

WHOLE COURT

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March 30, 2015

In the Court of Appeals of Georgia

A14A1587. SCAPA DRYER FABRICS, INC. v. KNIGHT et al.

MCFADDEN, Judge.

Scapa Dryer Fabrics, Inc., appeals from the judgment entered on a jury verdict finding that Scapa negligently exposed Roy Knight to a toxic substance, airborne asbestos fibers, and that this exposure was a contributing proximate cause of his development of malignant mesothelioma. Knight and his wife, Milva Knight (claiming loss of consortium), sued Scapa for negligence in product liability and premises liability actions. The Knights claimed that when Knight worked as an independent contractor doing sheet metal work at the Scapa plant in Waycross between 1967 and 1973, he was exposed to airborne asbestos fibers contained in yarn used by Scapa to weave dryer felts at the plant, and to asbestos fibers contained in

pipe and boiler insulation that Scapa maintained on the premises, and that these exposures contributed to his development of mesothelioma, diagnosed in 2009.

The Knights also sued Union Carbide Corporation, claiming that Knight's mesothelioma was caused by his exposure to asbestos which Union Carbide had sold to non-party Georgia Pacific, LLC. The Knights alleged that Georgia Pacific had used the asbestos to manufacture a joint compound and that Knight was exposed to the asbestos during drywall installation at his house between 1973 and 1975.

During the trial on these claims, the jury considered evidence that Knight was also exposed during his life to asbestos fibers contained in multiple other products and considered whether 29 additional non-party entities associated with these products were at fault for Knight's development of mesothelioma, as provided in OCGA § 51-12-33 (c). The jury found that Knight's mesothelioma was proximately caused in part by the negligence of defendants Scapa and Union Carbide, and in part by the negligence of non-party Georgia Pacific. Pursuant to OCGA § 51-12-33 (c), the jury assessed percentages of fault as follows: 40 percent to Scapa; 40 percent to Union Carbide; and 20 percent to Georgia Pacific. Based on the jury verdict assessing 40 percent of the fault to Scapa, the trial court entered judgment against Scapa in the amount of \$4,187,068.95.

On appeal, Scapa challenges the sufficiency of the evidence supporting the jury's verdict of liability, the scientific reliability of an expert witness' testimony, the lack of a hearing prior to the admission of that expert testimony, the jury's failure to allocate fault to other non-parties submitted on the verdict form, and certain jury charge decisions and evidentiary rulings by the trial court. However, there was sufficient evidence to support the verdict, the expert witness' testimony was scientifically reliable, a hearing as to the admissibility of the testimony was not mandatory, the jury was not required to allocate fault to others, and there has been no showing of both harm and error as to any jury charge or evidentiary rulings. Accordingly, we affirm.

1. *Sufficiency of the evidence.*

Scapa contends that the trial court erred in denying its motion for a directed verdict as to liability because there is no evidence showing that Knight was exposed to asbestos while he worked at the Scapa plant or that Scapa had superior knowledge of the risk. The contention is without merit.

There is a presumption in favor of the validity of verdicts. Therefore, after the rendition of a verdict, every presumption, inference, and all evidence must be construed most favorably toward upholding the verdict. Neither a directed verdict nor a j.n.o.v. can be granted where there is some evidence to support the verdict. Where evidence is in

conflict, the grant of such motions is error. Only when there is no evidence to support the verdict can either a directed verdict or j.n.o.v. be granted, because the evidence demands a verdict contrary to that returned by the jury.

Rental Equipment Group v. MACI, LLC, 263 Ga. App. 155, 157 (1) (587 SE2d 364) (2003) (citations and punctuation omitted).

Construed in favor of the verdict, the evidence shows that Knight was diagnosed in 2009 with malignant mesothelioma, cancer of the pleural lining of the lungs; that this disease is caused by inhalation of airborne asbestos fibers; and that the disease may occur decades after exposure to asbestos. Contrary to Scapa's contention, there was evidence that Knight was exposed to asbestos during periods from 1967 to 1973 when he worked at the Scapa plant. There was also evidence that, from 1959 through the mid 1980s, Knight was exposed to asbestos while doing work unrelated to Scapa involving multiple asbestos-containing products in sheet metal work, plumbing work, drywall work, automobile clutch and brake work, and roofing and shingling work.

As to asbestos exposure attributable to Scapa, the Knights produced evidence that, while Knight worked at the Scapa plant, he was exposed to airborne asbestos fibers from: (1) asbestos-containing yarn used by Scapa to weave dryer felts at the

plant; and (2) asbestos-containing pipe and boiler insulation that he worked around when the insulation was removed. Evidence showed that, between 1967 and 1973, Knight worked at the Scapa plant on “several” or “multiple” occasions as an independent contractor. Knight was present at the Scapa plant in proximity to the weaving looms when the looms were using asbestos-containing yarn to weave dryer felts. During the weaving process, airborne asbestos fibers were scraped off the yarn, and asbestos-containing lint or dust was created in the process. There was evidence that Scapa knew or should have known about the health dangers of asbestos exposure as a result of the weaving process at its plant, but did not warn about the dangers, or take any steps to protect plant workers from the dangers, prior to 1974. Other evidence showed that insulation on piping and boilers at the Scapa plant contained asbestos. Knight worked in proximity to the piping and boiler insulation when the insulation was removed releasing airborne dust from the insulation. The evidence was sufficient to show that asbestos-containing products were used, produced, or maintained at the Scapa plant in a manner which released airborne asbestos fibers, and that Knight was at the plant in proximity to those asbestos fibers when they were released.

Having reviewed all the evidence, we conclude that there was sufficient evidence supporting the jury's finding of liability and therefore "we find no error in the trial court's denial of [Scapa's] motion for a directed verdict on liability." *Eco-Clean, Inc. v. Brown*, 324 Ga. App. 523, 529 (3) (749 SE2d 4) (2013).

