Understanding and Defending New Technologies

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Pop culture is full of cautionary tales about the risks and benefits of new technology and how it impacts people. We all (okay, maybe some of us) remember warnings about the challenges of new technology contained in classic (read "old") songs like "Video Killed the Radio Star" or "Mr. Roboto." Perhaps warnings from Hollywood about the dangers of new technology are even more vivid, such as the "Terminator" films – humans invent A.I., A.I. takes over the world, humans are saved by a politician; or the "I, Robot" movie – humans invent robots, robots attack people, people are saved by a robot that acts like a human. News stories warn about Siri secretly listening to our conversations and reporting our wants to Amazon's headquarters for next day delivery. The point is that people often have a mistrust of technological advancements.

There is no doubt that technology is advancing at an extremely rapid rate in the United States and across the globe. Technological advancements in products once took years or decades to develop and be accepted and used in mainstream society. Things move much faster today. Manufacturers are keenly aware of this simple truth and work hard to offer products that are both safe and technologically advanced. While technological advances in industry allow for the creation and design of new or improved products, litigation remains a risk. As a result, product liability attorneys must be familiar with and comfortable defending cases involving new technology issues. Mistrust or avoidance of new technology issues is not an option for manufacturers or their attorneys.

This article touches on some of the potential claims and issues that we may encounter when guiding our manufacturing clients through product liability litigation involving new technology issues. Part I of this article deals with technological advancements made to products after they are sold. Part I.A discusses the types of claims commonly asserted when a product has already been in the market, but new modifications or devices are later developed to improve the product. Part I.B identifies common threads in defense of these claims. Part II of this article discusses a second scenario – defending claims involving new products that use technology new to the industry.

I. Part I

A. Claims Involving Later Developed Product Improvements

Many of us have encountered this scenario – a product is designed, manufactured, and sold. Later, a new device or design is developed which improves the existing product. The product could be a forklift with a later developed operator's chair, incorporating additional safety features; an aerial platform with later developed overhead entrapment sensors; or a tractor with a later developed roll-over-protection system. The following are common causes of action under this scenario.

1. Post-Sale Duty to Warn

A post-sale duty places the burden on a manufacturer to take some action if it learns of a product's defect after the product is sold. *See* Brian J. Hunt, *Post-Sale Duty to Warn: Is the Door Opening for Plaintiffs?,* For The Defense, November 2014, at 60. One such post-sale duty is the duty to warn of a later known defect. This can occur when the defect was not known by the manufacturer at the time the product was made or sold, but is later discovered. In such a case, reasonable steps must be taken to warn the "…purchaser of the risk as soon as the manufacturer learns or should have learned of the risk created by its fault." *Id*. at 60; *see Jablonski v. Ford Motor Co.*, 955 N.E.2d 1138, 1159 (Ill. 2011).

With regard to later developed technological advances, the majority of jurisdictions hold that the manufacturer of a product has no duty to warn prior purchasers of new safety devices or product improvements if the product was not defective at the time of sale. *See* Kenneth Ross, *Post-Sale Duty to Warn*, American Bar Association, at 18, ft. n. 52 (*citing Williams v. Monarch Mach. Tool Co*., 26 F.3d 228, 232 (1st Cir. 1994)(manufacturer did not have a duty to warn purchasers about post-sale safety improvements made to a machine that was reasonably safe at the time of sale)); *Moorehead v. Clark Equip. Co.*, 1987 WL 26158, at *5 (N.D. Ill. 1987)(court rejected plaintiff's argument that there was a "continuing duty of a manufacturer to notify prior purchasers of new safety devices" unless the product was defective at the time of sale, but identifies some jurisdictions that mandate a post-sale duty to warn "even if the product was not unreasonably dangerous at the time of sale").

Practitioners must know if their jurisdiction recognizes a post-sale duty to warn and whether that duty is triggered only if the product was defective at the time of sale. Additionally, attorneys must focus their fact and expert proof on the operable time period triggering the duty to warn - whether the product was defective at the time of sale, not manufacture or design.

2. Post-Sale Duties to Retrofit

A plaintiff may also allege a manufacturer has a post-sale duty to retrofit the product. The majority of courts find a duty to retrofit (or recall) only if a product was defective when sold and the manufacturer later learns of the defect. *See Ostendorf v. Clark Equip. Co.*, 122 S.W.3d 530, 534 (Ky. 2003)(analyzing the duty to retrofit addressed by a minority of jurisdictions, rejecting that approach, and holding "the majority of jurisdictions reach a different conclusion: there is no duty to retrofit a product not defective when sold.")

