

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN

---

GARY SUOJA, Individually and as Special Administrator  
of the Estate of OSWALD SUOJA, Deceased,

Plaintiff,

v.

OWENS-ILLINOIS, INC.,

Defendant.

OPINION AND ORDER

99-CV-475-slc

---

On December 29, 1996, Oswald “Ozzie” Suoja died from mesothelioma, a form of cancer closely associated with asbestos exposure. There is no dispute that exposure to asbestos caused Suoja’s illness: he had a 40-year career as a union asbestos worker during which he worked with numerous asbestos-containing products. In 1999, Suoja’s wife filed this lawsuit against defendant Owens-Illinois, Inc. on her own and Suoja’s behalf. (She later was replaced as plaintiff by their son Gary, who is administrator of Suoja’s estate). The lawsuit asserts causes of action for negligence and strict liability based on the fact that from January 1948 and April 30, 1958, Owens-Illinois manufactured and sold an asbestos-containing pipe insulation called “Kaylo.” Plaintiff alleges that Suoja was exposed to asbestos dust from this particular product while doing pipe insulation and repair at the Badger Ordnance Works in Sauk County, Wisconsin, that this exposure was a substantial cause of his mesothelioma, and that defendant is either strictly liable or negligent for including asbestos in its insulation product and/or failing to warn Suoja that working around dust from Kaylo would expose him to an unreasonable risk of harm.

Plaintiff’s suit was originally assigned to District Judge Barbara Crabb. In September 1999, the Judicial Panel on Multidistrict Litigation ordered the case transferred to the Eastern

District of Pennsylvania for pretrial proceedings, where it remained until it was remanded back to Judge Crabb in January 2014. Dkts. 3, 11. After a number of unsuccessful motions by defendant to dismiss the case, *see* dkts. 67, 114, the parties withdrew their jury demands and consented to magistrate judge jurisdiction over a bench trial. Dkt. 134. I held a bench trial on November 30 to December 2, 2015, allowing the parties virtually free rein to present evidence with the understanding that they would be able to raise evidentiary objections in post-trial briefs. Following the trial, the parties submitted post-trial briefs, including numerous evidentiary objections, and responses. *See* Dkts. 201, 205, 209. The case now is before the court for findings of fact and conclusions of law pursuant to Fed. R. Civ. P. 52.

After examining the entire record, considering the arguments of counsel, and determining the credibility of the witnesses, I find that plaintiff has failed to meet his burden of showing by the greater weight of the credible evidence that Suoja was exposed to Kaylo at Badger Ordnance. Further, even if Suoja might have been exposed to Kaylo at Badger Ordnance, plaintiff has not met his burden of showing that any such exposure was a substantial cause of Suoja's mesothelioma. Having failed to prove key elements of his claims of strict liability and negligence, plaintiff cannot prevail. Therefore, I am entering judgment for defendant and dismissing plaintiff's case.

The court's findings of fact and conclusions of law with respect to these two elements of plaintiff's claims are set forth below:

## I. FINDINGS OF FACT<sup>1</sup>

### A. The Parties

Plaintiff Gary Suoja (“plaintiff”) is a resident of the state of Washington. He is the son of Oswald “Ozzie” Suoja (“Suojja”) who died on December 29, 1996. Suoja was a resident of Douglas County, Wisconsin at the time of his death. Suoja was an asbestos insulation worker from about 1943 until his retirement in 1984. On January 28, 1944, Suoja became a card-carrying member of the International Association of Heat and Frost Insulators and Asbestos Workers Union. In bankruptcy trust submissions and discovery responses from a prior state court lawsuit, Suoja’s estate admitted that he sustained asbestos exposure from a long list of products and job sites. Dkt. 205, Def.’s. PPF 62-64.<sup>2</sup>

Defendant Owens-Illinois is incorporated in Delaware with its principal place of business in Ohio. Owens-Illinois is and has always been a glass manufacturing company. One of the raw materials in the manufacture of glass is silica. In the 1940s, Owens-Illinois developed a thermal insulation product composed of lime, silica, diatomaceous earth, clay and approximately 13 to 25 percent asbestos. Between January 1948<sup>3</sup> and April 30, 1958, Owens-Illinois commercially manufactured and sold this asbestos thermal insulation product, which was called “Kaylo.”

---

<sup>1</sup> Although most of my findings are set forth in this portion of the opinion, occasionally I have made subordinate factual findings in the course of discussing the court’s legal conclusions. These findings are incorporated by reference herein.

<sup>2</sup> I address plaintiff’s objections to the relevance of this evidence below in Section II C.

