

[PUBLISH]

IN THE UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

No. 15-15271

D.C. Docket No. 5:12-cv-01930-CLS

BARBARA BOBO, et al.,

Plaintiffs,

MELISSA ANN BOBO,
co-personal representative of the Estate of Barbara Bobo, deceased,
SHANNON JEAN COX,

Plaintiffs-Appellees,

versus

TENNESSEE VALLEY AUTHORITY,

Defendant-Appellant.

Appeal from the United States District Court
for the Northern District of Alabama

(April 26, 2017)

Before ED CARNES, Chief Judge, JORDAN, Circuit Judge, and LAMBERTH,^{*} District Judge.

ED CARNES, Chief Judge:

In return for the loan of life, we each owe God a death.¹ Payment in full is a non-negotiable term of the debt, but the timing and circumstances in which remittance is made varies. The question that lies at the bottom of this case is whether the Tennessee Valley Authority caused Barbara Bobo to die sooner and suffer more in the course of dying than she otherwise would have. The legal issues are more complicated, as legal issues often are, but that question is what the case is about, why it is here.

Barbara Bobo's husband, James "Neal" Bobo, worked for the TVA for more than twenty-two years.² While at TVA, he was diagnosed with asbestos-induced lung cancer and in 1997 died from a heart attack. Mrs. Bobo was diagnosed with malignant pleural mesothelioma in 2011. She underwent thoracentesis, in which a long needle was used to remove two liters of fluid from the space between the lining of the outside of her lungs and the wall of her chest. She also underwent

^{*} Honorable Royce C. Lamberth, United States District Judge for the District of Columbia, sitting by designation.

¹ "By my troth, I care not; a man can die but once; we owe God a death" William Shakespeare, *The Second Part of King Henry the Fourth*, act 3, sc. 2.

² Throughout this opinion, for ease of reference we will refer to Barbara Bobo and her daughters, who were substituted as plaintiffs after their mother's death, as the plaintiffs. When context makes it necessary to mention the Bobos individually, we will refer to them as Mr. Bobo or Mrs. Bobo.

multiple rounds of chemotherapy, which she referred to as the “Red Devil,” because of the side effects she experienced from it — side effects which included, among other things, pain when drinking fluids and also spitting up raw flesh. In June 2012 her doctor performed a pleurectomy on Mrs. Bobo, removing one of her ribs and the pleural lining of one of her lungs.

She died from mesothelioma in 2013. Before she died, she filed a lawsuit claiming that TVA’s negligence resulted in her being exposed to “take-home” asbestos when she washed her husband’s work clothes over the years. After a three-day bench trial, the district court entered judgment against TVA. This is TVA’s appeal.

I.

We incorporate by reference the facts of this case that are set out in the district court’s thorough and well-reasoned opinion, Bobo v. Tennessee Valley Authority, 138 F. Supp. 3d 1285 (N.D. Ala. 2015), although for the reader’s convenience, we will repeat some of the more significant facts here. From 1975 until 1997, Mr. Bobo worked as a laborer and labor foreman for TVA, primarily at its Browns Ferry Nuclear Plant in Athens, Alabama. His duties included sweeping up insulation residue, which generated dust that would settle onto his clothing. Most of that insulation was white. At times Mr. Bobo worked in a radiologically contaminated area, referred to as a “C-Zone,” where he was required to wear

protective clothing. Other times he worked in his own clothes, which typically were clean when he left for work but dirty and dusty when he returned home.

One of Mr. Bobo's co-workers testified that Mr. Bobo often cleaned up white pipe insulation, and one contractor who installed insulation at Browns Ferry testified that the insulation contained asbestos, and that most of the asbestos insulation was white. A TVA maintenance director also testified that all of the asbestos insulation that was removed from Browns Ferry during TVA's asbestos abatement procedures was white. Based on the witnesses' testimony, along with TVA documents confirming that asbestos products were used throughout the plant, the district court found that the "preponderance of the evidence . . . established that a significant quantity of asbestos fibers accumulated on the clothing worn by Mr. Bobo when he swept insulation residue in the non-C-Zone areas" at Browns Ferry.

During the twenty-two years her husband worked for TVA, Mrs. Bobo washed his work clothes twice each week, an estimated two thousand times in all.³ Before putting those clothes in the washing machine, she would shake the dust off of them. She testified in her deposition that there was so much dust when she

³ The estimate is ours. Assuming Mr. Bobo worked at least 47 weeks a year, the math is 47 (work weeks per year) multiplied by 2 (washes per week) multiplied by 22 (years at TVA), equals 2,068 times.

shook out the clothes the laundry room would appear “foggy.”⁴ She would inhale some of that dust. Based on her testimony and other evidence, the district court found that Mr. Bobo’s work clothes were covered with asbestos fibers and that it was “more likely than not that [she] unknowingly inhaled dangerous concentrations of asbestos fibers as she ‘shook out’” his work clothes.

Before and then during the time of Mr. Bobo’s employment at TVA (from 1975 to 1997), the Occupational Safety and Health Administration (OSHA) issued federal regulations, and TVA established internal procedures addressing asbestos exposure. The Occupational Safety and Health Act of 1970 required federal agencies like TVA to establish and maintain occupational health and safety programs consistent with OSHA’s standards. See 29 U.S.C. § 668(a).⁵ In the years following the enactment of that law, OSHA began issuing regulations to minimize asbestos exposure that included maximum exposure limits, monitoring and testing procedures, and safety protocols. One regulation required employers to

⁴ Mrs. Bobo’s deposition was taken on September 25, 2012, about a year before she died. The trial took place on February 9–11, 2015.