Courts are reluctant to impose a post-sale duty to retrofit a product with later developed safety devices due to the potential chilling effect on future innovation. *See Ostendorf*, 122 S.W.3d at 536 (*citing* Restatement (Third) of Torts: Products Liability §11, Comment a (1998)(if "…the retrofit results from a post-sale technological advance, then the product was not originally defective, but has become so due only to the later advancement….[t]here are prevailing reasons not to impose such liability on manufacturers for post-sale advances, chiefly: imposing a duty to update technology would place an unreasonable burden on manufacturers….and would discourage manufacturers from developing new designs…")).

3. Optional Equipment Claims

Optional equipment claims often concern whether a product is defective without equipment a manufacturer offers as an option; the plaintiff claims the optional equipment should have been standard. Courts focus on various factors to determine whether the manufacturer is liable for not making the optional equipment standard, such as: whether offering the device as optional was consistent with the relevant industry, whether the product without the optional equipment complied with industry standards or regulations, whether the purchaser was aware or informed that the optional equipment was available, whether there are concerns that the optional equipment may limit the utility of the product, consumer feedback and popularity concerning the optional feature, and whether the purchaser and user are sophisticated and are in the best position to assess utility concerns. *See Biss v. Tenneco, Inc*., 64 A.D.2d 204, 207 (N.Y. App. Div. 1978)(affirming directed verdict in a product liability case, as a loader, which offered ROPS as optional equipment, was not defectively designed); *Davis v. Caterpillar Tractor Co.*, 719 P.2d 324, 325 (Colo. App. 1985) (reversing denial of directed verdict against manufacturer and holding that a tractor, on which ROPS was offered as an optional feature, was not defectively designed); *Loredo v. Solvay Am., Inc.*, 212 P.3d 614, 634-35 (Wyo. 2009) (affirming summary judgment for manufacturer in a product liability case, where it was alleged that a product was defective because certain equipment was offered as optional and not standard equipment); *Marchant v.*

Mitchell Distributing Co., 240 S.E.2d 511 (S.C. 1977)(affirming summary judgment in a product liability case and holding that a crane, that was not optioned with available safety features, was not defectively designed"); *Norris v. Excel Indus*., 139 F. Supp. 3d 742 (W.D. Va. 2019)(granting manufacturer summary judgment in a product liability case, as a mower, which offered ROPS as optional equipment, was not defectively designed); *Austin v. Clark Equip. Co*., 821 F. Supp. 1130 (W.D. Va. 1993)(granting manufacturer summary judgment in a product liability case, as a forklift, which offered safety features as optional equipment, was not defectively designed)(*aff'd*, 48 F.3d 833 (4th Cir. 1995)); *Parks v. Ariens Co*., 2015 U.S. Dist. LEXIS 85811 (N.D. Iowa 2015) (granting manufacturer summary judgment in a product liability case, as a mower, which offered ROPS as optional equipment, was not defectively designed); *Babin v. Yale Materials Handling Corp*., 1995 U.S. App. LEXIS 5527 (4th Cir. 1995)(affirming judgment as a matter of law to manufacturer in a product liability case, as a lift truck, which offered safety features as optional equipment, was not defectively designed); *Quintanilla v. Komori Am. Corp*., 2007 U.S. Dist. LEXIS 33126 (E.D.N.Y. 2007)(granting manufacturer summary judgment in a product liability case, as a printing press, which offered safety features as optional equipment, was not defectively designed); *Campos v. Crown Equip. Corp*., 2001 U.S. Dist. LEXIS 24575 (S.D.N.Y. 2001)(granting manufacturer summary judgment in a product liability case, as a forklift, which offered safety features as optional equipment, was not defectively designed.)

Another key to defending these claims is showing the manufacturer's rationale for its design choice of not making the optional device a standard feature. Fact and expert evidence should be developed which favorably proves as many of these factors as possible.

Plaintiff's claims will be strongest in optional equipment cases if the product is defective without the optional safety equipment. Richard Ausness, *Risky Business: Liability of Product Sellers Who Offer Safety Devices as Optional Equipment*, Hofstra Law Review, Vol. 39, Iss. 4, Article 3, at 808. Available at: https://scholarlycommons.law.hofstra.edu/hlr/vol39/iss4/3.

