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IN THE COURT OF APPEALS OF TENNESSEE  
AT JACKSON  
September 13, 2022 Session

**ANNIE DOWDY v. BNSF RAILWAY COMPANY**

**Appeal from the Circuit Court for Shelby County  
No. CT-004640-17 Robert Samuel Weiss, Judge**

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**No. W2021-01003-COA-R3-CV**

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A railroad worker developed cancer after working for thirty years in a railroad yard. The worker sued the railroad, alleging violations of federal law. She proffered two experts to prove elements of her claim. The railroad moved to exclude the expert testimony as unreliable. The railroad also moved for summary judgment, arguing that the worker could not prove her claim without the testimony of both experts. The trial court excluded the expert testimony and granted summary judgment. We affirm.

**Tenn. R. App. P. 3 Appeal as of Right; Judgment of the Circuit Court Affirmed**

W. NEAL MCBRAYER, J., delivered the opinion of the court, in which J. STEVEN STAFFORD, P.J., W.S., and ARNOLD B. GOLDIN, J., joined.

Thomas J. Joyce, III and Hailey A. Tutton, Conshohocken, Pennsylvania, and Charles M. Weirich, Jr., Memphis, Tennessee, for the appellant, Annie Dowdy.

George T. Lewis, S. Camille Reifers, and Pete A. Brunson, Memphis, Tennessee, for the appellee, BNSF Railway Company.

**OPINION**

**I.**

Annie Dowdy worked for the BNSF Railway Company or its predecessors for approximately thirty years. While her job tasks varied over the years, she was primarily classified as a clerk. After her retirement, she was diagnosed with renal cancer.

Ms. Dowdy filed suit against her former employer under the Federal Employers' Liability Act ("FELA"), alleging that BNSF negligently failed to provide a reasonably safe work place. *See* 45 U.S.C. §§ 51-60. She claimed that occupational exposure to diesel exhaust and asbestos caused or contributed to her cancer.<sup>1</sup>

Ms. Dowdy relied on the testimony of two expert witnesses to establish her FELA claim: Dr. Hernando Perez and Dr. Ernest Chiodo. Dr. Perez was retained to testify "on the topic of negligence and liability." Dr. Chiodo provided opinions on causation.

Dr. Perez opined that BNSF failed to provide Ms. Dowdy with a reasonably safe work place. He determined that she was "chronically exposed to varying magnitudes of diesel exhaust" during her employment. She also had "significant asbestos exposure." He pointed out that the railroad industry was well aware of the potential health risks associated with exposure to these toxins. Yet BNSF failed to warn Ms. Dowdy about these risks or provide appropriate protective equipment. In forming his opinions, he relied on Ms. Dowdy's employment history, his training and experience as an industrial hygienist and environmental health professional, and peer-reviewed scientific literature.

Ms. Dowdy reported that she worked primarily inside the tower facility at the Tennessee Yard for her first 12 years with BNSF. She mostly performed administrative work, but she was also frequently required to do cleaning tasks throughout the building. Later in her career, she also worked as a janitor or porter in the tower facility for two years.

While working inside the tower facility, Ms. Dowdy reported that she could always smell fumes from the diesel engines outside the building. The tower facility was less than twenty feet from the hump lead line.<sup>2</sup> Trains frequently idled or moved slowly along this track. According to Ms. Dowdy, on average two engines passed the tower facility at slow speeds at least ten times per day. And trains often just idled directly outside the tower facility for extended periods.

Ms. Dowdy also spent 18 months as a porter in the diesel repair shop. At this location, she reported being in close proximity to multiple diesel engines on a daily basis.

During her last few years with BNSF, Ms. Dowdy transported train crew members. As part of her job, she was required to wait in her vehicle about six feet from an idling train until the crew was ready to leave. At times, Ms. Dowdy reported waiting up to 45 minutes.

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<sup>1</sup> Ms. Dowdy's action initially included other claims, which she later withdrew.

<sup>2</sup> A hump yard is a classification yard where railcars are taken to an artificially built hill called a hump from where they are driven to classification tracks by the force of gravity.