⁵ The Occupational Safety and Health Act of 1970 stated: “It shall be the responsibility of the head of each Federal agency to establish and maintain an effective and comprehensive occupational safety and health program which is consistent with the standards promulgated under section 6.” Pub. L. No. 91-596, 84 Stat. 1609, § 19(a) (emphasis added). Executive Order 12,196, promulgated in February 1980, stated: “The head of each agency shall . . . [c]omply with all standards issued under section 6 of the Act . . .” 45 Fed. Reg. 12,769 (Feb. 27, 1980) (emphasis added); see 45 Fed. Reg. 45,235 (July 2, 1980) (changing Executive Order 12,196’s effective date to October 1, 1980). In other words, as the parties stipulated and the district court explained, “[p]rior to October 1, 1980, TVA’s occupational safety and health program was required to be consistent with OSHA standards, and, effective October 1, 1980, TVA’s occupational safety and health program was required to comply with those standards.”

provide employees who would be exposed to asbestos above permissible limits with protective clothing, changing rooms, and separate lockers in order to prevent their work clothes from contaminating their “street clothes.” The same regulation also required employers like TVA to launder asbestos-contaminated clothing in a way that would “prevent the release of airborne asbestos fibers in excess of the exposure limits.” OSHA’s asbestos regulations became more stringent over time.

TVA adopted internal policies similar to the OSHA regulations. For example, in 1978 TVA’s Nuclear Power Division adopted a safety manual which, among other things, required that employees exposed to airborne concentrations of asbestos be provided with two separate lockers. It mandated that: “One locker shall be used for street clothes and must not be contaminated with asbestos.” Browns Ferry Standard Practice 14.45 also provided that “[e]mployees exposed to airborne concentrations of asbestos shall wear an approved respirator and protective overalls” The district court found that this requirement applied “to any quantity of asbestos exposure” because it was not explicitly confined to “concentrations of asbestos dust in excess of the permissible limits,” as other requirements in Standard Practice 14.45 were. The court also found that, in violation of the company’s own mandatory directives, “TVA did not provide laborers with protective clothing, separate lockers, or separate showers, unless they worked in a C-Zone.”

II.

After Mrs. Bobo was diagnosed with malignant pleural mesothelioma in 2011, she sued TVA and eight other defendants in federal court, alleging that take-home asbestos exposure caused her illness. She brought claims based on, among other things, strict liability, premises liability, negligence, breach of warranty, and conspiracy. At various points in the proceedings, Mrs. Bobo stipulated to the dismissal of her claims against the eight other defendants. The case ultimately proceeded to trial against TVA on her negligence claim.

After Mrs. Bobo died from mesothelioma in 2013, the court substituted her two daughters, who are serving as personal representatives of her estate, as plaintiffs. Following a three-day bench trial, the court held TVA liable based on three analytical steps. First, it concluded that, under Alabama law, TVA owed Mrs. Bobo a duty of care to prevent take-home asbestos exposure because, among other reasons, the risk of harm was reasonably foreseeable. Second, the court found that TVA breached that duty by failing to enforce mandatory safety protocols that were designed to prevent asbestos from leaving Browns Ferry. Third, it concluded that exposure to asbestos attributable to TVA was a “substantial factor” that contributed to Mrs. Bobo’s development of mesothelioma.

The district court initially awarded the plaintiffs damages of \$3,000,000 for pain and suffering, plus \$547,008.93 in medical expenses, less an offset of

\$136,176.37, for a total amount of \$3,410,832.56. The court later amended the judgment in light of post-trial settlements, which resulted in a final total damages award of \$3,391,420.31.

III.

TVA challenges the district court's judgment on multiple grounds. To begin with, it contends that the district court erred in two respects regarding the evidence used to support the findings in favor of Mrs. Bobo. TVA argues that the district court should not have considered Mr. Bobo's state court deposition because it was not part of the record of this federal trial. TVA also argues that the court abused its discretion in relying on expert testimony the plaintiffs offered to support a finding that exposure to asbestos was the proximate cause of Mrs. Bobo's mesothelioma.

A.

We start with TVA's argument that the district court erred in considering the state court deposition testimony of Mr. Bobo to support its finding that he had been exposed to asbestos while employed by TVA. The court had ruled before trial that deposition testimony was inadmissible but then considered that testimony at trial. Assuming that was an abuse of discretion, see, e.g., United States v. Bradberry, 466 F.3d 1249, 1253 (11th Cir. 2006), it was harmless because there was plenty of other evidence proving the same fact.

At his deposition, Mr. Bobo testified about his exposure to asbestos. He explained that he was directed to assist employees who installed insulation materials made from (or that contained) asbestos fibers; that he was directed to sweep up insulation residue, which generated airborne dust containing asbestos fibers; and that he was present when insulators mixed refractory cement, a process which generated asbestos fibers.

TVA admitted that “asbestos-containing materials present at [Browns Ferry] at the commencement of [Mr. Bobo’s] TVA work period were purchased prior to [his] TVA work period and that additional asbestos-containing materials for use at [Browns Ferry] were purchased between 1975 and 1980,” which were five of the years he worked there. A number of witnesses testified that white asbestos insulation was used at the Browns Ferry plant, and a co-worker of his testified that Mr. Bobo routinely swept up white insulation residue. TVA’s 1967 safety manual stated that the “[d]usts most likely to be encountered” included asbestos, and that asbestos “[e]xposures occur during application and removal of insulation.”

Because Mr. Bobo’s state court deposition testimony was simply cumulative of abundant evidence that was admitted, the district court’s consideration of it was harmless. See L & C Marine Transp., Ltd. v. Ward, 755 F.2d 1457, 1463 (11th Cir. 1985). Put somewhat differently, based on the evidence that was properly

considered, the district court did not err in finding that, more likely than not, Mr. Bobo had been exposed to asbestos at Browns Ferry.

B.

TVA next argues that the district court erred in admitting the testimony of Dr. Eugene Mark, the plaintiffs' expert, who testified about the proximate cause of Mrs. Bobo's illness. TVA asserts that his opinion was unreliable. We review only for abuse of discretion a district court's rulings regarding the admissibility of expert testimony and the reliability of an expert opinion. United States v. Frazier, 387 F.3d 1244, 1258 (11th Cir. 2004).