<sup>3</sup> Owens-Illinois established a pilot plant for the manufacture of Kaylo in 1943 and may have sold a small quantity in 1944. Trial Tr., dkt. 198, at 52 (testimony of Peter Neushul). Even as of September 1948, however, Owens-Illinois still had limited production capacity, such that it declined an offer to bid for a Navy insulation contract. Def.’s Tr. Exh. 1940. Although plaintiff speculates that some of this unquantified but small amount of Kaylo sold in 1944 might possibly have made its way to Badger Ordnance, there is no evidence to support this conjecture. Further, I find that the testimony of plaintiff’s witnesses on this point is not credible for reasons stated below.

Kaylo was a pre-cast, rigid, hydrous calcium-silicate insulation, referred to generically as a “calsil” product, used to insulate at temperatures above 600° F. Owens-Illinois Kaylo was hard, cementitious, and insoluble in water. Owens-Illinois stopped manufacturing and selling Kaylo on April 30, 1958, when it sold the Kaylo Division to a separate company, Owens Corning Fiberglas. Between May 1, 1958 and 1972, Owens Corning Fiberglas produced its own “Kaylo” asbestos thermal insulation product.

## **B. Badger Ordnance Works**

Plaintiff alleges that Suoja was exposed to Owens-Illinois Kaylo while removing or installing pipe insulation at Badger Ordnance Works. Badger Ordnance Works, later known as Badger Army Ammunitions Plant, was a government-owned, contractor-operated ammunition plant built during World War II by the United States Army Corps of Engineers. It is located on more than 7,500 acres in Sauk County, Wisconsin, just north of Madison. Construction of the plant began in 1942 and continued until August 13, 1945. Upon completion in 1945, the plant had a large on-site steam power plant that provided heat and some power through a network of approximately 200 miles of elevated steam lines to more than 1,400 buildings.<sup>4</sup>

---

<sup>4</sup> Plaintiff asserts that the total piping at Badger Ordnance after it was later expanded was actually “thousands of miles,” not 200 miles. However, the only evidence he cites in support of this assertion is the deposition testimony of George Schlub, an asbestos worker who worked at Badger on and off during the 1950s and 1960s. Dkt. 154, at 22. I agree with defendant that there is no foundation for Schlub’s testimony as to how many miles of steam lines were at Badger. Accordingly I give it no weight. Perhaps the pipes *seemed* to stretch for thousands of miles: a straight two-hundred mile pipe would run from Evanston Illinois to Indianapolis, Indiana. See Google Maps. Bend that much pipe around the buildings dotting a 12-square mile munitions facility and a visitor’s perception might add an order of magnitude to what he was seeing.

At trial, defendant presented the testimony of expert witness Peter Neushul, Ph.D., a historian who specializes in the history of 20<sup>th</sup> century United States technology and science. Defendant retained Dr. Neushul to examine the history of Badger Ordnance Works, including its construction. Dr. Neushul's examination of primary historical documents uncovered construction records showing that Asbestos & Magnesia Materials Company ("A&M") was awarded contracts to insulate the outside steam lines during initial construction at Badger Ordnance Works. A&M was a contractor and distributor of Johns-Manville asbestos insulation, which was an 85% magnesia asbestos insulation product. Photographic evidence introduced at trial shows asbestos workers at Badger Ordnance in 1944 installing Johns Manville 85% magnesia asbestos insulation and a storage room filled with JM insulation in 1944.<sup>5</sup> On the photographs, the Johns Manville insulation is bright white in appearance. Def. Ex. 1868, at 1-3; Ex. 1868, at 1-3.

Dr. Neushul testified about differences between 85 percent magnesia asbestos products—like the insulation that Johns-Manville installed during the initial construction of Badger Ordnance—with calcium silicate ("calsil") asbestos products—like Kaylo. Dkt. 195, at 108-110. According to Dr. Neushul, calsil products were developed later but both types of insulation continued to be sold and used at the same time. Calsil products were tactilely harder and were insoluble in water, and therefore much more resistant to weathering than water-soluble 85 percent magnesia asbestos products.

---

<sup>5</sup> Contrary to plaintiff's objection, the public documents and telephone directories are not excluded by the rule against hearsay. F.R. Ev. 803(8) (public documents); F.R. Ev. 803(18) (reliable authority); Fed. R. Evid. 803(17) (directories). In any event, Dr. Neushul was entitled to rely on these documents when forming the opinions that undergirded his trial testimony, and the court is entitled to consider them when evaluating his opinions. F.R. Ev. 703.

There is no documentary evidence in the record—no photographs, no records, nothing—that shows or even suggests that any Owens-Illinois Kaylo insulation was installed at Badger Ordnance during the initial construction from 1942 to 1945, or that any Kaylo was sold to any contractors who performed work at Badger during that time period.

At the end of WWII, Badger Ordnance was mothballed until 1954-1955, when new facilities for the manufacture of ball powder propellant were constructed as a result of the Korean War. Additional steam lines might have been installed at that time, but it is unclear how many. Sales invoices dated May-July 1954 show shipments of 5,247 linear feet of Owens-Illinois Kaylo to Sprinkmann Sons Corporation, an insulation contractor from Milwaukee that worked at Badger Ordnance during that time.<sup>6</sup> (Although Suoja had worked at Sprinkmann Sons from 1943-1951, he was not working there in 1954.) There is no objective evidence showing where at Badger Ordnance any of this Kaylo was used, who installed it, how long it remained in place, or when—if ever—it was removed or by whom.

