IN THE INTERMEDIATE COURT OF APPEALS OF WEST VIRGINIA

No. 22-ICA-208

Angel Ellen Tyler,
As Administrator of the Estate of Breanna Kristen Bumgarner,
Plaintiff-Respondent,

v.

Ford Motor Company,
Defendant-Petitioner.

On Appeal from Judgment
Circuit Court of Kanawha County, West Virginia (No. 18-C-182)
(The Honorable Joanna I. Tabit)

RESPONDENT'S BRIEF

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STATEMENT OF THE CASE

On March 22, 2016, 19-year-old Breanna Bumgarner was in a car accident in her 2014 Ford Mustang. IV JA 1709:1-3. Breanna was hit by a vehicle that weighed less than her Mustang, was made in the 1980s, and had no airbags. IV JA 2393:2-2395:1. Nevertheless, immediately after the collision, the driver of that vehicle was out of her truck, moving about the crash scene. III JA 901:15-902:2. The other driver did have some minor injuries, but she made a full recovery. III JA 883:20-24.

Breanna met a dramatically different outcome. Following the collision, the dash of the 2014 Ford Mustang collapsed and trapped Breanna in the vehicle while a fire broke out on the driver's side. III JA 981:21-982:2. Bystanders and first responders agonized to remove Breanna. III JA 1027:9-15. Breanna's boyfriend – whom Breanna was following when the accident took place and who was the first person to respond to the collision – could not open the driver-side door. III JA 981:1:13. Breanna pled with others for help. III JA 1288:16-22. Ultimately, the driver-side fire grew too hot for first responders to continue their attempted rescue. III JA 951:2-6. Bystanders stepped back as the fire consumed the vehicle. III JA 1029:5-10. Multiple first responders heard Breanna screaming as the fire claimed her life. III JA 951:5-8, 1288:16-19, 907:7-10.

Breanna's surviving mother – Angel Ellen Tyler ("Plaintiff") – filed a negligence product liability lawsuit against the designer of Breanna's car: Ford Motor Company. I JA 13.

Mrs. Tyler's case turned on Ford's design choices – specifically, Ford's choices related to the 2014 Ford Mustang's brake fluid reservoir. Witness testimony and expert analysis at trial established that the first fluid ignited in this collision was brake fluid. III JA 1225:18-19. Unfortunately, though brake fluid is the second most flammable liquid in a car behind gasoline, Ford's design placed the brake fluid reservoir in an unprotected location immediately on the other

side of the driver's engine compartment – if Breanna looked directly through the speedometer on her driver's side, she would be looking at the brake fluid reservoir. III JA 1234:10-24, 1235:1-2. In this collision, the brake fluid reservoir foreseeably ruptured and caused the fire that claimed Breanna's life. III JA 1236:5-14.

Ford had actual knowledge that the Mustang's brake fluid reservoir would rupture in a crash that had the same vehicle failure modes as Breanna's crash. On September 9, 2011, Ford hired a third-party organization to test the 2014 Mustang on a Side Overlap Rigid Barrier ("SORB") collision. III JA 820:20-24, 821:1-8. The crash test created a unique set of failure modes that both caused sharp intrusion in the occupant compartment and ruptured the brake fluid reservoir. VI JA 3903. Those same failure modes manifested in Breanna's wreck, thereby causing entrapment and death by fire. III JA 1657:10-20

Automobile manufacturers understand that brake fluid reservoir protection is important. When a brake fluid reservoir is compromised by crush in a collision, the flammable liquid can combust and throw flames across the engine compartment to other substantial fuel sources. III JA 1458:3-16. For that reason, even vehicles before the 2014 state of the art demonstrate the importance of protecting the brake fluid reservoir. IV JA 2097:23-24, 2098:1. Some designs use high-strength boron steel reinforcement bars. IV JA 2097:18-24, 2098:1. Others – including Ford Mustang designs – include load-bearing struts that divert collision energy away from the brake fluid reservoir. VII JA 3937, 3939, 3940, 3941, 3942. Unfortunately, Ford's Mustang did neither.

Plaintiff's design expert showed the jury the impact of Ford's failure to protect the brake fluid reservoir. Dr. Chandrashekhar Thorbole is a Ph.D. instructor, engineer, biomechanical expert, and consultant to government regulators concerning strategies for occupant safety in collisions. IV JA 1792-1810. In the private sector, Dr. Thorbole served as a design consultant for Tata Motors,

a multinational automotive manufacturer and owner of both Land Rover and Jaguar. IV JA 1798:2-16. Based on Dr. Thorbole's engineering judgment, review of the state-of-the-art at the time Breanna's Mustang was manufactured, review of vehicle design strategies prior to the Mustang's manufacture, and Ford's own "finite element model," Dr. Thorbole concluded that a feasible alternative design existed that would have prevented Breanna from burning alive in her Mustang. IV JA 1759:9-21, IV JA 1752:6-24.

Finite element modeling is a form of computer testing frequently used in the transportation industry by researchers, academics, and car manufacturers. IV JA 1802:13-24, 1803:1-18. In the initial phases of design, automotive manufacturers will use a finite element computer model to analyze the performance of a vehicle in various crash modes. IV JA 1803:10-16. It is not feasible for automotive manufacturers – much less Plaintiffs – to design an automobile with the real-world expense and difficulty of crash testing. Instead, automobile manufacturers create finite element models that accurately represent the real-world vehicle design and use them in various simulated crash forms. IV JA 1802-1804. And during discovery, Ford produced its own finite element model for Breanna's 2014 Ford Mustang – a model that ***Ford itself*** used to understand how Breanna's Mustang would respond in various vehicle failure modes as a result of collision forces. IV JA 1755:5-24, 1756:1-10, 1757:12-20.

Q. That was going to be my next question. Is this something that happens all the time at automakers, particularly at Ford?

A. Yes. That's why they have so detailed computer models.

Q. So in evaluating the design failures in this car, did you use the model in the same way that Ford uses it?

A. Yes.

Dr. Thorbole used Ford's own finite element model to create pattern vehicle failure modes and forces – substantially similar to those in Breanna's collision – in which to test the feasibility of an alternative design. IV JA 1885. The design Dr. Thorbole tested was not novel. Instead. Dr. Thorbole followed the then-existing state of the art design exemplified by the 2012 Mercedes: use of a high-strength boron bar to protect the brake fluid reservoir. IV JA 1882: 6-24, 1883:1-7. Ford itself had incorporated the same safety designs to protect the brake fluid reservoir decades prior. VII JA 5290-5295. Other vehicle manufacturers including Volvo had used high-strength boron steel as a component of vehicle safety for nine years. IV JA 1765:15-20. Dr. Thorbole told the jury that his feasible alternative design was technologically and economically feasible at the time of the Mustang's manufacture. IV JA 1892:5-10, IV JA 2140:18-24, 2141:1-7. In support of that conclusion stood Volvo technology, Mercedes designs, prior Mustang models, Dr. Thorbole's engineering judgment, and Ford's own finite element model. IV JA 2092:22-24, 2093, 2094:1-4.

At trial, Ford acknowledged that brake fluid reservoir protection was important. IV JA 2858:15-21. By Ford's admission, from Ford's perspective, the driver-side shock tower (shown below) played the role of protecting the brake fluid reservoir. IV JA 2858:15-21. Ford claimed that

the brake fluid reservoir – and the highly flammable liquid contained therein – was "well protected" by that shock tower. IV JA 2858: 15-21.

But the evidence showed otherwise. Every vehicle on the road has only two types of parts in it: the parts that should collapse in a collision ("crumple zones") in a vehicle collision and the parts that should not collapse. IV JA 1764:1-5. Those parts of the vehicle that ***should*** collapse perform the vital job of reducing the collision energy transferred to the occupant. IV JA 1764:1-5. Conversely, vehicle parts that ***should not*** collapse perform the function of protecting what matters in a collision: vehicle occupants and vital fuel sources. IV JA 1882:18-24, 1883:1-7, 1875:7-10.