4. Negligent Warnings, Retrofit, and Recall—Attacking the Process

Even when a manufacturer has undertaken a post-sale action, such as warning, retrofit, or recall, a plaintiff may claim that the manufacturer's actions were, nonetheless, negligent. Such claims often focus on the manufacturer's processes for the post-sale action, such as acting too slowly, or taking too long to investigate the product issue or develop a remedy, or failing to have a process in place to promptly notify product users of the issue. In these scenarios, the plaintiff is essentially arguing: "a manufacturer who voluntarily undertakes a [post-sale action] can be held liable for negligently performing that program." *Ostendorf*, 122 S.W.3d at 537. As a result, courts often test the manufacturer's voluntary post-sale actions against a reasonable manufacturer standard. Restatement (Third) of Torts: Products Liability §11 cmt. *c.* In contrast, where a post-sale action, such as a recall, is required by statute or regulation, courts are more hesitant to assess liability for the manufacturer's post-sale action if the manufacturer complied with the regulation. Restatement (Third) of Torts: Products Liability §11 cmt. *a* ("issues relating to product recalls are best evaluated by governmental agencies capable of gathering adequate data regarding the ramifications of such undertakings").

B. Common Issues Defending These Claims

When a product liability claim, such as those discussed in Part I.A., is made, several common issues should be considered when defending the product.

1. Proving a Product Was State of the Art at the Time of Manufacture

The battleground in defending claims involving later developed technology is proving that the product, sold without the later developed technology, was not defective when made. An effective way to offer

this proof is to put on evidence that the product, without the later developed technology, was consistent with other manufacturers' products. Courts recognize that a member of industry will likely not be held liable for failing to do what no one in his position has ever done before. *Mears v. General Motors Corp.*, 896 F. Supp. 548, 552 (E.D. Va. 1995). Showing that a manufacturer is tracking industry developments, is aware of what other manufacturers are offering with their products, and offers a product consistent with its competitors goes a long way toward showing the product was not defective. This forces the plaintiff to take on the industry and prove the entire industry was behind the times or sticking its head in the sand on product development - a tough row to hoe.

Likewise, proof that the product satisfied applicable industry standards, even without the later developed technology, also weighs against a finding of defect. James Meadows, *The Value of Well-Developed Industry Standards in Products Liability Legislation*. Available at: http://www.wmia.org/wp-content/uploads/2017/05/Safety-Standards.pdf. Courts have found that compliance with industry standards, such as ANSI, are a "compelling factor" in considering the reasonableness of the manufacturer's design choice. *Vermett v. Fred Christen & Sons Co.*, 138 Ohio App. 3d 586, 609 (6th Dist. Lucas County 2000); *Norris v. Excel Indus*., 139 F. Supp. 3d 742, 749 (W.D. Va. 2019)(granting manufacturer summary judgment in a product liability case and rejecting plaintiff's argument "that the ANSI standards are merely recommendations, not true industry standards. The court disagrees. The ANSI standards are exactly the type of formally promulgated industry standards referenced in *Alevromagiros* and *Sexton.* Both the Virginia Supreme Court and various federal courts have cited ANSI standards as authoritative safety standards across a range of industries and products"); *Holst v. KCI Konecranes Int'l Corp.*, 699 S.E.2d 715 (S.C. Ct. App. 2010)(affirming summary judgment for a defendant when crane's design complied with applicable industry safety standards and, for that reason, the crane was not defective or unreasonably dangerous). However, be ready for plaintiff's argument that, because the industry standard does not specifically state that the later developed device is not required, there is no standard on point. Additionally, if the industry standard requires mandatory compliance, such as FMVSS regulations, be aware of potential preemption arguments. *See Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000).

Finally, a manufacturer's internal product testing can show a product was not defective when it left the manufacturer's hands. *See Brobbey v. Enter. Leasing Co. of Chicago*, 935 N.E.2d 1084, 1093 (Ill. Ct. App. 2010)(defendant rebutted plaintiff's proof by showing internal testing and inspection procedures and evidence that it complied with industry custom and practice); *Wilder v. Toyota Motor Sales, U.S.A., Inc.*, 23 Fed. Appx. 155, 157 (4th Cir. 2001). Developing evidence early in the case on the scope and conclusions from internal testing is important.

2. Other Similar Incidents

Another common issue in later developed technology cases is the admissibility of prior incidents. Generally, evidence of prior incidents is admissible at trial only if plaintiff demonstrates the other incidents are "substantially similar" to the incident in the case at hand. *See Cooper v. Firestone Tire & Rubber Co.,* 945 F.2d 1103, 1105 (9th Cir. 1991). Courts differ on what substantially similar means. For example, in the Sixth Circuit, evidence of prior incidents is admissible to prove a defect so long as the prior incidents "occurred under similar circumstances or share the same cause." *Rye v. Black & Decker*, 889 F.2d 100, 102 (6th Cir. 1989).