Dr. Perez explained that occupational exposure levels to diesel exhaust had been documented in published literature. Using the framework from one study, Dr. Perez estimated Ms. Dowdy's levels of exposure to diesel exhaust during her railroad employment. In his opinion, Ms. Dowdy's average diesel exhaust exposure levels while working as a clerk in the tower facility were in the upper quartile of the low range, with frequent excursions into the intermediate range. During her time as a porter in that same location, her average exposure was in the upper half of the low range, with occasional excursions into intermediate. Her highest levels of exposure were during her time as a porter in the diesel repair shop. During that period, her exposure was consistent with the intermediate range, with intermittent excursions into the high range. When she was a crew hauler, her average exposure remained in the low range.

With respect to asbestos exposure, Dr. Perez pointed to a 1991 citation issued to BNSF by the Occupational Safety and Health Administration (OSHA) as evidence of the presence of asbestos. According to the citation, OSHA found debris containing asbestos in the air conditioning closet in the basement of the tower facility. An outside consultant retained to investigate the issue informed BNSF that the thermal pipe insulation in the closet was in poor condition and presented a potential health risk to employees. Ms. Dowdy reported that when she was working in the tower facility, she was frequently required to clean the basement area. Dr. Perez determined that when Ms. Dowdy was engaged in aerosol generating tasks in the basement area, such as sweeping, she had "significant asbestos exposure."

Dr. Chiodo opined to a reasonable degree of medical and scientific certainty that the exposures to diesel exhaust and asbestos experienced by Ms. Dowdy were a significant contributing factor to her development of renal cancer. He cited peer-reviewed literature to support his opinion that both diesel exhaust and asbestos were known to cause renal cancer. And he explained that he performed a differential diagnosis to determine the likely causes of Ms. Dowdy's renal cancer, which included her occupational exposure.

After deposing both experts, BNSF moved to exclude their testimony as unreliable. *See* TENN. R. EVID. 702 & 703. BNSF also filed a motion for summary judgment. It argued, and Ms. Dowdy conceded, that if the court excluded the testimony of either expert, Ms. Dowdy could not establish her prima facie case under FELA. The trial court granted all three of BNSF's motions and entered judgment in its favor.

## II.

### A.

Under FELA, railroads are "liable in damages to employees who suffer work-related injuries caused 'in whole or in part' by the railroad's negligence." *Norfolk & W. Ry. Co. v. Ayers*, 538 U.S. 135, 140 (2003) (quoting 45 U.S.C. § 51). To establish her FELA claim,

Ms. Dowdy must prove the elements of common law negligence: “duty, breach, foreseeability, and causation.” *Adams v. CSX Transp., Inc.*, 899 F.2d 536, 539 (6th Cir. 1990) (quoting *Robert v. Consol. Rail Corp.*, 832 F.2d 3, 6 (1st Cir. 1987)). But unlike traditional negligence claims, “a relaxed standard of causation applies under FELA.” *Consol. Rail Corp. v. Gottshall*, 512 U.S. 532, 543 (1994). The railroad’s negligence need not be the sole cause of the plaintiff’s injury. *Rogers v. Mo. Pac. R.R. Co.*, 352 U.S. 500, 506 (1957). A FELA plaintiff is entitled to recover damages if the railroad’s negligence “played any part, even the slightest,” in causing the injury. *Id.*

In a toxic tort case such as this one, a plaintiff must show both general and specific causation. See *Pluck v. B.P. Oil Pipeline Co.*, 640 F.3d 671, 676-77 (6th Cir. 2011). In other words, there must be “proof that the toxic substance is capable of causing,” and “was a cause of the plaintiff’s injury.” *Id.*; *Byrd v. Union Pac. R.R. Co.*, 453 F. Supp. 3d 1260, 1267 (D. Neb. 2020); see also *Norris v. Baxter Healthcare Corp.*, 397 F.3d 878, 881 (10th Cir. 2005) (“[W]ithout general causation, there can be no specific causation.”).

Ms. Dowdy filed this action in state court. See 45 U.S.C. § 56. FELA claims brought in state courts “are subject to state procedural rules.” *St. Louis Sw. Ry. Co. v. Dickerson*, 470 U.S. 409, 411 (1985). Summary judgment is appropriate here if “the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” TENN. R. CIV. P. 56.04.