The problem: the Mustang's driver-side shock tower – the same shock tower Ford claims was designed to protect the brake fluid reservoir – was made of a steel strength that the steel industry itself advises against. IV JA 1764:19-24, 1765:1-6, 1825:24, 1826, 1827:1-9. According to recommendations from the steel industry that it gives to automakers, steel beneath 400 megapascals is "crumple-zone steel" – that is, steel designed to collapse in a collision. IV JA 1827:7-9. Problematically, the Mustang shock tower was made of 395 megapascal steel. VII JA 3936. The boron Mercedes chose and that Volvo regularly incorporates in various parts of its design is ultra-high strength boron steel – a steel of ***over 1000 megapascal*** strength. IV JA 1882:6-11, IV JA 1765:15-20.

Ford chose not to follow the steelmakers' recommendations, and Plaintiff's evidence showed what resulted from that decision. In Breanna's wreck, the driver-side shock tower collapsed into the brake fluid reservoir. IV JA 1881:17-24, 1882:1-11. As Plaintiff's fire expert Mike Schulz explained, that crushed the brake fluid reservoir and sent flammable liquid flying across the engine compartment. IV JA 1458:9-14. Mr. Schulz's methodical analysis showed that brake fluid was the first fuel ignited in this collision. IV JA 1496:14-20. Dr. Thorbole's engineering

judgment based on other vehicle designs – and his modifications of Ford's finite element model – concluded both that Ford's design choices were negligent and that a feasible alternative design existed that would have prevented Breanna's death. IV JA 1892:22-23. The presentation of evidence closed, and the parties held their charge conference with the Court on May 16, 2022.

At the jury charge conference, the trial court made a mistake. As the following "Summary of Argument" explains in greater legal detail, Plaintiff showed the court that product defect was not a required element of a negligence product liability case. IV JA 3403:15-24, 3404-3410. The trial court added an element to the jury charges. The court mistakenly held that under a negligent product liability theory, Plaintiff needed to show that the 2014 Ford Mustang was actually defective, not that it posed a "foreseeable risk of harm" as the Pattern Jury Instructions and West Virginia law indicate. *Compare* W.V. P.J.I. § 424 and III JA 621 (adding defectiveness to elements 2 and 3 in a manner that are present neither in the West Virginia Pattern Jury Instructions nor the substantiating Supreme Court cases).

After that holding, counsel for Plaintiff made a decision based on the trial court's error. When the court mistakenly added an element of a product defect to the elements of a negligence product liability theory, Plaintiff realized there was no longer any reason for Plaintiff to pursue strict liability. Under the correct elements of West Virginia law, strict liability would require demonstration of (defect + feasible alternative design), while negligence requires (foreseeable danger + failure to act as a reasonably careful manufacturer). W.V. P.J.I. §§ 402, 424. Because the trial court mistakenly applied the element of defect to negligence as well as strict liability, Plaintiff decided to drop her strict liability claim and pursue a negligence theory only. V JA 3572:12-13. Under that negligence theory, proof of a feasible alternative design was "relevant to the

manufacturers conduct, but a requirement to establish an alternative, feasible design [was] simply not among the requisite elements . . . ." *Mullins v. Johnson & Johnson*, 236 F.Supp.3d at 944.

After closing arguments – and following a two-and-a-half week trial – a Kanawha County jury found Ford liable for negligent design of the brake fluid reservoir. III JA 576-578. Specifically, the jury found that Breanna experienced conscious pain and suffering between the time of the collision and her death – harking back to the witness testimony of the first responders and bystanders. Plaintiff overproved her negligence case as the jury specifically found that the 2014 Mustang was defective. III JA 576 at 1(a). The jury awarded $2 million for that conscious pain and suffering and $5 million to Breanna's estate - $7 million total. Judge Joanna Tabit entered the judgment on June 2, 2022. Ford filed post-trial motions, all of which were denied.

Ford's claim that "no reasonable jury" could reach the conclusions this jury did further underscores the truth of Judge Tabit's comments after denying Ford's post-trial motions:

> THE COURT: [This trial] requires thoughtfulness, and I have given it thoughtfulness. I have given it thoughtfulness pretrial doing all those dispositive motions in limine . . . I don't know that I've ever worked harder in a trial . . . I think that the jury saw it, frankly, different than Ford may have anticipated.

VIII JA 4156. Plaintiff met her burden, and nothing at the trial court level justifies appellate disruption of the jury's verdict. Ford is not entitled to judgment as a matter of law or a new trial.

SUMMARY OF ARGUMENT

Ford now raises three categories of appellate issue before this Court, all of which fail.

First, Ford claims that a negligent design claim – in addition to a strict liability design claim – requires proof of a feasible alternative design and that Plaintiff's failed to provide it. Ford's Brief at 23. Core to this claim is the notion that Plaintiff somehow underproved her case.

Ford has it precisely backwards; Plaintiff overproved her case. It is simply West Virginia law: a negligence product liability theory does not require proof of a defective product condition. W.V. P.J.I. § 424. The reason is that, unlike strict liability (focused on product condition), a negligence theory turns on defendant conduct – namely, whether Ford used "the amount of care in designing the [Mustang] that a reasonably careful designer would use in similar circumstances . . . ." W. Va. P.J.I. §§ 424, 425 (citing *Honaker v. Mahon*, 210 W.Va. 53, 58 (2001); *Yost v. Fuscaldo*, 185 W.Va. 493, 497-98 (1991); *Webb v. Brown & Williamson Tobacco Co.*, 121 W.Va 115 (1939); *Strahin v. Cleavenger*, 216 W.Va. 175, 183 (2004)). And though the trial court erred here and required Plaintiff to prove product defect in addition to Ford's negligent conduct, Plaintiff did so. III JA 576 at 1(a).

As to feasible alternative design, the trial court correctly applied West Virginia's pattern jury instructions and the corpus of law upon which they stand. Plaintiff does not need to prove feasible alternative design under a negligent design theory. The West Virginia Supreme Court's Pattern Jury Instructions citations include an opinion by Judge Joseph R. Goodwin of the Southern District, wherein Judge Goodwin is clear: "[A] requirement to establish an alternative, feasible design ***is simply not among the requisite elements*** under a negligence products liability theory." W.V. P.J.I. § 424; *Mullins v. Johnson & Johnson*, 236 F.Supp.3d at 944 (emphasis added). And moreover, even if feasible alternative design had been necessary, the trial court specifically found that Plaintiff presented sufficient evidence of it in its order denying Ford's post-trial motions. VIII JA 4190.

Second, Ford appeals the trial court's discretionary decision to allow testimony on a crash test run by Plaintiff's expert witness. Ford's Brief at 31. Ford claims that the crash test was not substantially similar to the conditions of this wreck. Ford's Brief at 31. Ford claims this all

happened because the Court misunderstood the West Virginia Supreme Court's *Ilosky* opinion and, on that basis, Ford is entitled to a new trial. Ford's Brief at 33.

Ford is foisting a contradiction on the trial court where none exists. Ford left out vital information in its brief that would show this Court – at the appellate level – the more than six months of context surrounding Judge Tabit's decision to admit that simulation evidence. The record reflects that at trial, Judge Joanna Tabit considered additional information that she did not have when she made her pretrial ruling on Plaintiff expert's simulation admissibility before trial. IV JA 1768:12-24. Then, based on that additional information she was given at trial, she made a discretionary decision to allow the test simulation to be presented in a certain form. IV JA 1776:19-23. The trial court was not, as Ford would have this Court believe, ignorant of the key standards for test admissibility. Instead, Judge Tabit recited those legal standards on the record moments before she made the decision to allow testimony concerning this test. IV JA 1775:6-12. Simply put, the trial court rightly admitted the expert's simulation.

Third and finally, Ford's claims a hodge-podge of issues titled "Failure Of Proof On Other Elements Of Her Negligent Design Claim . . ." Ford claims that Plaintiff failed to show a breach of duty in Ford's design conduct and that "[no] reasonable jury could have found that Ford's design choices were the proximate cause of the post-collision fire." Ford's Brief at 38.

Neither claim is true. As a matter of law, Ford had the duty to act as a reasonably prudent manufacturer. W.V. P.J.I. § 425; *Strahin v. Cleavenger*, 216 W. Va. 175, 183 (2004); *Honaker v. Mahon*, 210 W. Va. 53, 58 (2001). The Court qualified that charge with various descriptive Pattern Jury Instructions that the parties selected during the charge conference. III JA 579-603. Plaintiff then demonstrated how Ford breached that duty by failing to use non-negligent steps to prevent

brake fluid spillage in this collision. And ultimately, Plaintiff methodically demonstrated how Ford's negligence caused the fire that killed Breanna.