TVA mischaracterizes Dr. Mark's opinion as essentially that "any exposure" to asbestos is a substantial factor in causing mesothelioma, which it says makes his opinion scientifically unreliable. That is not what he said. He testified there is no evidence that there is a threshold level of exposure below which there is zero risk of mesothelioma, and that all "significant" exposures to asbestos "contribute to cause mesothelioma." But he also stated that he would not consider an isolated exposure to a single fiber of asbestos to be "special" or "significant."

Dr. Mark testified about the significance of the "dose-response relationship" and explained the difficulty with quantifying exposure in asbestos cases. He talked about the problem with quantifying the exact moment when an exposure becomes "significant," explaining that: "[Y]ou cannot talk about one fiber, you cannot talk

about one minute of exposure because the minutes add up. And a person who has a job for 20 years, it doesn't prove useful to talk about the exposure last May 1st."

While Dr. Mark testified that all significant exposures to asbestos contribute to causing mesothelioma, he did not say that any exposure to asbestos is a substantial factor in causing mesothelioma, or even that every significant exposure causes it. Our predecessor court accepted similar expert testimony as reliable. See Borel v. Fibreboard Paper Prods. Corp., 493 F.2d 1076, 1083 (5th Cir. 1973) (stating that medical testimony at trial established that "the effect of [asbestosis] may be cumulative since each exposure to asbestos dust can result in additional tissue changes").⁶

Not only that but Dr. Mark's opinion was also based on an extensive knowledge of the facts in this case and was supported by scientific literature. He testified about scientific studies that recognize laundering asbestos-contaminated clothing as one mode of asbestos exposure, as well as studies that suggest a link between take-home asbestos exposure and mesothelioma. He explained the Helsinki Criteria, which assist doctors and scientists in determining whether asbestos exposure caused a particular person's disease. And he based his opinion

⁶ The Alabama Supreme Court has also accepted testimony similar to that of Dr. Mark's. See Sheffield v. Owens-Corning Fiberglass Corp., 595 So. 2d 443, 456 (Ala. 1992). The Sheffield decision involved a products liability case brought under maritime law. Id. at 450–51.

about proximate cause on a thorough review of the scientific literature and the facts in the record.

Dr. Mark's opinion was that Mrs. Bobo's twenty-two years of laundering her husband's TVA work clothes exposed her to asbestos in an amount that was a substantial factor contributing to her mesothelioma. The district court did not abuse its discretion in admitting Dr. Mark's expert testimony, particularly given that the court, not a jury, was serving as the factfinder. See United States v. Brown, 415 F.3d 1257, 1268–69 (11th Cir. 2005) (“[Limits on the admission of expert testimony] are even more relaxed in a bench trial situation, where the judge is serving as factfinder There is less need for the gatekeeper to keep the gate when the gatekeeper is keeping the gate only for himself.”).

IV.

TVA contends that the district court erred in determining that, under Alabama law, TVA had a duty to avoid exposing Mrs. Bobo to take-home asbestos. That is a determination of law, which we review de novo. Price v. Time, Inc., 416 F.3d 1327, 1334 (11th Cir. 2005). A federal court's goal in deciding a state law issue is to resolve it in the same way the state's highest court would. Id. To aid it in doing so, the district court quite properly certified these two questions to the Alabama Supreme Court: “whether a premises owner has a duty to protect the family members of persons who work on the property owner's premises from

secondary exposure to . . . asbestos, used during the course of the property owner's business"; and "what causation standard applies when multiple exposures to a toxic agent, such as asbestos, combine to produce the plaintiff's injury." Bobo v. Tenn. Valley Auth., No. CV 12-S-1930-NE, 2015 WL 3833879, at *19 (N.D. Ala. June 22, 2015). The Alabama Supreme Court declined to answer either question and did so without explanation, except that it cited two of its decisions in declining to answer the second question, the one about the causation standard. Bobo v. Tenn. Valley Auth., No. 1141023 (Ala. Aug. 24, 2015) ("[T]he Court declines to accept the second certified question. See Sheffield v. Owens-Corning Fiberglass Corp., 595 So. 2d 443, 450 (Ala. 1992). See also Owens-Corning Fiberglass Corp. v. Gant, 662 So. 2d 255, 256 (Ala. 1995).").

The plaintiffs contend that, by declining to answer the first certified question the Alabama Supreme Court "seemingly" agreed with the district court's "analysis that supported finding a duty" under Alabama law.⁷ That's a non-sequitur. The Alabama Supreme Court simply exercised its unbridled authority to decline to answer the certified question about the existence of a duty under Alabama law.

⁷ In its opinion certifying the two questions, the district court listed the parties' arguments and authorities on "the availability of take-home [asbestos] claims under Alabama law." Bobo, 2015 WL 3833879, at *13-16. But it did not make any "determination" on the existence of a legal duty under Alabama law. See id. Instead, in certifying that question to the Alabama Supreme Court, the district court explained that "the question of whether policy considerations affecting the recognition of a duty to family members of employees in take-home asbestos exposure cases should be deemed to outweigh the foreseeability of injury is an unanswered issue of Alabama law that should be resolved by that State's highest court." Id. at *16.

See Pittman v. Cole, 267 F.3d 1269, 1291 (11th Cir. 2001). It did not answer by declining to answer. Along with the district court, we are required to examine Alabama law to find the answer.

A.

We first consider whether under Alabama law TVA owed a duty to Mrs. Bobo to prevent take-home asbestos exposure. The existence of a duty of care is “[f]undamental to the maintenance of a negligence action” under Alabama law. Pugh v. Butler Tel. Co., 512 So. 2d 1317, 1319 (Ala. 1987); see also City of Bessemer v. Brantley, 65 So. 2d 160, 165 (Ala. 1953) (“[W]here there is no duty, there can be no negligence.”). “In Alabama, the existence of a duty is a strictly legal question to be determined by the court.” Taylor v. Smith, 892 So. 2d 887, 891 (Ala. 2004); see also Jones Food Co. v. Shipman, 981 So. 2d 355, 361 (Ala. 2006) (“Whether the defendant in a negligence action owed the claimant a duty is strictly a question of law.”). “In determining whether a duty exists . . . , courts should consider a number of factors, including public policy, social considerations, and foreseeability.” Smitherman v. McCafferty, 622 So. 2d 322, 324 (Ala. 1993). Under Alabama law, however, “[t]he key factor is whether the injury was foreseeable by the defendant.” Taylor, 892 So. 2d at 892 (quotation marks omitted).

