

Asbestos: The Devil Is in the Dose

By Edward R. Hugo and Christina M. Glezakos

All things are poison and nothing is without poison: the dosage alone makes it so a thing is not a poison. “Die dritte Defension wegen des Schreibens der neuen Rezepte,” Septem Defensiones 1538.

A substance’s harmful effect within the human body occurs when it reaches susceptible cells in a high enough concentration. Even necessities of life like water and oxygen can be toxic if too much is consumed or absorbed. In other words, “the dose makes the poison” or “the devil is in the dose.”

The naturally occurring mineral asbestos is no exception to this rule.

Legal Standard

Given that dose is inextricably correlated to outcome, how does the law adjudicate liability for an asbestos exposure that allegedly caused injury? The applicable legal standard depends on jurisdiction and venue. Appreciating the interplay between dose and injury, courts have fashioned causation tests that require reliable medical and scientific evidence to establish that a plaintiff’s injury was caused by exposure to asbestos attributable to a specific defendant.

For example, in California the seminal case on asbestos-related causation is *Rutherford v. Owens-Illinois, et al.*, (1997) 16 Cal.4th 953, 982-983, in which California’s Supreme Court held:

“In the context of a cause of action for asbestos-related latent injuries, the plaintiff must first establish some threshold exposure to the defendant’s defective asbestos-containing products, () and must further establish in reasonable medical probability that a particular exposure or series of exposures was a “legal cause” of his injury, i.e., a substantial factor in bringing about the injury. () In an asbestos-related cancer case, the plaintiff need not prove that fibers from the defendant’s product were the ones, or among the ones, that actually began the process of malignant cellular growth. Instead, the plaintiff may meet the burden of proving that exposure to defendant’s product was a substantial factor causing the illness by showing that in reasonable medical probability it was a substantial factor contribution to the plaintiff’s or decedent’s risk of () developing cancer.

Under Federal Maritime Law, the seminal case of *McIndoe v. Huntington Ingalls, Inc.*, 817 F.3d 1170, 1176 (2016)² implemented a “substantial factor” test, holding that: “Absent direct evidence of causation, a party may satisfy the substantial factor test by demonstrating that the injured person had substantial exposure to the relevant asbestos

for a substantial period of time.” (Edward Hugo argued the *McIndoe* case before the United States Court of Appeals, Ninth Circuit, on August 31, 2015.)

Despite enunciated legal causation standards such as those set forth above, plaintiffs’ attorneys and their retained experts in asbestos litigation continually offer argument and evidence that “Each, Any, Every, Specific, Identified and All” exposures to asbestos satisfy the legal causation standard in every jurisdiction.

The Each, Every and All Exposure Theories Are Not Based on Sufficient Facts or Data and Have Been Rejected as Sufficient to Satisfy the Substantial Factor Test

Courts around the country litigating asbestos cases over the past several decades have examined the admissibility and sufficiency of the “Each, Any, Every, and All” exposure theories advanced by plaintiffs. The Honorable Dee Benson of the United States Court for the District of Utah Central Division took a particularly deep and insightful dive into the subject in *Smith v. Ford Motor Co.*, Case No. 2108-cv-630 (2013). Rejecting the scientific soundness of these theories to sustain legal causation, Judge Benson opined:

“The every exposure theory does not hold up under careful examination. It is questionable whether it can even properly be called a theory, inasmuch as a theory is commonly described as a coherent collection of general propositions used to describe a conclusion, and while there are () some general propositions used by (plaintiff’s pathologist), they fall short of supporting the legal liability he attempts to reach with them. Rule 702 and Daubert recognize above all else that to be useful to a jury an expert’s opinion must be based on sufficient facts and data. The every exposure theory is based on the opposite: a lack of facts and data. When (plaintiff’s pathologist) states that he cannot rule out any asbestos exposure as a possible cause of an individual’s mesothelioma he is confirming the fact that there are insufficient facts and data to establish what minimum dosage levels of asbestos are required to cause cancer in a human being. The fact is the medical community at present does not know the answer to the all-important question regarding legal causation, how much is too much?

(Plaintiff’s pathologist) seeks to base his causation opinion not on the thin reed that he cannot rule any exposure out, but on the opposite: he rules all exposures “in”, boldly stating that plaintiff’s mesothelioma “was caused by his total and cumulative exposure to asbestos, with all exposures, and all products playing a contributing role.” This asks too much from too little evidence as far as the law is concerned. It seeks to avoid not only the rules of evidence but more importantly the burden of proof. **It is somewhat like a homicide detective who discovers a murdered man from a large family. Based on his and other detectives’ training and experience the detective knows that family members are often the killer in such cases. When asked if there are any suspects the detective says he cannot rule out any of the murdered man’s relatives. This would be reasonable, but it would not allow the detective to attribute legal liability to every family member on the basis of such a theory.**

(Plaintiff's pathologist) wants to be allowed to tell a jury that all of the plaintiff's possible exposures to asbestos during his entire life were contributing causes of the plaintiff's cancer, and, therefore, sufficient to support a finding of legal liability as to the manufacturer of each asbestos containing product, without regard to dosage or how long ago the exposure occurred. Just because we cannot rule anything out does not mean we can rule everything in."

