

## No Alternative Design

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# An Often-Overlooked Defense to Product Liability Claims

Proving strict product liability requires more than simply demonstrating the use of a product and a subsequent injury resulting from its use. An often-overlooked element of product liability claims in most jurisdictions is proof of

a reasonable alternative design. The reasonable alternative design, also known as the “feasible alternative design,” is not a new concept to product liability law. However, a flurry of court opinions in the past year (some of which are discussed below) demonstrate its renewed vitality. Under the American Law Institute’s *Restatement Third of Torts*, to prove a defective design, plaintiffs are required to prove that the “foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design.” *Restatement (Third) of Torts: Products Liability*. This is essentially a simplified version of the risk-utility test. That is, “if a product’s foreseeable risks could have been avoided by adoption of a reasonable alternative design, then the product’s risks must have outweighed its utility.” Alex Purvis & Simon Bailey, *Alternative Approaches to Alternative Design: Understanding the Reasonable Alternative Design Requirement and Its Different*

*Applications*, 82 Def. Couns. J. 185, 187 (2015).

Ultimately, the reasonable alternative design requirement is meant to provide an objective standard by which to judge whether a product is defective. Therefore, a manufacturer’s product cannot be considered defective in design unless there existed—at the time of manufacture—a reasonable or feasible alternative. The practical significance of this element of proof featured prominently in recent cases such as *Hosford v. BRK Brands, Inc.*, No. 1140899, 2016 WL 4417256 (Ala. Aug. 19, 2016), in which the Alabama Supreme Court held that a product cannot be defective unless plaintiffs establish that a feasible alternative design existed that would have prevented the alleged injury. This decision reminds litigators of the importance of the reasonable alternative design standard and the need to understand its purpose, meaning, and how to challenge plaintiffs’ evidence on that front.



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## Growth of the Alternative Design Defense

The purpose of this article is to provide an overview of the legal landscape in which the rule operates and suggest ways in which practitioners can avail themselves of this defense. To get there, it is important first to understand the purpose behind an alternative design requirement. Initially, the ma-

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**States that require proof of a reasonable alternative design through judicial interpretation include**  
Alabama, Georgia, Idaho, Kentucky, Massachusetts, Michigan, Minnesota, New York, South Carolina, Washington, and West Virginia.

majority of states measured the existence of a design defect by applying the consumer-expectations test. Under this test, “a product is defective if it has failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner.” *Mullins v. Ethicon, Inc.*, 117 F. Supp. 3d 810 (S.D. W. Va. 2015). Notably, under this test, it is the expectation, and not the conduct of the manufacturer, that is the key inquiry. Dominick Vetri, *Order Out of Chaos: Products Liability Design-Defect Law*, 43 U. Rich. L. Rev. 1373, 1388 (2009). Despite its emphasis on the consumer, many problems developed from the lack of objective standards associated with the consumer-expectation test.

Frustrated by the shortcomings of the consumer-expectation test, courts began implementing the risk-utility test instead. The risk-utility test balances the danger of the product, as measured by the gravity and likelihood of harm caused by the

product, against the utility of the product. Andrew Meade, *A Reasonable Alternative to the Reasonable Alternative Design Requirement in Products Liability Law: A Look at Pennsylvania*, 62 *Hastings L.J.* 155, 161 (2010). This test evaluates a number of factors to determine whether a product is defective. Some of the most common factors are:

1. The usefulness and desirability of the product;
2. The safety of the product—the likelihood and probable seriousness of an injury;
3. The availability of a safer substitute product that would meet the same need;
4. The manufacturer’s ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive;
5. The user’s ability to avoid danger by the exercise of due care;
6. The user’s anticipated awareness of the dangers inherent in the product and their avoidability due to the obvious condition of the product or the existence of suitable warnings or instructions;
7. The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance.

John W. Wade, *On the Nature of Strict Tort Liability*, 44 *Miss. L.J.* 825, 837–38 (1973).

Although the risk-utility test was a step toward providing a more objective standard in design defect cases, courts varied in their application of this test. Courts differed on which factors to consider and the amount of weight to give each one. Therefore, by the mid-1990s, courts were applying a myriad of tests to determine whether a product was defective in design. Some courts were using the consumer-expectation test, some were applying the risk-utility test, and others were applying a hybrid of the two. It was this inconsistency that led to the *Third Restatement’s* attempt to streamline and codify decades of product liability law.