As the following shows in greater detail, Ford is not entitled to judgment as a matter of law or a new trial.

STATEMENT REGARDING ORAL ARGUMENT

Oral argument is not needed in this case. Rule 18 of the West Virginia Rules of Appellate Procedure states that oral argument is unnecessary if "dispositive . . . issues have been authoritatively decided" or "the facts and legal arguments are adequately presented in the briefs and record on appeal [….]" W. Va. R. App. P. 18.

Such is the case here. A straightforward application of the West Virginia Pattern Jury Instructions and West Virginia case law is sufficient to resolve this appeal in Plaintiff's favor. Moreover, these matters have been adequately briefed by Ford's appellate counsel and the undersigned counsel for Plaintiff such that oral argument is not essential for this Court to arrive at the proper conclusion.

STANDARDS OF REVIEW

Though this Court reviews the denial of a post-verdict motion for judgment as a matter of law, *Gillingham v. Stephenson*, 209 W. Va. 741, 745 (2001), a jury's findings of fact "will not ordinarily be disturbed," Syl. Pt. 5, *Ilosky*, 172 W. Va. 435 sufficiency of evidence in this case is viewed with great deference to Plaintiff.

This Court must: (1) [Consider] the evidence most favorable to the [Plaintiff]; (2) Assume that all conflicts in the evidence were resolved by the jury in favor of the [Plaintiff]; (3) Assume as proved all facts which the [Plaintiff's] evidence tends to prove; and (4) Give to the [Plaintiff] the benefit of all favorable inference which reasonably may be drawn from the facts

provided. Syllabus Point 5, Orr v. Crowder, 173 W. Va. 335 (1983). Simply, Ford must show that "[a]fter considering the evidence in the light most favorable to [the Plaintiff] only one reasonable conclusion as to [a] verdict [in Ford's favor] can be reached." *Gillingham v. Stephenson*, 209 W. Va. 741, 745 (2001).

ARGUMENT

I. Feasible Alternative Design is not a required element in a negligence product liability case.

As the first argument in their appeal, Ford urges that a negligent product liability claim – in addition to a strict liability design claim – requires proof of a feasible alternative design. Ford argues that Plaintiff did not prove such a feasible alternative design and, therefore, Plaintiff underproved her case.

As a settled matter of West Virginia law, Ford is mistaken. The following demonstrates three important realities.

a. Plaintiff overproved her negligence product liability case by specifically proving that the 2014 Ford Mustang was defective.

Under West Virginia law, a Plaintiff may establish product liability by proving one or more of the following three theories:

1. That there was a **defect** in the product (Strict Liability);

2. That the Defendant was **negligent** (Negligence); and/or

3. That the Defendant **breached a warranty** covering the product (Warranties).

W. Va. P.J.I. § 401 (citing Syl. Pt. 6, *Ilosky v. Michelin Tire Corp.*, 172 W. Va. 435 (1983)). Each theory requires distinct instruction in the law, and each is decided separately. Id.

In West Virginia, theories of strict liability and negligence have different elements. Strict liability requires demonstrating that the product was "*defective* when it left the possession of the defendant." W. Va. P.J.I. § 402 (citing Syl. Pts. 4-6, *Morningstar v. Black & Decker Mfg. Co.*, 162 W. Va. 857 (1979)). Negligence, on the other hand, requires showing the "[d]efendant was *negligent in manufacturing* the product." W. Va. P.J.I. § 424. Negligence is measured against the decisions that a "reasonably careful manufacturer would use in similar circumstances to avoid exposing others to a foreseeable risk of harm." W. Va. P.J.I. § 424 (citing *Strahin v. Cleavenger*, 216 W. Va. 175, 183 (2004); *Honaker v. Mahon*, 210 W. Va. 53, 58 (2001)). To determine whether a defendant acted negligently, the jury is not instructed to make a determination on product defectiveness. Instead, they are asked to evaluate the defendant's conduct to evaluate "what the defendant knew or should have known about the likelihood and seriousness of potential harm from the product against the burden of taking safety measures to *reduce* or *avoid* the harm." *Id.*

Plaintiff overproved her case because the trial court added an extra element to Plaintiff's negligence theory. In addition to the Pattern Jury Instructions' charges, the trial court required Plaintiff to prove that the Ford Mustang was defective – an element that West Virginia law attaches to strict liability, not negligence. W. Va. P.J.I. §§ 402, 424. Plaintiff explained to the court that a defendant could fail to do what a "reasonably careful manufacturer would [do] in similar circumstances to avoid exposing others to a foreseeable risk of harm" without creating a product that is ultimately defective and that, therefore, it was improper to require Plaintiff to prove product defect. *See* W. Va. P.J.I. § 424 (citing *Strahin v. Cleavenger*, 216 W. Va. 175, 183 (2004); *Honaker v. Mahon*, 210 W. Va. 53, 58 (2001)). Unfortunately, the trial court added an element to the Pattern Jury Instructions by adding the element of defectiveness to Plaintiff's negligent design case. Still,

the jury specifically found that Plaintiff met that requirement and proved defectiveness. III JA 576 at 1(a).

b. Proof of a feasible alternative design is not a required element of a negligent design case under West Virginia law.

West Virginia – like nearly every state in the U.S. – has an established set of Pattern Jury Instructions. And though the instructions are not binding on a trial court, the instructions were painstakingly edited. The current version of the West Virginia Pattern Jury Instructions was handed down in September 2017. W. Va. P.J.I. Preface. It was released following "multiple edits and revisions after extensive research and editing by the reporters, the review committees," and multiple West Virginia judges. *Id.* They include copious citations to Supreme Court precedent and other cases.

The Pattern Jury Instructions clarify what elements are – and are not – required for various product liability theories. Sections 402 through 411 show the elements of a STRICT LIABILITY claim. Then, Sections 424 through 428 show the elements of a NEGLIGENCE theory. Under the Pattern Jury Instructions, the matter is clear: feasible alternative design is not among the requisite elements of a negligent theory of product liability. *See* W. Va. P.J.I. §§ 424-428.

Judge Joseph Goodwin (Southern District of West Virginia) explained why that is the case. Judge Goodwin has been on the federal bench for nearly thirty years and served as Chief Justice of the district for five years. In 2017, Judge Goodwin affirmingly cited West Virginia's negligence product liability instructions in the matter of *Mullins v. Johnson & Johnson*, 236 F.Supp.3d 940 (S.D.W.Va. 2017) and – through citations to both the West Virginia Supreme Court and held that feasible alternative design is not required under a negligent design theory:

> The defendants argue that an alternative, feasible design is required for proving the plaintiffs' cases under *both* strict liability and negligence . . . **As I have already pointed out, the West Virginia**

> **Supreme Court has held that negligence and strict liability claims have different elements. Syl. pt. 6, *Ilosky*, 307 S.E.2d at 605.** Moreover, the PJI even separates the products liability instructions based on negligence, strict liability, and breach of warranty theories, establishing different elements of proof for each. Sections 424 and 425 of the PJI state the applicable standards for negligence in a products liability case, and absent from these instructions is any element of proof regarding an alternative, feasible design. *See* W. Va. P.J.I. §§ 424, 425. **Unlike in strict liability, where the defective condition of the product is the principal basis of liability, negligence focuses on the conduct of the manufacturer**. See Syl. pt. 3, Morningstar v. Black & Decker Mfg. Co., 162 W.Va. 857, 253 S.E.2d 666, 667 (1979) ("The cause of action covered by the term 'strict liability in tort' is designed to relieve the plaintiff from proving that the manufacturer was negligent in some particular fashion during the manufacturing process and to permit proof of the defective condition of the product as the principal basis of liability."); see also 63 Am. Jur. 2d Products Liability § 519 ("**Strict liability looks at the product itself and determines if it is defective, whereas negligence looks at the act of the manufacturer and the court determines if the manufacturer exercised ordinary care in design and production**.") Certainly, the existence of an alternative, feasible design is relevant to the manufacturer's conduct, but a requirement to establish an alternative, feasible design is simply not among the requisite elements under a negligence products liability theory.