Badger Ordnance was mothballed again from 1958 to 1965. Production resumed in 1966 for the Vietnam War but stopped completely by January 1975.

---

<sup>6</sup> Plaintiff also introduced one invoice from Owens Corning Fiberglas to L&S Insulation at Badger Ordnance Works in July 1959. This invoice shows one shipment of 122.59 linear feet of Owens Corning Fiberglas Kaylo to Badger Ordnance Works. There is no evidence that Owens-Illinois manufactured this Kaylo, and no reasonable inference can be drawn that, 15 months after Owens-Illinois sold the Kaylo Division to Owens Corning Fiberglas, the latter company still was selling Kaylo that it might have bought from Owens-Illinois in April 1958.

### C. Suoja's Employment

Suoja's Social Security records show the following periods and places of employment:

- 1943-1951 Sprinkmann Sons, Milwaukee, WI
- 1954-1968 McDermaid Roofing & Insulating, Rockford, IL
- 1968-1977 L&S Insulation Co., Milwaukee, WI

### D. Product Identification Evidence

At trial, plaintiff presented the deposition testimony of two insulators, Lawrence Zimmer and George Schlub<sup>7</sup>, who testified that they worked with Suoja at Badger Ordnance removing deteriorated Kaylo insulation from overhead steam lines. Zimmer, who testified on February 2 and February 3, 2012, said that he worked as a helper-apprentice for L&S Insulation at Badger Ordnance about 53 years earlier, in late 1958; while there, he was in the presence of other insulators who were removing Kaylo insulation that had been in place for "over a year." Zimmer said he knew it was Kaylo because it was "smooth and white." Dkt. 155, at 25-27. With respect to Suoja, Zimmer offered the following testimony:

Q: [Did you work with] a fellow by the name of Oswald Suoja?

A: Yes.

Q: Was he also an insulator like yourself?

A: Yes.

---

<sup>7</sup> Defendant objects to the admission of Schlub and Zimmer's testimony on various grounds. See Def.'s Post-Trial Br., dkt. 205, pp. 128-131; dkt. 132, at 2,4. As explained in Section II B. of this opinion, even if this testimony is admitted into evidence, I find that neither witness's testimony is credible. Accordingly, I have not ruled on the merits of defendant's objections except where expressly noted.

Q: Was he out at Badger Ordinance?

A: Yes.

Q: Was he there in the '50s like you were?

A: Yes.

Q: Would you be able to say one way or another if he was exposed to the same things you were out there as far as [asbestos] dust?

A: Yes. I think he was on the job longer.

Q: Was he there before you?

A: Yes.

Dkt. 156, at 54.

George Schlub was the other insulator who mentioned Suoja during his deposition. Schlub was 80 years old when he was deposed, he is a client of the law firm that is representing plaintiff in this lawsuit, and he acknowledged at his deposition that he liked to help out his fellow asbestos workers. Dkt. 154 at 6:3-22, 8:13-17. Schlub testified that he worked on and off with Suoja for five or six months in the late 1960s and early 70s while they were both employed by L&S Insulation. According to Schlub, he and Suoja removed or re-weatherproofed old insulation that had been installed on the overhead steam lines at Badger Ordinance. This work, which involved “thousands of feet” of insulation, created lots of dust.

Schlub offered this testimony about his recollection of the work that he and Suoja performed at Badger:

Q: What were you doing there?

A: We were repairing insulation-covered pipes where the weather had gotten to it and the weather-proofing had – the weather-proofing had fallen off,



and they – the materials, insulating materials, were deteriorated and we had to remove them and replace them with new insulation. And there was also some new construction that was going on too that we worked on too. It was new work, and we had to insulate that too. But mostly it was removing or re-weather-proofing insulation materials that were on the pipes already.

\* \* \*

Q: How did you remove the insulation?

A: How would we remove it? We would cut the—the insulation is wired on, and we had to cut the wires. It was deteriorated and hanging there, and the weather-proofing was mostly gone. We had to cut it down with our nippers and let it fall to the ground, you know.

\* \* \*

Q: What about the deteriorated insulation?

A: Deteriorated stuff, the weather-proofing had been – had weathered and was falling off and the insulation was weathered. It was rained on and had dirt on it and stuff from dust blowing around the field there, and it had a real dirty-looking appearance.

Dkt. 154, at 12:1-22, 14:15-21, 24:5-11.

