount.

The court characterized the evidence produced by KRSG as not consistent or helpful to the court's analysis. The court said that it was left with little to begin its analysis other than the undisputed facts that the recycling and deinking of paper by KRSG's members was the major cause of PCB contamination of the Kalamazoo River, that KRSG's members' landfills were continuing to release PCBs to the river, and that KRSG's members had released hundreds of thousands of pounds of PCBs to the river. The court then observed that although KRSG had presented detailed evidence on the amount of oil released by Rockwell, it had presented little credible evidence on the amount of PCBs contained in the oil. The court found that Rockwell's PCB concentration to the river was very minimal, particularly in contrast to the contribution by KRSG's members, when taking into account the low levels of PCB on Rockwell's property and that the river sediments and fish tend to show no significant contribution by Rockwell. The court further noted that Rockwell's PCB contribution did not exceed background levels and would not have in and of itself resulted in a need for remediation of the river. Therefore, the court held that the equities of the case justified imposing the entire cost of response activities on KRSG's members and imposing none on Rockwell.

Kalamazoo River Study Group v. Rockwell Int'l, Inc., 107 F.Supp. 2d 817 (W.D. Mich. 2000).

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