Although Alabama appellate courts have not addressed whether a duty exists to prevent take-home asbestos exposure, other state appellate courts have done so under the law of their states. In at least four jurisdictions where foreseeability is a key factor in the duty analysis, courts have imposed a duty to prevent take-home asbestos exposure based on the foreseeability of injury from that exposure. See Kesner v. Superior Court, 384 P.3d 283 (Cal. 2016); Chaisson v. Avondale Industries, Inc., 905 So. 2d 465 (La. Ct. App. 2006); Olivo v. Owens-Illinois, Inc., 895 A.2d 1143 (N.J. 2006); Satterfield v. Breeding Insulation Co., 266 S.W.3d 347 (Tenn. 2008).

For example, in the Satterfield decision the Tennessee Supreme Court held that an employer had a duty to prevent the foreseeable harm from take-home asbestos exposure. 266 S.W.3d at 366, 373–75. It explained that foreseeability is of “paramount importance” in the duty analysis. Id. at 366; see id. at 373 (“Tennessee’s courts rely heavily on foreseeability when determining the existence and scope of a duty.”). Because the court found that the risk of asbestos exposure from laundering work clothes was foreseeable, and because the employer knew that asbestos fibers accumulated on its employees’ work clothes, it held that the employer “ha[d] a duty to prevent [that] foreseeable injury from [the] unreasonable risk of harm that it had itself created.” Id. at 367–69, 374–75.

More recently, in its Kesner decision, the Supreme Court of California decided whether under that state's law employers have a duty to protect employees' household members from take-home asbestos exposure. 384 P.3d at 288. The court explained that its duty analysis turns on seven factors, three of which involve foreseeability and four of which involve public policy. Id. at 291. And under California law (as under Alabama law), foreseeability is the most important consideration. Id. Because "it was foreseeable that people who work with or around asbestos may carry asbestos fibers home with them and expose members of their household," and because public policy weighed in favor of imposing a duty, the California Supreme Court held that the "defendants owed the members of their employees' households a duty of ordinary care to prevent take-home exposure" Id. at 291, 299.

Courts in two other jurisdictions have also adopted a foreseeability-based approach to the legal duty analysis, but found that under the facts of the cases before them the harm from take-home asbestos was not foreseeable. See Martin v. Cincinnati Gas & Elec. Co., 561 F.3d 439, 445 (6th Cir. 2009) (applying Kentucky law); Alcoa, Inc. v. Behringer, 235 S.W.3d 456, 462 (Tex. Ct. App. 2007). Along the same lines, the Supreme Court of Illinois, which considers foreseeability as one of several factors in determining whether a legal duty exists, concluded that the allegations in the plaintiff's complaint were too conclusory to show that her former

husband's employer had a duty to protect her from take-home asbestos exposure.

See Simpkins v. CSX Transp., Inc., 965 N.E.2d 1092, 1099–1100 (Ill. 2012)

(“Because foreseeability is such an integral factor to the existence of duty and because the weight to be accorded to that foreseeability (as well as to the other factors) depends on the particular circumstances of the case, without more detailed pleadings we cannot determine whether, if all well-pled facts are taken as true, a duty of care ran from defendant to plaintiff in this case.”). Those decisions at least suggest that the three jurisdictions would impose a duty on an employer to avoid harm to a non-employee from take-home asbestos if the facts of a particular case showed that the injury was foreseeable.

On the other hand, courts in at least eight states have declined to impose a duty on employers to prevent take-home asbestos exposure, and at least two other states have codified that rule. See Kan. Stat. § 60-4905(a); Ohio Rev. Code § 2307.941(A)(1); Gillen v. Boeing Co., 40 F. Supp. 3d 534 (E.D. Pa. 2014) (applying Pennsylvania law); Quiroz v. ALCOA, Inc., 382 P.3d 75 (Ariz. Ct. App. 2016); Riedel v. ICI Ams., Inc., 968 A.2d 17 (Del. 2009); CSX Transp., Inc. v. Williams, 608 S.E.2d 208 (Ga. 2005); Van Fossen v. MidAmerican Energy Co., 777 N.W.2d 689 (Iowa 2009); Adams v. Owens-Illinois, Inc., 705 A.2d 58 (Md. Ct. Spec. App. 1998); In re Certified Question from the 14th Dist. of Ct. App. Tx.,

740 N.W.2d 206 (Mich. 2007); In re N.Y.C. Asbestos Litig., 840 N.E.2d 115 (N.Y. 2005).

To find a duty in this case would align Alabama with what TVA says is the “minority” view, and we generally presume that Alabama courts would adopt the majority view on a legal issue in the absence of indications to the contrary.