Schlub testified that, based on his years of experience as an asbestos worker and numerous jobs in which he had used Kaylo, he was sure that the old insulation that he and Suoja were removing from the steam lines at Badger was Kaylo. Schlub described Kaylo as white and chalky in appearance, with a distinctive smooth texture. *Id.*, at 19:4-20:17. Schlub also testified that he knew that the Kaylo they were removing had been installed before 1958 (during the period when OI was the manufacturer) because he had worked an earlier insulation replacement job at Badger in the late 1950s and observed at that time that it was Kaylo on the pipes. He also

said that sometimes the pipe covering that he and Suoja tore off in the late 1960s was Kaylo “covering that I had put on, you know, and had to be replaced again.” *Id.*, 22:1-3.<sup>8</sup>

Schlub identified Kaylo as an 85 percent magnesia product, which he said looked different than calcium silicate products. *Id.*, 29:18-34-13. According to Schlub, calsil products were not as “bright white” as 85 Magnesia products. *Id.*, 34:3-20.

#### E. Causation Evidence

To establish that Suoja’s mesothelioma was caused by his exposure to asbestos attributable to defendant, plaintiff offered the November 25, 2015 trial deposition testimony of Dr. Arthur Frank. Dkt. 165. Dr. Frank, whose qualifications as an expert are uncontested, is a specialist in occupational medicine who has spent much of his career studying asbestos-related diseases in the workplace. Before trial, while this case still was assigned to Judge Crabb, defendant moved to bar Dr. Frank from testifying that “any exposure to asbestos, no matter how slight, remote or insignificant, is a cause or substantial contributing factor in causing plaintiffs’ diseases,” arguing that this opinion failed to satisfy the standards for admissibility set out in Fed. R. Evid. 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Def.’s Mot. Bar, dkt. 27; Def.’s Reply, dkt. 69; Def.’s Suppl. Auth., dkt. 72; Def.’s Suppl. Auth., dkt. 79. Defendant argued that this theory was scientifically unreliable and irrelevant to a causation analysis because it failed to make any attempt to estimate the dose of asbestos to which Suoja

---

<sup>8</sup> Schlub also testified that when he worked at Badger removing insulation in the 1950s, some of the older insulation workers told him that the insulation they were removing was Kaylo that they had installed at Badger in the 1940s. There are absolutely no indicia that these hearsay statements are trustworthy; therefore, they are inadmissible. Fed. R. Evid. 807.

was exposed by working with defendant's product. Instead, defendant argued, the "any exposure" theory advanced by Dr. Frank rested on the unscientific principle that even the first dose, no matter how remote or slight, was a cause or substantial contributing factor in causing Suoja's mesothelioma. Defendant cited numerous state and federal court decisions that had rejected the "any exposure" opinion as a basis for asbestos causation. *See* dkt. 27 at 15-16 & n.6.

In response to this motion, plaintiff filed a two-page brief in which he stated that testimony that "'any exposure' is a cause of the asbestos related disease will not be presented at trial." Dkt. 64, at 1. On the basis of that concession, Judge Crabb granted defendant's motion as unopposed. Op. and Order, March 14, 2015, dkt. 82, at 5.

At his November 25, 2015 trial deposition, Dr. Frank testified that Suoja's mesothelioma was caused by his "cumulative exposure" to asbestos over his long career as an insulator. Dep. of Dr. Arthur Frank, dkt. 165, at 35 ("Someone like Mr. Suoja, who worked as an insulator for decades, all of the exposures that he had day one, day two, day a thousand, day 10,000, all of those were part of his cumulative exposure, which at the end of the day is what gave him his disease."). Dr. Frank testified that mesothelioma is a dose-responsive disease, meaning that the greater the dose of asbestos, the higher the likelihood of getting the disease. Dkt. 165, at 34:24-36:14. He testified that of all the various trades that worked with asbestos, insulators like Suoja had the greatest exposure and the highest rate of asbestos-related disease, including mesothelioma. *Id.*, 38:22-39:16. Dr. Frank cited studies and literature that stated that in both humans and animals, "as little as one day of exposure [to asbestos] or less than a full working day has been shown to give rise to people developing mesotheliomas." *Id.*, at 39.

Dr. Frank was asked to assume that Suoja had installed or removed asbestos-containing pipe insulation for at least one month in the 1950s or 1960s where visible dust was generated from cutting insulation, and asked whether such exposure alone could cause his mesothelioma if that was his only dose. Dkt. 165, at 79-81. Dr. Frank responded that one month would be sufficient, based upon the minimum duration in the literature and the Helsinki medical criteria for attributing causation of mesothelioma to asbestos exposure. *Id.*

On cross-examination, Dr. Frank testified:

Q. You touched on this towards the end of your direct examination, but essentially it's your opinion that the only exposure that a person has that is not causative in their asbestos-related disease is the exposure that they didn't have it?

A. Right. If they didn't have it, it couldn't cause it.

Q. But if they have an exposure, no matter how slight, no matter how minimal, your opinion is that that is part of the cause of the disease?

