United States Court of Appeals
Fifth Circuit
F I L E D
August 21, 2003
Charles R. Fulbruge III
Clerk

UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

02-30582

KEITH H. JONES,

Plaintiff-Appellant,

versus

FLOWSERVE FCD CORP.; FLOWSERVE FSD CORP.; FLOWSERVE, INC., formerly known as Duriron Company, Inc.; FLOWSERVE RED CORP.,

Defendants-Intervenor Defendants-Appellees,

versus

PPG INDUSTRIES, INC.,

Intervenor Plaintiff-Appellant.

Appeal from the United States District Court
for the Western District of Louisiana
(99-CV-1621)

Before WIENER and BARKSDALE, Circuit Judges, and FURGESON, District Judge[*].

PER CURIAM:[**]

Keith Jones and his employer, PPG Industries, Inc. (Plaintiffs), challenge the summary judgment awarded Defendants

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[*] District Judge of the Western District of Texas, sitting by designation.

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 R. 47.5, the court has determined that this opinion should not be published and is not precedent except under the limited circumstances set forth in 5TH CIR.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

(Duriron) against claims under the Louisiana Product Liability Act, LA. REV. STAT. § 9:2800.51, *et seq.* (LPLA). Primarily at issue is whether, for the failure-to-warn claim, PPG was a "sophisticated user". **AFFIRMED**.

I.

Jones worked in PPG's Lake Charles, Louisiana, chemical plant. In 1998, he opened a valve on a tank containing hot brine. Because of stress corrosion cracking (SCC), the bolting securing the top portion of the valve failed; Jones was sprayed with the brine and injured. The bolting was susceptible to SCC because it was stainless steel and the valve was used in a high-chloride environment.

The valve, the Durco T-41, had been manufactured between 1977 and 1983 by Duriron (now known as Flowserve). Duriron marketed and sold similar valves to industrial and chemical plants, including PPG. During this period, Duriron issued a catalog insert to its purchasers noting, *inter alia*, the stainless steel nature of the bolting. Concerning the valve at issue, PPG's Lake Charles plant specified it would accept any of three valve models, including the Durco T-41. The plant did not, however, specify the type bolting — stainless or carbon steel — to be used for those valves.

Stainless steel bolting was the industry standard before 1984. Prior to then, however, Duriron had made carbon steel bolting available to PPG as an option. (Carbon steel is not susceptible to

SCC; it is, however, susceptible to general corrosion.) In fact, since 1969, PPG had refused to use stainless steel bolting at its plant in Natrium, West Virginia; prior to 1984, that plant specified carbon steel bolting.

In 1984 (after the valve in question had been sold to PPG), the chemical process industry recognized the risk of SCC for stainless steel bolting in high-chloride environments and recommended that carbon steel be used instead. After the industry standard changed, Duriron began using carbon steel bolting in its standard Durco T-41 model. Duriron did not, however, notify PPG of this change.

Jones filed this action in Louisiana state court, claiming Duriron violated the LPLA through: (1) the valve's defective design; (2) its defective manufacture; and (3) Duriron's failure to warn PPG of the dangers of stainless steel bolting in a high-chloride environment. After Duriron removed this action to federal court, PPG intervened to recoup workers' compensation paid Jones.

Duriron moved: (1) to strike an affidavit in opposition to summary judgment by one of Plaintiffs' experts, Dr. Morse; and (2) for summary judgment. Pursuant to an extremely comprehensive opinion, both motions were granted.

II.

Plaintiffs challenge the summary judgment against their defective design and failure-to-warn claims. In conjunction with

the design claim, they contend the district court erred in striking Dr. Morse's affidavit; it was the primary basis for that claim.

A summary judgment is reviewed *de novo*, "employing the same analysis as the district court". ***Wyatt v. Hunt Plywood Co., Inc.***, 297 F.3d 405, 408 (5th Cir. 2002), *cert. denied*, 123 S. Ct. 1254 (2003). The judgment is proper only if there is no genuine issue of material fact and the movant is entitled to a judgment as a matter of law. FED. R. CIV. P. 56(c); *e.g.*, ***Celotex Corp. v. Catrett***, 477 U.S. 317, 322 (1986).

