Illinois Association of Defense Trial Counsel
Springfield, Illinois | www.iadtc.org | 800-232-0169
IDC Quarterly | Volume 24, Number 2 (24.2.37)

Product Liability

Brian J. Benoit and Ryan M. Frierott
Goldberg Segalla LLP, Chicago

Design Defect and the Social Utility of a Product

Is a product unreasonably dangerous because its utility is outweighed by the cost it imposes on society? In *Stollings v. Ryobi Technologies, Inc.*, 725 F.3d 753 (7th Cir. 2013), the Court of Appeals for the Seventh Circuit addressed social utility of a product as a unique factor for which account should be taken when conducting a risk-utility analysis.

In *Stollings*, the plaintiff, Brandon Stollings was injured while operating a Ryobi Model BTS20R table saw. The plaintiff's injuries occurred while using the table saw to cut a piece of wood. While cutting the wood, the plaintiff experienced what is commonly known as a kickback. Kickback occurs when the blade catches the piece of wood and throws the wood back toward the user. As in this case, kickback can cause the user's hand to contact the blade. *Stollings*, 725 F.3d at 757.

As discussed in the opinion, the Ryobi saw was equipped with a "3-in-1" guard safety system, which has three components: "a splitter, anti-kickback pawls, and a blade shield." *Id.* This system complied with standards published by Underwriters Laboratories. The court indicated that many users disable the 3-in-1 system for ease of use. *Id.*

Despite warnings on the saw that warn against disabling the guard safety system, the court discussed two additional safety mechanisms that Ryobi could have used to prevent kickback even with the guarding system disabled. The first additional safety mechanism discussed was a "riving knife," which makes the saw more effective against preventing kickbacks. The second was an automatic braking system that stops the blade the moment the blade contacts flesh (SawStop). *Id.* at 756.

At trial, the jury returned a verdict in favor of the defendant. The court reversed the jury verdict, finding improper the defense counsel's argument at trial that the plaintiff's counsel's motivation for filing the lawsuit was a joint venture between he and the inventor of the automatic braking system as punishment for failing to pay the inventor a royalty for his flesh detection technology. Despite the reason for reversal, the court engaged in extensive discussion about whether the plaintiff's expert, Dr. John Graham, the Dean of Indiana University's School of Public and Environmental Affairs, was permitted to testify that the social cost of not having added protection on Ryobi's table saw outweighed the utility of the saw without the extra safeguard and whether such an analysis was relevant. The court examined these issues because they may be raised on appeal following the second trial of the action. The district court judge ruled that Graham's methodology in determining the percentage by which the automatic braking system would work effectively was a "rough" estimate and, therefore, too speculative. *Stollings v. Ryobi Techs., Inc.*, No. 08 C 4006, 2012 U.S. Dist. LEXIS 146063, at *9–12 (N.D. Ill. Oct. 10, 2012).

> Graham's opinion that $753 is the switch-point cost of adding SawStop to a table saw is only as reliable as the numerical inputs used in his calculation, including the assumption that SawStop has a

> 90% effectiveness rate. Under Rule 702, that "assumption[] . . . must rest on [an] 'adequate [basis],' . . . and cannot be the product of mere speculation." . . . .
>
> . . . .
>
> The only basis asserted in Graham's initial report for assuming a 90% effectiveness rate was [the SawStop inventor's] 2009 deposition testimony that SawStop prevented injury in a "vast majority of cases." As Magistrate Judge Kim explained in excluding Graham's materially identical testimony in another case involving a Ryobi-brand saw, [the inventor's] deposition testimony does not support Graham's 90% assumption:
>
> > [Graham] does not explain how he extrapolates from [the inventor's] testimony that SawStop works in "the vast majority of cases," that the 90% figure is appropriate. Would 80% also represent a "vast majority"? Would 65%? Without further explanation from Dr. Graham, it appears as though he plucked the 90% number more or less out of thin air, and [the plaintiff] has done nothing in his response to clarify or justify this 90% figure.

Id. at *9–10 (certain alterations in original).

Dr. Graham's analysis was as follows: He calculated the average cost of a table saw injury (medical costs, lost wages, pain and suffering, and litigation costs) and multiplied that figure by the likelihood that a saw user would suffer an injury. That, in Dr. Graham's opinion, was the societal cost of a table saw. Dr. Graham then estimated the percentage by which injuries would be reduced if the automatic braking technology was installed. He estimated this number to be approximately 90 percent. Dr. Graham arrived at the 90-percent figure because, based on the inventor of the technology's testimony, the automatic braking system worked "a vast majority of the time." *Stollings*, 725 F.3d at 764.

