

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

Appeal from Charleston County

Court of Common Pleas

The Honorable J.C. Nicholson, Jr., Circuit Court Judge

Case No. 2016-002209

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SC Court of Appeals

Steven Newbern and Claudia Newbern.....Appellants,

v.

Ford Motor Company.....Respondents.

FINAL BRIEF OF RESPONDENT

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STATEMENT OF ISSUES ON APPEAL

1. South Carolina law requires expert testimony to support a claim for product liability based on design defect in cases involving complex or highly technical issues. Here, the plaintiffs did not present any expert testimony whatsoever on their claim that Ford defectively designed the right-front airbag system in their 2009 Ford Focus, and instead rested without calling their retained airbag design expert, even though he was present at trial. Should this Court affirm directed verdict for Ford based on this lack of required expert testimony?

2. South Carolina law also mandates that a plaintiff in a product liability/design defect case such as this must present affirmative, competent proof of both a design defect and an alternative feasible design, in accordance with the necessary risk-utility analysis, as well as causation. And a negligence claim imposes an additional burden on a plaintiff to prove, by competent affirmative evidence, a failure to exercise due care. Here, as the trial court found, the plaintiffs failed to prove any of the requisite elements of their design defect claim. Should this Court affirm directed verdict for Ford?

STATEMENT OF THE CASE

Plaintiffs/appellants Steven and Claudia Newbern initiated this automotive product liability action against defendant/respondent Ford Motor Company and co-defendant Stephen McGee by their complaint filed May 17, 2013, arising out of the December 2012 crash between the Newbern's 2009 Ford Focus and McGee's 1989 Chevrolet Caprice. (R. pp. 12-18.) The plaintiffs alleged causes of action against Ford for strict liability, negligence, and breach of warranty on various defect theories, negligence as to McGee for causing the crash, and loss of consortium against both, based on personal injuries Mr. Newbern sustained in the crash. (*Id.*)

Following a settlement with defendant McGee, plaintiff/appellant Steven Newbern later filed an amended complaint in early 2016, listing himself as the lone plaintiff, Ford as the only defendant, and dropping the breach of warranty claim, leaving only the claims for strict liability and negligence. (R. pp. 32-36.) Ford answered both complaints, denying any liability. (R. pp. 19-31; R. pp. 37-46.)

The action proceeded to a jury trial on September 12, 2016 before the Honorable J.C. Nicholson. (R. p. 263.) Following pretrial motions, voir dire, and jury selection on September 12, and opening statements the following morning, the plaintiffs presented their case, calling Mrs. Newbern, Ford witness Ramaniyam Krishnaswami (not as an expert, and not as Ford's corporate representative), Mr. Newbern's treating physician Andrew Eiseman, plaintiffs' retained biomechanics expert Paul Lewis, and finally Mr. Newbern. (R. p. 264 lines 1-4; R. p. 293, lines 1-14; R. p. 472, lines 1-15; R. p. 665, lines 1-14.) After Mr. Newbern stepped down, the plaintiffs rested on September 15, without calling their retained automotive design expert Michael Nranian. (*See* R. p. 739, lines 2-5.)

Immediately thereafter, Ford moved for directed verdict on numerous grounds, including: that the plaintiffs didn't prove both a design defect and an alternative feasible design, as required under South Carolina law; didn't prove causation or negligence; and didn't present any expert evidence on any of these issues, also as required under South Carolina law in a highly technical product liability action. (R. p. 739, line 25-p. 759, line 13). The trial court entertained lengthy oral argument on Ford's motion—asking numerous questions on various issues and offering the parties full opportunity to present their arguments—before taking the matter under advisement and advising Ford to proceed with its case. (*Id.*) Ford presented its first witness for the remainder

of September 15 while the trial court took Ford's directed-verdict motion under advisement. (R.p. 760)

After considering Ford's directed-verdict motion overnight, the trial court returned to it the morning of September 16, 2016, asking the plaintiffs to answer additional questions. (R. p. 764, line 5-p. 776, line 9.) After additional argument from both sides, the trial court orally granted Ford's motion and directed verdict in its favor. (*Id.*) The plaintiffs made no motions at the time, the jury was discharged, and the matter concluded. (*Id.*) Ten days later, the plaintiffs moved for a new trial (R. pp. 66-84), which the trial court denied on September 28, 2016 (R. p. 6). The plaintiffs noticed this appeal on October 28, 2016. (R. pp. 1-2.)

FACTS

A. The Newberns crashed their Ford Focus into co-defendant McGee's Chevy Caprice at high speed, resulting in significant crash forces.

This case arose out of a crash between the Newbern's 2009 Ford Focus, driven by Mrs. Newbern, and a 1989 Chevrolet Caprice driven by former co-defendant Stephen McGee. The Newberns were on their way to see a movie when McGee failed to yield the right of way and turned left in front of the Newberns, causing a collision between the right front of the Newbern's vehicle (i.e., the passenger side where Mr. Newbern was seated) and the right-front of McGee's vehicle. (R. p. 348, lines 7-19; R. p. 353, line 14-p. 355, line 21; R. p. 682, line 14-p. 686, line 23.)