Wammock v. Celotex Corp., 835 F.2d 818, 820 (11th Cir. 1988). Accepting for present purposes that imposing a duty in this situation is the “minority” view, there are indications that the Alabama Supreme Court would follow that view. As we have discussed, Alabama courts focus on the foreseeability of an injury when deciding whether to impose a duty of care. See Taylor, 892 So. 2d at 892; see also Yanmar Am. Corp. v. Nichols, 166 So. 3d 70, 83 (Ala. 2014) (“[T]he ultimate test of duty to use [due] care is found in the foreseeability that harm may result if care is not exercised.”); Ex parte Wild Wild W. Soc. Club, Inc., 806 So. 2d 1235, 1240 (Ala. 2001) (“The question of the existence of a duty to use care is grounded in the concept of foreseeability.”).⁸ The courts taking the “majority” view, on the other

⁸ In DiBiasi v. Joe Wheeler Electric Membership Corp., 988 So. 2d 454, 462–63 (Ala. 2008), the Alabama Supreme Court stated that, “[a]lthough . . . foreseeability is a key factor in determining whether a duty exists in a particular circumstance, and knowledge of a dangerous condition may establish foreseeability, Alabama case law does not hold that knowledge, by itself, is sufficient to impose a duty.” The court held that, “assuming [the plaintiff’s] injuries were foreseeable,” none of the other factors in the legal duty analysis supported the existence of a duty on the defendant. Id. at 464. Nothing in the DiBiasi decision suggests that foreseeability is not a key factor in Alabama’s duty analysis; indeed, the opinion notes that it is a key factor. Id. at 462–63. The DiBiasi court simply concluded that other factors weighed in favor of not imposing a duty on the defendant under the facts of that case. Id. at 464.

hand, generally have focused on factors other than foreseeability, such as the relationship between the parties. See, e.g., Quiroz, 382 P.3d at 79 (“[W]e do not consider foreseeability in determining whether a duty of care exists.”); Certified Question, 740 N.W.2d at 216 (“Michigan, like New York, relies more on the relationship between the parties than foreseeability of harm when determining whether a duty exists.”). Alabama’s strong focus on foreseeability is enough to overcome any presumption that it would adopt the so-called majority view. As a result, we think that Alabama courts would impose a duty of care on employers like TVA to prevent take-home asbestos exposure where a plaintiff’s injury is foreseeable, and where public policy considerations also weigh in favor of there being a duty. See Smitherman, 622 So. 2d at 324.

The district court found that Mrs. Bobo’s injury was foreseeable to TVA. For an injury to be foreseeable, “it is not necessary to anticipate the specific [harm] that occurred, but only that some general harm or consequence would follow.” Smith v. AmSouth Bank, Inc., 892 So. 2d 905, 910 (Ala. 2004). The record shows that TVA knew about OSHA regulations that were adopted to protect not only workers but also their families. See, e.g., Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite, 51 Fed. Reg. 22612, 22697 (June 20, 1986) (“Evidence has shown that family members of asbestos workers face a substantially increased risk of cancer and other asbestos-related diseases from

exposure to asbestos carried home on work clothes.”). The record also shows that TVA knew that for health reasons it should prevent asbestos fibers from settling on employees’ clothes. And it shows that TVA had adopted policies requiring employees exposed to certain levels of asbestos to use two separate lockers in order to keep their street clothes free from asbestos but did not enforce those policies.

As the district court explained, “[t]he common thread linking those rules was the goal of preventing asbestos fibers from clinging to an employee’s street clothes, skin, or hair, and being carried off of TVA property,” which shows that in not following the rules TVA understood that employees’ household members would be exposed to asbestos originating at the plant. The risk that Mrs. Bobo could be harmed by take-home asbestos exposure was reasonably foreseeable to TVA.

TVA not only could foresee injuries from take-home asbestos exposure, it also created the risk of injuries to its employees’ family members by using insulation products containing asbestos and failing to take the steps it was required to take in order to prevent its employees from carrying asbestos fibers off the premises and into their homes. The Alabama Supreme Court has held that when an injury is foreseeable and a defendant “affirmative[ly] act[s]” in a way that “involves the [defendant] directly in the foreseeable consequences,” that factor

“weighs in favor of imposing a duty.” Taylor, 892 So. 2d at 897; see also id. at 895 (explaining that where there is “an affirmative act which creates the risk that unidentifiable third parties might be injured,” there is “most certainly[] a duty to unidentifiable third parties who may be injured as a result”) (emphasis omitted) (quoting Cheeks v. Dorsey, 846 So. 2d 1169, 1173 (Fla. 4th DCA 2003)). TVA acted by using asbestos-containing products and it failed to act to prevent take-home asbestos exposure, and that, coupled with its knowledge of the risk of injury from the asbestos being taken home on employees’ clothes, warrants the conclusion that TVA violated its duty to prevent injury to Mrs. Bobo and others like her. See id.

Public policy concerns also weigh in favor of imposing a duty on TVA in these circumstances. TVA not only knew about the danger of take-home asbestos, it also knew about OSHA regulations that it was required to follow in order to limit exposure in the workplace and in the homes of its employees. And it knew of its own internal requirements that, if followed, would have limited exposure and prevented asbestos from being carried home on its employees’ clothes. TVA was in the best position to protect people like Mrs. Bobo from take-home asbestos exposure by complying with the relevant regulations or internal policies that were designed for that purpose, but it failed to do so. Recognizing TVA’s duty in these circumstances is fully warranted by considerations of public policy.

The Alabama Supreme Court has said that in determining whether there is a legal duty sufficient to support an action for negligence, the relationship between the parties is one of three primary considerations (the other two factors being the nature of the defendant's activity and the type of injury or harm threatened).

Morgan v. S. Cent. Bell Tel. Co., 466 So. 2d 107, 114 (Ala. 1985). But there is a difference between one of three primary considerations and a requirement. The Supreme Court of Alabama has in “a variety of circumstances” imposed “a duty to foreseeable third parties[] based on a general obligation imposed in tort to act reasonably,” even where the parties had no “legal” relationship. Taylor, 892 So. 2d at 893 (quotation marks omitted); id. at 897 (finding a doctor owed a duty of care to a motorist because her injury was a foreseeable result of his negligent treatment of a patient, who was under the influence of methadone when the patient crashed into the motorist's car); see also Kelly v. M. Trigg Enters., Inc., 605 So. 2d 1185, 1190 (Ala. 1992) (holding a retailer owed a duty of care to the plaintiffs because their injuries in an automobile crash were a foreseeable result of the negligent act of selling an air freshener composed of pure ethyl chloride to a minor, who inhaled the substance and drove while under the influence of it). This case fits comfortably within the line of Alabama decisions imposing a legal duty based on foreseeability of harm even in the absence of a legal relationship between the parties. Another way of putting it is that there was a relationship between TVA

and Mrs. Bobo: TVA employed her husband and over the course of 22 years exposed him to asbestos fibers in a way that exposed and eventually killed her as well. That is as much a relationship as the Alabama Supreme Court held was sufficient to impose a duty in the Taylor and Kelly cases.