Mullins, 236 F.Supp.3d at 944 (emphasis supplied). Judge Goodwin's analysis reflects both West Virginia law and common sense: different claims have different elements.

On this point, Ford's citations run enough risk of confusing the state of West Virginia law that Plaintiff must address them. On page 24 of its brief, Ford titles its section in relevant part:

> **West Virginia law requires plaintiffs . . . to prove the existence of a feasible alternative design[.]**

Ford claims beneath that heading that "negligent design claims require evidence of a feasible alternative design because both theories of liability require proof that a product's design is defective." Ford then offers a citation string of three authorities. *See* Ford's Brief at 24. First, Ford looks to the Third Restatement of Torts – an independent legal source. Second, Ford cites a

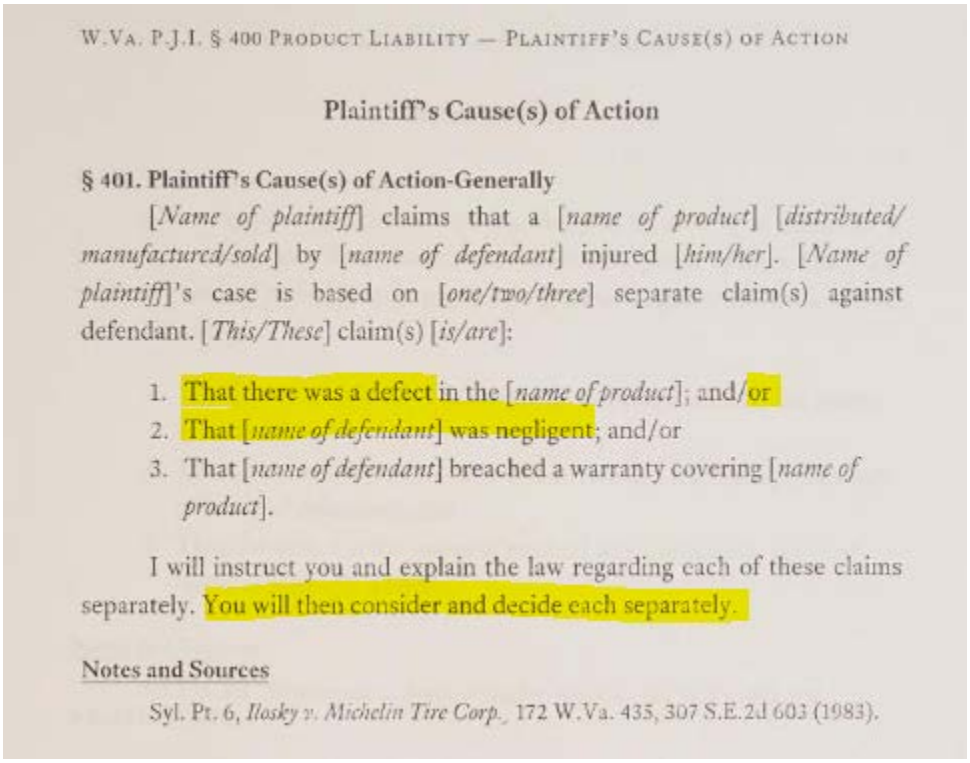
Morningstar holding that applies to strict liability, *not* negligence. Ford's Brief at 24 citing Syl. Pt. 3, *Morningstar*, 162 W. Va. 857 ("The cause of action covered by the term '***strict liability in tort***' is designed . . . to permit proof of the defective condition of the product as the principal basis of liability"). Finally, Ford cites a law review article that was published six years before the Pattern Jury Instructions in this state and ***written by two product liability defense attorneys***.[1] Ford's Brief at 24 citing Philip Combs & Andrew Cooke, *Modern Products Liability Law in West Virginia*, 113 W. Va. Law Rev. 417 (2011). West Virginia's appropriately-cited Supreme Court cases, Pattern Jury Instructions, and long-respected federal judges are appropriate legal authorities – external legal treatises and musings compiled by the product liability defense bar are not.

Moreover, Ford's brief misrepresents a key holding from the *Morningstar* court. Ford points to *Morningstar*'s statement that an action of 'strict liability in tort' is "designed to relieve the plaintiff from proving that the manufacturer was negligent in some particular fashion . . ." Syl. Pt. 3, *Morningstar*, 162 W. Va. 857 Ford's Brief at 26. Ford then leaps – without citation – to the conclusion that "[i]n both [strict liability and negligence], a plaintiff must prove that the product was sold in a defective condition – which means there was a feasible alternative design that would have prevented the harm that occurred and the manufacturer chose not to use it." Ford's Brief at 26.

There are two significant problems with Ford's assertion. First, never did the *Morningstar* court – or any West Virginia court, for that matter – hold that negligent design and strict liability cases carry the common element of product defect. On the contrary, West Virginia courts have held for nearly fifty years that strict liability and negligence claims are separate claims with separate elements. *See, e.g.*, *Mullins*, 236 F.Supp.3d at 944 (citing *Ilosky*, *Morningstar*, West

[1] Authors Philip Combs and Andrew Cooke are defense-side product liability attorneys at the law firm Thomas Combs & Spann PLLC.

Virginia Pattern Jury Instructions, American legal treatises). That a negligence claim does not require a showing of product defect is plain from the face of the West Virginia Pattern Jury Instructions that cite seminal West Virginia product liability law. Consider the following cut-out from the hornbook Pattern Jury Instructions themselves, as printed in September 2017 and unmodified to date. Note the contrast of defect (1., corresponding to strict liability) ***against*** negligence (2., corresponding to negligence theory of product liability):



W.VA. P.J.I. § 400 PRODUCT LIABILITY — PLAINTIFF'S CAUSE(S) OF ACTION

Plaintiff's Cause(s) of Action

§ 401. Plaintiff's Cause(s) of Action-Generally

[*Name of plaintiff*] claims that a [*name of product*] [*distributed/manufactured/sold*] by [*name of defendant*] injured [*him/her*]. [*Name of plaintiff*]'s case is based on [*one/two/three*] separate claim(s) against defendant. [*This/These*] claim(s) [*is/are*]:

1. That there was a defect in the [*name of product*]; and/or
2. That [*name of defendant*] was negligent; and/or
3. That [*name of defendant*] breached a warranty covering [*name of product*].

I will instruct you and explain the law regarding each of these claims separately. You will then consider and decide each separately.

Notes and Sources

Syl. Pt. 6, *Ilosky v. Michelin Tire Corp.*, 172 W.Va. 435, 307 S.E.2d 603 (1983).

(Highlights added). Second, Ford misrepresents the "relief" of burden that a strict liability claim provides. According to Ford, the "only difference" between strict liability and negligence is that "proving strict liability is easier . . ." Ford Brief at 25. In the case of high-stakes product liability litigation where Plaintiffs invest substantial sums of money in the litigation process, ***zero*** product liability attorneys – the undersigned included – would elect to pursue a negligent design theory if Ford were correct. It would make no sense. If two theories are the same in every respect except that one has an additional element that must be proven (negligence) without any offsetting

damage multiplier (negligence), it is easy enough to see that one of those two theories (negligence) will utterly die. If Ford's representations about what the 1979 case of *Morningstar* held were correct, 1979 would have been the last time a plaintiff-side product liability attorney pursued a negligence product liability theory.

But it was not, and the reason is simple. Building a negligence product liability case is hard precisely because negligence *does not* focus on the product: it focuses on conduct. W. Va. P.J.I. §424; Syl. pt. 3, Morningstar v. Black & Decker Mfg. Co., 162 W.Va. 857 (1979) ("The cause of action covered by the term 'strict liability in tort' is designed to relieve the plaintiff from proving that the manufacturer was negligent in some particular fashion during the manufacturing process and to permit proof of the defective condition of the product as the principal basis of liability."); *see also* 63 Am. Jur. 2d Products Liability § 519 ("Strict liability looks at the product itself and determines if it is defective, ***whereas*** negligence looks at the act of the manufacturer and the court determines if the manufacturer exercised ordinary care in design and production.")(emphasis supplied). And uncovering that conduct is difficult; peeling back the internal operations of a multinational corporation is no straightforward task. It requires extensive discovery battles, motions to compel, depositions, and at every step of the process, money. In a certain sense, it is easier to take the road of strict liability and simply prove that the product is defective. There, the Plaintiff is "relieved" of the burden of proving specific negligent acts. *Id.* But, if the Plaintiff elects to walk the difficult road of identifying and proving specific instances of negligence, the Plaintiff enjoys an offsetting benefit that West Virginia's Pattern Jury Instructions and the broader corpus of West Virginia product liability law support: "absent from [the jury instructions will be] any element of proof regarding an alternative, feasible design." *Mullins*, 236 F.Supp.3d at 944 (citing W. Va. P.J.I. §§ 424, 425).