As demonstrated above, defining an objective standard by which to judge whether a product’s design is defective is not an easy task. This is especially true when the product performs as it was designed to function, but the user was injured nonetheless. It was this issue and

framework that the *Third Restatement’s* reasonable alternative design requirement was meant to address.

## A Majority of States Consider a Reasonable Alternative Design as Evidence of a Product Defect

Although the *Third Restatement* has not been uniformly adopted by the courts, the reasonable alternative design requirement plays a critical role in the current jurisprudence throughout the country. In fact, a close examination of the current law reveals that in nearly every jurisdiction reasonable alternative design has some role in design defect cases. Therefore, to litigate design defect claims effectively, it is important to understand the status of the reasonable alternative design requirement. While this section discusses jurisdictional approaches generally, it is beyond this article’s scope to address the precise rule in all jurisdictions.

Courts generally use three approaches to evaluate reasonable alternative design. First, there are jurisdictions that follow the *Third Restatement* and require proof of a reasonable alternative design as an element of a design defect claim, either by statute or by judicial interpretation.

Louisiana is an example of a state with a statute that requires proof of a reasonable alternative design. There, a product is “unreasonably dangerous if at the time the product left its manufacturer’s control there existed an alternative design for the product that was capable of preventing the claimant’s damage.” La. Rev. Stat. 9:2800.56 (a)(1). In *Reynolds v. Bordelon*, the Supreme Court of Louisiana illustrates this requirement. The plaintiff sustained serious injuries in an automobile accident, so he filed suit against Nissan, the manufacturer of the vehicle. 172 So. 3d 607, 610 (La. 2015). The plaintiff alleged a design defect claim but failed to offer any evidence of an alternative design. *Id.* at 614. Therefore, the court upheld summary judgment. In so doing, the court embraced the requirement of an alternative design as follows:

[T]he plaintiff was first required to show an alternative design for the supplemental restraint system existed at the time it left Nissan’s control. The plaintiff proposed no other design for the product, and, indeed, admitted that he did not

develop an alternative design. Without proving this required element, it is unnecessary to address the remaining elements of this theory insofar as the LPLA requires all elements to be proven. *Id.*

Accordingly, the court affirmed summary judgment after the plaintiff was unable to offer any proof of an alternative design. Thus, in jurisdictions such as Louisiana, where proof of an alternative design is required, a plaintiff's failure to proffer evidence of a reasonable alternative design is fatal to his or her claim. Other jurisdictions that adopt the reasonable alternative design element by statute include Mississippi, North Carolina, New Jersey, and Texas. Miss. Code. Ann. §11-1-63(f); N.C. Gen. Stat. Ann. §99B-6; N.J. Stat. Ann. §2A:58C-3; Tex. Civ. Prac. & Rem. Code Ann. §82.005.

States that require proof of a reasonable alternative design through judicial interpretation include Alabama, Georgia, Idaho, Kentucky, Massachusetts, Michigan, Minnesota, New York, South Carolina, Washington, and West Virginia. *Branham v. Ford Motor Co.*, 390 S.C. 203, 701 S.E.2d 5 (S.C. 2010), illustrates this approach. Branham filed suit against Ford after being injured in a car accident. The plaintiff alleged defective design related to the rollover propensity of a Ford Bronco. *Id.* at 10. The jury found for the plaintiff. *Id.* Ford appealed, arguing that the plaintiff failed to offer evidence of a feasible alternative design. *Id.* at 13. The Supreme Court of South Carolina found that "the exclusive test in a products liability design case is the risk-utility test with its requirement of showing a feasible alternative design." *Id.* at 14. The court reasoned that the risk-utility test asks whether the product could have been made safer, which ultimately requires proof of a reasonable alternative design. *Id.* at 16. Thus, to succeed, a plaintiff is "required to point to a design flaw in the product and show how his alternative design would have prevented the product from being unreasonably dangerous. This presentation of an alternative design must include consideration of the costs, safety and functionality associated with the alternative design." *Id.*