The district court's decision to exclude Dr. Graham's testimony was based on his 90-percent calculation. The court stated that Dr. Graham's only basis for the 90-percent figure was the testimony of the inventor of the SawStop that his technology worked in the "vast majority of cases." *Stollings*, 725 F.3d at 764. At the conclusion of the hearing to exclude Dr. Graham due to his reliance on the 90-percent figure, the district court permitted Dr. Graham to author a supplemental report in order to provide the source for the 90-percent figure. Dr. Graham's supplemental report provided three common instances where the SawStop technology did not function: when the saw had been turned off and was slowing down; when the operator's hand is moving too rapidly; and when the detection technology is disabled. These instances accounted for 10% of the time, according to the supplemental report. Following the submission of the supplemental report, the district court still excluded Dr. Graham's testimony because it was untimely, because the information on which the supplement was based was available at the time of the initial report, and because the court should not have permitted a "new" justification for his 90-percent assumption. *Stollings*, 2012 U.S. Dist. LEXIS 146063, at *8.

The appellate court employed a two-prong analysis in eventually concluding that the opinions of Dr. Graham were admissible. The court first evaluated whether the testimony was reliable under the lens of Federal Rule of Evidence 702 and then under Rule 702's relevancy requirement. *Stollings*, 725 F.3d at 765.

When is Testimony Reliable?

The reliability threshold of Rule 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786 (1993), requires that expert witness testimony be based on a valid and properly applied methodology. The appellate court in *Stollings*, however, cautioned that an opinion based on a reliable methodology is admissible, even where the conclusion offered is "subject to doubt." *Stollings*, 725 F.3d at 766. The *Daubert* Court intimated that it is the jury's role to vet out suspect conclusions and that, to cast doubt on

such conclusions, "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Daubert*, 509 U.S. at 596.

In the *Stollings* case, the appellate court indicated that the methods for determining cost to society in not equipping a table saw with SawStop technology was based on a reliable methodology. The 90-percent effectiveness rate, though a rough estimate, would not change Dr. Graham's final opinion that the cost of the technology was less than the cost to society. The appellate court indicated that, even if the effectiveness rate was 50 percent, the cost on society still would be far greater than the cost of the technology. It was, therefore, up to the jury to determine how the uncertainty about the effectiveness rate affected the weight of the proffered testimony. *Stollings*, 725 F.3d at 767.

When Is Testimony Relevant to a Determination of Whether a Product Is Unreasonably Dangerous?

In a product liability case premised on a design defect, such as *Stollings*, Illinois applies the consumer expectation test and the risk utility test. A product is unreasonably dangerous under the risk utility test where "the risks associated with the product design outweigh the utility of the design." *Stollings*, 725 F.3d at 767. The inquiry into the risk-utility of a product is a broad one. The Illinois Supreme Court in *Calles v. Scripto-Tokai Corp.*, 224 Ill. 2d 247 (2007), set forth 14 factors to evaluate in determining whether the risk of a product design outweighed the product's utility. The *Calles* court indicated that the inquiry is a broad one and that the 14 factors are not "exclusive." *Calles*, 224 Ill. 2d at 260–61.

Whether testimony ultimately is relevant is also a broad standard. Federal Rule of Evidence 401 defines relevant testimony as testimony that has "any tendency to make a fact more or less probable than it would otherwise be." Fed. R. Evid. 401. Taking into account the breadth of the inquiry into a product's risk and utility, the appellate court in *Stollings* concluded that "Illinois courts would consider the cost of a category of accidents to society a relevant consideration in a product liability suit," *Stollings*, 725 F.3d at 767, and that it would provide the jury with " a basis to appreciate the saw's cost to society," *id.*

The defense raised arguments that the social cost of the saw was only one factor in whether the saw was unreasonably dangerous without with the SawStop technology and that the social cost analysis was not limited to the specific saw at issue. As to both arguments, the appellate court followed the *Daubert* Court's commentary that these types of issues may diminish the value of an expert's final conclusions, but that does not render the opinions entirely inadmissible. Any flaws or issues in final conclusions that were reached through a scientific methodology are subject to cross-examination.