	Strict Liability	**Negligence**
What must Plaintiff prove?	**Product defect** – a product that is not "reasonably safe for its intended use." W. Va. P.J.I. §§ 401, 402, 403.	**Negligent conduct** – failure to act as a "reasonably careful manufacturer . . . to avoid exposing others to a foreseeable risk of harm." W. Va. P.J.I. §§ 424, 425 (citing *Yost v. Fuscaldo*, 185 W. Va. 493, 497-498 (1991); *Webb v. Brown & Williamson Tobacco Co.*, 121 W. Va. 115 (1939); *Strahin v. Cleavenger*, 216 W. Va. 175, 183 (2004); *Honaker v. Mahon*, 210 W. Va. 175, 183 (2004)).
Must Plaintiff show specific negligent acts?	**No: negligent acts are not required.** *See* W. Va. P.J.I. § 401 (citing Syl. Pt. 6, *Ilosky v. Michelin Tire Corp.*, 172 W. Va. 435 (1983)).	**Yes: negligent acts are required.** *See* W. Va. P.J.I. § 424 (citing *Yost v. Fuscaldo*, 185 W. Va. 493, 497-498 (1991); *Webb v. Brown & Williamson Tobacco Co.*, 121 W. Va. 115 (1939)).
Must Plaintiff show a foreseeable risk of harm?	**No: foreseeable risk of harm is not required.** *See* W. Va. P.J.I. §§ 401. (citing Syl. Pt. 6, *Ilosky v. Michelin Tire Corp.*, 172 W. Va. 435 (1983)).	**Yes: foreseeable risk of harm is required.** *See* W. Va. P.J.I. § 425 (citing *Strahin v. Cleavenger*, 216 W. Va. 175, 183 (2004); *Honaker v. Mahon*, 210 W. Va. 53, 58 (2001).
Must Plaintiff prove defect?	**Yes: defect is required.** *See* W. Va. P.J.I. §§ 401. (citing Syl. Pt. 6, *Ilosky v. Michelin Tire Corp.*, 172 W. Va. 435 (1983)).	**No: defect is not required.** *See* W. Va. P.J.I. § 424 (citing *Yost v. Fuscaldo*, 185 W. Va. 493, 497-498 (1991); *Webb v. Brown & Williamson Tobacco Co.*, 121 W. Va. 115 (1939)).

c. **Though Plaintiff was not required to prove evidence of a feasible alternative design, Plaintiff presented substantial evidence that a feasible alternative design existed.**

At the outset – and as the preceding section of this Response demonstrates – West Virginia law does not require a plaintiff to demonstrate feasible alternative design under a negligence product theory. For that reason, Ford's argument is moot.

But even if a negligence product theory did require proof of a feasible alternative design as part of her negligence case, Plaintiff in this case provided that proof, and the remainder of this subsection c demonstrates how.

The trial court specifically ruled on this issue in her post-trial order denying Ford's Motion for Judgment as a Matter of Law. Judge Joanna Tabit sat through two-and-a-half weeks of evidentiary presentation. She took fifty pages of notes on the Plaintiff's case-in-chief alone. After Judge Tabit's citation and conclusion that a negligence theory does not require feasible alternative design, Judge Tabit specifically found:

> The Court finds that ***to the extent such proof was necessary***, Plaintiff presented sufficient evidence of a feasible alternative design to establish a *prima facie* case that Ford failed to act as a reasonably prudent manufacturer in the design of the 2014 Ford Mustang as it relates to the brake fluid design.

VIII JA 4156. As this Court reviews that determination, the applicable standards are well-established. "Upon a motion to direct a verdict for the Defendant, every reasonable and legitimate inference fairly arising from the testimony, when considered in its entirety, must be indulged in favorably to plaintiff; and the court must assume as true those facts which the jury may properly find under the evidence." *Brannon v. Riffle*, 197 W. Va. 97 (1996). "The question for us [is] . . . whether there is any [evidence] upon which a jury can properly proceed to find a verdict[.]" *Id.* Ultimately, a post-trial judgment as a matter of law is warranted only if "after considering the

evidence in the light most favorable to the nonmovant only one reasonable verdict is possible." *Id.* That is not the case here.

Plaintiff's design expert held – and holds – impeccable credentials. Dr. Chandrashekhar Thorbole is an expert in biomechanics and vehicle crashworthiness. IV JA 1792:20-24. For years, Dr. Thorbole taught graduate-level impact dynamics and machine design to students at Wichita State University. IV JA 1797:15-21. He then served as a design strategy consultant for Tata Motors – multinational automotive manufacturer and owner of both Land Rover and Jaguar – where was retained to help Tata better understand the role vehicle design plays in human injury in real-world crashes. He serves as a consultant for the Indian government in matters of crashworthiness standards and vehicle design. IV JA 1799. Specifically, Dr. Thorbole was brought in by the Indian crash safety body ARAI – Automotive Research Association of India – to lecture automobile policymakers on essential matters of crash injury reduction through vehicle design improvement. IV JA 1799.

Following his review, Dr. Thorbole concluded that a feasible alternative existed in this case that probably would have saved Breanna's life. IV JA 1892:16-24.

Dr. Thorbole's conclusion was supported by a four-cord strand. First, Dr. Thorbole's conclusions were founded on his expertise in the scientific, peer-reviewed procedures of automotive design. IV JA 1802:13-19. In addition to his own peer-reviewed publications, Dr. Thorbole is a peer reviewer in the field of automotive design. IV JA 1806:6-14. Dr. Thorbole followed the mechanism of failure mode analysis. IV JA 1804-1805.

Second, Dr. Thorbole drew from the state of the art, both during and before the manufacture of the Mustang in which Breanna died. Plaintiff presented evidence that as early as 2003, Volvo incorporated high-strength boron steel in its designs to ensure the protection of vital safety cage

areas in a crash. IV JA 1892:11-15. Also, in prior decades' models of the Ford Mustang, Dr. Thorbole showed that Ford itself used reinforcing struts aimed at protecting the brake fluid reservoir. IV JA 1854:1-10. Plaintiff had to look no further than Ford's own fleet to find evidence of more "reasonably careful" vehicle design strategies to protect the brake fluid reservoir.

Third, Plaintiff looked among the state of the art when the 2014 Mustang was manufactured. Plaintiff presented evidence that Mercedes manufacturers, for example, took additional steps to attempt to ensure that their 2012 Mercedes protected the brake fluid reservoir by use of a high-strength boron steel protective bar. IV JA 1882:18-24, IV JA 1883:1-13, IV JA 1897:20-24.

Fourth, Dr. Thorbole utilized *Ford's own computer model* for the 2014 Mustang to simulate the failure modes and vehicle forces present in Breanna's accident. Finite element modeling is a form of computer testing frequently used in the transportation industry by researchers, academics, and car manufacturers. IV JA 1802, IV JA 1803:1-16. Automobile manufacturers use a finite element model to analyze the performance of a vehicle in various crash modes in lieu of gross testing expense. IV JA 1803:10-16. Indeed, it is not feasible for automotive manufacturers – or Plaintiffs, for that matter – to completely design an automobile with all of the real-world cost and difficulty of ongoing crash tests. *Id.* Instead, automotive manufacturers create finite element models that accurately represent the real-world vehicle design and use them in various simulated crash forms. IV JA 1755:20-24. And during discovery, Ford produced to Plaintiff their *own finite element model* for Breanna's 2014 Ford Mustang. IV JA 1755:5-11.