In addition, there are jurisdictions where reasonable alternative design is

one factor, but an important one, considered by the courts. These jurisdictions include, but are not limited to, Colorado, Illinois, New Hampshire, Nevada, and South Dakota. Generally in these jurisdictions, although reasonable alternative design is not a requirement, this factor carries greater weight, relative to other factors, and a failure to prove its existence can doom a plaintiff's design defect claim. This approach was illustrated by the Illinois Supreme Court in *Hansen v. Baxter Healthcare Corp.*, 198 Ill. 2d 420, 764 N.E.2d 35 (Ill. 2002). In *Hansen*, the plaintiff suffered an air embolism when her IV-tube detached from a catheter inserted into her jugular vein, which led to her eventual death. *Id.* at 37. The plaintiff pursuing the case alleged, among other things, that the connector was defectively designed. *Id.* at 45. In support of this contention, she offered expert testimony that an alternative design costing between three and five cents per unit would have prevented an unintentional disconnection of the device. *Id.* at 45. The court found this sufficient "to sustain a finding of unreasonable dangerousness under a risk-utility analysis." *Id.* The court explained, "a plaintiff may demonstrate that a product is unreasonably dangerous because of a design defect by presenting evidence of an alternative design that would have prevented the injury and was feasible in terms of cost, practicality and technological possibility." *Id.* This opinion shows that a plaintiff's presentation of a mechanical and feasible alternative design was critical in proving the existence of a defective design.

What is important to note regarding these approaches is that whenever a defendant litigates in a jurisdiction that uses the risk-utility test, a lack of evidence of a reasonable alternative design will be a significant factor, or sometimes even fatal, to a plaintiff's claim. *See, e.g., Winters v. Fru-Con Inc.*, 498 F.3d 734, 744 (7th Cir. 2007) ("Under the risk utility test,... a plaintiff may prove a design defect by presenting evidence of the availability and feasibility of alternate designs at the time of its manufacture, or that the design used did not conform with the design standards of the industry, design guidelines provided by an authoritative voluntary association, or design criteria set by legislation or gov-

ernmental regulation."). The logic is that the reasonable alternative design finds its roots in the risk-utility test and provides to a court a simple and objective standard for determining whether a design is defective. Therefore, without evidence of a reasonable alternative design, it is often difficult for courts to find that a product was defective in design.

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Although the reasonable alternative design requirement is associated with the risk-utility analysis, evidence of a reasonable alternative design is prominent even in some jurisdictions that apply the consumer-expectations test. These jurisdictions include, but are not limited to, Arkansas, Kansas, Indiana, and Utah. For instance, in *Pritchett v. Cottrell*, the court compared the importance of a reasonable alternative design under Kansas law, which uses the consumer-expectation test, and Missouri law, which inquires whether a product was "unreasonably dangerous." 512 F.3d 1057, 1063-64 (8th Cir. 2008). In *Pritchett*, the plaintiff was injured while operating a ratchet system used to tie down automobile-transport trailers. The plaintiff alleged a design defect, and the court found that there was sufficient evidence in the record to survive a motion for summary

judgment. *Id.* at 1066. The court explained that although neither test mandates evidence of a feasible alternative design, such evidence “will nevertheless aid in creating a question of fact concerning the existence of a design defect.” *Id.* at 1065 (citing *Jenkins v. Amchem Prod., Inc.*, 256 Kan. 602, 636, 886 P.2d 869, 889 (Kan. 1994); *McDowell v. Kawasaki Motors Corp. USA*,

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799 S.W.2d 854, 866 (Mo. Ct. App.1990) (“[d]esign defects of a simple nature have consistently been found to be submissible on the basis of an expert opinion that an alternative design was feasible.”)).

There are also jurisdictions that apply a two-prong test for design defect. Under this test, a plaintiff can establish a design defect through either the consumer-expectations test or the risk-utility test. These states include, but are not limited to, Alaska, Arizona, California, Connecticut, Florida, Hawaii, Ohio, Oregon, and Tennessee. Some jurisdictions limit the use of the consumer-expectation test to certain situations. *See, e.g., Soule v. Gen. Motors Corp.*, 8 Cal. 4th 548, 567, 882 P.2d 298, 308 (Cal. 1994) (“the consumer expectations test is reserved for cases in which the everyday experience of the product’s users permits a conclusion that the product’s design violated minimum safety assumptions, and is thus defective regardless of expert opinion about the merits of the design.”). But the risk-utility approach applies when complex

product designs are at issue. Under those circumstances, evidence of a reasonable alternative design is either an element or a prominent factor. *See, e.g., Jacobs v. E.I. du Pont de Nemours & Co.*, 67 F.3d 1219, 1242 (6th Cir. 1995) (holding that the manufacturer is not liable for a statutory design defect claim brought pursuant to O.R.C. §2307.75 unless the plaintiff presents proof of an alternative feasible design).