TVA argues that imposing a duty on employers like it to prevent take-home asbestos exposure will cause them to face greater liability. Assuming that employers violate their duties to minimize the risk of harm from take-home asbestos, they will face greater liability. But it is not “limitless” liability, as TVA asserts.⁹ The duty we recognize extends only to people whose harm is foreseeable, such as an employee’s family members or others in the employee’s household. In any event we do not think that the prospect of greater liability is necessarily negative. After all, imposing liability to deter acting, or failing to act, in a way that causes foreseeable harm is one of the functions of tort law.

The Alabama Supreme Court’s Hinton decision does not require a different result in this case. See Hinton ex rel. Hinton v. Monsanto Co., 813 So. 2d 827, 831–32 (Ala. 2001). In that case the plaintiffs sued a company to recover the costs of medical monitoring that they claimed was necessary because they had been

⁹ TVA suggests that Alabama has expressed a desire “to limit the cost of [asbestos] litigation,” citing Alabama Code § 6-5-682. All that section does, however, is limit the amount of asbestos-related liabilities that an acquiring corporation assumes during a merger or consolidation. See Ala. Code § 6-5-682. It says nothing about whether an entity should have a duty to prevent asbestos-related injuries, nor does it reflect any desire to limit asbestos-related litigation generally. See id.

exposed to a hazardous substance the company had released in their area. Id. at 828. The Alabama Supreme Court rejected the claim because the plaintiffs did not allege any present injury or illness, and it would “stand Alabama tort law on its head . . . to alleviate [the plaintiffs’] concerns about what might occur in the future.” Id. at 831. The holding, which was keyed to the “absence of a manifest physical injury or illness,” was that Alabama law does not recognize “a cause of action for medical monitoring.” Id. at 828, 832. The case before us is not one where there is no injury or illness, nor does it involve a claim for nothing more than medical monitoring. Because of TVA’s actions and failures to act, Mrs. Bobo died an excruciatingly painful death and is no longer around to be monitored.

In its final argument on the duty issue, TVA insists that finding a duty here would expand Alabama law, which would violate the Fifth Circuit’s admonition that federal courts should not “expand state law beyond its presently existing boundaries,” citing Rubinstein v. Collins, 20 F.3d 160, 172 (5th Cir. 1994). Fifth Circuit decisions are not binding on us, and we have not been pointed to any decision from this Court to support the Rubinstein proposition. Our responsibility as a federal court sitting in diversity is to determine issues of state law in the same way the state’s highest court would. Price, 416 F.3d at 1334. If we predict, as we do, that the Alabama Supreme Court would find a duty of care in the circumstances

of this case, we must find a duty of care in this case regardless of whether that expands or contracts Alabama law.

Given Alabama's focus on foreseeability as the key to its duty analysis, Taylor, 892 So. 2d at 892, given its recognition of a duty in cases where a defendant creates the risk of harm through its own activities, see id. at 895–97, and given its consideration of public policy in determining whether a duty exists, Smitherman, 622 So. 2d at 324, we agree with the district court that TVA did have a duty not to expose Mrs. Bobo to the dangers of take-home asbestos, and it violated that duty.

B.

TVA contends that in determining that asbestos from the Browns Ferry plant caused Mrs. Bobo's mesothelioma the district court applied the wrong exposure standard. In declining to answer the district court's certified question on the appropriate causation standard, the Alabama Supreme Court cited Sheffield v. Owens-Corning Fiberglass Corp., 595 So. 2d 443, 450 (Ala. 1992) and Owens-Corning Fiberglass Corp. v. Gant, 662 So. 2d 255, 256 (Ala. 1995). Both Sheffield and Gant involve the issue of causation in the asbestos litigation context. Sheffield, a products liability case brought under maritime law, held that, in order to show causation, the plaintiff "must make it appear that it is more likely than not" that the asbestos product manufactured by the defendant "was a substantial

factor’ in producing his injury.” 595 So. 2d at 450 (emphasis omitted) (quoting Restatement (Second) of Torts § 433B cmt. a). And it concluded that evidence showing the plaintiff was “close” to individuals who worked with the defendant’s asbestos product:

coupled with expert testimony that “each and every exposure to asbestos contributes in a causally significant and substantial manner to asbestos-related lung impairment,” create[d] a triable issue as to whether [that asbestos] was a substantial factor in producing the [plaintiff’s] disease

Id. at 456. In the Gant decision, the Alabama Supreme Court briefly addressed and rejected the defendant’s argument that the plaintiffs “failed to prove sufficient exposure to [its] asbestos-containing product.” 662 So. 2d at 256. In doing so, the court cited its Sheffield decision. See id. (citing Sheffield, 595 So. 2d at 456).

Based on the Sheffield and Gant decisions, the district court decided that the plaintiffs had to “show that TVA’s conduct, more likely than not, was a substantial factor in causing [her] harm.” It emphasized the evidence showing that Mrs. Bobo “launder[ed] her husband’s dirty work clothing twice each week, for more than twenty-two years, in a small, confined, four-by-five foot space.” And when she shook out her husband’s clothing, which “was encased in asbestos fibers by the time he returned home,” the air she breathed was filled with so much dust from his clothing that it was “foggy.” Based on all of the evidence, the district court found “[Mrs.] Bobo’s exposure to asbestos originating in TVA’s Browns Ferry Nuclear

Plant and carried home on her husband's work clothing was, more likely than not, a substantial factor contributing to the development of the disease that claimed her life and, consequently, the proximate cause of her injuries."

