

**IN THE UNITED STATES COURT OF APPEALS  
FOR THE FIFTH CIRCUIT**

United States Court of Appeals  
Fifth Circuit

**FILED**

February 4, 2011

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No. 09-41190  
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Lyle W. Cayce  
Clerk

KELLY CLARK; RICHARD WAYNE CLARK, Temporary Administrator of  
the Estate of Aubrey Eugene Clark,

Plaintiffs - Appellees

v.

KELLOGG BROWN & ROOT L.L.C.,

Defendant - Appellant

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Appeal from the United States District Court  
for the Eastern District of Texas  
USDC No. 2:07-CV-191  
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Before JONES, Chief Judge, and REAVLEY and HAYNES, Circuit Judges.  
HAYNES, Circuit Judge:\*

Kellogg Brown & Root, L.L.C., (“KBR”) appeals from the judgment entered against it following a bench trial on Aubrey Clark’s Jones Act, maintenance and cure, and unseaworthiness claims against his former employer. The district court held KBR liable on the Jones Act personal injury theory alone, finding that Clark was exposed to benzene while working for KBR and that this exposure “caused” Clark’s acute myelogenous leukemia (“AML”) under that statute. KBR

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\* Pursuant to 5TH CIR. R. 47.5, the court has determined that this opinion should not be published and is not precedent except under the limited circumstances set forth in 5TH CIR. R. 47.5.4.

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argues on appeal that the district court applied the wrong standard for causation and that the district court clearly erred in finding that the benzene to which Clark was exposed while working for KBR caused his AML.

We find no abuse of discretion in the district court's challenged evidentiary rulings, no clear error in its findings of fact, and no reversible error in its conclusions of law. We therefore AFFIRM.

### I. Facts & Procedural History

Aubrey Clark worked for Brown & Root Marine Operators ("Brown & Root"), a predecessor of KBR, from 1972 to 1986 as a helper, rigger, and leadman aboard various barges owned by Brown & Root. The parties agree that Clark was a "seaman" under the Jones Act, 46 U.S.C. § 30104. The district court found that, while working for Brown & Root, Clark was exposed to benzene. Specifically, the district court found that

[d]uring the course and scope of his employment with Brown & Root . . . , Mr. Clark was exposed to benzene provided to him for use in his employment. He used benzene as a solvent to clean his tools, his hands, and his equipment. The benzene was contained in a drum stored . . . on the barge. . . . Mr. Clark used benzene, on average, about every other day; however, the number of times he used it varied from day to day and from week to week. He would use benzene anywhere from fifteen minutes to a couple of hours. Mr. Clark was close enough to the benzene to feel light-headed sometimes. He stopped using benzene in the late 1970s.

(record citations omitted).

On April 10, 2006, Clark was diagnosed with AML. On May 16, 2007, Clark filed suit in admiralty in the United States District Court for the Eastern District of Texas. Clark alleged that his benzene exposure while working for Brown & Root had caused his AML, and that KBR was liable to him for personal injury under the Jones Act as well as under admiralty theories of maintenance and cure and unseaworthiness.

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The district court held a three-day bench trial and entered findings of fact and conclusions of law finding KBR liable to Clark under the Jones Act but rejecting all other grounds of liability. Clark died shortly after trial. The district court entered a final judgment on April 29, 2009, and, pursuant to timely motions to alter or amend the judgment, an amended final judgment on October 22, 2009. The amended final judgment awarded relief to Richard Clark, administrator of Clark's estate, (the "Clark Estate") and against KBR.

KBR timely appealed, asserting that the district court applied the wrong standard of proof and made factual, legal, and evidentiary errors with respect to the question of whether benzene exposure caused Clark's AML.