Therefore, even in those jurisdictions where a reasonable alternative design is not a statutory element or among the significant criteria under the risk-utility test, a reasonable alternative design can have an important effect on the determination of whether a product is defective.

### Defining Reasonable or “Feasible” Alternative Design

To appreciate the import of the “reasonable alternative design” element of a product liability claim, one must understand how courts evaluate “reasonable” or “feasible” and how they differentiate between an “alternative design” and an entirely different product.

#### Defining “Feasibility”

As discussed above, the reasonable alternative design requirement is an outgrowth of the risk-utility test; therefore, many of the factors to consider in evaluating the feasibility of an alternative design echo those used by the risk-utility test. In fact, the *Third Restatement* sets forth criteria for determining the reasonableness or feasibility of an alternative design:

1. The usefulness and desirability of the product
2. The magnitude and probability of the foreseeable risks of harm
3. The type and quality of the instructions and warnings accompanying the product
4. The nature and strength of consumer expectations
5. The advantages and disadvantages of the product as it was alternatively designed
6. The cost of the alternative design
7. The effects of the alternative design on longevity, maintenance, repair, and aesthetics
8. The technological feasibility
9. The safety of the alternative design

10. The alternative design protects against the type of harm suffered by the plaintiff and the harm imposed on the community as a whole.

*Restatement (Third) of Torts: Prod. Liab.* §2 cmt. f. (1998).

Courts will allow either side to present evidence regarding any of these factors; however, they do not require proof of any one factor. Therefore, all product liability defense lawyers should have a good understanding of the product at issue and be aware of these factors to prepare for presenting or refuting evidence regarding suggested alternative designs.

#### Defining Alternative Design

In addition to reasonableness or feasibility, a plaintiff must demonstrate that the product is, in fact, an alternative. This topic has not garnered as much attention as the other design defect evaluation components, but with recent decisions, such as *Hosford v. BRK Brands, Inc.*, this issue has catapulted to the forefront of product liability litigation. The question posed by this line of cases is, when does an alternative design stop being an alternative and become an entirely different product?

Generally, courts are unwilling to hold manufacturers liable for a defective design when the only means of making the product safer is to alter the defining characteristic of the product. This is a rejection of what is known as “categorical liability.” Essentially, courts will allow a plaintiff to offer evidence of an alternative design by demonstrating that the product *itself* could have been made safer. However, when a plaintiff attempts to offer evidence of an alternative design by pointing to another product on the market, that is where courts must draw the line. To allow otherwise would be to punish the defendant not for how the product was designed, but for designing the product in the first place. *See James Henderson & Aaron D. Twerski, Closing the American Products Liability Frontier: The Rejection of Liability Without Defect*, 66 N.Y.U. L. Rev. 1263, 1299 (1991).

The recent case of *Hosford v. BRK Brands, Inc.*, nicely illustrates this issue. 2016 WL 4417256, at \*1 (Ala. Aug. 19, 2016). In *Hosford*, the plaintiffs brought suit against a smoke alarm manufacturer after their four-year-old child died in a fire that destroyed

their mobile home. The plaintiffs alleged that ionization smoke alarms, the type at issue in this case, were defective because they “fail to provide adequate warning time for an individual to escape from... a smoldering fire.” *Id.* at \*3. In support, the plaintiffs offered evidence that a dual sensor smoke alarm incorporating both ionization and photoelectric technology is a safer and practical alternative design. *Id.* The question before the Alabama Supreme Court was whether the proposed alternative was “sufficiently similar to the allegedly defective product to be considered an actual alternative design...” *Id.* at \*4.

In answering this question the court explained:

[T]here are necessarily some circumstances where a court can appropriately hold as a matter of law that a proposed alternative design is sufficiently different from the allegedly defective product that it is more properly viewed as a design for a different product than as an alternative design of the allegedly defective product. *Id.* (emphasis added).