Plaintiffs may successfully use evidence of similar incidents to prove liability issues, such as: notice of a defect, magnitude of the danger involved, the defendant's ability to correct a known defect, the lack of safety for intended uses, and causation. *See Ramos v. Liberty Mut. Ins. Co.*, 615 F.2d 334, 338-39 (5th Cir. 1980). However, upon a proper foundation, other incidents evidence can also be used by manufacturers to defend

their products by pointing to the absence of prior similar incidents. *Forrest v. Beloit Corp.*, 424 F.3d 344, 355-356 (3rd Cir. 2005)("…evidence of the absence of prior accidents may not be admitted unless the offering party first establishes that the lack of accidents was in regard to products that are substantially identical to the one at issue and used in settings and circumstances sufficiently similar to those surrounding the machine at the time of the accident"). Showing a low incident rate versus a high product use rate can be compelling evidence of no defect. Additionally, the fact that a manufacturer monitors the industry and is aware of other incidents involving its own, and competitor's, products tends to prove that the manufacturer is in touch with the industry and how similar products are being used. This goes a long way toward establishing a "good company" defense.

3. Subsequent Remedial Measures

Plaintiffs often seek to use subsequent remedial measures to prove liability in later developed technology cases. Often in design defect cases, plaintiffs will use the later developed technology as their feasible alternative design.

Under FRE 407, a subsequent remedial measure - one "that would have made an earlier injury or harm less likely to occur" - is inadmissible to prove "a defect in a product or its design." FRE 407; *Kelter v. Conken Sys.*, 2014 U.S. Dist. LEXIS 175237 at *5 (W.D. Ky. Dec. 18, 2014). "The Rule is grounded upon 'a policy of encouraging people to take, or at least not discourage them from taking, steps in furtherance of added safety.'" *Id.* at *6. Subsequent remedial measures can come in various forms in later developed technology cases, including: post-accident design changes; post-sale warnings; retrofit campaigns; or recalls (if they occurred after the accident at issue); and the manufacturer's decision to make optional equipment standard.

FRE 407 does not always bar evidence of subsequent remedial measures. Plaintiffs can offer subsequent remedial measures to prove ownership, control, or the feasibility of a safer, alternative design if these matters are contested by the manufacturer. As a result, special care should be taken when deciding whether to take the position that a post-accident design change was not a feasible alternative design. Such an argument can open the door for admission of the subsequent remedial measure under FRE 407's exceptions. Additionally, there are times when post-accident actions of the manufacturer help show that the manufacturer was reasonable and interested in continually improving the safety of its products. In such cases, the manufacturer may wish to introduce the subsequent remedial measure as part of the "good company" story.

II. Part II

Product liability claims concerning technological advancements can also occur in a second scenario – where a manufacturer employs newly adopted technologies in its products. In the last half-century, courts have examined manufacturer liability when new technologies, such as airbags, anti-lock brake systems, or electronic stability control (ESC), are developed. This trend will continue and, as the rate of technological advances increases, so will litigation. For example, with the advent of autonomous vehicles, courts are beginning to grapple with suits involving this wave of new technology. Further, technological advancements tend to "trickle down" to other products and industries. As a result, manufacturers may find themselves defending suits alleging that new technological developments integrated into their product make the product defective. Many of the issues identified above in defending later developed technologies are also applicable in this scenario.

In this type of case, a simple defense theme can be developed – advancement of the art. We can defend new technology by highlighting that the manufacturer is leading the charge on technological advance-

ment, not following what others are doing and reacting. The "there always has to be a first" theme makes sense and can be compelling.

However, it is also important to be able to show that the manufacturer's use of new technology was not a flippant decision or so cutting edge as to be dangerous. Often, manufacturers can look to work performed by industry groups or academics forecasting technological advancements and highlighting why they are a good idea. Additionally, manufacturers can point to new products being developed by competitors, who may be adopting similar technological advancements in their products. A manufacturer may also be able to point to other industries or different products that have previously adopted the new technology. Showing that the new technology satisfies existing industry standards goes a long way to proving that the new technology is reasonably safe. Perhaps the most important evidence in these cases will be the manufacturer's benchmarking, internal testing, and compliance. Showing that the manufacturer thoroughly tested the new technology and concluded not only that it was reasonably safe, but improved the product, will be compelling evidence against claims of defect.

III. Conclusion

Styx warns in "Mr. Roboto" that "the problem's plain to see: too much technology." "Video Killed the Radio Star" laments "[w]e can't rewind we've gone too far." Respectfully, we disagree. Technological innovation is not only inevitable, it is also good. Technology tends to make products safer. Manufacturers that adopt technological advances tend to sell more products. However, as technology advances and manufacturers incorporate innovative concepts into their products, product liability lawsuits will follow. Whether litigation involves a newly adopted technology in an existing product or true technological advancements, manufacturers and their attorneys must be ready to defend the product and technology. Hopefully, this article has sparked some ideas for the next time you are asked to defend a new technology.