Dr. Thorbole then used Ford's own finite element model to provide further evidence of what other vehicle models and his engineering judgment told him: a feasible alternative design that would have probably saved Breanna's life. IV JA 1892:16-24. Dr. Thorbole affixed a

protective boron bar across the front of the Mustang's brake fluid reservoir within Ford's own finite element model. The design was not novel. Instead, Dr. Thorbole was simply following the state of the art design exemplified by the 2012 Mercedes design – using the same high-strength boron steel incorporated in Volvo vehicle designs as early as 2003. IV JA 1855:4-15. Dr. Thorbole specifically testified – and affirmed following Ford's cross examination – that his feasible alternative design was technologically and economically feasible at the time of the Mustang's manufacture. IV JA 1892:5-8, IV JA 2140:23-24, IV JA 2141:1-5. In support of that conclusion stood Volvo, Mercedes, and Ford's own finite element model.

Though doing so was not necessary under her negligence product claim, Plaintiff presented sufficient evidence to support a jury verdict that a feasible alternative design existed at the time of the Mustang's manufacture.

d. **If feasible alternative design were required, Plaintiff presented sufficient evidence of a feasible alternative design to support a jury verdict means and Ford is not entitled to a new trial based on jury instructions.**

Ford claims that it is entitled to a new trial because the trial court did not tell the jury that a feasible alternative design was necessary.

Ford is mistaken. Even if Plaintiff were required to prove a feasible alternative design for her negligence case – which she was not – in West Virginia, an incomplete jury instruction does not support a new trial if it "appears the complaining party was not prejudiced by such an instruction." *Hollen v. Linger*, 151 W. Va. 255 (1966). This case was not one of prolonged, torturous deliberations. On the contrary, the jury returned a verdict for the Plaintiff the same day it retired. Moreover, Judge Tabit did not provide the jury with a copy of the jury instructions for the jury to pour over – indicating that one additional instruction may have had an impact on the jury's decision. Instead, the jury heard a list of 26 instructions read once, after which they

decisively, firmly, and quickly reached a conclusion in this case. There is no other way to put this: Ford clearly lost. Given the substantial evidence that Plaintiff presented of a feasible alternative design and the circumstances surrounding this verdict, it "does not appear that [Ford] was prejudiced" by the instruction in this case. After two-and-a-half weeks of trial, this Kanawha County jury would have reached the same Plaintiff verdict with a feasible alternative design instruction as it did without it. Therefore, the Court would be right to refuse Ford's demand for a new trial on the basis of one omitted instruction on this matter.

II. The Trial Court Properly Admitted Crash Simulation Evidence.

a. The trial court's decision to admit crash simulation evidence over Ford's Rule 403 objection is reviewed under an abuse of discretion standard.

Ford's objections to the admissibility of crash simulation evidence should be evaluated under an abuse of discretion standard. In a trial, "evidentiary and procedural rulings, perhaps more than any others, must be made quickly, without unnecessary fear of reversal, and must be individualized to respond to the specific facts of each case." *McDougal v. McCammon*, 193 W. Va. 229 (1995). For that reason, Rule 403 objections to evidence admissibility – including simulations – are reviewed under an abuse of discretion standard. *Ilosky*, 172 W. Va. At 450. Here, Ford lodged a Rule 403 objection to the admissibility of Plaintiff expert Dr. Thorbole's simulation evidence. Therefore, the Court's ultimate decision to overrule that objection and allow testimony about the simulation is covered by the abuse of discretion standard.

b. The trial court held that the Plaintiff expert's crash simulation was sufficiently similar for admissibility under the *Ilosky* standard.

Ford claims that it is entitled to a new trial because the trial court admitted evidence of a crash simulation that did not bear substantial similarity to Breanna's wreck. Ford's Brief at 33.

Ford is incorrect. As the following shows, Ford's argument incorrectly represents Dr. Thorbole's conclusions and – by claiming that the trial court read the *Ilosky* "substantial similarity" standards onto the record yet failed to apply them – foists a contradiction on the trial court where none exists. Worse, Ford's argument leaves incomplete the trial court record below.

Consider first the additional context that Ford failed to provide in its brief surrounding this sumulation's admission into evidence. During the course of discovery, Ford produced a copy of *its own computer simulation model* used to test and develop Breanna's 2014 Ford Mustang. IV JA 1755, 1757. Plaintiff took that computer model and provided it to her expert, Dr. Thorbole, a graduate-level Ph.D. instructor and consultant for governmental crash safety regulators. IV JA 1797-1798. Dr. Thorbole then used the model in the exact same way Ford uses the model: to use simulation forces as a test for a real-world crash. IV JA 1755. Ford – just like Dr. Thorbole – uses finite element models to model specific, real-world crash performances. IV JA 1756:1-10.

The simulation *was not* identical to Breanna's crash – and it never claimed to be. Breanna's crash was between two automobiles; the simulation was between an automobile and a rigid barrier wall. IV JA 1745. Breanna's crash involved a vehicle moving toward her that deflected and absorbed energy in the collision; the simulation involved a barrier wall. IV JA 1745. From deposition to *in camera* testimony to trial itself, Dr. Thorbole was clear: "[p]hysically you're not going to get *exactly* the same deformation pattern [in the simulation as you had in Breanna's collision]." IV JA 2076. Creating a model that would make exactly the same deformation patterns as this collision would require modeling the opposing 1989 Toyota – an overwhelming degree of intricacy and expense no litigant could handle. The simulation was not identical to Breanna's crash in every respect.

And the law does not require it to be. The *Ilosky* court held:

> In order for evidence of tests or experiments to be admissible, the essential conditions at the time of the experiment must be substantially similar to those existing under the occurrence, ***but it is not necessary that the conditions be identical in every respect***.

Id. at Syl. Pt. 16. The question before the trial court was clear: are the essential conditions in this simulation substantially similar (though not necessarily identical in every respect) to those in Breanna's crash?

Judge Tabit first took up this issue before trial with limited information. On September 14, 2021, Ford filed a motion in limine to exclude the crash simulation. Plaintiff responded on September 27, 2021. Ultimately, on April 29th, 2022, Judge Tabit ruled that the simulation was inadmissible on Rule 403 grounds. At that point, Judge Tabit was only able to reference Dr. Thorbole's written deposition transcript and the parties' briefing. At that point, she had not heard an *in camera*, in-person explanation from Dr. Thorbole that provided additional information. Based on what she knew, Judge Tabit excluded the simulation.

Judge Tabit's first ruling was understandable. Without expert guidance, it is not immediately clear how a crash test run at 45-miles-per-hour bears substantial similarity in the essential conditions to a frontal collision on a 55-mile-per-hour road. Judge Tabit understood – and all of her discussion around the matter acknowledged – that in West Virginia, simulation evidence must bear substantial similarity to the essential conditions. II JA 538 at 1. And based on her understanding of the complex crash dynamics Dr. Thorbole conveyed in his deposition, she believed that the Dr. Thorbole was acknowledging that the "essential conditions" in the model simulation were not substantially similar to Breanna's crash. II JA at 3.

But at trial, Dr. Thorbole provided *in-camera* testimony to the court that corrected some misconceptions. Most importantly, Dr. Thorbole informed the court of what the *Ilosky* "essential conditions" are in a simulated crash: failure modes. JA IV 1749-1751. The goal for design and

crash reconstruction engineers is not to model the exact type of truck that hit Breanna's Mustang at the exact speed. Indeed, finite element model development is intricate, and the truck that hit Breanna was a 1989 Toyota created before the modern computer era. IV JA 3162:19-24, 3163:1-3. Instead, ***the goal is to create substantially similar failure modes*** – that is, pattern failures of the vehicle design in a collision event. And Dr. Thorbole was clear: his understanding of the failure modes in Breanna's crash and the relevant crash loads were the foundation of the simulations he ran within Ford's finite element model. IV JA 1748:12-24, 1749, 1750:1-20.

Moreover, Dr. Thorbole informed the Court:

- Plaintiff's expert has testified to both national and international bodies concerning vehicle crashworthiness, including publications in the International Journal of Crashworthiness (IV JA 1762:12-16).
- When Plaintiff's expert created these simulations within Ford's model to support his conclusion that a feasible alternative design existed – ***something he has done "many times" before*** – he applied his engineering background, education, experiences in automotive engineering, knowledge of biomechanical safety, and professional judgment to the task (IV JA 1759:7-18).
- Dr. Thorbole relied on the state of the art and other vehicle designs to form his opinion concerning feasible alternative design (IV JA 1884-1885).