TVA contends that the district court applied the wrong test in reaching that conclusion, arguing that Alabama would instead require a plaintiff to present enough evidence of exposure to satisfy the "frequency-regularity-proximity" test that was articulated in Lohrmann v. Pittsburgh Corning Corp., 782 F.2d 1156 (4th Cir. 1986), which is the test used in most jurisdictions, see Slaughter v. S. Talc Co., 949 F.2d 167, 171 (5th Cir. 1991). TVA argues that the plaintiffs' evidence of Mrs. Bobo's exposure cannot satisfy that "more demanding" test.

In Lohrmann, the Fourth Circuit, applying Maryland law, rejected the plaintiff's argument that his circumstantial evidence, which placed him at a job site where the defendant's asbestos-containing product was used, was sufficient to create a jury question on causation. 782 F.2d at 1162–63. It did so because "mere proof that the plaintiff and a certain asbestos product are at the shipyard at the same time, without more, does not prove exposure to that product." Id. at 1162. The court explained that, "[t]o support a reasonable inference of substantial causation from circumstantial evidence, there must be evidence of exposure to a specific product on a regular basis over some extended period of time in proximity to where the plaintiff actually worked." Id. at 1162–63. It found that evidence that

the plaintiff worked near the defendant's product "on ten to fifteen occasions of between one and eight hours duration" did not satisfy the frequency-regularity-proximity test. Id. at 1163.

The day after the district court entered judgment in this case, the Alabama Supreme Court issued an opinion in an asbestos products liability case discussing what a plaintiff must show in order to establish that he was exposed to a defendant's asbestos-containing product. See Kruse v. Vanderbilt Minerals, LLC, 189 So. 3d 42 (Ala. 2015). In the Kruse case, the parties "argued for two different standards for establishing exposure based on the [Sheffield] case." Id. at 57. In explaining why it favored Sheffield's "direct exposure" standard, the court cited the Lohrmann decision:

A standard other than direct exposure would not be logical, given that a plaintiff obviously must establish that the product in question caused his or her injuries. Indeed, corroboration for that standard comes from what appears to be the majority rule for causation used by most courts throughout the country in asbestos litigation: the "frequency-regularity-proximity" test propounded in [Lohrmann]. The Lohrmann court — applying Maryland law — stated that, to establish proximate causation, "the plaintiff must introduce evidence which allows the jury to reasonably conclude that it is more likely than not that the conduct of the defendant was a substantial factor in bringing about the result." The Lohrmann court concluded that this meant that, "[t]o support a reasonable inference of substantial causation from circumstantial evidence, there must be evidence of exposure to a specific product on a regular basis over some extended period of time in proximity to where the plaintiff actually worked."

Id. at 57–58 (citation and footnote omitted).

The evidence in the Kruse case showed that the plaintiff, over a period of thirty-seven years, had regularly entered work areas where the defendant's asbestos-containing product was used. Id. at 58. The Alabama Supreme Court held that was evidence sufficient to create a reasonable inference that the plaintiff was exposed to the defendant's product, although it noted that whether "that exposure was a 'substantial factor' in causing [the plaintiff's] mesothelioma is a separate issue." Id. Because the plaintiff's evidence of exposure satisfied "even the possibly more challenging standard urged by the [defendant]," the Alabama Supreme Court declined to decide which of the exposure standards articulated by the parties was the correct one. It questioned whether those standards were actually different at all. Id. We take the same route. Which of the two standards applies here does not matter because, as in Kruse, the evidence of exposure is enough to satisfy either test.

TVA disagrees, faulting the plaintiffs for not coming up with industrial hygiene measurements or other quantifiable evidence "relating to the frequency or duration of [Mr. Bobo's] alleged exposures [at Browns Ferry], the amount or level of any such exposures, or the amount of asbestos fibers that burdened his personal clothing as a result of the exposures." Without such evidence, TVA says, any estimate of Mrs. Bobo's exposures is a mere guess, and we ought not be guessing. What TVA ought not be doing is blaming Mrs. Bobo for its failure to do what it

was required to do, a failure which resulted in the lack of evidence TVA insists is needed. Had TVA complied with OSHA's air monitoring requirement or with its own "Personal and Environmental Monitoring" requirement, we would have records providing more details about the asbestos exposure levels to which Mr. Bobo and his clothing were exposed, and those factual details would in turn provide a better basis for estimating Mrs. Bobo's exposure.

Here is the gist of it. TVA used asbestos-containing products at Browns Ferry during the twenty-two years Mr. Bobo worked for it. His duties included cleaning up residue left by insulators and asbestos workers, which in turn allowed asbestos fibers to settle on his clothes. And Mrs. Bobo was exposed to those fibers regularly for 22 years. Her testimony, which the district court credited, was that she was exposed to so much dust from shaking out her husband's work clothes that the air was foggy. Dr. Mark testified that with mesothelioma there is "no known safe level" of exposure to asbestos. Even if there were, the massive amounts of asbestos fibers to which Mrs. Bobo was exposed over more than two decades would far exceed any imaginable safe level. See generally Tragarz v. Keene Corp., 980 F.2d 411, 420 (7th Cir. 1992) (explaining that Lohrmann's "frequency and regularity prongs become less cumbersome when dealing with cases involving diseases, like mesothelioma, which can develop after only minor exposures to asbestos fibers").

To answer the question with which we began, TVA did cause Mrs. Bobo to die sooner and suffer more in the course of dying than she otherwise would have.

V.

TVA's final effort to avoid liability for that involves the discretionary function exception to its susceptibility to suit. The TVA Act provides that TVA may "sue and be sued in its corporate name." 16 U.S.C. § 831c(b). Despite that waiver of sovereign immunity, we have held that "TVA cannot be subject to liability when engaged in certain governmental functions." Peoples Nat'l Bank of Huntsville v. Meredith, 812 F.2d 682, 685 (11th Cir. 1987). Under the discretionary function exception, TVA cannot be held liable "when the subject governmental function is discretionary." Id. That exception applies if the challenged conduct (1) "involves an element of judgment or choice" and (2) is the kind of conduct "that the discretionary function exception was designed to shield." Berkovitz v. United States, 486 U.S. 531, 536, 108 S. Ct. 1954, 1958–59 (1988); see United States v. Gaubert, 499 U.S. 315, 322–23, 111 S. Ct. 1267, 1273–74 (1991). "[T]he discretionary function exception will not apply when a federal statute, regulation, or policy specifically prescribes a course of action . . . to follow." Berkovitz, 486 U.S. at 536, 108 S. Ct. at 1958.