Practice Pointers

1. Attack the Expert's Methodology. Even though defense counsel in Illinois will find themselves most often in state court where a *Daubert* analysis is inapplicable, an expert still should be questioned on what methodology was employed as if he or she *was* being subjected to federal requirements. On what industry treatises or standard is the expert relying? It is imperative to have any industry guidebooks, handbooks, or treatises at your fingertips during a deposition of an expert. For instance, a Cook County judge could permit an expert to testify that a carpet met flammability standards after the expert tossed a lit match onto the carpet. The industry standard, however, uses the burn pill test to ensure flammability requirements are met. A jury should hear every deviation from accepted standards so they can weigh the credibility of an expert who does deviate from recognized methods.

2. Know and Explain Your Client's Process. Most product manufacturers have systematic processes in place for the design, manufacturer, and quality control evaluation of their products. Knowing each step of the process will expose any weaknesses that might subject the corporate witness to intense cross examination. Once any potential problem areas are identified, you can take steps to explain away any weakness and focus on the systems in place that make the product safer and exceed industry requirements.

A frequent question of corporate witnesses is whether the company engaged in one or multiple "FMEA," which stands for "failure modes and effects analysis." In some industries, this process is documented by actual forms that are titled "FMEA." There have been instances however, where a corporate witness is asked about whether the corporation conducted FMEAs, and the witness will answer in the negative simply because the company does not possess a document titled "FMEA." This answer is the wrong. An FMEA, whether titled as one, is a process by which the designer of a product determines potential failure modes with the product and what effect that failure might have. Any manufacturer that lists its product with "UL" or "ETL" engages in failure modes in the design phase in order to obtain certification by the global independent safety science company UL or extract, transform, and load standards, respectively. Certain industries require that a product pass certain tests with certain safety mechanisms disabled, to ensure that in the event such a safety is disabled, there is no catastrophic result. These tests are for all intents and purposes, FMEAs.

3. Know Your Document Production. In many instances, manufacturers and sellers of products are required to produce thousands of documents pertaining to the design and manufacture of a product or like products. There could be one or two documents in the whole production that you or client might think is insignificant but to opposing counsel raise a red flag. This red flag could signify to a plaintiff's counsel that the product could have been made safer for a nominal amount.

The document, however, might be misleading. For instance, there might be some documentation in the design phase of a prototype product that lists a certain widget for 50 cents. If this widget was specified as a part of a safety mechanism of the product and was not employed in the final product, the plaintiff's counsel will be telling the jury how a cost saving of 50 cents was what caused an incident to occur. If this document is pulled out ahead of time and the reasons for the election not to design a product in that manner are identified, the defense can far lessen the damage that such a document might otherwise cause.

A lesson to be learned from *Stollings* is that certain expert testimony that is based on rough numbers and assumptions, could be, and often is, allowed at trial. Defense counsel's job is to make sure that the jury understands how speculative that testimony is and how that is a reflection of the plaintiff's entire case. To do so, however, requires intimate knowledge of the industry, the safeguards in place, the costs of such safeguards, not only in dollars and cents but also in terms of opportunity cost and institutional costs that might be prohibitive. The cost of a safeguard or component to a product must be explained to the jury in terms that encompass a far greater analysis than simply the cost of the widget itself.

About the Authors

Brian J. Benoit is a partner in the Chicago office of *Goldberg Segalla LLP*. His nationwide practice focuses on the defense of product manufacturers, specializing in catastrophic losses involving fires and explosions. Mr. Benoit has authored articles and presented nationwide on investigating fire losses, evidentiary challenges, and deposing expert witnesses.

Ryan M. Frierott is a partner in *Goldberg Segalla LLP*'s Chicago office. His practice focuses on product liability defense, and he is also experienced in litigation involving construction disputes and professional liability. He has significant experience defending product liability cases in state and federal courts throughout the United States, including cases involving fires, product defect, and testimony of expert witnesses.

About the IDC

The Illinois Association Defense Trial Counsel (IDC) is the premier association of attorneys in Illinois who devote a substantial portion their practice to the representation of business, corporate, insurance, professional and other individual defendants in civil litigation. For more information on the IDC, visit us on the web at **www.iadtc.org**.

Illinois Association of Defense Trial Counsel, PO Box 588, Rochester, IL 62563-0588, 217-498-2649, 800-232-0169, idc@iadtc.org