While the plaintiffs never presented their retained and disclosed accident reconstruction expert at trial before resting, the evidence they presented during their case-in-chief nonetheless showed that this crash was a significant impact. Mrs. Newbern, who was driving the Newbern's 2009 Ford Focus, testified that they were going approximately 35 to 40 miles per hour, and the plaintiffs assumed that McGee's Caprice was approaching from the opposite direction at

approximately 27 miles per hour. (R. p. 354, line 11-p. 355, line 21.) In fact, there was really no contest between the plaintiffs and Ford concerning the vehicles' speeds and the crash severity at impact, with the plaintiffs agreeing that the Delta-V—or change in velocity—experienced by the Newbern's Ford Focus upon impact with McGee's Caprice was approximately 25 miles per hour. (R. p. 447, line 1-p. 449, line 21.)

As a result of the crash forces, both front airbags in the Newbern's Ford Focus deployed—i.e., for both Mr. and Mrs. Newbern. (R.p. 736, lines 14–16.) The plaintiffs' biomechanic expert Paul Lewis, whom they called in their case-in-chief, confirmed that given the severity of this crash, he would have expected the airbags to deploy as they did. (R. p. 657, line 5-p. 658, line 14.)

B. First responders arrived on the scene within seconds of the crash, finding Mr. Newbern with injuries to his face and, in particular, his right eye, as well as pieces of what appeared to be a drinking glass near where Mr. Newbern was seated.

By chance, an off-duty first responder, emergency medical technician (EMT) Stephen Riddle, was nearby the intersection where the crash occurred, and he arrived on the scene “within seconds” of the crash and began attending to the Newberns, before Mr. Newbern even had a chance to try to open his door. (R. p. 687, line 15-p. 688, line 4; *also* R. p. 358, lines 1-15.) Other first responders arrived on the scene shortly thereafter. (*See* R. p. 695, lines 3-9.)

Ford's evidence (including as introduced during the plaintiff's case-in-chief) would show that Mr. Newbern's eye injury was not caused by contact between his eye and the airbag, but was instead caused by a drinking glass that Mr. Newbern had with him in the car, and that it was blunt force trauma with that glass that caused his eye injury. (R. p. 345, line 13-15; *also* R. p. 302, lines 12- 18; R. p. 736, lines 4-10.) The plaintiffs acknowledge that the first responders found shards of what appeared to be glass in the Newbern's Ford Focus in the vicinity of where

Mr. Newbern was seated—glass that was not from the Ford Focus itself, such as from the windows or windshield. (R. p. 343, line 3-p. 344, line 7; R. p. 725, line 24-p. 727, line 24; R. p. 736, lines 4-10; R. p. 854; R. pp. 855-863.) Mr. Newbern confirmed that their Ford Focus’s side windows were not broken in the crash. (R. p. 737, lines 22-24.) Mr. Newbern further acknowledged that if the first responders said they found broken glass “that probably was not windshield glass” in the Newbern’s Ford Focus immediately after this crash, he would have no reason to think they were lying. (R. p. 727, line 4-p. 728, line 9.) As he put it: “If that’s what they found that’s what they found.” (R. p. 736, lines 4-10.)

C. The Newberns sued Ford on assorted product-defect theories and various causes of action, along with Chevy Caprice driver McGee for negligence.

The Newberns originally sued Ford in product liability under several different causes of action, including strict liability, negligence, and breach of warranty, along with a claim for loss of consortium on behalf of Mrs. Newbern. (R. pp. 12-18.) The plaintiffs also sought punitive damages from Ford. (R. p. 16.)

For their defect theories, the plaintiffs alleged that Ford was strictly liable because the 2009 Ford Focus was “defective and unreasonably dangerous” because the right-front airbag “failed to perform properly” and “struck the Plaintiff’s face with excessive force” (R. pp. 2-3.) In their negligence claim, the plaintiffs alleged a myriad of different defect theories, including that Ford failed “to properly design the vehicle,” “to properly assemble the vehicle,” and “to properly test the vehicle,” that the right front airbag “failed to perform as it struck the Plaintiff in the fact [sic] resulting in the loss of his right eye,” that it was “overly aggressive and deployed with excessive force,” and that the Ford Focus “contained inadequate warnings.” (R. pp. 14-15.) They also sued Chevy Caprice driver McGee for negligence in causing the crash. (R. p. 16.)