A. It's part of their cumulative exposure.

Q. And thus the cause?

A. And thus the cause because it is the cumulative exposure that is the cause.

Q. And that's true in your mind and in your opinion even for a single exposure on a single day?

\* \* \*

A. The answer is yes.

Frank Dep. 97:17-99:15, dkt. 165.

Dr. Frank testified that he “is of the school that says the cumulative exposure, one at a time a million times, is what did it, and I can’t leave any one of them out. That doesn’t mean in some legal settings that might not happen, but medically, scientifically, every exposure

contributes to the totality of the exposure.” *Id.*, 99:3-9. Dr. Frank said there was no scientific way to disaggregate an individual’s exposures to asbestos or to say that one was substantial and one was insubstantial. *Id.* at 10-15.

## II. CONCLUSIONS OF LAW

### A. Legal Standard

Because this court’s jurisdiction is based on diversity of the parties under 28 U.S.C. § 1332, the court applies the substantive law of Wisconsin. *Miller v. American Art Clay Co. Inc.*, 28 F. Supp. 3d 825, 828 (W.D. Wis. 2014) (citation omitted). Each of plaintiff’s claims requires him to prove by the greater weight of the credible evidence that defendant caused Suoja’s mesothelioma. Under Wisconsin law, plaintiff bears the burden of showing that Suoja was exposed to Owens-Illinois Kaylo and that his exposure to Owens-Illinois Kaylo was a substantial factor in causing his disease. Wis. JI-Civil 1500 (causation); *Miller*, 28 F. Supp. 3d at 828 (citing *Zielinski v. A.P. Green Indus., Inc.*, 2003 WI App 85, ¶16, 263 Wis. 2d 294, 661 N.W. 2d 491).

To be a “substantial factor” requires “that the defendant's conduct ha[ve] such an effect in producing the harm as to lead the trier of fact, as a reasonable person, to regard it as a cause, using that word in the popular sense.” *Zielinski*, 2003 WI App 85, ¶ 16, 263 Wis. 2d 294, 661 N.W. 2d 491 (citation and one set of quotation marks omitted). A substantial factor need not be the most immediate or the most important cause of an injury; a plaintiff can establish causation by showing that a defendant’s action contributed to the injury. *Horak v. Bldg. Services Indus. Sales Co.*, 2008 WI App 56, ¶15, 309 Wis. 2d 188, 750 N.W. 2d 512. *See also Schultz v.*

*Akzo Nobel Paints, LLC*, 721 F.3d 426, 433 (7th Cir. 2013) (“Schultz was not required to demonstrate that benzene exposure was the *sole* cause of his disease, so long as he showed that benzene contributed substantially to the disease's development or significantly increased his risk of developing AML.”) (emphasis in original). However, “[a] mere possibility of . . . causation is not enough; and when the matter remains one of pure speculation or conjecture or the probabilities are at best evenly balanced, it becomes the duty of the court to direct a verdict for the defendant.” *Merco Distrib. Corp. v. Commercial Police Alarm Co.*, 84 Wis. 2d 455, 460, 267 N.W.2d 652, 655 (1978) (quoting Prosser, *Law of Torts* 241 (4th ed. 1971)).

**B. Plaintiff Has Failed To Show That Suoja Was Exposed to Owens-Illinois Kaylo**

Plaintiff's only evidence that Suoja was exposed to Owens-Illinois Kaylo is the testimony of Zimmer and Schlub. This testimony is unpersuasive for a number of reasons.

Zimmer testified that in late 1958 while working for L&S Insulation, he was present during the repair of old steamlines at Badger that were covered with “smooth and white” insulation that he identified as Kaylo. Zimmer identified Suoja as one of the other insulators who was on site. This testimony conflicts with Suoja's social security record, which shows that in late 1958, Suoja was working at McDermaid, a company located in Rockford, Illinois. Plaintiff did not present any evidence establishing that McDermaid had any contracts for insulation work at Badger Ordnance in 1958 or at any other time. McDermaid worked primarily

in Illinois and very seldom bid in Wisconsin.<sup>9</sup>

Attempting to reconcile Suoja's social security record with Zimmer's testimony, plaintiff asks the court to speculate that Suoja was "on loan" from McDermaid to L&S in 1958. There is no evidentiary or logical basis for the court to draw such a conclusion. Much more likely and more logical under the circumstances is that Zimmer's recollection is faulty. Given the passage of half a century and the large number of job sites and insulators with whom Zimmer worked over that five-decade span, his rather unspecific testimony about working with Suoja at Badger Ordnance is simply incorrect.