2. *Expert testimony.*

In challenging the sufficiency of the evidence, Scapa further claims that as to the issue of specific causation, the testimony of the Knight's expert, Dr. Jerrold Abraham, is founded on junk science. Consequently, Scapa, maintains, that testimony is inadmissible under the rule adopted for the federal courts in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U. S. 579 (113 SCt 2786, 125 LE2d 469) (1993), and for Georgia - in civil cases only - by statute. See former OCGA § 24-9-67.1 (applicable at the time of trial); current OCGA § 24-7-702.¹ The claim is without merit.

In addition to proof that Knight was negligently exposed by Scapa to asbestos, the Knights were required to prove that these exposures caused his mesothelioma.

¹ Former OCGA § 24-9-67.1 was replaced by OCGA § 24-7-702, which applies to any motion made or hearing or trial commenced on or after January 1, 2013. The proceedings in this case took place in 2010 and are controlled by former OCGA § 24-9-67.1. Although the former statute controls in this case, the new rule set forth in OCGA § 24-7-702 makes no significant changes to the former statute and continues application of the standards in *Daubert* and progeny for the admission of expert testimony in civil cases.

Tort cases alleging negligent exposure to a toxic substance involve two types of causation. First, general causation; “whether a substance is capable of causing a particular injury or condition in the general population.” *Butler v. Union Carbide Corp.*, 310 Ga. App. 21, 25 (712 SE2d 537) (2011). Second, specific causation; “whether a substance caused a particular individual’s injury.” *Id.*

However, where, as here, the plaintiff has multiple exposures to asbestos involving multiple defendants, our Supreme Court has held that the plaintiff need not prove that “each individual tortfeasor’s conduct constitutes a ‘substantial’ contributing factor in the injury.” *John Crane, Inc. v. Jones*, 278 Ga. 747, 747 (604 SE2d 822) (2004). Because “Georgia law clearly contemplates differing degrees of culpability among joint tortfeasors,” a plaintiff in such a case can establish proximate cause by proving that “the individual defendant’s tortious conduct had [been] a contributing factor in bringing about the plaintiff’s damages.” *Id.* at 748. In so holding, the court suggested in strongly-worded dicta that a de minimis exposure is not sufficient. *Id.* at 750 (“the jury charge at issue would not have misled the jury into believing that it could award damages for a de minimis exposure to asbestos”). But this is not a de minimis exposure case. Scapa was responsible for considerably more than de minimis exposure. As the testimony of Dr. Abraham established, the

exposures for which Scapa is responsible were “substantial causes” of Knight’s mesothelioma, and the jury indeed found Scapa substantially liable in the amount of 40 percent.

Under *Daubert*, trial judges are assigned a gatekeeping role to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Id.* at 589, 597; accord former OCGA § 24-9-67.1 (b). The burden of establishing reliability rests on the proponent of the expert opinion and must be established by a preponderance of the evidence. *United States v. Frazier*, 387 F3d 1244, 1260 (11th Cir. 2004); *Allison v. McGhan Med. Corp.*, 184 F3d 1300, 1306 (11th Cir. 1999). Admission or exclusion of the expert testimony is within the “broad discretion” of the trial court. *Meacham v. Franklin-Heard County Water Auth.*, 302 Ga. App. 69, 76 (690 SE2d 186) (2009). To test for reliability under *Daubert*, courts assess the validity of the expert’s methodology, not the conclusions generated, by considering several factors, none of which is necessarily dispositive - whether the method or theory relied on has been tested; whether it has been the subject of peer review; whether the theory has a known or potential error rate; and whether the theory has gained general acceptance in the scientific community. *Daubert*, 509 U. S. at 592-594.

The dissent adopts Scapa's *Daubert* argument, claiming that in *Butler v. Union Carbide Corp.*, 310 Ga. App. 21 (712 SE2d 537) (2011), "the methodology underlying [Dr. Abraham's] 'any exposure' opinion (also known as the 'no threshold' or 'linear non-threshold' models for causation) was rejected as not testable, scientifically unreliable, and not the product of reliable principles and methods under OCGA § 24-9-67.1 (b)." Dr. Abraham's offending opinion, the dissent summarizes, is that "every exposure to asbestos that Mr. Knight experienced at the Scapa plant was a contributing cause of his mesothelioma. . . . [and] that, since Mr. Knight's exposure to asbestos at the Scapa plant was more than zero, that exposure was a contributing cause of his mesothelioma."

However, there are a number of things wrong with the dissent's analysis. For one thing, our decision in *Butler* affirmed a trial court's exercise of his discretion. The dissent acknowledges this fact, but passes over its significance. "The issue of the admissibility or exclusion of expert testimony rests in the broad discretion of the trial court, and consequently, the trial court's ruling thereon cannot be reversed absent an abuse of discretion." *Carter v. Smith*, 294 Ga. App. 590, 591 (1) (669 SE2d 425) (2008) (punctuation and footnote omitted). Here, the dissent would have us reverse the trial court's appropriate exercise of that discretion.

More particularly, as noted above, *Butler* was a de minimis exposure case. The defendant in that case had been responsible for less than one percent of Butler's cumulative asbestos exposure and had exposed him to the less potent form of asbestos. *Butler*, supra, 310 Ga. App. at 22. The excluded opinion in that case was, "To the extent that the patient was exposed to any of these products, they contributed in a cumulative fashion to his total asbestos dose, which is what caused his mesothelioma." *Butler*, supra, 310 Ga. App. at 23.

Unlike *Butler*, however, this is a substantial exposure case. Dr. Abraham's opinion about the exposure at issue in this case was offered in response to a hypothetical that corresponds to the facts set out above in Division 1, detailing Knight's asbestos exposure attributable to Scapa. The Knights counsel posed the following hypothetical questions to the expert witness:

Q. And I want you to assume for these hypotheticals that Roy Knight was employed at times between 1967 and 1972 doing sheet metal work in a textile mill making textiles with asbestos-containing yarn. Okay?

A. All right.

Q. And I want you to assume that during some of the times, but not all of them, that Roy Knight was at the textile mill that there were weaving operations going on. Okay?

A. Okay.

Q. And I want you to assume that at least on two separate occasions Mr. Knight disturbed thick settled dust in the textile mill that was gray in color which he associated with the yarns being used in the mill. Okay?