The "All" or "Cumulative" Exposure Theories Fail for the Same Reasons

Under the "All" or "Cumulative" Exposure theories, every exposure which contributes to plaintiff's lifetime dose of asbestos exposure is a substantial factor, no matter how trivial, remote or insubstantial.

"To summarize, the principle behind the "each" and "every" exposure theory and the cumulative exposure theory is the same - that it is impossible to determine which particular exposure to carcinogens, if any, caused an illness. In other words, just like "each and every exposure," the cumulative exposure theory does not rely upon any particular dose or exposure to asbestos, but rather all exposures contribute to a cumulative dose. The ultimate burden of proof on the element of causation, however, remains with the plaintiff. () Requiring a defendant to exclude a potential cause of the illness, therefore, improperly shifts the burden to the defendants to disprove causation and nullifies the requirements of the "substantial factor" test."

The Novel "Specific Exposure" and "Identified" Exposure Theories Fail to Satisfy the Substantial Factor Test

Experts retained by plaintiffs in asbestos litigation are seeking new ways to subvert courts' rejection of the "each," "every" and "all" theories of legal causation. One such effort is in the form of the recently promulgated the "Specific" exposure theory where plaintiff's expert actually opines that the plaintiff was exposed to respirable asbestos attributable to a specific defendant, but the expert fails to calculate a corollary dose.

This causation theory was recently rejected by the Honorable Michael W. Fitzgerald of the United States District Court, Central District of California in *Carpenter v. 3M Company, et al.*, Case No. CV20-11797- MWF (2022), applying the Maritime Law causation standard. (Hugo Parker LLP filed a Motion for Summary Judgment on October 24, 2022, in the *Carpenter* case challenging plaintiffs' legal causation theories. The court granted summary judgment, issuing the Amended Order Granting Summary Judgment on December 13, 2022.)

"Plaintiffs note that the *McIndoe* court does not quantify what amount of exposure or period of time is "substantial." Although Plaintiffs do not complete this line of argument, presumably they are suggesting that, because the Ninth Circuit failed to quantify what is "substantial," so long as a plaintiff has offered Specific Exposure Evidence attributable to a particular defendant, it is up to the jury to decide what is substantial.

While the Court acknowledges that *McIndoe* did not involve a case where there was Specific Exposure Evidence, and therefore, did not necessarily answer the question, there is no doubt that *McIndoe* is still instructive on this point. It simply cannot be the case that proffering **any** evidence of amount, frequency, and duration is sufficient to allow a jury to decide if that exposure is substantial, because, like the “every exposure” theory, it would allow even fleeting exposures to be enough, so long as the plaintiff offered specific evidence. But **specific** evidence and **substantial** evidence are not one in the same. See *McIndoe*, 817 F.3d at 1177- 78 (“Because the heirs’ argument would undermine the substantial factor standard and, in turn, significantly broaden asbestos liability based on fleeting or insignificant encounters with a defendant’s product, we too, reject it.”) “Causation requires that an expert connect the nature of the asbestos exposure and pair it with a Daubert-approved methodology that can be used to determine whether such an exposure was a substantial cause of the [plaintiff’s] injury.” *Id.* at 25.

Another expert recently attempted to differentiate his method of attributing causation from the “each”, “any”, “every” and “all” methods in the case of *Clarke v. Air & Liquid System Corp., et al.*, Case No. 2:20-cv-000591-SVW-JC (2021) at p. 9, by creating the “identified” exposure method which purports to have four requirements:

“(1) a known source of asbestos exposure, and (2) a well-characterized activity, that (3) disrupts the source to generate airborne fibers, sufficient to overcome the body’s respiratory defenses, which (4) adds to the body’s burden of asbestos.”

Despite its veneer of scientific rigor, the “identified” exposure theory has the same inherent flaws as the “each”, “every” and “all” theories resoundingly rejected by courts. This is because the “identified” exposure theory omits any consideration of frequency, duration, and the sum total of exposures a plaintiff experienced from an individual defendant’s asbestos and has not, and cannot be, scientifically tested. The “identified” exposure method has not and cannot be tested.” *Clarke v. Air & Liquid System Corp.*, at p. 13. “[T]here is no known or potential error rate.” *Id.* There is “no evidence to suggest that the ‘identified exposure’ method has been peer reviewed or published, or that it is generally accepted within the scientific community.” *Id.* See Advisory Committee Notes, 2000 Amendments, Fed. R. Evid. 720 (noting as additional factor “[w]hether experts are ‘proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for purposes of testifying.” (quoting *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, (*Daubert II*), 43 F.3d 1311, 1317 (9th Cir. 1995)). *Id.* at 14.

Conclusion

As courts continue to insist, dose matters when establishing causation in asbestos cases. Without dose, an asbestos causation standard “would be akin to saying that one who pours a bucket of water into the ocean has substantially contributed to the ocean’s volume. [Citations.]” *Moeller v. Garlock Sealing Techs., LLC*, 660 F.3d 950, 955 (6th Cir. 2011).

(The authors are from California, which designated Serpentine as the State Rock in 1965. Of course, Serpentine contains chrysotile asbestos, so the authors have been breathing asbestos in the air and drinking asbestos in the water since birth. Don't worry, we are fine because dose matters!)



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