## II. Standard of Review

"Our standard of review for bench trials is well established: findings of fact are reviewed for clear error; legal issues, *de novo*." *Seal v. Knorpp*, 957 F.2d 1230, 1234 (5th Cir. 1992). The "clear error" standard, codified in Federal Rule of Civil Procedure 52(a), requires us to defer to the district court's findings of fact except where, after reviewing the entire record, we are "left with the definite and firm conviction that a mistake has been committed." *Justiss Oil Co. v. Kerr-McGee Ref. Corp.*, 75 F.3d 1057, 1062 (5th Cir. 1996) (citing *United States v. U.S. Gypsum Co.*, 333 U.S. 364, 395 (1948)). This standard is highly deferential to the right of the district court to determine facts in that the

standard plainly does not entitle a reviewing court to reverse the finding of the trier of fact simply because it is convinced that it would have decided the case differently. . . . If the district court's account of the evidence is plausible in light of the record viewed in its entirety, the court of appeals may not reverse it even though convinced that had it been sitting as the trier of fact, it would have weighed the evidence differently. Where there are two permissible views of the evidence, the factfinder's choice between them cannot be clearly erroneous.

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*Anderson v. City of Bessemer City*, 470 U.S. 564, 573–74 (1985). These standards apply identically in admiralty cases. *Tittle v. Aldacosta*, 544 F.2d 752, 753 (5th Cir. 1977).

We review the district court’s decision to admit expert testimony for an abuse of discretion. *See, e.g., United States v. Hicks*, 389 F.3d 514, 524 (5th Cir. 2004); *see also Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 141–42 (1997). The scope of this discretion is unquestionably “wide,” *see, e.g., Watkins v. Telsmith, Inc.*, 121 F.3d 984, 988 (5th Cir. 1997), and “applies as much to the trial court’s decisions about how to determine reliability as to its ultimate conclusion,” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999).

### III. Analysis

KBR focuses its appeal on three asserted errors. First, KBR argues that the district court improperly applied the “featherweight” causation standard to Clark’s Jones Act claim rather than a “proximate” causation standard. Second, KBR argues that the district court’s finding of fact that benzene was a specific cause of Clark’s AML was clearly erroneous. This argument is closely related to KBR’s third contention: that the court abused its discretion in allowing Clark’s expert causation witnesses to testify. We address these arguments in turn, treating the asserted specific causation errors together.<sup>1</sup>

#### A. Standard for Causation

The standard of proof for causation in Jones Act cases has been recited many times in this circuit’s precedent. Our most definitive statement of the law is found in *Gautreaux v. Scurlock Marine*, where the en banc court articulated the standard as follows:

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<sup>1</sup> In its brief, KBR asserted a fourth error—that the district court erred in concluding that it was liable to the Clark Estate under the Jones Act—but makes no arguments in support of this contention other than the three asserted underlying errors described in this paragraph. We therefore need not and do not address this argument separately.

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A seaman is entitled to recovery under the Jones Act . . . if his employer's negligence is the cause, in whole or in part, of his injury. In their earlier articulations of [this standard of] liability, courts had replaced the phrase "in whole or in part" with the adjective "slightest." In *Rogers v. Missouri Pacific R. Co.*, 352 U.S. 500, 506 (1957), the Supreme Court used the term "slightest" to describe the reduced standard of causation between the employer's negligence and the employee's injury in [Federal Employers' Liability Act ("FELA")] cases. In *Ferguson v. Moore-McCormack Lines, Inc.*, 352 U.S. 521, 523 (1957), the Court applied the same standard to a Jones Act case, writing, "Under this statute the test of a jury case is simply whether the proofs justify with reason the conclusion that employer negligence played any part, even the slightest, in producing the injury or death for which damages are sought." (quoting *Rogers*, 352 U.S. at 506).

107 F.3d 331, 335 (5th Cir. 1997) (en banc). We have explained that the standard is one of "producing cause" rather than "proximate cause" and that the burden of proof is "featherweight." *Chisholm v. Sabine Towing & Transp. Co.*, 679 F.2d 60, 62 (5th Cir. 1982). Thus, two concepts come into play here – the type of causation that must be shown (producing) and the plaintiff's burden to show that cause (featherweight).