Under Louisiana law, the LPLA "establishes the exclusive theories of liability for manufacturers for damage caused by their products". LA. REV. STAT. § 9:2800.52. To be liable under the LPLA, a manufacturer must produce an item that is, *inter alia*, "unreasonably dangerous". LA. REV. STAT. § 9:2800.54(A). Along this line, a product may be unreasonably dangerous: (1) in construction or composition; (2) in design; (3) because of failure to warn about the product; or (4) because of non-conformity with a manufacturer's express warranty. LA. REV. STAT. § 9:2800.54(B). Again, Plaintiffs present design and failure-to-warn issues.

A.

Under the LPLA, a product is "unreasonably dangerous in design" if: (1) an alternative design existed; and (2) "[t]he likelihood that the product's design would cause the claimant's damage and the gravity of that damage outweighed the burden on the

manufacturer of adopting such alternative design and the adverse effect ... of such alternative design on the utility of the product". LA. REV. STAT. § 9:2800.56. A plaintiff has the burden of proof for these elements. LA. REV. STAT. § 9:2800.54(d). Regarding possible alternative designs for the valve, Plaintiffs contend the affidavits and deposition testimony of Drs. Morse, Shelton, and Slater provide sufficient evidence to withstand summary judgment.

In his affidavit in Plaintiffs' amended opposition to summary judgment, Dr. Morse maintained, *inter alia*, that the valve was "unreasonably dangerous and could and should have been changed under the circumstances that the valve was sold". The affidavit listed *four alternative designs*: (1) use of carbon, as opposed to stainless, steel bolting; (2) addition of Teflon coating to the bolting; (3) addition of a Teflon sleeve around the bolting; and (4) expansion of the crevice (where the chloride contacted the bolting) between valve pieces connected by the bolting, in order to alert maintenance workers to the possibility of SCC. (In district court, Plaintiffs referred to their "material choice" claim as one for a defect in construction or composition. *See* LA. REV. STAT. § 2800.55. Now they group this claim with their design claims, along the lines of Dr. Morse's affidavit.)

Plaintiffs also contend: (1) the deposition of Dr. Shelton (their other expert) raised a material fact issue for two of the

claimed design defects (stainless, instead of carbon, steel; and crevice size); and (2) the deposition of Dr. Slater (Defendants' expert) created a material fact issue concerning the crevice size.

1.

In striking Dr. Morse's affidavit, the district court ruled that "these alternative designs were not disclosed to the Defendants during discovery", insofar as neither Dr. Morse's report nor his deposition provided opinions on alternative designs. *See* FED. R. CIV. P. 26(a)(2)(B) (expert witnesses required to submit report containing a "complete statement of all opinions to be expressed and the ... reasons therefor....").

A district court's refusal to admit an affidavit is reviewed for abuse of discretion. *E.g.*, ***Valdez v. Cockrell***, 274 F.3d 941, 957-58 (5th Cir. 2001), *cert. denied*, 123 S. Ct. 106 (2002). In addition, an abuse of discretion is further reviewed under the harmless error doctrine: "[W]e will affirm the evidentiary rulings unless they affect a substantial right". ***United States v. Hefferon***, 314 F.3d 211, 222 (5th Cir. 2002).

Plaintiffs contend Dr. Morse's report and deposition disclosed the alternative designs about which he opined in his subsequent affidavit in opposition to summary judgment. In his report, Dr. Morse stated in pertinent part: "Duriron should have specified carbon steel bolts instead of stainless steel bolts, since the carbon steel bolts are not subject to SCC. [Carbon steel bolts] are

subject to general corrosion, but it is much easier to detect and easier to predict". He concluded: "It is my opinion that the valve was defective and unreasonably dangerous".

When deposed, Dr. Morse was questioned about this conclusion. He stated that the *only defect* he had been describing was the stainless steel bolting "[t]hat w[as] susceptible to [SCC] under the conditions ... that the valve was in". Immediately thereafter, he *agreed* that the type bolting — stainless steel — was the *only* design defect to which his report had referred.