After settling with McGee, plaintiff Stephen Newbern filed an amended complaint as the lone plaintiff (i.e., without Mrs. Newbern), suing only Ford. (R. pp. 32-36.) In his amended complaint, Mr. Newbern revised his strict liability count to add new defect theories that the right front airbag “deployed unnecessarily, it deployed late, and its airbag deployment characteristics were dangerous in both path and excursion.” (R. pp. 33-34.) In his negligence claim, Mr. Newbern also added new allegations, while dropping others. In particular, he dropped his allegations of negligent assembly, and abandoned his claim for breach of warranty and his request for punitive damages. He added allegations that the right front airbag was defective “due to its deployment characteristics which allowed it to strike the Plaintiff during its deployment phase, in the face,” that it “deployed with excessive force due to its deployment characteristics and late deployment,” and that it should not even have deployed at all in this crash. (R. pp. 34-35.)

D. The plaintiffs retained and disclosed numerous expert witnesses, including an accident reconstructionist, a biomechanic, and an airbag design expert. Ford, in turn, disclosed its own specially retained experts.

In discovery, and pursuant to SCRCP 26(b)(4)(A) and the trial court’s scheduling order, the plaintiffs disclosed numerous specially retained expert witnesses—including “liability” experts Andrew Webb on accident reconstruction, Paul Lewis on biomechanics, and Michael Nranian on automotive airbag design—along with non-retained treating physicians. (R. p. 268, line 16- p. 269, line 19; R. pp. 7-10)

As the plaintiffs’ forecasted during both pretrial motions and their opening statement, the plaintiffs planned to call their airbag design expert Nranian to opine that the 2009 Ford Focus’s right front airbag system was defective and unreasonably dangerous both because it deployed in this crash when it should not have, and also because it purportedly deployed late. (R. p. 288, line

24-p. 290, line 12; R. p. 313, lines 10-13; R. p. 318, lines 10-15.) The plaintiffs further forecasted that they intended to call Nranian to opine that Ford should have changed the location of the crash sensors, and that the Ford Focus's pretensioner—the system in the seat belt restraints that pulls in the belt in the very first milliseconds of a detected crash so that it is more snugly against the occupant before the occupant starts to impart loads on the belt—was defective. (R. p. 289, lines 3-25; R. p. 326, lines 10-21.)

Ford, in turn, disclosed a number of experts as well, including airbag design expert Jeff Pearson, accident reconstructionist Dan Toomey, and biomechanic Dr. Mike Scott. (R. p. 269, line 21-p. 270, line 4.) In addition to Ford's retained experts, Ford also disclosed in discovery and brought to trial Ford engineer Ram Krishnaswami, whom they disclosed and produced for deposition on three occasions as a fact witness, as Ford's corporate representative, and as an expert witness. (R. p. 70, line 8; *see* R. p. 296, lines 6-9; R. p. 396, line 18-p. 398, line 17.)

E. At trial, the plaintiffs called Ford engineer Krishnaswami in their case-in-chief as an “adverse witness” only, without proffering him or having him qualified as an expert witness.

As their second witness, the plaintiffs called Ford engineer Krishnaswami as an “adverse witness.” (R. p. 396, lines 18-19.) The plaintiffs confirmed with Krishnaswami that he had been deposed in this case three times “in different capacities,” including once as an expert witness and twice as a corporate representative on different topics related to the Ford Focus, its airbag systems, and its warnings. (R. p. 397, line 21-p. 398, line 17.) The plaintiffs' counsel didn't identify in what capacity they were calling Krishnaswami, and said nothing about his role as a witness, except that they were calling him as an “adverse witness.” (R. p. 396, lines 18-19.)

Krishnaswami identified his role with Ford and in this litigation (as well as other litigation) as that of an engineer in Ford's “design analysis” division, and explained that he helps

attorneys “find out details related to engineering matters,” and that Ford “produces witnesses such as” him because of their “familiarity with engineering principles” (R. p. 398, line 18-p. 400, line 19.) In response to the plaintiffs’ question about his role in this case, Krishnaswami explained that it was merely to explain how “the airbag functions” and “how the sensing systems function generally.” (R. p. 400, line 25-p. 401, line 4.)

The plaintiffs questioned Krishnaswami at length over two days about the design history of the 2009 Ford Focus. (R. p. 397, line 18-p. 467, line 19; R. p. 568, line 23-p. 604, line 11; *also* R. p. 512, line 8-p. 604, line 18.) As Krishnaswami explained, Ford’s design process for the airbag system for the 2009 Ford Focus—as well as its other vehicles—was to start with a proposed set of targets for various performance attributes of the airbag system for its airbag sensor supplier (in this case, Bosch) to use in designing the airbag deployment algorithm, such as the crash circumstances in which an airbag would deploy and with what type of staging (i.e., stage one or stage two). (R. p. 532; line 1-p. 539, line 4; *also* R. p. 432, line 5-p. 433, line 8.) This process involving Bosch, as Krishnaswami explained, was called calibration, “which is unique to a vehicle” and “is what controls the airbag deployment or non-deployment.” (R. p. 411, line 5-p. 412, line 6; *also* R. p. 531, line 15-p. 532, line 21.)