KBR argues that the court's precedents reflect a misapprehension of the statute and contends that Justice Souter's concurring opinion in *Norfolk Southern Railway v. Sorrell* rejects the producing cause standard in favor of the usual proximate cause requirement. See 549 U.S. 158, 173 & n.\* (2007) (Souter, J., concurring). The concurrence, while suggestive of the direction that the Court might head in the future, is not the law we must follow; the opinion of the Court in *Sorrell* declined to reach the standard-of-causation issue, see *id.* at 163–65 (noting that the Court had not granted certiorari on the question of the standard for causation), 171–72 ("The question presented in this case is a narrow one, and we see no need to do more than answer that question in today's

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decision.”),<sup>2</sup> and we are bound to follow our circuit’s clear precedent on this question absent a contrary holding from the Supreme Court or this court sitting en banc.<sup>3</sup>

We are therefore obliged to hold that the district court committed no error of law in identifying the standard and burden of proof of causation applicable to this case.<sup>4</sup>

#### B. Proof of Specific Causation

KBR next contends that the district court erred in finding that Clark had proved specific causation in this case, that is, that Clark’s benzene exposure while working at KBR caused his AML.<sup>5</sup> It also argues the district court abused

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<sup>2</sup> Similarly, our decision in *Johnson v. Cenac Towing Inc.*, 544 F.3d 296, 302 n.4 (5th Cir. 2008), does no more than note the content of Justice Souter’s concurrence; it does not adopt it or change the circuit’s law, nor, under the rule of orderliness, could it.

<sup>3</sup> After oral argument, KBR filed a letter pursuant to Federal Rule of Appellate Procedure 28(j) alerting us to the Supreme Court’s recent grant of certiorari in *McBride v. CSX Transportation, Inc.*, 598 F.3d 388 (7th Cir. 2010), *cert. granted*, No. 10-235 (U.S. Nov. 29, 2010). The Court’s statement of the question presented directly addresses the issue left open in *Sorrell*: “Whether [FELA] requires proof of proximate causation.” As discussed above, the standard of proof under the Jones Act is the same as the standard under FELA. *See Ferguson*, 352 U.S. at 523. Nevertheless, “[a]bsent an intervening Supreme Court case overruling prior precedent, we remain bound to follow our precedent even when the Supreme Court grants certiorari on an issue.” *United States v. Lopez-Velasquez*, 526 F.3d 804, 808 n.1 (5th Cir. 2008). We therefore continue to apply *Gautreaux* and *Chisholm* to the present case.

<sup>4</sup> We thus disagree with KBR’s assertion that the district court’s finding of “no proximate cause” requires reversal in view of our discussion of the causation standard for Jones Act negligence cases.

<sup>5</sup> “General causation is whether a substance is capable of causing a particular injury or condition in the general population, while specific causation is whether a substance caused a particular individual’s injury.” *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 351 (5th Cir. 2007) (quoting *Merrell Dow Pharms. v. Havner*, 953 S.W.2d 706, 714 (Tex. 1997) (Owen, J.)). KBR does not appeal the district court’s finding of general causation. In this respect, this case differs markedly from the recent case of *LeBlanc v. Chevron USA, Inc.*, No. 09-31149, 2010 U.S. App. LEXIS 19778 (5th Cir. Sept. 23, 2010) (unpublished), where the expert evidence did not support a conclusion that benzene was the general cause of the different disease there at issue.

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its discretion in considering the testimony of Clark's expert causation witnesses, which provided the evidentiary support for the district court's conclusion.

These two arguments are, taken together, an attack on Clark's chain of proof of his exposure to benzene. It is perhaps simplest to identify KBR's points of contention by first following the district court's logic in concluding that Clark had adequately proved specific causation.