The parties agree that Ms. Dowdy cannot establish her FELA claim without the testimony of both Dr. Perez and Dr. Chiodo. Thus, summary judgment is appropriate if the testimony of either expert is excluded. See *Rye v. Women’s Care Ctr. of Memphis, M PLLC*, 477 S.W.3d 235, 264 (Tenn. 2015). So the dispositive issue on appeal is whether the trial court abused its discretion when it excluded Ms. Dowdy’s experts.<sup>3</sup>

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<sup>3</sup> Ms. Dowdy also complains that the trial court’s counsel-prepared written order contains additional findings not reflected in its oral ruling. See *Smith v. UHS of Lakeside, Inc.*, 439 S.W.3d 303, 316 (Tenn. 2014). A trial court may use counsel-prepared orders as long as two conditions are satisfied: “the findings and conclusions . . . accurately reflect the [court’s] decision” and the record does not “create doubt that the decision represents the trial court’s own deliberations and decision.” *Id.*

We find no fault in the trial court’s adoption of the prevailing party’s proposed order. The written order accurately reflects the court’s bench ruling. And the oral ruling was expressly incorporated in the written order. To the extent that the written order contains findings not explicitly made by the court at the conclusion of the hearing, the findings do not contradict the court’s statements from the bench. And we find no indication in this record that the trial court failed to exercise its own independent and deliberate decision making.

## B.

We review decisions to admit or exclude expert testimony for an abuse of discretion. *McDaniel v. CSX Transp., Inc.*, 955 S.W.2d 257, 263 (Tenn. 1997). “A trial court abuses its discretion when it applies incorrect legal standards, reaches an illogical conclusion, bases its decision on a clearly erroneous assessment of the evidence, or employs reasoning that causes an injustice to the complaining party.” *State v. Scott*, 275 S.W.3d 395, 404-05 (Tenn. 2009).

In general, “state rules of evidence govern the admissibility of expert [testimony] in a FELA action brought in state court.” *Pomeroy v. Ill. Cent. R.R. Co.*, No. W2004-01238-COA-R3-CV, 2005 WL 1217590, at \*12 (Tenn. Ct. App. May 19, 2005); see *Payne v. CSX Transp., Inc.*, 467 S.W.3d 413, 453-58 (Tenn. 2015) (applying Tennessee Rules of Evidence 702 and 703 in FELA action); *McDaniel*, 955 S.W.2d at 264-66 (same). So the requirements of Tennessee Rules of Evidence 702 and 703 dictate the outcome here. See *McDaniel*, 955 S.W.2d at 264.

The trial court essentially functions as a “gatekeeper” when ruling on the admissibility of expert testimony. *Payne*, 467 S.W.3d at 454. First, the court must decide whether the expert “is qualified by knowledge, skill, experience, training, or education” to give an informed opinion on the issue at hand. *State v. Stevens*, 78 S.W.3d 817, 834 (Tenn. 2002); TENN. R. EVID. 702. Next, the court must ensure that the basis of the expert’s opinion “adequately supports that expert’s conclusions.” *Stevens*, 78 S.W.3d at 834; TENN. R. EVID. 703.

It is undisputed that Dr. Perez and Dr. Chiodo are well-educated, credentialed, and have relevant experience in their respective fields. So the admissibility of their testimony turns on the basis for the experts’ opinions.

Tennessee Rules of Evidence 702 and 703 require trial courts to determine “the scientific validity or reliability of the evidence.” *McDaniel*, 955 S.W.2d at 265. So our courts must “analyze the science.” *Id.* Expert testimony should be based on “relevant scientific methods, processes, and data, and not upon [the] expert’s mere speculation.” *Id.* The court should consider “how and why the expert was able to extrapolate from certain data to the conclusion . . . reached.” *Scott*, 275 S.W.3d at 402. The court may exclude expert testimony if there is “too great an analytical gap between the data and the opinion proffered.” *Stevens*, 78 S.W.3d at 834 (quoting *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)).

### 1. Dr. Perez

The trial court excluded Dr. Perez’s testimony because it determined that his opinions were not adequately supported by relevant scientific data or peer-reviewed

literature. Ms. Dowdy argues that any problems with Dr. Perez's opinions can be explored during cross-examination. She contends that he used a reliable scientific methodology based on established and peer-reviewed data to reach his ultimate conclusions.

Dr. Perez conducted a retrospective exposure assessment to quantify Ms. Dowdy's occupational exposure levels to diesel exhaust. Dr. Perez explained that a retrospective exposure assessment is the standard method for determining exposure levels when objective exposure measurement data is limited or unavailable. He analyzed Ms. Dowdy's exposure levels based on her reported job task history and work conditions after considering the determinants of exposure.