The initial airbag sensor calibration, Krishnaswami explained, was but one aspect of the overall design process, which was “a very long, drawn-out process” resulting in multiple iterations along the way, with Ford studying, testing, and revising the design throughout. (R. p. 411, lines 5-24; *also* R. p. 532, lines 17-21.) As Krishnaswami explained, the initial calibration targets Ford provided to Bosch were merely “soft targets,” because the final design result is based not on the initial calibration targets, but rather on “occupant injury values as recorded in crash test dummies.” (R. p. 413, lines 1- 13.) Krishnaswami confirmed that only after satisfying

themselves that the overall airbag system design for the vehicle met the company's "several robust criteria including at the component and at the subsystem level" would the engineers approve the airbag system for production. (R. p. 413, line 1-p. 414, line 5.)

Both at trial and on appeal, the plaintiffs have repeatedly attempted to label the initial sensor calibration targets that Ford provided to Bosch as final "requirements" that Ford violated with the 2009 Ford Focus's airbag system, and they attempted with Krishnaswami to characterize the design process as being that Ford developed internally "a set of requirements for that airbag as to timing, deployment whether or not an airbag should deploy [which] was then given to Bosch and Bosch then was asked make [Ford] a system that does that?" (R. p. 411, lines 5-12; e.g., Init. Br. of Apps. (App.'s Br.) pp. 8, 11-12.) For example, the plaintiffs' counsel asserted that "in this particular case then, the Ford Focus, Bosch came back with a version of calibrations that did not meet the requirements that were given to them initially?" (R. p. 414, lines 6-15.) Krishnaswami corrected the plaintiffs, specifically rejecting the notion that the airbag design for the Ford Focus "didn't meet the requirements," in particular, because the figures provided to Bosch were not requirements at all. Instead, as Krishnaswami explained, those figures were "an initial starting point of the target and as I explained to you before, the very fact that we signed it and received it means that we accepted the end results." (*Id.*)

Throughout his testimony, Krishnaswami similarly rejected the plaintiffs' repeated characterization of the design process, as well as the use of the term "requirements" in referring to the initial figures Ford provided to Bosch, correcting plaintiffs' counsel's misimpression and explaining that those figures were merely "initial targets and initial guidelines," "initial targets," "starting locations," or "starting points" for the design process, as opposed to specific

requirements that the ultimate design of the airbag system must meet. (R. p. 411, line 5-p. 415, line 23.)

Krishnaswami further testified to the airbag sensor design process as being that once “that starting point, whatever they [Bosch] have given back to us, we go back, we study it, we go back and study it further. And only then accept it.” (R. p. 415, lines 8-23.) He further explained that it was not the “practice to keep changing the targets, the original value as and when more data comes in. If we do that, we won’t have a basis to come back.” (*Id.*) After explaining thoroughly the overall lengthy design process, Krishnaswami firmly stated to the plaintiffs’ counsel, “I won’t accept your notion that [the initial soft targets provided to Bosch] is a requirement.” (*Id.*)

The plaintiffs also questioned Krishnaswami with respect to their defect theory that Ford should have evaluated a different crash sensor path or moved the crash sensor positions because Bosch did not achieve the initial targets, with their counsel asserting to the witness that instead “of in this case creating a different crash path towards a sensor for example, or moving the sensor positions, Ford decided to look at the targets that were not met and make exceptions for them?” (R. p. 417, lines 16-24.) Krishnaswami rejected that characterization of the design process, stating “No. It’s not that simple.” (*Id.*) Rather, as he explained, for any initial targets that were not achieved, Ford, according to its design process, evaluated those within the context of its overall design goals and in connection with its “other requirements or guidelines or targets” to determine whether it could accept “some exceptions from the original targets” and approve the design. (R. p. 417, line 16-p. 420, line 5.)

Referring later to the Bosch calibration report for the 2009 Ford Focus, the plaintiffs’ counsel again attempted to assert with Krishnaswami that, after receiving the report, “instead of

going ahead and making a new crash path or changing the sensors around, you looked at it, you said well, you know, that's not too bad; is that right?" (R. p. 438, lines 5-21.) Krishnaswami rejected this characterization, stating: "Actually, no. We say, in fact, it is good." (*Id.*)

The plaintiffs' counsel next attempted to have Krishnaswami agree to a categorical statement that everyone agrees "that you don't deploy an airbag unless you need one?" (R. p. 438, lines 22-p. 439, line 25.) Krishnaswami agreed with the abstract principle, but he explained further that manufacturers cannot isolate passenger airbags from driver airbags because that technology "does not exist" to "suppress the airbag for the passenger and deploy the airbag for the driver for similar occupant sizes," and that Ford must therefore evaluate the airbag system and its performance as a whole. (R. p. 439, lines 18-p. 446, line 15.) Ford thus had to and did "consider the system as a whole," and "consider everything in order to make" its design decisions. (*Id.*)