Along this line, concerning the three earlier-described alternative designs in addition to using carbon steel, Plaintiffs contend: (1) Dr. Morse noted the fact of the crevice in his report and deposition; and (2) regarding the two Teflon alternatives, Dr. Morse's report put Defendants on notice that design defects were generally at issue. Neither contention satisfies Rule 26(a)(2)(B). In the light of Dr. Morse's above-described deposition testimony, the only design defect addressed in his report and deposition was the type bolting used in the valve.

Accordingly, the other three design defects described in Dr. Morse's affidavit (small crevice and lack of Teflon coat and sleeve) were not disclosed to Defendants as required. Therefore, the district court did not abuse its discretion by striking those three new alternative designs described in the affidavit.

Dr. Morse's affidavit contained the entirety of Plaintiffs' evidence regarding the Teflon design alternatives; therefore, summary judgment for Defendants on those two sub-claims was proper. As discussed *infra*: (1) the exclusion of the "material choice" portion of Dr. Morse's affidavit was harmless error; and (2) Plaintiffs offered other evidence in support of their crevice-size claim.

2.

Because Dr. Morse had earlier stated in his report and deposition that carbon steel bolting would have been a more suitable alternative design, the district court may have abused its discretion by striking that portion of his affidavit. However, as discussed *supra*, the abuse of discretion, if any, is subject to harmless error analysis. ***Hefferon***, 314 F.3d at 222.

As noted, for an LPLA design defect claim: (1) an alternative design must have existed; and (2) the likelihood and gravity of the product's design causing damage must have outweighed the burden of adopting the alternative design, including the adverse effect that design would have on the product's utility. LA. REV. STAT. § 9:2800.56. In this regard, a plaintiff must produce evidence regarding

> the frequency of accidents like his own, the economic costs entailed by those accidents, or the extent of the reduction in frequency of those accidents that would have followed on the use of his proposed alternative design ... the burden of switching to the alternative

> design ... [or] the loss of product utility that the use of the alternative design would have occasioned.

Lavespere v. Niagara Mach. & Tool Works, Inc., 910 F.2d 167, 183 (5th Cir. 1990), *abrogated on other grounds*, ***Little v. Liquid Air Corp.***, 37 F.3d 1069, 1075 n.14 (5th Cir. 1994).

Although Dr. Morse's affidavit might present a material fact issue on the existence of an alternative design capable of preventing the damage at issue (the first prong of LA. REV. STAT. § 9:2800.56), it does not provide any evidence for whether the potential for damage created by using stainless steel "outweighed" the attendant burden on Duriron and the adverse effect of the carbon steel on the valve's utility. *See* LA. REV. STAT. § 9:2800.56(2).

As stated earlier, Plaintiffs contend that the affidavit of their other expert, Dr. Shelton, created a material fact issue on Duriron's choice of stainless, over carbon, steel. Dr. Shelton's affidavit did not state, however, that Duriron should have used only carbon steel in its T-41 valves or that stainless steel bolting did not have unique benefits. Instead, he only stated: Duriron should have *warned* PPG not to use stainless steel bolting in valves placed in high-chloride environments; and Duriron should have "considered" SCC in its selection of stainless steel bolting.

In sum, Plaintiffs have produced no evidence that the putative benefits of Duriron's use of carbon steel bolting would have

outweighed the benefits of using stainless steel. This absence is especially noteworthy in the light of other parts of the summary judgment record. PPG Senior Design Engineer Alfred Spencer testified that, in non-chloride environments, he would choose stainless, instead of carbon, steel bolting. Presumably, this is because, as PPG Principal Project Engineer, Don Haines, wrote, the use of stainless steel "g[o]t around" the problem of carbon steel's vulnerability to general corrosion. Along this line, Dr. Slater (Defendants' expert) stated: "A valve manufacturer typically manufactures a valve for the broadest spectrum of use". This spectrum would include use in non-chloride environments. Finally, Plaintiffs do not dispute that stainless steel was the prevailing type bolting used by the industry pre-1984, when the valve at issue was manufactured and sold to PPG.