A. All right.

Q. And I want you to further assume that at other times in the textile mill using asbestos, that Mr. Knight observed screens in which there was white dust present.

A. Okay.

Q. And finally that . . . Mr. Knight inhaled some of the dust that was present during his work at this textile mill. Do you have an opinion given that . . . set of hypothetical facts to a reasonable degree of medical certainty as to whether those exposures would be cause of mesothelioma?

At that point, Scapa's counsel interposed a lack-of-foundation objection. There followed a colloquy that consumes thirteen pages of transcript, at the end of which the objection was overruled. After the Knights' counsel restated the hypothetical and Scapa's renewed objection was overruled, Dr. Abraham testified, "those exposures [for which Scapa was responsible] would have been substantial causes for [Knight's] mesothelioma." .

Consequently the *Butler* issue involving de minimis exposure was irrelevant to the claim against Scapa. To the extent the *Butler* issue arose in this case, it was

resolved when the jury found not liable the 29 entities associated with Knight's other exposures to asbestos.

It is true that Dr. Abraham also opined,

I haven't seen any evidence that there is a safe threshold for risk of melanoma. So ... if someone has a level of exposure to asbestos above the ambient amount in their lives, that increases their risk. I mean obviously if you have a trivial exposure, your risk is much lower than if you had a heavy exposure. But if you're the one person that gets the disease from a trivial exposure, it's still asbestos related.

However, saying there is no *known* safe threshold is very different from saying there is *no* safe threshold.² Moreover Dr. Abraham's opinion that there is no known safe threshold is not controversial. Scapa's expert, Dr. Victor Roggli, agreed: "each and every exposure that an individual with mesothelioma experiences in excess of background level is a substantial contributing factor in the development of the disease."

And while Dr. Abraham's testimony about threshold levels bears some similarities to the testimony at issue in *Butler*, it is not the same. *Butler* involved a

² For that reason and because it is apparently undisputed that the relevant exposure is cumulative exposure over a lifetime, we question the soundness of the *Butler* court's analysis. The outcome in *Butler* would be better justified by a legal analysis of proximate cause than by a scientific analysis of cause in fact.

claim against an entity responsible for less than one percent of the plaintiffs's exposure. Here Scarpa has been held 40 percent responsible.

It is by no means clear, moreover, that what Dr. Abraham means by "trivial" is equivalent to the de minimis sort of exposure at issue in *Butler*, or to what the dissent dismisses as an "any exposure" opinion. As an example of trivial exposure, Dr. Abraham offered "someone doing laundry of someone who brought home asbestos on their work clothes."

Furthermore, instead of mirroring the opinion of the expert disqualified in *Butler*, Dr. Abraham recognized the logical difficulties with that sort of opinion. Obviously experiments that involve exposing human subjects to precisely measured amounts of asbestos are out of the question. The significance of asbestos exposure is generally analyzed in terms of the risk it creates, but once a person has contracted the disease it is difficult to speak sensibly of increased or decreased risk of becoming ill. Consequently as to the relationship between change in exposure and change in risk, "it's very hard to measure small levels."

Moreover the "methodology" underlying Dr. Abraham's opinion - by which we understand the dissent to refer to his reasoning - unexceptionable. The expert opinion in question - that, if a hypothetical patient has had one "trivial" exposure to asbestos

and no other exposure, but nevertheless contracts asbestos, that trivial exposure would be the cause of the disease - was founded on his underlying opinion that asbestos is the only known cause of mesothelioma. Again, that underlying opinion is not controversial; Scarpa's expert, Dr. Roggli agreed. Dr. Abraham's stated basis for that underlying opinion is that, while "there is some dispute on this in the literature," Dr. Abraham's experience has been that "when they are appropriately analyzed [by way of 'lung fiber burden analysis,' that analysis] will nearly always show evidence that the person did indeed have asbestos exposure above the background population."

Consequently even as to the opinion about a hypothetical issue, Dr. Abraham's methodology is founded on scientific investigation and is therefore sufficient under *Daubert*. And in any case, that opinion is not central to his further opinion that the exposure for which Scapa is responsible was a substantial cause of Knight's injury. Accordingly, the trial court did not err in admitting Dr. Abraham's expert testimony and his opinion that Scapa is responsible for a substantial cause of that injury is more than sufficient under Georgia law. *John Crane, supra*, 278 Ga. 747.

3. No hearing before admitting expert testimony.

Scapa contends that it is entitled to a new trial because the trial court did not conduct a hearing before admitting Dr. Abraham's expert testimony under former

OCGA § 24-9-67.1. However, as Scarpa acknowledges, such a hearing is not always required. Former

OCGA § 24-9-67.1 (d) provides: “upon motion of a party, the court *may* hold a pretrial hearing to determine whether the witness qualifies as an expert and whether the expert’s testimony satisfies the requirements of subsections (a) and (b) of this Code section.” And in construing the language of a statute, the word “shall” ordinarily denotes command and not permission, whereas ‘may’ ordinarily denotes permission and not command. Thus, we cannot conclude that the trial court was required to conduct a hearing on this issue.

Cartledge v. Montano, 325 Ga. App. 322, 330 (3) (750 SE2d 772) (2013) (citations and punctuation omitted).

4. *Allocation of fault.*

Scapa complains that a new trial is required because the jury was mandated by the evidence to allocate fault to other non-parties. The claim is without merit. Scapa had “a burden to establish a rational basis for apportioning fault to a nonparty” and whether it “met that burden given the trial evidence presented [was a matter] for the jury to determine.” *Double View Ventures v. Polite*, 326 Ga. App. 555, 562 (1) (757 SE2d 172) (2014) (citations omitted). It was the “jury’s prerogative to accept or reject, in whole or in part, the evidence submitted[.]” *Montgomery v. Barrow*, 286 Ga. 896, 899 (1) (692 SE2d 351) (2010). This enumeration provides no basis for reversal.

5. *Strict liability jury charge.*

Since there was no claim based on strict liability, we agree with Scapa that the trial court erred to the extent the jury charge included instructions related to a claim of strict liability. However, even assuming error, a review of the charge as a whole reveals that any such error was harmless. “[I]t is well established that jury instructions must be read and considered as a whole in determining whether the charge contained error.” *West v. Breast Care Specialists, LLC*, 290 Ga. App. 521, 522 (1) (659 SE2d 895) (2008) (citation and punctuation omitted).