Finding this to be one of those circumstances, the court analyzed opinions from different jurisdictions examining similar facts and came to three conclusions. First, a plaintiff’s alternative design is not an alternative if it alters the product in a way that essentially transforms it into a different product. *Id.* at \*5–\*6 (citing *Caterpillar, Inc. v. Shears*, 911 S.W.2d 379, 385 (Tex. 1995) (“[a] motorcycle could be made safer by adding two additional wheels and a cab, but then it is no longer a motorcycle.”)). To hold otherwise would result in the elimination of whole categories of useful products from the market. *Hosford*, 2016 WL 4417256, at \*5–\*6. Therefore, to allow the plaintiffs to argue that a dual purpose smoke alarm was a safer alternative design would result in the elimination of ionization smoke alarms, which are lower cost smoke alarms that can and do save lives. *Id.* This type of elimination of an entire product line contravenes long-standing product liability principles.

Second, the court found that even if the products have the same purpose, a design is not an alternative if the products are substantially different. The court explained that although the plaintiffs’ proffered design had the same purpose as the

ionization smoke alarm, to prevent fires, and although the defendant manufactured both the ionization and the dual purpose smoke alarms, the dual purpose smoke alarm was not an alternative design; it was a different product altogether. *Id.* (citing *Brockert v. Wyeth Pharm., Inc.*, 287 S.W.3d 760, 769 (Tex. App. 2009) (progesterin was not an alternative to prempo, but was a different product altogether, despite the fact both were designed to treat menopausal symptoms)).

Third, the court found that a design is not defective simply because it was not designed as safely as possible. The court explained:

A manufacturer is not obliged to market only one version of a product, that being the very safest design possible. If that were so, automobile manufacturers could not offer consumers sports cars, convertibles, jeeps, or compact cars. All boaters would have to buy full life vests instead of choosing a ski belt or even a flotation cushion. Personal safety devices, in particular, require personal choices, and it is beyond the province of courts and juries to act as legislators and preordain those choices.

*Hosford*, 2016 WL 4417256, at \*7 (quoting *Linegar v. Armour of Am., Inc.*, 909 F.2d 1150, 1154 (8th Cir. 1990)).

The court emphasized that in choosing to design different products there are “trade-offs.” For example, one option may be less expensive or offer other design benefits. Therefore, the court held that simply because the dual purpose smoke alarm was the “safest” on the market, does not make it an alternative design; instead, this makes it a safer substitute product. To hold otherwise would create a disincentive to produce safe and useful products that appeal to a wide variety of consumers at all economic levels. *See id.* (citing *Linegar*, 909 F.2d at 1154).

The Massachusetts Court of Appeals reached a similar conclusion in the past year when it upheld a grant of a summary to the manufacturer of a birth control patch. In *Niedner v. Ortho-McNeil Pharmaceutical, Inc., et al.*, 58 N.E.3d 1080 (Mass. Ct. App. 2016), the court rejected the notion that a pill is an alternative design of a patch: “While both products are hormonal contraceptives that pre-

vent pregnancy, the difference in the drug delivery method, each of which has its own advantages and disadvantages, make the pill fundamentally different from the patch.” *Id.* at 1087.

*Hosford*, *Niedner*, and the other cases they cite show that the courts will not allow plaintiffs to offer a different product altogether as evidence of an alternative design because the product was altered in such a way that its essential character is changed, or simply because it was not the safest product on the market. Therefore, the courts are inherently unwilling to find that different products are an alternative design. Accordingly, defendants should be on high alert for a plaintiff’s theory that a different product, which appears safer, is an alternative design.

## Challenging a Plaintiff’s Alternative Design

In addition to developing a keen understanding of the product at issue and how it differs from others that may have similar purposes, practitioners can attack expert evidence supporting the existence of a reasonable alternative design.

## Challenging the Design

As stated above, the courts, along with the *Restatement*, have set forth a litany of factors to consider when determining whether a design itself is “feasible.” This section discusses how to challenge some of the more commonly contested and discussed factors.

Two key components of feasibility are technological feasibility and economic feasibility. The courts have defined an economically infeasible standard as one that would make “financial viability generally impossible.” *See, e.g., Goodner v. Hyundai Motor Co.*, 650 F.3d 1034, 1044 (5th Cir. 2011). To show economic feasibility, a plaintiff must offer evidence of an estimate or range of the cost of the alternative design. *See, e.g., Brochtrup v. Mercury Marine*, 426 Fed. Appx. 335, 339 (5th Cir. 2011) (holding that testimony that building the alternative design was \$400 was sufficient evidence of economic feasibility). On the other hand, a design that is prohibitively expensive, which would put the manufacturer out of business, would not be economically feasible. Defendants should be on the lookout

for opportunities to challenge a plaintiff's proposed alternative design if the plaintiff offers no evidence of its cost or economic burden.