Moreover, the greater weight of the evidence suggests that Zimmer and Schlub both were mistaken when they identified the "smooth, white" insulation that they removed (or saw being removed) at Badger in the late 1950s and '60s as Owens-Illinois Kaylo. The documentary and photographic evidence adduced by defendant at trial shows that the steam lines at Badger Ordnance were initially insulated with Johns Manville 85 Magnesia—which is smooth and white—between 1942 and 1945. Although plaintiff notes that there is no proof that the entirety of the 200 miles of pipe at Badger was covered in Johns Manville asbestos, he has not presented any tangible, documentary evidence showing that any other pipe insulation was used at all during initial construction. Further, even if some other products may have been used during that

---

<sup>9</sup> In support of this fact, defendant cited the deposition of Elmer Borchardt, who was president of L&S Insulation during the relevant time period and had knowledge of the various insulation contractors in the region. Plaintiff's objections to this testimony are overruled. Dkt. 209, p. 103, response to PPF 27. Even though the deposition was not noticed for this case, counsel for plaintiff was present for it and would have had the same motive for cross examination. Further, it appears that Borchardt's reference to "McDermott" insulation rather than "McDermaid" was simply an error, insofar as he referred to the company as "McDermott out of Rockford."

time frame, it most likely was *not* Owens-Illinois Kaylo because this product was not produced in large quantities until 1948.

Plaintiff did introduce sales receipts showing that 5,274 linear feet of Kaylo were shipped to Badger Ordnance in 1954, presumably in connection with the construction of the ball powder plant following the Korean War. This is something, but it's not enough. First, 5,274 linear feet amount to less than 0.5% of the greater than one million linear feet of insulation installed at Badger Ordnance. Even if one were to assume—and it would be an assumption without evidentiary support—that this Kaylo was used on the overhead steam lines (as opposed to inside the new building(s) under constructed at that time), this does not establish that it is more likely than not that Both Zimmer and Schlub happened to have worked in the vicinity of the ½% of the pipe that might have been insulated with Kaylo.

Indeed, other testimony from these same two witnesses indicates that the insulation in the vicinity was *not* Kaylo. Given Kaylo's ability to withstand the elements—as noted above, Kaylo is hydrophobic—it is unlikely that it would have deteriorated in only four years' time (if one first accepts Zimmer's testimony that he saw Kaylo being removed at Badger in 1958). Indeed, Schlub's description of the insulation he and Suoja removed as being “deteriorated,” “weathered” and “falling off” is much more consistent with a water-soluble product like Johns Manville 85 percent magnesia.

As for Schlub, there are other reasons to give little weight to his product identification testimony. As Schlub acknowledged, he did not see the original box from which the insulation he was removing came, so there was no visible label identifying the name of the product at the time he was removing it. Instead, Schlub testified that he knew it was OI Kaylo because of his



years of experience and the fact that Kaylo had a smooth, white appearance. Despite Schlub's claimed expertise gleaned from years of experience, Schlub incorrectly identified Kaylo as an 85 percent magnesia product instead of a calsil product. He got it exactly backwards. Schlub's confusion on this fundamental fact establishes that his recollection of the various types of insulation products and their characteristics is not as sharp as he made it seem. In sum, given this error, considered along with the numerous products with which Schlub worked during his career, the brief time he worked with Suoja at Badger and the 40 years that elapsed between the events and his testimony, I find incredible his testimony that he recalled the specific brand of product he removed from the steam lines at Badger.

Further undermining Schlub's credibility is his testimony that the Kaylo he and Suoja removed was the same Kaylo that he had installed during a job in the 1950s. Again, given the 200 miles of steam line at Badger and Kaylo's durability, it is highly unlikely that Schlub would be reassigned to the very spot at Badger where he had originally installed Kaylo, and even less likely that he would *remember* nearly a decade later the precise spot at the 7500 acre complex where he had installed Kaylo the first time. Instead, given Schlub's acknowledgment he liked to help his fellow insulators when he could, it is more probable that Schlub was going out of his way to do just that.

Although it is not essential to my conclusion, I note that there is evidence in the record indicating that Kaylo was only one of a number of "white line" asbestos products available in the 1950s, which included pipe covering manufactured by Johns Manville, Ehret Magnesia, Baldwin-Ehret-Hill and Calsilite, Dep. of John Locher, dkt. 188, 37-38. Other testimony indicates that these products were virtually indistinguishable once out of the box. Dep. of

Harold Haase, dkt. 149, 48:7-14. Further, there is evidence that the term “Kaylo” was used generically to refer to a variety of high temperature calcium silicate products, including those made by Baldwin-Ehret-Hill, Johns Manville, Pabco or Atlas. Dep. of Elmer Borchardt, dkt. 185, 42:19-20. The evidence suggesting that “kaylo” was a generic name as well as a brand name for defendant’s product is consistent with findings made in other cases claiming exposure to brand-name Kaylo. *Harris v. Owens-Corning Fiberglas Corp.*, 102 F.3d 1429, 1431 (7th Cir. 1996) (“Numerous other companies [besides defendant] also manufactured asbestos-containing pipe insulation generically referred to as kaylo (also spelled “k-low,” “k-lo,” or “kaylow”) much like individuals often refer to generic tissue paper by the brand name “kleenex.”); *Shine v. Owens-Illinois, Inc.*, 979 F.2d 93, 97 (7th Cir. 1992) (“a review of [plaintiff’s] testimony indicates that he used [the term ‘kaylo’] generically, rather than as a brand name.”). Thus, it may well be the case that the insulation that Schlub recalled removing with Suoja was generic “kaylo.”