As an initial matter, it bears noting that the term “strict liability” was never used in the jury charge. The lone objectionable charge identified by the appellant in its brief was the instruction that “[i]f after balancing the risk and utility of the product you find . . . that the product suffered from a design defect, then the Plaintiff is entitled to recover.” However, this charge was given as part of the court’s full and accurate instructions on the law of negligence and the negligence based product liability claims in the case. The court properly charged the jury on negligence and there is nothing in the record to indicate that the jury may have based its verdict on an improper strict liability theory of recovery. Compare *Goldsmith v. Peterson*, 307 Ga. App. 26, 30 (2) (703 SE2d 694) (2010). Accordingly, any error was harmless.

Foskey v. Foskey, 257 Ga. 736 (2) (363 SE2d 547) (1988) (error in charge not prejudicial if “it appears from the entire record that the error is harmless”) (punctuation and citations omitted).

6. *Punitive damages.*

Contrary to Scapa’s argument, the trial court did not err in submitting the claim for punitive damages to the jury because there was some evidence to support such a claim.

If a tort is committed through mistake, ignorance, or mere negligence, the damages are limited to the actual injury received, for vindictive or punitive damages are recoverable only when a defendant acts maliciously, wilfully, or with a wanton disregard of the rights of others. It is not essential to a recovery for punitive damages that the person inflicting the damages was guilty of wilful and intentional misconduct. It is sufficient that the act be done under such circumstances as evinces an entire want of care and a conscious indifference to the consequences.

Roseberry v. Brooks, 218 Ga. App. 202, 210 (4) (461 SE2d 262) (1995) (citations and punctuation omitted). Here, there was evidence from which the jury could have found an entire want of care and conscious indifference to the consequences by Scapa.

7. *Omitted jury charges.*

Scapa cites *Wingo v. Harrison*, 268 Ga. App. 156, 159 (601 SE2d 507) (2004) for the proposition that the trial court erred in failing to charge the jury that “Scapa

had no duty to inspect materials on its premises.” Scapa’s reliance on *Wingo* is misplaced. As an initial matter, that case did not involve any issues concerning jury charges. It did state the legal principle that ordinary diligence may not require an inspection of premises where the owner does not have knowledge of the defect. *Id.* at 160. But in the instant case, the evidence showed that Scapa had knowledge of the defect - asbestos - on its premises, and thus a charge on that legal principle was not required.

Likewise, Scapa mistakenly cites *Dalton v. 933 Peachtree, L. P.*, 291 Ga. App. 123, 127 (661 SE2d 156) (2008), as support for its claim that the trial court should have charged the jury “that when part of the premises is surrendered to a contractor, the owner has no liability for injuries arising from the contractor’s work.” Again, that case did not involve any jury instructions. Moreover, Scapa misstates the law set forth in *Dalton*, which actually recites the legal principle that a property owner who surrenders possession and control of its property to an independent contractor generally is not liable for injuries sustained by the contractor’s employees. *Id.* at 127-128 (1). This surrender of control principle “is based in OCGA §§ 51-2-4 and 51-2-5 (5), which provide that an employer - for instance, a property owner hiring a builder - is not responsible for torts of its independent contractor unless the employer retains

control over the contractor's work." *England v. Beers Const. Co.*, 224 Ga. App. 44, 47 (2) (479 SE2d 420) (1996). Here, Scapa was not being sued for the alleged torts of any independent contractor, and instead was being sued by Knight himself for Scapa's own alleged negligence regarding asbestos on its premises. *Id.*

In reviewing a trial court's failure to give a jury instruction, "we must look to the jury charge as a whole, and if the jury charge as a whole accurately and fully apprised the jury of the law to be applied in its deliberations, then the refusal to give an additional instruction, even if that additional instruction were accurate, does not amount to error." *Burdette v. McDowell*, 321 Ga. App. 507, 509 (2) (739 SE2d 28) (2013) (citation and punctuation omitted). Scapa has made no showing that the trial court's jury charge as a whole did not fully and accurately apprise the jury of the applicable law, or that the failure to give the requested charges was error.

9. Admission of exhibit.

The trial court did not err in admitting Plaintiff's Exhibit 44, an internal 1977 Scapa memorandum relating to Scapa's switch to production of non-asbestos felts. "[T]he admission of evidence is within the sound discretion of the trial court and appellate courts will not interfere absent abuse of that discretion. . . . [E]vidence having a tendency to establish facts at issue is relevant and admissible, and no matter

how slight the probative value, our law favors admission of relevant evidence.” *Hand v. South Georgia Urology Center*, ___ Ga. App. ___ (1) (Case No. A14A1854, decided March 16, 2015). Exhibit 44 was relevant to multiple issues in the case, including the existence of the asbestos hazard and Knight’s exposure to it. Accordingly, the trial court did not abuse its discretion in admitting the document into evidence.

10. *Opening statement.*

Scapa contends that the trial court erred in denying its motion for a mistrial after the Knights’ attorney stated during his opening argument that Scapa had “employed a lot of people and exposed a lot of people, including Mr. Knight, to asbestos.” However, “[t]he decision to grant a mistrial rests within the sound discretion of the trial court, and we will not disturb that court’s ruling absent manifest abuse. Moreover, unless it is apparent that a mistrial was essential to the preservation of the right to a fair trial, the discretion of the trial judge will not be interfered with.” *Mon Ami Intern., Inc. v. Gale*, 264 Ga. App. 739, 743 (4) (592 SE2d 83) (2003) (citations and punctuation omitted). Here, Scapa has not shown that a mistrial was essential to preservation of the right to a fair trial, and we therefore will not interfere with the trial court’s exercise of its discretion.