Responding to the plaintiffs' questions about whether it would be possible to suppress an airbag deployment in a particular crash mode or circumstance, Krishnaswami explained that determining when to allow airbag deployment and when to suppress deployment must be evaluated under multiple different circumstances and crash modes, such that "if you delay the airbag for a certain crash mode you may end up delaying for other modes, too. That's why the system has to be optimized" across multiple crash modes. (R. p. 441, lines 3-11.) As Krishnaswami elaborated, "you cannot look at one crash test in isolation and that's what I was trying to say. What you do in one crash affects other crashes because the system is tied together. One crash mode is not independent of another crash mode." (R. p. 443, lines 6-24.) He added that, from a design standpoint based on his having worked first-hand in designing airbag systems, "it is very important to bring all the data together and look at a system as a whole. And

that's why we would deploy in some modes where the initial target was not to deploy to begin with." (*Id.*) Krishnaswami further explained that a manufacturer like Ford cannot design an airbag system for one particular crash "because how do we know which exact crash an occupant is going to be in, so the whole system has to be considered." (*Id.*)

The plaintiffs concluded Krishnaswami's direct examination by asking him to agree that a "good system" for an airbag design would be to "not deploy it when it isn't needed and deploy it when it is needed," to which the witness responded: "Yes. I would agree with that and we have it here"—referring to the 2009 Ford Focus airbag system design. (R. p. 460, lines 3-18.) The plaintiffs pressed further, asking if Ford is "capable of doing that"—i.e., deploying when needed and not deploying when not needed—and Krishnaswami responded: "yes. And I believe we have done it here," again referring to the 2009 Ford Focus. (*Id.*)

The plaintiffs spent the remainder of their direct examination asking Krishnaswami about deployment timing and purported late deployment—a defect theory they would later abandon for admitted lack of evidence—before passing the witness. (R. p. 460, line 19-p. 467, line 19.)

On cross-examination by Ford's counsel, Krishnaswami elaborated on his work experience with Ford, explaining that he is a mechanical engineer by education and experience, having worked in the areas of "restraint and crash worthiness safety," and in particular, in airbag design. (R. p. 514, line 12-p. 519, line 9.) Krishnaswami next described the changes in airbag technology and design from the 1990s to the 2000s, leading up to the design of the 2009 Ford Focus. (R. p. 519, line 10-p. 527, line 18.) He further described different types of airbags and airbag deployment, including dual-stage "advanced" airbags, like those found in the 2009 Ford Focus. (R. p. 527, line 24-p. 529, line 18.)

As Krishnaswami explained, his knowledge regarding airbag design for Ford vehicles derives largely from his personal, first-hand experience in participating in the design process on Ford vehicles. (R. p. 532, lines 1-16.) While Krishnaswami was not personally involved in the design of 2009 Ford Focus's airbags—since he was instead working at that time on other airbag design programs—the processes used at Ford “are similar across multiple vehicles lines,” and he was therefore familiar with the process used for the 2009 Ford Focus. (R. p. 569, line 16-p. 571, line 1; *also id.* R. p. 580, lines 14-22.) As he explained, the Ford design process with which he is personally familiar involves, early in the process, determining the initial sensor calibration targets once the design engineers have a “rough estimate of the airbag, rough estimate of the safety belt, rough estimate of the occupant interior and based on that we come up with these early targets.” (R. p. 536, line 1-p. 538, line 10.) After initial calibration efforts, the design process moves into “more and more testing” because, by that time, “the prototypes have been developed and the body structure is more certain,” so the design team is “able to extract crash signatures by crashing these cars into walls and these signatures are provided.” (*Id.*)

Overall, throughout the entire design process for a vehicle like the 2009 Ford Focus, per Krishnaswami's personal experience, Ford would conduct “literally hundreds of crash tests” using different crash modes. (R. p. 541, lines 16-18.) These different crash modes include numerous different configurations at different crash speeds, including: rigid-barrier frontal crashes; pole crashes; angled-barrier crashes; offset-deformable-barrier crashes; vehicle-to-vehicle crashes; underride crashes (where the crash vehicle misses the other vehicle's front bumper and underrides it); bumper-override crashes; and undercarriage-obstacle crashes, to name a few. (R. p. 542, line 15-p. 545, line 4.)

As Krishnaswami confirmed, the crash tests Ford runs, including those for the 2009 Ford Focus, are “industry standard tests.” (*Id.*) Videos of several of the hundreds of crash tests were shown at trial. (R. p. 549, line 5-p. 558, line 17.) While Ford ran hundreds of crash tests, Krishnaswami explained that it simply is not possible for Ford—or any other manufacturer—to run crash tests for every type of real-world crash. (*Id.*)

After running numerous crash tests and obtaining crash signatures, Ford would then provide the crash signatures to its sensor supplier—here, Bosch—“to start working and fixing these signatures and coming out with a calibration based on” Bosch’s propriety algorithm. (R. p. 535, line 3-p. 538, line 10.) All during this time, various engineers are working on different aspects of the airbag system, for example, with some “working on the calibration process” while “other engineers are working on the airbag to determine the shape and size.” (*Id.*) As Krishnaswami described, the overall design process takes several years and involves evaluating, testing, calibrating, crash-testing, computer simulating, re-calibrating, and re-evaluating the systems to ensure the overall design objectives are achieved. (*Id.*; also R. p. 590, lines 17-24.)