In conducting his assessment, Dr. Perez used the framework published in "the Pronk study."<sup>4</sup> See Pronk A., et al., *Occupational Exposure to Diesel Engine Exhaust: A Literature Review*, 19 J. EXPOSURE SCI. & ENV'T EPIDEMIOLOGY 443 (2009). The authors of the Pronk study reviewed almost 300 published papers and reports on occupational exposure to diesel exhaust to provide "an overview of personal exposure levels to [diesel exhaust] and determinants of exposure." *Id.* at 444, 454. They grouped reported occupational exposure levels into low, intermediate, and high ranges. And they determined that "enclosure of the work site and the type of diesel equipment used are the most important determinants affecting occupational . . . exposure" levels. *Id.* at 454. According to the Pronk study, the highest exposure levels were reported for workers in enclosed underground work sites in which heavy diesel equipment was used. *Id.* The lowest exposure levels were reported for workers in outside work environments and enclosed areas separated from the diesel source. *Id.* at 455. Intermediate levels were reported for workers in semi-enclosed areas in which smaller equipment was used. *Id.* Ventilation was an important determinant of exposure levels in semi-enclosed settings. *Id.*

Like the authors of the Pronk study, Dr. Perez categorized Ms. Dowdy's occupational exposure levels as within the low, intermediate or high range. But his estimates of Ms. Dowdy's average exposure levels were not based on the data or findings reported in the Pronk study. Nor did he conduct his own testing. He never visited the Tennessee Yard. And he was not aware of any measurement data from the Tennessee Yard that supported his calculations. He disregarded contradictory data provided by BNSF because he believed that the data did not "reflect[] a situation that was similar to the one that [wa]s described by Ms. Dowdy." Yet he could not identify any other data from an office setting that supported his estimate of Ms. Dowdy's average exposure levels as a clerk in the tower facility.

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<sup>4</sup> Ms. Dowdy maintains that Dr. Perez only used the numerical ranges described in the Pronk study. So the trial court should have ignored the study's underlying data and conclusions. But we cannot fault the trial court for considering the substance of the Pronk study.

Dr. Perez did consider measurement data from other locomotive shops in estimating Ms. Dowdy's average exposure levels as a porter in the diesel shop. But he admitted that he was unaware of the conditions in the other shops. He did not know their size or ventilation methods. So he could not say whether the conditions were similar to the conditions Ms. Dowdy experienced at the Tennessee Yard.

Unlike his diesel exhaust exposure estimates, Dr. Perez did not quantify Ms. Dowdy's asbestos exposure. He could not say that her exposure ever exceeded OSHA's long-term permissible exposure limit. Still, he described her asbestos exposure as "significant." In his opinion, if Ms. Dowdy ever swept the basement in the tower facility for more than 15 minutes, she was exposed to elevated levels of asbestos fibers above OSHA's short-term exposure limit. Notably, he did not know how often Ms. Dowdy cleaned the basement or how much time she spent sweeping in that area. Nor was he familiar with the physical characteristics of the basement area. So he could not say whether she worked in close proximity to the delaminating thermal pipe insulation. He recognized that actual testing in the basement area showed that airborne asbestos fibers did not exceed permissible levels. But he rejected that data because the testing was performed in a settled environment.

We conclude that the trial court did not abuse its discretion in excluding Dr. Perez's testimony. Ms. Dowdy claims that Dr. Perez used established peer-reviewed data for workers in similar work conditions to assess Ms. Dowdy's exposure levels. But we find no proof of that in this record. Dr. Perez could not point to any scientific literature that supported his opinions. And he could not say that the data he relied on from other locomotive shops reflected conditions similar to the conditions Ms. Dowdy experienced. He also admitted that Ms. Dowdy's asbestos exposure did not exceed long-term permissible limits. And his conclusion that her asbestos exposure exceeded OSHA's short-term limit appears to be no more than speculation. "Just because an expert is speaking does not make what he or she is saying sufficiently reliable to be admitted into evidence as expert testimony." *Scott*, 275 S.W.3d at 402.

## 2. Dr. Chiodo

The trial court excluded Dr. Chiodo's testimony as speculative and unreliable. It did not fault the expert's methodology. But the court found that the scientific literature Dr. Chiodo cited did not adequately support his conclusion that exposure to diesel exhaust and/or asbestos was capable of causing renal cancer.

Dr. Chiodo freely admitted that his opinion on general causation was based solely on his own knowledge. But he cited peer-reviewed literature that he believed corroborated his conclusion.