11. *Questioning of Scapa representative.*

Scapa claims the trial court erred by overruling its objections to questions posed by the Knights' counsel to a Scapa representative. A 1975 industrial hygiene report from Scapa's Waycross plant, admitted into evidence as Plaintiffs' Exhibit 46, made a recommendation that Scapa ensure employees not wear asbestos-contaminated clothing home from work, and that Scapa accomplish this by providing work clothes, shower facilities, and change rooms. The Knights' counsel questioned a Scapa representative as to whether, prior to 1975, Scapa made any effort to take these protective measures. Scapa's counsel objected to the question on the basis that Knight was not a Scapa employee and this is "not a take-home case." The trial court did not err by overruling the objection. Moreover, the trial court did not err by allowing the Knights' counsel, over Scapa's objection, to question the same Scapa representative about whether, prior to 1974, Scapa could point to actions it took to protect workers or others coming into the plant from exposure to asbestos. These matters were relevant to issues of the existence and exposure to asbestos, and Scapa's knowledge, and thus the trial court did not abuse its discretion in allowing such questioning by counsel. See *Hand*, supra (evidence having a tendency to establish facts at issue is relevant and admissible).

12. *Knight's testimony.*

Scapa's claim that Knight improperly referred to the yarn at Scapa as "asbestos yarn" because it was not within his personal knowledge has not been preserved for review because after the testimony, the trial court gave curative instructions to which Scapa raised no objection. If Scapa was dissatisfied with the trial court's curative action, it should have renewed its objection or moved for a mistrial, "and not having done so, the assignment of error is without merit. [Cit.]" *Kendrick v. Kendrick*, 218 Ga. 460, 463 (4) (128 SE2d 496) (1962). And even if the issue had not been waived, any error was harmless given other evidence cited above in Division 1 showing the use of yarn containing asbestos at Scapa.

13. *Limiting testimony of expert.*

Even presuming that Scapa is correct in claiming that the trial court should have permitted its expert to opine about and quantify background asbestos levels, Scapa has failed to show any harm from the exclusion of such testimony. See *Williams v. State*, 328 Ga. App. 876, 880 (1) (763 SE2d 261) (2014) (appellant must show harm as well as error in trial court's evidentiary ruling).

Judgment affirmed. Barnes, P. J., concurs; Doyle, P. J., Boggs and Ray, JJ., concur in the judgment only in Division 2 and fully otherwise; Andrews, P. J. and Branch, J., dissent.

A14A1587. SCAPA DRYER FABRICS, INC. v. KNIGHT et al.

ANDREWS, Presiding Judge, dissenting.

I respectfully dissent for the following reasons: (1) the Knights failed to produce reliable and admissible expert testimony to prove on the issue of specific causation that Mr. Knight's exposure to asbestos at the Scapa Dryer Fabrics, Inc. plant was a contributing cause of his mesothelioma; (2) the trial court erred by admitting unreliable expert testimony on the issue of specific causation; (3) the erroneous admission of this expert testimony requires that the judgment against Scapa be reversed; and (4) under the circumstances, the case should be remanded for a new trial.

It was undisputed that Mr. Knight was diagnosed in 2009 with malignant mesothelioma, a disease caused by inhalation of airborne asbestos fibers. Evidence at the jury trial showed that, from 1959 through the mid 1980s, Mr. Knight was exposed to airborne asbestos fibers from multiple sources involving multiple

asbestos-containing products during work he performed with sheet metal, plumbing, drywall, automobiles, and roofing. The jury considered evidence that two named defendants, Scapa and Union Carbide Corporation, and 30 non-party entities (including Georgia Pacific, LLC), were associated with these asbestos-containing products, and negligently exposed Mr. Knight to airborne asbestos during these two and a half decades of his life.

As to Scapa, evidence showed that Mr. Knight worked at the Scapa plant as an independent contractor doing sheet metal work on “several” or “multiple” occasions between 1967 and 1973. On some of these occasions, he was near felt weaving looms at the plant that produced airborne asbestos lint or dust, or was near asbestos-containing pipe or boiler insulation at the plant when the insulation was removed and airborne dust was released. As to Union Carbide and Georgia Pacific, evidence showed that, while Mr. Knight was having a house constructed sometime between 1973 and 1975, he occasionally visited the construction site during a two week period of time during which drywall was installed with the use of an asbestos-containing joint compound manufactured by non-party Georgia-Pacific which contained asbestos sold by Union Carbide. There was evidence that, during some of those visits, Mr. Knight was near airborne dust from the joint compound.

In addition to evidence of exposures to asbestos, the Knights produced expert opinion testimony in support of their claim that Mr. Knight's mesothelioma was caused by his exposures to asbestos. After considering this evidence, the jury rendered a verdict: (1) finding that Mr. Knight's mesothelioma was caused in part by Scapa's negligence, in part by Union Carbide's negligence, and in part by Georgia Pacific's negligence; and (2) assessing (pursuant to OCGA § 51-12-33 (c)) 40 percent of the fault to Scapa, 40 percent to Union Carbide, and 20 percent to Georgia Pacific. The jury's total compensatory damage award was \$7,000,000.00 for Mr. Knight's pain and suffering; \$500,000.00 for Mr. Knight's medical expenses (reduced by the trial court to \$467,672.37); and \$3,000,000.00 for Mrs. Knight's loss of consortium. The jury awarded \$790.00 in punitive damages against Scapa. Based on 40 percent fault assessed to Scapa, the trial court entered a judgment against Scapa in the amount of \$4,187,068.95.

Scapa contends that the expert opinion testimony produced by the Knights to establish causation was unreliable under former OCGA § 24-9-67.1; that the trial court erroneously denied its motion in limine seeking to exclude this testimony; and that the Knights failed to prove by reliable evidence that it caused or contributed to Mr. Knight's mesothelioma. Accordingly, Scapa contends that the trial court erred by

denying its motions for a directed verdict and judgment notwithstanding the verdict on this ground.