As an initial matter, the district court found as fact that Clark was exposed to benzene while working on KBR's barges. In so finding, the district court expressly credited the testimony of Clark himself and of Robert Biddle, a coworker of Clark's. Clark testified that he used benzene as a solvent to clean his tools, hands, and equipment, and Biddle corroborated that benzene was present on KBR's barges and was used regularly as a cleaning solvent. Biddle did not, however, testify that he ever observed Clark using benzene. Clark's doctor, Dr. Deborah Thomas, also testified that Clark told her that he had been exposed to benzene while giving his medical history and before he saw a lawyer. KBR put on contrary witnesses who testified that there was no benzene on the company's barges, but the district court concluded that Clark's three fact witnesses were more credible and expressly credited their testimony as true. To the extent that KBR attempts to challenge the district court's decision to credit Clark's, Biddle's, and Thomas's testimony, we reject that challenge; under the already deferential clear error standard, the district court's "[f]indings based on the credibility of witnesses demand even greater deference." *See Tokio Marine & Fire Ins. Co. v. FLORA M/V*, 235 F.3d 963, 970 (5th Cir. 2001). The district court's determination that Clark, Biddle, and Thomas testified truthfully is "plausible in light of the record viewed in its entirety" and surely a "permissible view of the evidence," and we therefore are obliged to treat it as conclusive. *See Anderson*, 470 U.S. at 573–74.

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Next, the district court looked to the parties' respective expert testimony interpreting the fact witnesses' statements concerning Clark's exposure to benzene. Clark presented four expert witnesses: John Martonik, an industrial hygienist; Peter Infante, D.D.S., D.P.H., an epidemiologist; Frank Gardner, M.D., a hematologist and oncologist; and Frank Parker, an industrial hygienist. Martonik died between discovery and trial and so did not personally testify, but his pre-trial work was considered as evidence. KBR also presented the testimony of Robert Schumacher, an industrial hygienist.

Martonik reviewed Clark's deposition testimony and spoke with him on one occasion, then prepared a report attempting to identify the frequency, extent, and duration of Clark's exposures to benzene. Martonik's report can be said to serve two related but distinct purposes: first, it summarized Clark's various exposures to benzene, and, second, it attempted to convert those exposures from Clark's descriptions into quantifiable parts-per-million ("ppm") exposure levels based on literature describing what exposure levels translate to particular reportable effects.<sup>6</sup> While disagreeing with the precise resulting calculations, KBR's expert, Schumacher, testified that Martonik's approach was an "acceptable" and "generally accepted" means of determining an exposure level from self-reported information.

Infante, Clark's witness, and Schumacher, KBR's witness, then attempted to extrapolate Clark's total benzene exposure level from Martonik's calculations. Each witness presented what the district court termed different "scenarios" for Clark's total exposure based on different assumptions and readings of the evidence regarding the frequency, duration, and strength of Clark's exposures to benzene. At the high end, Infante testified in his deposition that Clark's

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<sup>6</sup> For example, Martonik's report explained that "[t]he odor recognition threshold for benzene is 97 ppm"; therefore, it concluded that, whenever Clark was exposed to benzene that he could smell, he was exposed to no less a concentration than 97 ppm.

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benzene exposure range could be between 1436 and 1532 ppm-years, and, at the low end, Schumacher testified to a benzene exposure level of 230 ppm-years. At trial, Infante revised his estimate downward to between 350 and 500 ppm-years. All of these various numbers were based, at bottom, on Clark's testimony, which the district court credited fully, as bolstered by the testimony given by Biddle and Thomas. After trial, the district court accepted Infante's findings in part, apparently rejecting only the contention "that benzene was present in the workplace to the extent the plaintiffs' third party exposure witnesses suggested it was." The court expressly did accept Clark's *own* testimony about "the frequency and manner of" his exposure to benzene.