Therefore, Duriron was entitled to summary judgment on Plaintiffs' "material choice" design claim. Accordingly, the district court's refusal to admit that portion of Dr. Morse's affidavit opining that the valve's stainless steel bolting was an unreasonably dangerous design was harmless error.

3.

As noted, the stricken Dr. Morse affidavit recommended a larger crevice. Again, the crevice was the gap between the portions of the valve connected by the stainless steel bolting. As also noted, Plaintiffs contend that, regarding crevice size, Dr.

Shelton's deposition established a material fact issue to preclude summary judgment. The relevant colloquy was:

> Q. Did you find any general corrosion?
>
> A. There was plenty of general corrosion on the valve body.
>
> Q. On the bolts.
>
> A. Generally speaking, it looked more like it was crevice corrosion type of —
>
> Q. I'm not familiar with that term. Is crevice corrosion not general corrosion?
>
> A. No, it's not.
>
> Q. What is it?
>
> A. Crevice corrosion is an accelerated corrosion mechanism, in which you have a confined space in which the environment cannot be readily flushed or changed.
>
> For example, a gap between the shank of the bolt body and the valve flange, the hole in the back of the valve flange, would be a crevice. That is not an area that's readily accessible, readily changed in the environment that exists.

Unlike Dr. Morse's affidavit (stricken), Dr. Shelton did not recommend in his deposition that the crevice be expanded in order to allow Plaintiffs to more easily observe SCC. Nor did he even mention crevice size in his subsequent affidavit in Plaintiffs' amended opposition to summary judgment. Therefore, Dr. Shelton's testimony is insufficient to preclude summary judgment against the "crevice" portion of Plaintiffs' design claims.

Finally, with regard to crevice size, Plaintiffs contend that the deposition of Defendants' expert, Dr. Slater, precluded summary judgment. Dr. Slater testified that the ideal design for a valve would have *no* crevice (not a larger one) in order to prevent contact between the bolting and the brine. This testimony does not support Plaintiffs' design defect theory which criticized the *narrowness* of the crevice. Moreover, Plaintiffs' counsel prefaced the pertinent question by saying: "I don't think I'm asking [Dr. Slater] to talk about the design issue, I'm simply asking him the physical question of whether ...[,] if there wasn't a crevice[,] would there be a place for the material to stay in contact with the bolt". Dr. Slater's testimony does not create a material fact issue on this design claim.

B.

Plaintiffs' remaining claim is that Duriron failed to adequately warn PPG against using stainless steel bolting in high-chloride environments when it was reasonably foreseeable that PPG would so use the valves.

> A manufacturer of a product who, after the product has left his control, acquires knowledge of a characteristic of the product that may cause damage and the danger of such characteristic ... is liable for damage caused by his subsequent failure to use reasonable care to provide an adequate warning of such characteristic and its danger to users and handlers of the product.

LA. REV. STAT. § 9:2800.57(C).

A manufacturer, however, does not have a duty to warn if "[t]he user or handler of the product already knows or reasonably should be expected to know of the characteristic of the product that may cause damage and the danger of such characteristic". LA. REV. STAT. § 9:2800.57(B)(2). Such users are "sophisticated users" or "sophisticated intermediaries". *E.g.*, ***Swope v. Columbian Chems. Co.***, 281 F.3d 185, 205-06 (5th Cir. 2002). The summary judgment against the failure-to-warn claim was based on PPG's being such a user.

Plaintiffs maintain PPG was *not* a sophisticated user of stainless steel bolting in high-chloride environments. Essentially, they contend: PPG did *not* know of the danger of stainless steel bolting in such an environment; and, at the very least, Duriron should have warned of that danger in 1984, when it changed its standard Durco T-41 bolting from stainless to carbon steel. (Again, the valve at issue was manufactured and sold to PPG between 1977 and 1983; the injury was in 1998.)