As an essential element of their toxic substance tort claim against Scapa, the Knights were required to prove both general causation, whether the substance at issue “is capable of causing a particular injury or condition in the general population,” and specific causation, “whether a substance caused a particular individual’s injury.” *Butler v. Union Carbide Corp.*, 310 Ga. App. 21, 25 (712 SE2d 537) (2011). As to general causation, it is undisputed that the Knights produced evidence that exposure to and inhalation of airborne asbestos fibers is capable of causing mesothelioma in the general population. As to specific causation, in a case where the plaintiff has multiple exposures to a toxic substance involving multiple defendants alleged to be joint tortfeasors, the issue with respect to a particular defendant is whether exposure to the substance involving that defendant caused or contributed to the plaintiff’s injury. *John Crane, Inc. v. Jones*, 278 Ga. 747 (604 SE2d 822) (2004). The jury found that the negligence of joint tortfeasors concurred to cause Mr. Knight’s mesothelioma, and that, as a joint tortfeasor, Scapa’s negligent exposure of Mr. Knight to asbestos contributed to his development of mesothelioma.

Georgia law clearly contemplates differing degrees of culpability among joint tortfeasors. Where the injury is the result of the concurring negligence of two or more parties, they may be sued jointly or severally. It is well settled that an action may be maintained against two joint tortfeasors whose negligence contributes to produce an injury, even though the same obligations do not rest upon each with respect to the person injured. It is sufficient to support a recovery if the negligence of both be a contributing cause, even though one owes to the person injured a higher degree of care, and even though there be differing degrees of negligence by each.

Id. at 748-749 (punctuation, citations, and emphasis omitted). Where the negligence of two or more parties concurs to cause an injury, there is no requirement that each individual tortfeasor's negligent conduct be a "substantial" contributing factor to constitute a proximate cause of the injury; rather, the negligent conduct of an individual tortfeasor need only be a "contributing cause." Id. at 747-752. Although proof of causation in a toxic substance tort claim generally involves questions regarding the level or dosage of the toxin to which the plaintiff was exposed, the plaintiff is not necessarily required to produce evidence of exposure at measured dosage levels to establish that an exposure was a contributing cause of the injury. *Fouch v. Bicknell Supply Co.*, 326 Ga. App. 863, 868-869 (756 SE2d 682) (2014); *Fulmore v. CSX Transp., Inc.*, 252 Ga. App. 884, 891-892 (557 SE2d 64) (2001), overruled on other grounds, *Norfolk & Western R. Co. v. Ayers*, 538 U. S. 135, 151,

n.11, 157 (123 SCt 1210, 155 LE2d 261) (2003). But a plaintiff cannot establish that an exposure was a contributing cause of the injury by proof of “any exposure” to the toxic substance, no matter how small, de minimis, or insignificant. *Fulmore*, 252 Ga. App. at 892. For example, in *John Crane*, supra, the Supreme Court observed that a “contributing cause” does not include “a de minimus contribution to the injury,” and approved a jury instruction on contributing cause in a toxic substance claim on the basis that “the jury charge at issue would not have misled the jury into believing that it could award damages for a de minimus exposure to asbestos.” *John Crane, Inc.*, 278 Ga. at 750.

Rather, in toxic tort cases, proof of causation generally requires reliable expert testimony which is based, at the least, on the determination that there was a *reasonable probability* that the negligence caused the injury. The testimony must show at least a probable cause, as distinguished from a mere possible cause.

Fouch, 326 Ga. App. at 869 (punctuation and citation omitted); *Rodrigues v. Georgia-Pacific Corp.*, 290 Ga. App. 442, 444 (661 SE2d 141) (2008).

The Knights sought to establish specific causation with respect to Mr. Knight’s exposure to asbestos at the Scapa plant (and with respect to exposures involving other alleged joint tortfeasors) by producing expert opinion testimony from Jerold Abraham, M.D., a pathologist, that “any exposure” Mr. Knight had during his life to

airborne asbestos was a contributing cause of his development of mesothelioma. Scapa joined in a pre-trial motion in limine, filed pursuant to former OCGA § 24-9-67.1, seeking to exclude this expert opinion because it failed to meet reliability requirements set forth in the statute and in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U. S. 579 (113 SCt 2786, 125 LE2d 469) (1993) and progeny (as adopted in the statute).¹ As set forth in *Daubert*, trial judges perform a “gatekeeping” role with respect to admission of expert testimony to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Id.* at 589, 597; former OCGA § 24-9-67.1 (b). The party seeking admission of expert testimony has the burden of establishing by a preponderance of the evidence that the expert’s opinion is scientifically reliable. *HNTB Georgia, Inc. v. Hamilton-King*, 287 Ga. 641, 646 (697 SE2d 770) (2010); *Allison v. McGhan Med. Corp.*, 184 F3d 1300, 1306 (11th Cir. 1999). Whether to admit expert opinion testimony as reliable is a legal determination for the trial judge that will not be disturbed absent an abuse of discretion. *Mason v. Home Depot U.S.A., Inc.*, 283 Ga. 271, 279 (658 SE2d 603) (2008). Under *Daubert*, the trial judge must assess whether the reasoning or

¹ The proceedings in this case were controlled by former OCGA § 24-9-67.1. The current statute, OCGA § 24-7-702, makes no significant changes and continues to apply the *Daubert* test for admission of expert testimony in civil cases.

methodology underlying the expert's testimony is scientifically valid. *Daubert*, 509 U. S. at 592-593. The reliability assessment generally involves consideration of many factors, which do not necessarily or exclusively apply to all experts in every case, including whether the method or theory underlying the testimony has been tested to see if it can be falsified; whether the method or theory has been subjected to peer review and publication; whether it has a known or potential rate of error; and whether it is generally accepted in the relevant scientific community. *Daubert*, 509 U. S. at 592-594; *HNTB Georgia*, 287 Ga. at 643 (punctuation and citation omitted).