Next, Gardner testified that his review of Clark's testimony and the exposure data led him to conclude that Clark's exposure to benzene while working for KBR caused his AML. Gardner also relied on undisputed literature that benzene is a known general cause of AML. Clark's expert witnesses testified that the increase in relative risk of AML from benzene exposure was statistically significant at levels of exposure in the single digits of ppm-years; at the 230 ppm-years level calculated by KBR's expert, Schumacher, Infante testified that the relative risk of AML was *twenty-seven times higher* than in the unexposed population. KBR did not rebut this quantification of risk. Thus, even using the most conservative numbers supported by the factual evidence the district court credited, the exposure numbers at issue in this case are very high. The court accepted Clark's testimony that he used benzene every other day from somewhere between fifteen minutes and a few hours from 1972 until sometime the late 1970s. The court accepted Clark's testimony that he did not use protective equipment when working with benzene and occasionally felt light-headed from exposure. Taking that evidence together with the experts' testimony correlating symptoms with particular exposure levels and identifying the relatively low exposure levels known to be hazardous, the district court

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found that “it is more likely than not that Mr. Clark was exposed to benzene at hazardous levels.” That finding is eminently “plausible in light of the record viewed in its entirety,” and we therefore must uphold it. *See Anderson*, 470 U.S. at 573–74.

KBR’s contrary argument, citing to our decision in *Allen v. Pennsylvania Engineering Corp.*, 102 F.3d 194, 199 (5th Cir. 1996), is essentially that Gardner was required to quantify precisely the dosage of benzene that is hazardous and the dosage of benzene to which Clark was exposed before he could lawfully be permitted to testify, and similarly that the district court was required to make those same determinations before it could find specific causation. Because Gardner did not do so, KBR reasoned, admission of his testimony was an abuse of discretion and there was no evidence upon which the district court could permissibly rely in finding specific causation. Our precedent has no such requirement. In *Allen*, we stated the uncontroversial principle that “[s]cientific knowledge of the harmful level of exposure to a chemical, plus knowledge that the plaintiff was exposed to such quantities, are minimal facts necessary to sustain the plaintiffs’ burden in a toxic tort case.” *Id.* Here, Clark *did* meet this burden: Gardner and other witnesses testified to the toxic levels of benzene exposure, and both Gardner and the court had sufficient factual evidence to conclude that Clark was exposed to *some* level of benzene high enough to cause AML. While the district court did not credit that Clark was exposed to *as much* benzene as Infante concluded, even a much lower number, well supported by the evidence the district court did credit, was acknowledged by the experts to be sufficient to have caused Clark’s AML. Gardner’s methodology remained “reliable,” and his testimony remained useful to “assist the trier of fact to understand the evidence.” *See* FED. R. EVID. 702. Assisted by the testimony that Gardner gave, the district court could evaluate the exposure evidence and conclude, without committing clear error, that, even if he was exposed to

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somewhat less benzene than Infante originally suggested, Clark was exposed to a level of benzene known to the scientific community to substantially and significantly increase the risk of AML.

We find no abuse of discretion in the district court’s decision to admit Clark’s expert witnesses’ testimony—notwithstanding its refusal to wholly credit their assessment of the extent of Clark’s benzene exposure—and no clear error in the district court’s finding of specific causation.<sup>7</sup>

#### IV. Conclusion

For the foregoing reasons, the judgment of the district court is AFFIRMED.

EDITH H. JONES, Chief Judge, specially concurring:

Based on the facts as they were presented to the trial court and as represented in Judge Haynes’s careful opinion, I concur in the judgment. I emphasize, though, that the district court assessed liability only under the “featherweight” causation standard that this court uses in Jones Act cases and explicitly denied liability premised upon “proximate” causation.

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<sup>7</sup> As Justice Stevens emphasized in his partial dissent in *General Electric Co. v. Joiner*, 522 U.S. 136, 155 (1997), our conclusion that the district court did not abuse its discretion in admitting expert testimony should not be read as suggesting that the district court would have abused its discretion in excluding the same evidence.