Krishnaswami further explained that the airbag system necessarily must be “predictive” of what is about to happen in what it may sense to be an impending crash, and that it must make a decision within milliseconds whether it will fire or not fire. (R. p. 560, line 3-p. 561, lines 4.) However, responding to the plaintiffs’ questioning concerning G-forces (*see* App.’s Br. 12), Krishnaswami explained that predictive decision about whether to fire or not fire an airbag in a given crash circumstances is not—and cannot be—based on G-forces alone. (R. p. 567, line 10-p. 568, line 14; R. p. 545, lines 2-17; also R. p. 454, lines 14-22.)

Regarding the final airbag sensor calibration report from supplier Bosch that Ford engineers accepted for the 2009 Ford Focus, Krishnaswami confirmed that acceptance and

engineering sign-off occurred only at the end of the overall design process, and only after engineers were “satisfied with the sensor performance with respect to firing time and suppression times of airbags and pretensioners.” (R. p. 538, line 13-p. 539, line 4; *also* Dft. Ex. 50.)¹

Responding to the plaintiffs’ inquiry on his direct examination about the possibility of isolating one crash mode to optimize performance in that one crash mode alone, Krishnaswami again explained that it is impossible to isolate one crash and alter the design, and not impact the rest of the airbag system. (R. p. 561, lines 5-12.)

Turning to crash-sensor placement, which the plaintiffs touched on in his direct examination, Krishnaswami explained that using three crash sensors “were a point in time where we had mechanical sensor which were more prevalent,” and “a 90’s technology, early 90’s technology.” (R. p. 562, line 1-p. 563, line 7.) As technology advanced, “you started having sensors only at this location” which Krishnaswami referred to as “single point sensing.” (*Id.*) From there, the industry advanced to having a “sensor in the center tunnel area and sensors up front, too,” with the up-front sensor either being one to two sensors. (*Id.*) The Ford Focus originally had two sensors and then went to one, which Krishnaswami confirmed resulted in no comparable difference between the two designs. (*Id.*) Rather, the performance between the two designs—two sensors versus one sensor—was the same. (*Id.*; *also* R. p. 576, lines 8-21.)

On re-direct, the plaintiffs returned to the crash sensors, and Krishnaswami explained that, in the design phase, Ford evaluated three different positions for the crash sensors: “Two outboard locations and one center location in the radiator area plus what we call a ride along at different areas in the front area like a little bit above or a little bit below the radiator, hood latch location.” (R. p. 585, line 17-p. 589, line 20.) Ford did not evaluate other sensor locations,

¹ Exhibit 50 was introduced subject to a stipulated confidentiality and protective order and, by Court order, sealed at trial. The plaintiffs have stipulated to sealing it on appeal as well.

Krishnaswami explained, because the locations it tested satisfied its overall design and performance criteria, and per its internal standards, Ford deemed the system optimized with the existing design. (*Id.*)

The plaintiffs later asked Krishnaswami to agree that Ford's 25 mile-per-hour frontal-angle sled test, which they maintained was the most similar to the Newbern crash, "shows that an airbag was not needed for Mr. Newbern." (R. p. 601, line 16-p. 602, line 6.) Krishnaswami rejected that assertion. (*Id.*)

Concluding with Krishnaswami, the plaintiffs again asked whether "Ford has the technology to make sure that airbags don't deploy when they are not supposed to," and Krishnaswami again responded "Yes. That's this technology," referring to the 2009 Ford Focus. (R. p. 603, lines 1-7.) Krishnaswami further rejected the plaintiffs' attempt to establish a bright-line rule that it is categorically "unreasonably dangerous to provide a person with a system that will deploy airbags when they are not needed," explaining that it depends on the individual occupant kinematics—in other words, how the occupant is originally seated and positioned and how the occupant moves during the crash. (R. p. 603, line 25-p. 604, line 8.) The plaintiffs then concluded their questioning. (*Id.*)

Never during the course of Krishnaswami's testimony did the plaintiffs—or Ford, for that matter—proffer Krishnaswami as an expert. As a result, the trial court never analyzed his testimony or qualified him as an expert under SCRCP 701 and 702, or Supreme Court precedent. Nor did the plaintiffs ever ask Krishnaswami for any expert opinions.

F. The plaintiffs called their remaining witnesses (non-retained expert and treating physician Eiseman, specially retained biomechanics expert Lewis, and plaintiff Steven Newbern) before they rested—without calling their airbag design expert Nranian, despite his being in the courthouse.