Without holding a hearing, the trial court denied Scapa's motion in limine seeking to exclude Dr. Abraham's "any exposure" opinion as unreliable.² The trial

² Under the facts of this case, I find no error in the failure to hold a hearing. Former OCGA § 24-9-67.1 (d) provides that "[u]pon motion of a party, the court *may* hold a pretrial hearing" to determine reliability under the statute. (emphasis supplied). Even where the record does not include specific findings showing that the trial court has carried out its role as "gatekeeper" under the statute, generally a trial court will be presumed to have performed its official duties in accordance with the law. *CSX Transp., Inc. v. McDowell*, 294 Ga. App. 871, 872-873 (670 SE2d 543) (2008). On the present record, it appears that the expert deposition and report, along with the motion in limine and response, provided a sufficient basis for the trial court to determine the expert's methodology and make a reliability determination under OCGA § 24-9-67.1 and *Daubert*. Moreover, in satisfying *Daubert's* gatekeeping requirement, the trial court has "the same kind of latitude in deciding *how* to test an expert's reliability, and to decide whether or when special briefing or other proceedings are needed to investigate reliability, as it enjoys when it decides *whether* that expert's relevant testimony is reliable." *Kumho Tire Co. v. Carmichael*, 526 U.

court admitted expert opinion testimony at trial from Dr. Abraham in support of specific causation that, to a reasonable degree of medical certainty, Mr. Knight's mesothelioma was caused by his exposure to airborne asbestos at the Scapa plant. In support of his opinion, Dr. Abraham testified that malignant mesothelioma is a disease caused by inhalation of airborne asbestos fibers; that the disease is dose-responsive, in other words "it occurs more likely and more frequently in people that have more exposure"; that it may occur decades after exposure; and that the disease is extremely rare in the general population, despite the fact that the general population is constantly exposed to asbestos in the air at low background or ambient levels. When asked which asbestos exposures caused or contributed to Mr. Knight's mesothelioma, Dr. Abraham testified that all of his individual exposures over a period of time – his cumulative exposure – caused his mesothelioma. Dr. Abraham explained the methodology underlying his opinion in answers to various questions about causation, as follows:

Q: If you have someone who has a recognized history of exposure to asbestos and they have a confirmed diagnosis of mesothelioma, what does that mean to you?

S. 137, 152 (119 SCt 1167, 143 LE2d 238) (1999).

A: That's enough to put one and one together . . . Most of the world's epidemiology that has shown the dose-response relationship and the causal relationship . . . is based on that, on the history of exposure. . . .

Q: In someone with mesothelioma and documented asbestos exposure, which of those asbestos exposures over their life cause that disease?

A: It's impossible to sort them out. That's why the index is called cumulative exposure, the totality of their exposure. . . .

Q. What does that mean?

A: [T]he cumulative exposure is what relates to their risk for developing the disease . . . the sum of all the individual exposures . . . As the exposure goes up, the risk goes up. That would be what's considered a positive dose-response relationship. The greater the exposure, the greater the risk . . . And this can only be measured in a population because in the individual that gets the disease, their risk is a hundred percent. . . .

Q: Knowing that [Mr. Knight] has an asbestos-related mesothelioma, his risk is a hundred percent, is what you just said?

A: He's got it so there's no measure except for risk, he's got the disease. . . .

Q: [A]re each of the exposures that he's described in this case, if you add them all together, you add up to that hundred percent?

A: You add up to his cumulative exposure. At present there's no way to sort out how much one or the other contributed but for each of those individual exposures[,] since there is no safe known threshold for exposure for mesothelioma . . . if he'd only had any one of those exposures in that hypothetical . . . and developed mesothelioma, that would have been enough to cause it.

Based on this methodology, Dr. Abraham expressed his opinion, that to a reasonable degree of medical certainty, any and every exposure to asbestos that Mr. Knight experienced at the Scapa plant was a contributing cause of his mesothelioma. Dr. Abraham's opinion was that, since Mr. Knight's exposure to asbestos at the Scapa plant was more than zero, that exposure was a contributing cause of his mesothelioma.³

In *Butler*, 310 Ga. App. 21, we concluded that the trial court properly exercised its discretion to exclude as unreliable expert opinion testimony from a pathologist using the same "any exposure" methodology to prove, on the issue of specific causation, that the plaintiff's exposure to the defendant's asbestos-containing product was a contributing cause of the plaintiff's mesothelioma. In that case, the methodology underlying the expert's "any exposure" opinion (also known as the "no threshold" or "linear non-threshold" models for causation) was rejected as not testable, scientifically unreliable, and not the product of reliable principles and methods under OCGA § 24-9-67.1 (b) (2). *Butler*, 310 Ga. App. at 24, 27, 38, 40-41,

³ Scapa's contention that Dr. Abraham's expert testimony on specific causation was unreliable was preserved for appellate review by the trial court's denial of Scapa's motion in limine. *Harley-Davidson Motor Co. v. Daniel*, 244 Ga. 284, 285-286 (260 SE2d 20) (1979).

43-44, 47. As an appendix, *Butler* attached the trial court’s detailed order considering the methodology underlying the pathologist’s opinion that “any exposure” to asbestos caused the plaintiff’s mesothelioma. The trial court noted the logical inconsistency of a methodology that presumes there is no threshold exposure level necessary for asbestos to cause mesothelioma, while admitting that virtually everyone in the general population has inhaled some asbestos fibers and the disease remains extremely rare. *Id.* at 40-41. Citing to the Reference Manual on Scientific Evidence, 33 (Federal Judicial Center, 2d ed, 2000) the trial court pointed out that the “any exposure” methodology’s reliance on exposure standards promulgated by regulatory agencies demonstrates a risk assessment analysis rather than a reliable conclusion on “the likelihood that a *causal relationship* in a *specific case* is more likely than not.” *Id.* at 41-42.

Other courts have examined the methodology underlying the “any exposure” opinion on specific causation and also rejected it as scientifically unreliable. In *Betz v. Pneumo Abex LLC*, 615 Pa. 504, 508-509, 539, 549-554 (44 A3d 27) (2012) the Pennsylvania Supreme Court rejected admissibility of “any exposure” expert opinion testimony to prove that every exposure to asbestos, no matter how small, contributes to cause asbestos-related disease. *Betz* concluded that the “any exposure” opinion

was properly viewed as an expression of risk assessment rather than causation, and that it suffered from an irreconcilable conflict – one cannot maintain that a de minimis exposure is causative while also conceding that a disease is dose-responsive. *Id.* at 548-550. While appreciating the difficulties of establishing causation, the Court in *Betz* found it was not a viable solution to indulge in a fiction that every exposure to asbestos, no matter how minimal in relation to other exposures, creates a factual issue as to specific causation. *Id.* at 551 The Court concluded that, to sanction the “any exposure” opinion as reliable proof of specific causation would “subject defendants to full joint-and-several liability for injuries and fatalities in the absence of any reasonably developed scientific reasoning that would support the conclusion that the product sold by the defendant was a substantial factor in causing the harm.” *Id.* Similarly, in *Nat. Bank of Commerce v. Assoc. Milk Producers, Inc.*, 191 F3d 858 (8th Cir. 1999), the Court found that the methodology underlying the “any exposure” opinion – that the risk of disease from even the smallest exposure “is not zero” – “falls woefully short of the degree of proof required by *Daubert* and its progeny,” and “does not provide a scientific basis for a jury to find that it was more likely than not that [a plaintiff’s] cancer was caused by [a defendant’s product].” *Id.* at 860-861 (punctuation and citation omitted). In *Whiting v. Boston Edison Co.*, 891