- The simulations were an aid to Plaintiff's expert conclusion that a feasible alternative design existed, ***not*** the exclusive basis for that conclusion (IV JA 1752:10-13).

Ultimately, based on Dr. Thorbole's engineering expertise and analysis of Breanna's crash, Dr. Thorbole testified *in camera* that the failure modes – the *Ilosky* "essential conditions" – in Breanna's crash were substantially similar to the structural response and failure modes of his simulation model.

Judge Tabit's response to the *in camera* testimony: "**I understand. I think I've got enough."** IV JA 1766:3-6. Before trial, Judge Tabit did not understand that a finite element model with a fixed rigid barrier could create vehicle forces and failure modes substantially similar to Breanna's real-world collision. But after Dr. Thorbole provided his *in camera* testimony at trial, the Court understood that a simulation with an immovable barrier could and did bear substantial similarity to a real-world wreck.

Far from misinterpreting *Ilosky* – as Ford's appeal would claim – the trial court ***recited*** the key holding regarding test admissibility when she concluded that she would allow testimony concerning this test into evidence:

> *Ilosky* represents -- recognizes in syllabus point 16 that in order for evidence to test is fair enough to be admissible, **essential conditions at the time of the experiment must be substantially similar to those existing under the occurrence**, but it's not necessary that the conditions be identical in every respect.

IV JA 1775:6-12 The trial court was not ignorant of the key standards for test admissibility as Ford claims. Indeed, Judge Tabit recited them she made the decision to allow testimony concerning this test. *Id.*

The Court was impressed by Dr. Thorbole's testimony. After Plaintiff and Ford completed their *in camera* examinations of Dr. Thorbole, the Court explained:

> All right. And I think I know the issue here. I excluded[2] the simulation, per se, based on the doctor's admissions during his own deposition as it related to the fact that it wasn't substantially similar.[3]
>
> ***Based on what I have heard him testify***, I – I believe that his testimony regarding these issues is proper.
>
> I think that Ford can certainly cross-examine with respect to those issues and raise the very issues that you've pointed out here, ***but I do think that [testimony concerning the test] is relevant, that it's probative and admissible***.

IV JA 1768:17-24. Now, according to Ford, the trial court contradicted itself. Despite various recitations of the *Ilosky* standard, Ford says the trial court admitted a test that it believed was not substantially similar. That is simply untrue. The trial court did have an issue with allowing the simulation video or photos to be played such that the court would not but it was not that the trial court believed the simulation lacked substantial similarity to the vehicle force loads in this wreck. Whether the Court was concerned that the jury may take the simulation as a simulation of the actual crash or of something else is unclear from the record – the Court never clarified herself on the record. But what should not be concluded is that the trial court called simulation testimony "relevant, probative and admissible," then cited the *Ilosky* "substantial similarity" standard, only to not apply the standard she just read. IV JA 1768:17-24.

[2] Note the past tense verb form: *excluded*. Prior to trial, the Court excluded the Mustang test based on limited information. Now, at trial, the court has obtained additional information that will cause her to change her earlier opinion concerning the test's admissibility.

[3] Note the trial court's repetitive use of the *Ilosky* standard that Ford claims the Court failed to apply. Whatever misreading Ford of *Ilosky* Ford may now try to shove onto the trial court, one matter is clear: the trial court well understood that test evidence is not admissible unless it is substantially similar – the *exact* syllabus point holding of *Ilosky*.

Bottom-line: Dr. Thorbole's simulation was substantially similar to Breanna's crash. Dr. Thorbole clarified that matter *in camera* before his testimony, and the trial court rightly modified her position, announced the appropriate *Ilosky* standard, and allowed Dr. Thorbole to testify about the simulation. She did not abuse her discretion in doing so, and therefore, Ford's argument. *Ilosky*, 172 W. Va. At 450

III. Both of Ford's alleged "Failures Of Proof On Other Elements Of . . . [Plaintiff's] Claim" fail.

Ford's final section raises two core issues in its subsections. In both, Ford challenges the sufficiency of the trial evidence. Plaintiff handles each in turn below.

a. Plaintiff is due a favorable standard of review for Ford's claims of evidentiary sufficiency.

Ford's failure to show that Plaintiff's evidence was insufficient as a matter of law is so clear partly due to the highly deferential standard to which Plaintiff is entitled. When determining the sufficiency of the evidence, the Court should:

> (1) [Consider] the evidence most favorable to the [Plaintiff];
>
> (2) Assume that all conflicts in the evidence were resolved by the jury in favor of the [Plaintiff];
>
> (3) Assume as proved all facts which the [Plaintiff's] evidence tends to prove; and
>
> (4) Give to the [Plaintiff] the benefit of all favorable inference which reasonably may be drawn from the facts provided.

Syllabus Point 5, *Orr v. Crowder*, 173 W. Va. 335 (1983). Simply, Ford has failed to show that "[a]fter considering the evidence in the light most favorable to [the Plaintiff] only one reasonable conclusion as to [a] verdict [in Ford's favor] can be reached." *Gillingham v. Stephenson*, 209 W. Va. 741, 745 (2001).

b. The jury had more than sufficient evidence to determine that Ford breached a duty of reasonable care in its design of the 2014 Mustang.

Ford's duty to Plaintiff is legally clear. The West Virginia Pattern Jury Instructions for negligence product liability cases states:

> A manufacturer is negligent if [it] fails to use the amount of care in [designing] the product that a reasonably careful [manufacturer] would use in similar circumstances to avoid exposing others to a foreseeable risk of harm.

W. Va. P.J.I. §§ 424 (citing *Honaker v. Mahon*, 210 W.Va. 53, 58 (2001); *Strahin v. Cleavenger*, 216 W.Va. 175, 183 (2004)). Here, Ford had actual knowledge of a "foreseeable risk of harm" in Breanna's Mustang. The Mustang's brake fluid reservoir held the vehicle's second most flammable liquid. IV JA 2179:12-22, IV JA 2182:6-22. It was the closest fuel source to the driver; if Breanna could have looked through her speedometer, just on the other side of her dash, Breanna would be looking at the brake fluid reservoir. III JA 823:15-24. The reservoir was within the engine compartment, i.e., that part of the vehicle designed to crumple in a frontal collision. IV JA 1882, 1883:1-7. As in this crash, when the brake fluid is vaporized, it can combust. III JA 1458:8-14

It is also what happened in a crash test Ford saw years before Breanna's Mustang was manufactured. Two and a half years before Breanna's Mustang was manufactured – Ford hired a third-party to test the driver-side crashworthiness in a Side Overlap Rigid Barrier ("SORB") test. VI JA 3903. The SORB test showed failure patterns nearly identical to those in this accident. VI JA 3903. Importantly, the SORB test demonstrated a decimation of the driver's side engine compartment – including the flammable brake fluid reservoir. VI JA 3903-3908.

Vehicle manufacturers who were not, presumably, privy to the results of Ford's private SORB test demonstrated their knowledge – both during and before 2014 – of the importance of

protecting the brake fluid reservoir. Plaintiff showed one such design in the 2012 Mercedes which used a high-strength boron steel load path to divert energy away from the brake fluid reservoir in a collision. IV JA 1882: 6-24, 1883:1-7. Dr. Thorbole incorporated that concept into Ford's own finite element model to build a similar high-strength strut across the front of the 2014 Ford Mustang. Dr. Thorbole's model ensured the boron bar's security to both the tower and cowl – both of which he testified were technologically and economically feasible – thereby preventing vaporization of brake fluid in the same hazardous fashion. IV JA 1832:5-9.

In fact, Ford's own designs demonstrated that Ford has understood the importance of protecting the brake fluid reservoir for decades. At trial, Plaintiff showed Ford designs from decades before 2014 that utilized load-bearing struts to divert collision energy around and away from the brake fluid reservoir. IV JA 5290-5295. The only cars presented at trial in the 2014 state of the art had manufacturers who chose to use more robust steel in the engine compartment, stronger steel in the occupant safety compartment, or both. IV JA 3068-3072.