Before trial the district court ruled that TVA could not be held liable for its failure to provide asbestos training or to warn about take-home asbestos exposure.

But it concluded that TVA could be held liable for its failure to comply with mandatory regulations and policies regarding asbestos exposure.

TVA contends that, because it had discretion to expose its employees to asbestos at levels below specified limits, it cannot be held liable unless the plaintiffs prove that Mr. Bobo was exposed to asbestos in excess of those limits, which in turn exposed Mrs. Bobo to what TVA calls “non-discretionary asbestos.” Some regulations and policies did allow TVA to expose its employees to certain amounts of asbestos (although the district court found that TVA’s exposure of Mr. Bobo to asbestos exceeded those limits).

But there was no discretion and no permissible range in the actions TVA was required to take to prevent asbestos fibers from leaving the plant. TVA’s 1979 Division of Nuclear Power Safety and Hazard Control Manual stated that: “Each employee exposed to airborne concentrations of asbestos shall be provided with two separate lockers. One locker shall be used for street clothes and must not be contaminated with asbestos.” An internal plant memorandum from TVA, also from 1979, stated: “TVA and Federal safety and health standards require that we provide locker and shower facilities for insulators and designated cleanup laborers that are separate from the plant’s regular facilities.” There was no discretion in those requirements, which were designed to prevent asbestos from leaving the plant on the clothing of the workers. TVA violated those requirements, resulting in

Mrs. Bobo being exposed to asbestos from the plant, which led to her illness and death. TVA is not shielded from liability for its conduct in doing so. See Gaubert, 499 U.S. at 322–33, 108 S. Ct. at 1273–74; Berkovitz, 486 U.S. at 536, 108 S. Ct. at 1958.

VI.

We turn now to the question of how much damages TVA will have to pay to the plaintiffs, Mrs. Bobo’s two daughters who are serving as personal representatives of her estate. The district court awarded the plaintiffs in damages, after setoffs, a total of \$3,391,420.31. The only part of that damages award that TVA challenges is a portion of the amount that was for medical expenses. The total amount of the medical expenses in the damages award was \$537,131.82. The parties agree that if TVA is liable, as we have concluded it is, the plaintiffs are entitled to recover the portion of the \$537,131.82 amount that Mrs. Bobo or her insurers actually paid the providers. They disagree, however, about whether the plaintiffs are entitled to recover the portion of that amount of medical expenses that she was billed but which neither she nor her insurers paid the providers because through agreements with the insurers the providers agreed “to adjust, reduce, write down, or accept a reduced portion in satisfaction of [the] billed amounts.” (We will refer to those reductions collectively as the “written off” amounts.)

TVA's position is that the plaintiffs are not entitled to recover any amount that was written off by the providers, while the plaintiffs' position is that they are entitled to recover all of the written off amounts. The district court awarded total medical expense damages of \$537,131.82, which included what TVA asserts are some amounts that had been written off. The issue of how written off amounts of medical expenses should be treated for damages purposes is a question of Alabama law.

Under Alabama law, the party seeking damages bears the burden of showing that they exist and the amount of them. See Jerkins v. Lincoln Elec. Co., 103 So. 3d 1, 10 (Ala. 2011). Medical expenses "damages are unrecoverable where the plaintiff has not paid or is not liable [to pay] such items." Jones v. Crawford, 361 So. 2d 518, 521 (Ala. 1978); see also Ala. Farm Bureau Mut. Cas. Ins. Co. v. Smelley, 329 So. 2d 544, 546 (Ala. 1976) ("[D]amages for medical expenses are to be allowed only for doctor's and medical bills which the plaintiff has paid or has become obligated to pay.") (quotation marks omitted).

We agree with TVA that amounts that were written off by providers under contractual agreements with insurers are not amounts that a plaintiff has paid or is obligated to pay within the meaning of the Alabama Supreme Court's decisions. See Crawford, 361 So. 2d at 521; Smelley, 329 So. 2d at 546. Nor may those amounts be included in a damages award under the collateral source rule. That

rule, which Alabama recognizes, provides that a plaintiff's damages are not to be reduced by amounts that are paid by sources "collateral to and independent of the wrongdoer," such as the plaintiff's insurer. Williston v. Ard, 611 So. 2d 274, 278 (Ala. 1992); see also Roland v. Krazy Glue, Inc., 342 So. 2d 383, 385–86 (Ala. Ct. App. 1977) (explaining that damages for medical expenses "should not be diminished by the fact that [the plaintiff] has been wholly or partially indemnified for her loss by [] insurance to which [the] defendant did not contribute").

Amounts that are written off by a provider are not paid by anyone; the provider never gets paid those amounts.

We remand this case to the district court with instructions for it to recalculate the damages award in order to exclude from it any amounts that were written off by Mrs. Bobo's providers and to correct any other errors that may appear to the court when the parties have a chance to focus exclusively on the medical expenses component of the damages award.¹⁰

The part of the judgment finding TVA liable is **AFFIRMED**; the part awarding damages is **VACATED**; and the case is **REMANDED** to the district

¹⁰ We cannot determine from the record what amount of the \$537,131.82 in medical expenses was actually written off. Before trial the parties stipulated that Mrs. Bobo and her insurers paid \$140,646.64 in medical expenses, and that her medical providers wrote off the other \$396,485.18. But in TVA's post-trial brief it stated that Bobo and her insurers paid \$87,793.81 in medical expenses, and that her medical providers wrote off \$449,338.01.

court with instructions to revisit the portion of the damages award involving medical expenses.