Plaintiffs rely on ***Swope***, in which our court reversed a summary judgment awarded a generator manufacturer, rejecting a "sophisticated user" defense. 281 F.3d at 205-11. The manufacturer had claimed plaintiff, a carbon black manufacturer, was a sophisticated user of ozone generators. ***Id***. at 190. The generator manufacturer offered two contentions to support its "sophisticated user" defense: (1) because plaintiff had experience

with ozone generators, it should have known of their dangerousness; and (2) because plaintiff was experienced in using ozone to produce carbon black, it should have known of the dangerous characteristics of the ozone generator. ***Id***. at 208-09. Our court rejected the latter contention: "The argument begs the question because it bases a conclusion on an assumption that is as much in need of proof or demonstration as the conclusion itself". ***Id***. at 209 (internal quotation and alteration omitted). (Our court dismissed the former contention because, although a jury might infer knowledge from experience with the particular generator, it also might not. ***Id***. at 208.)

Had Duriron merely contended, similar to the contention in ***Swope***, that PPG was a sophisticated user of stainless steel bolting because it had extensively used it in its chemical processing, ***Swope*** would be apposite. Duriron offered significantly more, however, in support of its defense.

First, PPG's West Virginia plant had rejected stainless steel bolting (also from Duriron) for use in its high-chloride environment since 1969 and had specified carbon steel prior to 1984. Plaintiffs contend this differing behavior by two PPG plants shows PPG was *not* a sophisticated user. To the contrary, it demonstrates that PPG's Lake Charles plant knew, *or certainly should have known*, of such dangers in using stainless steel bolting when it purchased the valve from Duriron, and certainly before

Duriron changed the standard bolting on the Durco T-41. Although, in retrospect, PPG's Lake Charles plant may have erred, the fact that another PPG plant specified carbon steel shows that PPG qualified as a sophisticated user of valve bolting.

Second, PPG produced a Teflon coating "intended for use on austenitic stainless and carbon steel to provide protection against ... [SCC] ...." In short, PPG was aware of the danger posed by using non-coated stainless steel bolting in high-chloride environments.

Finally, Haines, PPG's employee, testified that PPG's Lake Charles plant had experienced SCC in stainless steel bolting only six months before Jones' incident. In that earlier incident, the valve involved was also made by Duriron and had been exposed to a higher level of chloride than the valve at issue here. The earlier incident should have put PPG's Lake Charles plant on notice of the danger of such use of stainless steel bolting (as discussed, that plant had known, *or should have known*, of the danger for many years).

Plaintiffs point to language in ***Swope*** that a user must have known of the danger at the time it purchased the product. First, that language (in a footnote) is *dicta*. *See* ***Swope***, 281 F.3d 209 n.81 ("We do *not* base our decision ... on this statutory nuance, however, because there is no evidence that [the user] ever acquired

actual or constructive knowledge of the dangerous characteristic prior to [the incident].” (emphasis added)).

Second, the language in ***Swope*** was an interpretation of § 9:2800.57(A), which mandates adequate warning for a dangerous item when it leaves the manufacturer’s control. Plaintiffs rely instead on § 9:2800.57(C), which requires a manufacturer that learns of the danger *after* the product leaves its control to warn users. The § 9:2800.57(B) “sophisticated user” defense is tied to the general requirement that the manufacturer provide an adequate warning. It stands to reason that, for the “sophisticated user” defense, the time of the user’s actual or constructive knowledge is tied to when the duty to warn falls upon the manufacturer. Therefore, at best, Plaintiffs might argue that the ***Swope*** *dicta* requires PPG to have had actual or constructive knowledge of the danger at the time Duriron changed its standard bolting in 1984. As discussed, PPG had such knowledge prior to then.

Finally, Jones contends: even if PPG was a sophisticated user, Duriron is not absolved from shouldering its proportionate share of liability. This contention has no basis in law, ***Davis v. Avondale Indus., Inc.***, 975 F.2d 169, 173 (5th Cir. 1992) (manufacturer has no duty to warn employee of user that has knowledge of danger); the “sophisticated user” defense, if applicable, protects manufacturers from claims made by the user’s employees.

III.

For the foregoing reasons, the judgment is

AFFIRMED.