Though the jury found that the 2014 Mustang reasonably protected against entrapment in this accident, the record is rife with evidence that the 2014 Mustang had a safety cage that was among the weakest in the state of the art. The jury was reasonable to find that the strength of safety cage steel has a dynamic relationship with the design requirements of a brake fluid reservoir complex. Indeed, it is Ford's creation of a vehicle system that fails to protect against a "foreseeable risk of harm" that makes Ford liable for negligence.

Plaintiff presented evidence that a reasonable and foreseeable collision for the 2014 Mustang included the commonplace, two-lane, 55-mile-per-hour highway roads of West Virginia. Plaintiff presented witness testimony from a first responder to vehicle collisions in West Virginia who testified he responds to hundreds of collisions on 55-mile-per-hour-roads, just like this one.

III JA 1275:3-24. From its opening statement to the present day, Ford has pressed its belief that this was a terrible accident and that Ford simply cannot be blamed for Breanna's death. The other driver – a sixteen-year-old girl, driving a lighter vehicle that was 25 years older and had no airbags – walked out of her car with relatively minor injuries from which she fully recovered. III JA 1101:1-4, III JA 915:1-9.

Ford's argues in part that the reason Breanna died while the other driver was okay is that this was a vehicle override collision. Ford's Brief at 6. The trouble: this was not an override collision. Plaintiff's accident reconstructionist Kelly Kennett explained that the frame rail engagement patterns are inconsistent with the claim that this crash was an override collision. III JA 1123-1125. The Plaintiff's evidence and Ford's evidence disagreed on this point, and in that case, Plaintiff is entitled the inference in her favor. Syllabus Point 5, *Orr v. Crowder*, 173 W. Va. 335 (1983).

Ford made a negligent design choice. In the 2014 Mustang, Ford's chosen means of protecting the brake fluid reservoir was the driver-side shock tower. IV JA 2858:15-21. Ford claimed that the brake fluid reservoir – and the highly flammable liquid contained therein – was "well protected" by that shock tower. IV JA 2858:15-21. Now, in a crash, certain parts of the vehicle are designed to collapse and thereby reduce the collision energy transferred to the occupant. IV JA 3052:10-13. The trouble: the driver-side shock tower was designed out of sub-400 megapascal steel used in crumple zones. VI JA 3918, VII JA 3936. Put differently, the "protective" shock tower was made of the same materials as the parts of the vehicle designed to collapse. VI JA 3918, VII JA 3936. What resulted from that decision was foreseeable: in Breanna's crash, the driver-side shock tower was driven back so far and hard that it crushed the

brake fluid reservoir. And – as explained in greater detail later – brake fluid was the first fuel ignited in the fire that killed Breanna. III JA 1429:13-24, 1430:1

In this case, the jury's verdict announced that given the foreseeable dangers Ford knew about when it made Breanna's Mustang, Ford acted negligently. The jury decided that the brake fluid reservoir was defective because it did not protect against what it deemed a reasonably foreseeable wreck type. III JA 576 at 1(a). A car may comply with every governmental safety standard and still be – according to Ford's own expert – defective. IV JA 2877:24, 2878:1-6. Foreseeable danger, product defect, and reasonable safety are fact questions for the jury, *Estep v. Mike Ferrell Ford Lincoln-Mercury, Inc.*, 672 S.E.2d 345 (W. Va. 2008), and Plaintiff gave the jury enough evidence to establish a prima facie case – especially viewing the evidence through the post-verdict lens of the *Orr* factors.[4]

Even as the jury – as the empowered determiner of what negligent actions allowed for a foreseeable design danger – noticed the lack of a protective boron strut to cover the brake fluid reservoir and the non-protective, weakly designed shock tower, it was presented with a final reality: Ford positioned the entire brake fluid system immediately on the other side of a relatively weak occupant safety cage. Undoubtedly, Ford would be quick to add that the jury did not call the Mustang defective for its failure to prevent entrapment, but that distracts from the main point. The jury does not need to find the Mustang defective to observe that *among Ford's own fleet of vehicles* Ford incorporated high-strength steel into the Mustang safety cage. IV JA 1981:7-10. The jury should reasonably expect to see more done to protect occupants in a relatively weak safety cage.

[4] Repeated here for ease of reference: (1) [Consider] the evidence most favorable to the [Plaintiff]; (2) Assume that all conflicts in the evidence were resolved by the jury in favor of the [Plaintiff]; (3) Assume as proved all facts which the [Plaintiff's] evidence tends to prove; and (4) Give to the [Plaintiff] the benefit of all favorable inference which reasonably may be drawn from the facts provided.

Unfortunately, there is no evidence that Ford did anything of the like relative to other vehicles in its fleet (Focus, Fusion) and other state-of-the-art models on the road (e.g., Mercedes).

In sum, the jury had more than sufficient evidence to support a finding that Ford negligently designed the 2014 Ford Mustang, especially in light of the highly deferential post-verdict standards that Plaintiff now is due.

c. The jury had more than sufficient evidence to determine that Ford's design choices were a proximate cause of the fire that killed Breanna.

Ford's negligence in designing the 2014 Mustang was a proximate cause of Breanna's death. Ford did not design a Mustang brake fluid reservoir with reasonable care to avoid foreseeable danger, and Plaintiff presented ample evidence that leakage from the brake fluid reservoir was a proximate cause of Breanna's death.

The fire that killed Breanna started at the brake fluid reservoir, just on the other side of Breanna's speedometer. III JA 1234:20-24. Plaintiff's fire expert, Mr. Schulz, showed where the fire in this wreck started. First, he concluded that the fire did not begin *outside* the Mustang. III JA 1438:19-23. Then, he demonstrated that the fire started *inside* the engine compartment. III JA 1426:8-11. Ultimately, Mr. Schulz showed that the fire started at the precise location where Ford chose to design and place the brake fluid reservoir. III JA 1426:8-11. Post-collision, that area was occupied by the allegedly protective driver-side shock tower. IV JA 1882:2-11.

Brake fluid was the first fuel ignited. Mr. Schulz was able to determine that using oxidation analysis. III JA 1255-1257. Those areas of the engine compartment that are more oxidized – i.e., rusted – following a wreck tend to be the ones that experienced more burn time. III JA 1256:5-8. Here, Mr. Schulz analyzed the Mustang's oxidation pattern before the jury and demonstrated a longer burn time (i.e., more orange-looking rust) in the brake fluid reservoir's design location than in any other. III JA 1256:9-14. From this, and based on over 30 years of fire analysis experience,

Mr. Schulz unequivocally concluded that brake fluid from the brake fluid reservoir was the first fuel to catch fire. III JA 1429:13-24, 1430:1.

That fire killed Breanna. Dr. Jonathan Arden, Chief Medical Examiner for the State of West Virginia and former head of the Brooklyn bureau morgue on 9/11, received Breanna's body for autopsy the same day as the wreck. III JA 1608:23-24, 1609:1-2. Dr. Arden first examined Breanna for broken bones, signs of major arterial lacerations, and internal injury. III JA 1622-1624:11. His autopsy went so far as to remove Breanna's organs and examine them in his hands: brain, heart, lungs, and more. . Dr. Arden concluded to a reasonable degree of medical certainty that Breanna died from smoke inhalation and thermal injuries: in layman's terms, "Breanna burned alive." III JA 1623:20-24, 1624:1-2.

All told, Breanna died from a fire that started from brake fluid. The brake fluid was housed in a reservoir that the jury determined what not reasonably designed and protected to prevent leakage in the event of a collision. That determination was supported by substantial evidence, and Ford is by no means entitled to override that jury decision.

CONCLUSION

For the foregoing reasons, this Court should deny Ford's motion for judgment as a matter of law or, in the alternative, their motion for a new trial.

Respectfully submitted on this the 16th day of March, 2023.

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CERTIFICATE OF SERVICE

I, Brian E. Bigelow, counsel for Respondent, do hereby certify that on this 16th day of March 2023, I served the "Respondent's Brief" via the E-Filing System maintained by the Intermediate Court and Supreme Court of Appeals of West Virginia, and upon the following counsel of record via U.S. mail:

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