For all these reasons, I find that plaintiff has failed to prove by the greater weight of the credible evidence that Suoja was exposed to Owens-Illinois Kaylo. This, by itself, suffices to find against plaintiff on his claims, but as discussed in the next section, plaintiff also has failed to meet his burden of proof on causation.

**C. Plaintiff Has Failed To Establish That Exposure to OI’s Kaylo Was a Substantial Factor That Lead to Suoja’s Mesothelioma**

Even if the court were to accept Schlub’s testimony that Suoja was exposed to asbestos fibers from dust produced by Kaylo pipe insulation for a period of approximately five to six months in the 1960s, plaintiff has not met his burden of establishing that this exposure was a substantial factor in causing Suoja’s mesothelioma.

Defendant does not dispute as a general matter that exposure to asbestos caused Suoja's mesothelioma. For plaintiff to obtain damages from this defendant, however, plaintiff must show by a preponderance of the evidence that exposure to defendant's product, Kaylo, was a substantial factor in causing Suoja's disease. *Merco Distributing*, 84 Wis. 2d at 458–59, 267 N.W.2d at 654; *Miller*, 28 F. Supp. 3d at 831; Wis. J.I.-Civil 1500 (Causation). On this question, plaintiff offered only the testimony of Dr. Frank, who testified, in response to a hypothetical, that one month of exposure to dust produced by cutting Kaylo pipe insulation would be sufficient to cause mesothelioma.

Defendant contends that Dr. Frank's opinion, couched in terms of a person's "cumulative exposure," is no different from the "any exposure" theory that plaintiff agreed he would not proffer at trial and therefore should be stricken.<sup>10</sup> I agree. Dr. Frank did not offer any opinion about the amount of asbestos from Kaylo to which Suoja was exposed; perforce Dr. Frank did not compare the amount of Suoja's Kaylo exposure to Suoja's cumulative exposure to asbestos from so many other products over the course of Suoja's career. Dr. Frank explained that his attribution opinion was based on studies and literature showing that in both humans and animals, "as little as one day of exposure [to asbestos] or less than a full working day has been shown to give rise to people developing mesotheliomas." Dep., at 39. He further acknowledged that it is his opinion that any asbestos exposure, "no matter how slight, no matter how minimal" is part of an individual's cumulative exposure and thus a cause, and that he could not separate substantial from insubstantial exposures. In Dr. Frank's view, there is no safe level of asbestos

---

<sup>10</sup> Because I find that Dr. Frank's "cumulative exposure" testimony is barred by Judge Crabb's pretrial order—and in any event does not sufficiently establish causation—I have not ruled on defendant's other objections to Dr. Frank's testimony.

exposure, and therefore, every exposure that contributes to an individual's cumulative exposure is "scientifically significant." Thus, Dr. Frank would have attributed Suoja's mesothelioma to defendant's Kaylo product even if he had been exposed to it for one day.

Plaintiff offers various arguments as to why this testimony does not violate Judge Crabb's pretrial order, but none is persuasive. First, plaintiff asserts that *defendant* violated the order barring an "each-and-every-exposure" opinion by eliciting the testimony on cross-examination. Plaintiff's assertion is incorrect. Defendant was entitled to explore the bases of Dr. Frank's opinion to determine whether it rested on accepted, reliable scientific principles or whether it ventured into the "each and every exposure" territory that plaintiff had agreed was off the table.

Second, plaintiff insists that Dr. Frank's "cumulative exposure" is different from his "each and every exposure" opinion, explaining that "[w]hen multiple toxic exposures are involved, 'cumulative' relates to the sum of all exposures causing the disease mesothelioma in Ozzie," whereas "the 'each and every' relates to which of the separate or individual exposures are considered a substantial cause." Plt.'s Reply Br., dkt. 209, at 58. Maybe so, but it is plain from Dr. Frank's testimony that his ultimate opinion was not tied to any specific quantum of exposure that was attributable to defendant, but instead was based on his holistic view that every exposure to asbestos, no matter how minimal, is a substantial contributing factor to any resulting mesothelioma. In other words, if there is exposure, then there is causation. This is precisely the testimony that defendant moved successfully to bar. Def.'s Mot. Bar, dkt. 27 (seeking to bar Dr. Frank from testifying that "any exposure to asbestos, no matter how slight, remote or insignificant, is a cause or substantial contributing factor in causing plaintiffs' diseases"). *See also Krik v. Owens-Illinois, Inc.*, 2015 WL 5050143, \*1 (N.D. Ill. Aug. 25, 2015) (ruling that Dr.