FSupp 12 (D. Mass. 1995), the Court applied *Daubert* to consider the reliability of the same specific causation methodology traveling under the name “linear non-threshold model.” *Id.* at 23. According to *Whiting*, “[i]n layman’s terms, the model assumes that if a lot of something is bad for you, a little of the same thing, while perhaps not equally bad, must be so in some degree. The model rejects the idea that there might be a threshold at which the neutral or benign effects of a substance become toxic.” *Id.* *Whiting* rejected this methodology on the basis that it “cannot be falsified, nor can it be validated . . . and it “has no known or potential rate of error.” *Id.* at 25; accord *Henricksen v. ConocoPhillips Co.*, 605 FSupp2d 1142, 1166 (E.D. Wash. 2009) (linear non-threshold model is appropriate for predicting risks of low-level exposure, but not scientifically reliable to determine specific causation); *Davidson v. Ga. Pacific LLC*, 2014 WL 3510268 at *5 (W.D. La. 2014) (“every exposure” theory rejected under *Daubert* as unreliable to establish specific causation in a mesothelioma case because it was “not testable, and consequently cannot have an error rate.”); *Anderson v. Ford Motor Co.*, 950 FSupp2d 1217, 1224-1225 (D. Utah 2013) (“every exposure” opinion excluded under *Daubert* as not testable and having no known error rate); *Krik v. Crane Co.*, 2014 WL 7330901 at *4-5 n.6 (N.D. Ill.

2014) (same and collecting citations showing that “[n]umerous other courts have also barred ‘any exposure’ opinions in asbestos and toxic tort actions.”).

For the reasons set forth in *Butler*, 310 Ga. app. 21, and numerous other authorities, as discussed above, I find a growing consensus that, as a matter of law, Dr. Abraham’s “any exposure” opinion on specific causation was based on unreliable methodology, failed the *Daubert* standard for reliable expert testimony, and was not “the product of reliable principles and methods” as required by former OCGA § 24-9-67.1 (b) (2). Accordingly, I conclude that the trial court abused its discretion and erred by denying Scapa’s motion in limine to exclude this testimony, and by admitting this testimony at trial to prove specific causation as to Scapa.

In the absence of the erroneously admitted specific causation testimony from Dr. Abraham, the Knights failed to produce any admissible evidence proving an essential element of their case – that Mr. Knight’s exposure to asbestos at the Scapa plant was a contributing cause of his mesothelioma. Moreover, it is clear from Dr. Abraham’s testimony that his “any exposure” methodology formed the basis for all of his expert opinions on specific causation, including testimony that Mr. Knight’s exposures to asbestos at the Scapa plant were, as the majority opinion points out, “substantial causes” of Knight’s mesothelioma. Under Dr. Abraham’s methodology,

any exposure to asbestos, no matter how small, can be characterized as a “substantial cause” because, in his opinion, all exposures contribute to cause mesothelioma, and “[a]t present there’s no way to sort out how much one or the other contributed . . .” There was no evidence at trial establishing any measured level or dosage of airborne asbestos to which Mr. Knight was exposed at the Scapa plant or from any other source to which he was exposed. Under the evidence, Dr. Abraham’s causation testimony based on the “any exposure” methodology erroneously invited the jury to find that any level of exposure (even de minimis) was sufficient to constitute a contributing cause of Knight’s mesothelioma, and was clearly a significant factor in convincing the jury to apportion 40 percent liability for exposures at the Scapa plant. See *Johnson v. Knebel*, 267 Ga. 853, 859 (485 SE2d 451) (1997) (reversal required because expert opinion was erroneously admitted that “went to the heart of the jury’s apportioning of liability” and “likely was a significant factor in the jury’s verdict.”).

For these reasons, the judgment in favor of the Knights against Scapa should be reversed. It follows that the trial court erred by denying Scapa’s post-verdict motion on these grounds for judgment notwithstanding the verdict (or alternatively for a new trial). OCGA § 9-11-50. Where an appellate court determines that a motion for judgment notwithstanding the verdict was erroneously denied and reverses the

judgment, OCGA § 9-11-50 (d) provides that “nothing in this Code section precludes it from determining that the appellee is entitled to a new trial or from directing the trial court to determine whether a new trial should be granted.” On the present facts, I would find that the Knights are entitled to a new trial. At trial, the Knights relied on the trial court’s erroneous ruling that the expert causation evidence essential to their case was reliable and admissible. Although the Knights had notice in the trial court that Scapa was challenging the reliability of causation testimony based on the “any exposure” methodology, at the time, no appellate decision in Georgia had addressed the reliability of this testimony. The decision in *Butler*, supra, on this issue was not rendered until after final judgment in the trial court. Given the evidence in the record, I would conclude that this is not a case where a ruling on appeal excluding the expert causation testimony based on the “any exposure” methodology conclusively establishes that the Knights would not be able to produce sufficient reliable evidence of specific causation. Under the circumstances, I would remand the case for a new trial to give the Knights an opportunity to produce reliable expert testimony to prove specific causation, subject, of course, to Scapa’s pre-trial right to challenge the reliability of any expert testimony, and the trial court’s exercise of its “gatekeeping” function under OCGA § 24-7-702 and *Daubert*

I am authorized to state that Judge Branch joins in this dissent.