As the trial court recognized, the study Dr. Chiodo cited to support his opinion on diesel exhaust, the Peters diesel exhaust study, did not find a causal link between occupational exposure to diesel exhaust and renal cancer. See Peters C., et al., *Occupational Exposure to Diesel and Gasoline Exhausts and the Risk of Kidney Cancer in Canadian Men*, 62 ANNALS OF WORK EXPOSURE & HEALTH 978 (2018). The authors of the study concluded that “[d]iesel exhaust exposure alone does not appear to increase the likelihood of kidney cancer.” *Id.* at 987. Occupational exposure to diesel exhaust “may [] be related to a higher risk of kidney cancer, but likely only in combination with gasoline exhaust exposure.” *Id.*

Dr. Chiodo insisted that the odds ratios reported in the Peters study corroborated his opinion. He emphasized that the study found that men with probable exposure to diesel exhaust were more likely to be diagnosed with renal cancer than those who had never been exposed. Dr. Chiodo acknowledged that this finding was statistically insignificant.<sup>5</sup> But he maintained that it supported his opinion “at the more likely than not level.”

It was not an abuse of discretion to exclude Dr. Chiodo’s opinions on diesel exhaust. He could only point to a statistically insignificant finding to support his conclusion that diesel exhaust exposure could cause renal cancer. See *Joiner*, 522 U.S. at 144 (agreeing that a statistically insignificant study did not provide adequate support for the expert’s opinion).

Dr. Chiodo cited two studies he believed corroborated his opinions on asbestos. The Peters study on asbestos exposure only found an association between asbestos exposure and kidney cancer. See Peters, C., et al., *Workplace Exposure to Asbestos and the Risk of Kidney Cancer in Canadian Men*, 109 CAN. J. PUB. HEALTH 465, 471 (2018). Dr. Chiodo conceded that association did not equate to causation. Still, he believed the odds ratios reported in the study supported a causal connection. Once again, Dr. Chiodo relied on ratios that lacked statistical significance. So we cannot fault the trial court’s finding that this study did not adequately support Dr. Chiodo’s causation opinion.

Dr. Chiodo cited a second article, the Smith article, in support of his asbestos opinions. See Smith, A., et al., *Asbestos and Kidney Cancer: The Evidence Supports a Causal Association*, 16(2) AM. J. INDUS. MED. 159 (1989). An abstract of the article was included in Dr. Chiodo’s expert report. It appears from that abstract that the authors of the Smith article reviewed the “evidence to date” and found three human studies “with sufficient statistical power to detect an excess mortality from kidney cancer among workers

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<sup>5</sup> The authors of the Peters study estimated the odds ratios using a 95% confidence interval. When the relative odds ratios are considered in light of the confidence interval, the numbers are not statistically significant. See *Turpin v. Merrell Dow Pharm., Inc.*, 959 F.2d 1349, 1353 n.1 (6th Cir. 1992) (discussing the use of confidence intervals).

exposed to asbestos.” The authors concluded that asbestos “should be regarded as a probable cause of human kidney cancer.” Despite this strong language, the Smith article garnered scant attention from Ms. Dowdy in her appellate briefs. Yet, at oral argument, her counsel maintained that we should reverse the trial court’s ruling because the Smith article fully supported Dr. Chiodo’s opinion that occupational exposure to asbestos could cause kidney cancer.

The trial court’s final order noted Dr. Chiodo’s reliance on the Smith article. But the court apparently found that it did not adequately support the expert’s ultimate conclusion. The summary information provided in the abstract of an article necessarily “fail[s] to include details regarding the methodology and conclusions of the summarized study” relevant to the reliability inquiry. *Amorgianos v. Nat’l R.R. Passenger Corp.*, 137 F.Supp.2d 147, 189 (E.D.N.Y. 2001). Given that the court could not be assured that the Smith article was reliable, we cannot say that the court’s decision to exclude Dr. Chiodo’s opinions on asbestos was an abuse of discretion. *See Joiner*, 522 U.S. 136, 146-47 (explaining that “it was within the [trial] [c]ourt’s discretion to conclude that the studies upon which the experts relied were not sufficient, whether individually or in combination, to support their conclusions”).

### III.

We affirm the decision of the trial court. It was not an abuse of discretion to exclude both experts. Without this expert testimony, Ms. Dowdy could not establish her FELA claim. So BNSF was entitled to summary judgment as a matter of law.

s/ W. Neal McBrayer  
W. NEAL MCBRAYER, JUDGE