Frank's "cumulative exposure" testimony was no different than "each and every" exposure testimony that court had ruled inadmissible under *Daubert*). Simply because Dr. Frank may have consciously avoided using the phrase "each and every" during his direct examination does not remove his testimony from the reach of Judge Crabb's pretrial ruling.

But even if Dr. Frank's testimony were admissible, I would give it little weight. *Pope v. County of Albany*, 687 F.3d 565, 581 (2d Cir. 2012) ("The question of what weight to accord expert opinion is a matter committed to the sound discretion of the factfinder ... [who] may certainly consider the bases for an expert's opinion and may accord the opinion less, or even no, weight if the record suggests that the bases are defective, incomplete, or questionable."). As defendant notes, a causation expert who accounts only for exposure and not for dosage adds nothing to the analysis. *Schultz*, 721 F.3d at 432 ("[T]he notion that it is theoretically possible that any amount of exposure could cause injury is different from an opinion that the particular level of dosage experienced by a plaintiff was sufficient to cause his or her particular injury.").

As Dr. Frank acknowledged, mesothelioma is a dose-responsive disease, meaning that the greater the dose of asbestos, the more likely a person is to develop the disease. In spite of this, Dr. Frank did not offer any testimony or cite any studies establishing a threshold minimum dose of safe asbestos exposure or establishing any statistical likelihood of developing mesothelioma at various dosage levels, nor did he attempt to analyze the particular level of dosage to which Suoja was subjected from Kaylo dust. *Cf. Schultz*, 721 F.3d at 428-29 (painter who suffered from acute myeloid leukemia supported theory that occupational exposure to benzene caused his illness by offering expert testimony of physician who opined that a person like plaintiff, who

had been exposed to more than eleven parts per million-years of benzene, would be at an eight-times greater risk for developing AML than the general population).

Further, Dr. Frank failed to compare Suoja's alleged exposure to Kaylo to any of the other numerous exposures to other asbestos containing products that Suoja acknowledged having sustained during his 40-year career as an insulator. As defendant notes, one measure of whether an action is a substantial factor is "the number of other factors which contribute in producing the harm and the extent of the effect which they have in producing it." RESTATEMENT (SECOND) TORTS § 433(a). Plaintiff argues that Suoja's admissions of other exposures are largely irrelevant because most are simply assertions of exposure without any information about how many days and at what dosage level Suoja was exposed. Dkt. 209, pp. 123-125, Plt.'s Response to PPFs 60-64. In plaintiff's view, if defendant wanted to attack Dr. Frank's causation opinion on the ground that he failed to account for other exposures, then it was defendant's burden to establish that these exposures were "substantial." For example, defendant would have to present evidence establishing the conditions surrounding these other exposures (*e.g.* whether Suoja personally handled asbestos, whether he used a respirator, how much asbestos was in the materials) and the number of days in which Suoja worked in these conditions.

Plaintiff's argument is unpersuasive. It is disingenuous for plaintiff to have obtained recovery from numerous bankruptcy trusts and asbestos manufacturers based upon sworn admissions of asbestos exposure and then to brush aside those admissions as irrelevant to causation in this lawsuit. Detailed or not, the assertions by Suoja and his heirs of Suoja's exposure over a 40-year career as an *asbestos worker* are sufficient to support an inference that

Suoja's cumulative exposure to asbestos over the span of his career was substantial, and this lengthy, cumulative exposure indisputably caused Suoja's mesothelioma. But rather than examine this exposure and attempt to account for it when considering Suoja's alleged exposure to Kaylo, Dr. Frank simply ignored it. Without this comparative assessment, however, there is not enough evidence from which this court could conclude that Suoja's relatively brief exposure to Kaylo—assuming, *arguendo*, that plaintiff had proved any Kaylo exposure at all—during four decades of asbestos exposure was a substantial factor in causing his mesothelioma, either directly or by contribution. *Cf. Moeller v. Garlock Sealing Techs.*, 660 F.3d 950, 954–55 (6th Cir. 2011) (reversing denial of judgment for defendant as matter of law, where, like here, the plaintiff's causation theory was “akin to saying that one who pours a bucket of water into the ocean has substantially contributed to the ocean's volume”); *see also Martin v. Cincinnati Gas and Elec. Co.*, 561 F.3d 439, 443 (6<sup>th</sup> Cir. 2009) (evaluating defendant's liability in context of other exposures). As noted previously, a “mere possibility” of causation is not enough to support a verdict for plaintiff. Accordingly, I must find in favor of defendant and dismiss plaintiff's case.

#### ORDER

IT IS ORDERED that the clerk shall enter judgment in favor of defendant Owens-Illinois, Inc. and against plaintiff for the reasons stated in this opinion.

Entered this 30<sup>th</sup> day of September, 2016.

BY THE COURT:

/s/

STEPHEN L. CROCKER  
Magistrate Judge