During Krishnaswami's testimony, the plaintiffs called Mr. Newbern's treating physician Dr. Andrew Eiseman out of turn, with Ford's agreement, to accommodate his schedule. (R. p. 476, lines 19-20.) After walking through Dr. Eiseman's experience and qualifications, the plaintiffs tendered Dr. Eiseman as an expert in ophthalmology, to which Ford made no objection. (R. p. 490, lines 9-17.) Dr. Eiseman testified only to his diagnosis, treatment of, and prognosis for Mr. Newbern's eye injury, and opined that blunt trauma caused the injury. (R. p. 502, lines 8-15.) Dr. Eiseman offered no testimony on automotive design or design defect.

After Krishnaswami's testimony concluded in full, the plaintiffs next called their biomechanical engineer, retained expert Paul Lewis, whom they affirmatively tendered and had accepted as an expert in biomechanics. (R. p. 605, line 2-p. 612, line 22.) Lewis testified as to Mr. Newbern's occupant kinematics during the crash and his injury mechanism, ultimately opining that Mr. Newbern's eye injury resulted from blunt-force trauma from the airbag. (R. p. 654, line 3-r. 655, line 7.) Lewis offered no testimony on airbag design and no opinions on design defect, nor was he tendered as an expert in these areas.

On cross-examination, Lewis affirmed his prior testimony that he "would be surprised if you didn't get an airbag at 26 miles an hour Delta-v frontal," and agreed that the Delta-V in the Newbern crash was 26 miles per hour. (R. p. 656, line 9-p. 658, line 14.)

After Lewis, the plaintiffs called Mr. Newbern as a fact witness and then rested (R. p. 739, lines 4-15), without calling either their accident reconstructionist Webb or their airbag design expert Nranian, despite the latter actually being in the courthouse during the plaintiff's case-in-chief, which the plaintiffs did not deny (R. p. 743, lines 5-9).

G. Ford moved for directed verdict based on the plaintiffs' failure to present any expert testimony on automotive airbag design defect, and their failure to prove a design defect, an alternative feasible design, causation, or negligence—and the trial court, after extended argument over the course of two days, granted Ford's motion.

Once the plaintiffs rested, Ford immediately moved for directed verdict under SCRC 50(a). (R. p. 740, lines 23-25.) The trial court first confirmed that the plaintiffs were not proceeding on any actions other than negligence and strict liability for design defect. (R. p. 471, lines 1-25.) The plaintiffs also conceded that they failed to prove any alleged failure to warn. (R. p. 741, line 23-p. 742, line 5.) In addition, the plaintiffs also conceded that they had failed to “present enough evidence” on their defect theories of “late deployment” and “bag shape,” which they had previously pursued. (R. p. 741, line 1-p. 745, line 24.) Thus, they were proceeding only on claims for design defect, and only on the theory that the Ford Focus's right-front airbag (i.e., the passenger airbag) should not have deployed in this crash.

With those concessions, Ford first addressed the plaintiffs' failure to prove a design defect, which was fatal to their entire action under *Branham v. Ford Motor Co.*, 390 S.C. 203, 701 S.E.2d 5 (2010). (R. p. 742, line 12-p. 743, line 16.) As Ford explained, *Branham* requires proof of a design defect under the risk-utility test, as well as proof of an alternative feasible design, both of which were lacking. (*Id.*)

Ford added that there was no expert evidence whatsoever as to any aspect of the necessary proofs on a design defect claim, as required in a case such as this one involving complex, highly technical design defect issues under *Watson v. Ford Motor Co.*, 389 S.C. 434, 699 S.E.2d 169 (2010). (R. p. 743, lines 17-25.) As Ford pointed out, the only witness who even discussed airbag design issues was Ford engineer Krishnaswami, and he “was never qualified or offered as an expert witness by the Plaintiff.” (*Id.*) The trial court immediately confirmed that

Krishnaswami “was never qualified as an expert by either party.” (R. p. 744, lines 4-5.) Meanwhile, Ford explained, the plaintiffs had their specially retained airbag design expert Nranian in the courthouse during trial, yet, for whatever reason, chose not to call him—which the plaintiffs didn’t deny. (R. p. 743, lines 5-9.)

On alternative feasible design, Ford elaborated that not only was there no evidence—expert or otherwise—of any such design, but there was also no evidence as required under *Branham* on cost, safety, and functionality of whatever their proposed alternative was. (R. p. 744, line 8-p. 745, line 22.) With regard to the plaintiffs’ suggestion of doing something different with the crash sensors as a purported alternative, Ford pointed to the lack of evidence both as to a specific alternative design involving the crash sensors, as well as a lack of proof on causation in terms of showing that any different design involving the crash sensors would have made a difference in this crash. (R. p. 746, lines 2-24; R. p. 758, lines 2-14.)

As to the plaintiffs’ lone remaining defect theory—that Mr. Newbern’s airbag should not have deployed at all—Ford pointed out that Krishnaswami explained that this crash *was* properly a deployment event, and that the plaintiffs’ retained biomechanic even conceded that he expected this crash to have resulted in an airbag deployment. (R. p. 745, lines 11-16.)