Technological feasibility means that the proposed design could have been implemented in the allegedly defective design. See, e.g., *Goeder*, 650 F.3d at 1043 (limiting the vehicle's ability to recline

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was technologically feasible because plaintiff offered proof that the limitation was implemented by other car manufacturers). Technological feasibility does not require a plaintiff to build a prototype, but he or she must prove that the design is capable of being developed. See *Merck & Co. v. Garza*, 277 S.W.3d 430, 440 (Tex. App. 2008), *rev'd on other grounds*, 347 S.W.3d 256 (Tex. 2011). A plaintiff can prove technological feasibility through a number of avenues, including (1) evidence of a patent in existence at the time that the disputed product was manufactured or sold, which implements the type of technology proposed by the plaintiff; (2) evidence that the design was used by other manufacturers at the time; (3) introduction of a prototype; (4) evidence of a computer simulation; or (5) expert testimony. Defendants should challenge any proposed design that is nothing more than an unsubstantiated hypothetical design or one that had not

been invented at the time the product at issue was manufactured.

In addition to an alternative design being economically and technologically feasible, in many jurisdictions a plaintiff must also prove that the alternative design was safer: "[T]he alternative to the product design must increase the overall safety of the product. It is not sufficient that the alternative design would have reduced or prevented the harm the plaintiff suffered if the alternative would introduce into the product other dangers of equal or greater magnitude." *The Restatement (Third) of Torts: Products Liability* cmt. b to §16.

This requirement is based on the rationale that an alternative is not feasible or reasonable if it would bring about different or even greater types of harm. Therefore, defendants can attack the validity of a reasonable alternative design through evidence demonstrating that (1) a plaintiff's design would introduce other dangers into the product, or (2) the plaintiff failed to prove that the alternative design would have prevented the alleged harm that the plaintiff suffered.

#### Challenging a Plaintiff's Expert Evidence

Generally, proof of a reasonable alternative design often comes down to a "battle of the experts." This is due in large part to the fact that both plaintiffs and defendants rely on, and oftentimes must produce, expert testimony to establish or refute the existence of a reasonable alternative design. Therefore, understanding how and when to challenge an expert's testimony is key component of attacking any reasonable alternative design evidence.

First, a defendant can challenge an expert's qualifications. An expert is qualified when the witness possesses the requisite "knowledge, skill expertise, training or education." Fed. R. Evid. 702. Although this requirement is interpreted broadly, an expert must have "minimal qualifications, either through experience or education, in a field that is relevant to a subject which will assist the trier of fact." In *Huffman v. Electrolux Home Prods., Inc.*, 129 F. Supp. 3d 529 (N.D. Ohio 2015), the court analyzed a design expert's qualifications. The plaintiff offered an expert witness to show a feasible alternative design to a Frigidaire washing machine. *Id.* at 541. The

court excluded the expert's testimony, in part, because the expert was not qualified to testify regarding the feasibility of an alternative design. *Id.* at 538. In coming to this conclusion, the court noted that the expert never "(1) received training or education about standards governing washing-machine design; (2) consulted with a manufacturer or designer of a washing machine; or (3) designed any component of a washing machine." *Id.* The fact that he was an experienced engineer was not sufficient. *Id.* at 538-39 ("a witness qualifies as an expert when he or she has specialized knowledge, whether by background, experience, or education, in the areas on which the litigation focuses."). The court excluded the expert because he lacked specialized knowledge regarding the specific washing machines at issue in the litigation. *Id.* at 539.

In *Huffman*, the expert not only lacked training, but also lacked experience and knowledge that was specific to the case at hand. It is important to remember that an expert must be qualified regarding the specific product at issue, and not just generally experienced, for his or her testimony to be admissible.

Perhaps the most discussed grounds for excluding an expert in a design defect case relates to the unreliability of an expert's methodology. This is most often seen in challenging the testimony on the grounds that an expert has not tested the alternative design. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993), sets forth specific factors for determining whether scientific evidence is based on reliable principles. These factors include "(1) whether a theory or technique can be and has been tested; (2) whether it has been subjected to peer review and publication; (3) whether it has a high known or potential rate of error; and (4) whether it is generally accepted in the relevant scientific community." *Id.* at 590-94. The language of Federal Rule of Evidence 702 requiring an expert to testify to scientific knowledge means that the expert's opinion must be based on the "methods and procedures of science" rather than on "subjective belief or unsupported speculation." *Id.* at 590.

For example, in *Watkins v. TelSmith*, the Fifth Circuit considered the reliability of an expert's alternative design testimony,

based on the *Daubert* factors. 121 F.3d 984, 991 (5th Cir. 1997). In *Watkins*, the plaintiff's husband was killed after a conveyor collapsed causing a wire to snap. *Id.* at 985–86. The plaintiff alleged that a conveyor was defectively designed because, among other reasons, it was supported by only one wire. *Id.* at 986. The plaintiff's expert offered evidence of an alternative design based on his experience with conveyors and his familiarity with hydraulic cylinders and other technologies in conveying his design proposals. *Id.* at 991–92. He also reviewed industry standards and photographs and inspected the rebuilt conveyor. *Id.* at 991. The district court excluded this evidence on the basis that it was unreliable and speculative. *Id.* at 992. The Fifth Circuit affirmed, finding that the expert's testimony was not based on testing of any proposed alternative. *Id.* at 992. The expert neither examined similar products nor did he even "make any drawings or perform any calculations that would allow a trier of fact to infer that his theory that the conveyor design was defective and that alternative designs would have prevented the accident without sacrificing utility..." *Id.*

*Watkins* demonstrates that challenging the reliability of an opposing expert's methodology is critical in a design defect case. When an expert has failed to test, to simulate, to offer calculations about, or to show otherwise how the alternative design works, the defense can argue that the testimony is unreliable and offers no proof from which a jury could infer that the design is a reasonable alternative.

Even if an expert has tested an alternative design, a defendant can challenge the testimony on the grounds that the tests performed do not "fit" the facts of the case. The expert's testimony must "fit" under the facts of the case so that "it will aid the jury in resolving a factual dispute." *Daubert*, 509 U.S. at 591. This factor is met "when there is a clear 'fit' connecting the issue in the case with the expert's opinion that will aid the jury in determining an issue in the case. *Meadows v. Anchor Longwall & Rebuild, Inc.*, 306 F. App'x 781, 790 (3d Cir. 2009) (citing *Daubert*, 509 U.S. at 590). The "helpfulness" standard under Rule 702 requires the exclusion of expert testimony when it is based on assumptions lacking

a factual foundation. *Daubert*, 509 U.S. at 591. In other words, if the test performed is not sufficiently similar to the facts of the case at bar, then a defendant can argue that the testimony does not "fit" and ultimately would not help the jury resolve whether a reasonable alternative exists. *Daubert*, 509 U.S. at 590.

As stated by the Third Circuit in *Meadows*, "[g]iven the lack of resemblance [the expert's] tests have to the events [in question], it is difficult to say how, if at all, these tests could assist the jury in determining what caused the accident." *Meadows*, 306 F. App'x at 791. In so holding, the Third Circuit emphasized that the expert's tests failed to replicate the very product that he claimed was defective, and he further failed to replicate the exact malfunction that he stated occurred. *Id.* Thus, even if an expert's testimony is based on reliable methods, the defense can still attack the tests themselves by arguing that the tests factually are dissimilar to the case at bar.

## Conclusion

It is important for practitioners to understand that in many jurisdictions a product cannot be defective unless a plaintiff establishes a feasible alternative design that would have prevented the alleged injury. Statute or case law may support a motion for summary judgment, or at least a motion for directed verdict. The successful trial lawyer must also know his or her client's product inside and out and understand how it compares to others on the market. In this way, he or she should consider how to attack a plaintiff's proof of an alternative design, whether the plaintiff suggests a different product altogether as the remedy, or a design that is neither technologically nor economically feasible. Lastly, the defense can prevail by challenging the reliability of a plaintiff's expert testimony. With no foundation to conclude that an alternative design would have prevented the alleged injury, testimony is irrelevant and not helpful to the jury. This thorough understanding of the reasonable alternative design element of a strict product liability claim will prime all practitioners to defend design defect cases thoroughly. **FD**