The plaintiffs responded first by referring to the testimony of Ford engineer Krishnaswami and his testimony about designing airbags in general so that they deploy when needed and don’t deploy when not needed. (R. p. 747, line 2-p. 750, line 12.) This prompted the trial court to ask: “Where did [Krishnaswami] say that the design of the sensors in this particular automobile was defective? Where did he say it could have been done differently?” (*Id.*) The trial court acknowledged that the plaintiffs had asked Krishnaswami hypothetically at the end of his testimony “assuming it was a late deployment – early deployment or no deployment would that

be unreasonably dangerous,” to which Krishnaswami “said yes”—but the court noted the plaintiffs’ counsel then “sat down.” (*Id.*) The plaintiffs responded: “So then you are wondering where is our evidence that it should not have deployed here.” (*Id.*) The plaintiffs then pointed to the starting-point soft targets that Ford provided to Bosch for the initial calibration, which had a 25 mile-per-hour front angle crash as a non-deploy event, arguing that because a deployment in this crash-test scenario would not benefit the occupants in that specific crash mode, Mr. Newbern’s airbag should not have deployed in his crash. (*Id.*)

From there, the plaintiffs argued that allowing for a deployment in the Newbern crash “violated [Ford’s] rule,” and that it should have redesigned the system by creating a new “crash path between the sensors,” or “maybe put the sensors in a different position.” (*Id.*) And the plaintiffs returned to their argument that Ford’s initial design targets were “requirements” that it failed to meet—despite Krishnaswami’s repeated rejection of the plaintiffs’ characterization of them as such. (*Id.*)

The trial court then asked how the evidence on which the plaintiffs relied was “presenting to the jury an alternative plan,” inquiring: “How can the jury possibly understand that’s the alternative plan?” (R. p. 750, line 18-p. 752, line 10.) The trial court further questioned the plaintiffs’ alternative design involving the crash sensors (whether that involved changing the location or the number of sensors, which was unclear), and noted that the plaintiffs “didn’t have anybody testify to the effect where to place the three sensors, two sensors or however many were necessary here, here and here and go into the cost of it and feasibility of it.” (*Id.*) The plaintiffs didn’t refute this failure of proof. (*Id.*) Instead, they argued that they satisfied their burden of proof on alternative feasible design because Krishnaswami agreed that, in 2009, Ford had the technology “to deploy an airbag in the crash that you wanted to deploy it in and not deploy it in

the crash that you did not want it”—ignoring that Krishnaswami actually testified that such technology was already embodied and used in the Newbern’s 2009 Ford Focus, as Ford pointed out. (*Id.*) With that, the plaintiff’s counsel concluded: “That’s the best I got, Your Honor. I don’t have anything else on that.” (*Id.*)

Following some additional dialogue along the same lines of prior argument, the trial court took Ford’s motion under advisement. (R. p. 757, lines 15-16.) The following morning, the trial court returned to Ford’s motion, advising that it was “going to ask the Plaintiff some questions. I want you to give me some answers, okay?” (R. p. 764, line 5-p. 776, line 9.)

First, the trial court asked the plaintiffs to walk the court “through the risk utility test and how you have proven the danger of using the airbag outweighed the usefulness of the product.” (*Id.*) The plaintiffs returned to their theme that the “usefulness of an airbag sensor system is to deploy an airbag when it should because that’s a benefit.” (*Id.*) The trial court responded that it understood this was the plaintiffs’ generic theory, but it wanted to know “factually how have you proved that and when have you proven that.” (*Id.*) The plaintiffs’ only response was to return to their argument that Krishnaswami testified that, in general, “if an airbag deploys in a crash it should not deploy in, that is unreasonable danger.” (*Id.*)

The trial court moved on to ask about alternative feasible design and how, even assuming there was proof of such a design, the plaintiffs proved that the “failure to use an alternative design caused the injury or the use of the alternative design would have prevented the injury?” (*Id.*) The plaintiffs’ counsel argued the “alternative design would have prevented the airbag from deploying,” to which the trial court responded: “I understand that. Where have you proven that? That’s my problem with your case, okay? I understand the law. I’m concerned about how you factually have proven, from what witness you have proven that.” (*Id.*) The plaintiffs responded

by again referring to their overall theory that if the airbag had not deployed, Mr. Newbern would not have been injured. (*Id.*)

The trial court next turned to the lack of expert testimony on design defect, asking the plaintiffs: “Why do you think an expert opinion is not needed to prove your case under Rule of Evidence 701 (C) and 702?” (*Id.*) The plaintiffs argued in response that “a party can admit an element of fact,” and that Krishnaswami purportedly admitted as Ford’s corporate representative “that there was an alternative design.” (*Id.*) The trial court quickly clarified that Krishnaswami “was a lay witness,” and that “[n]obody offered him as an expert.” (*Id.*) The trial court added: “I understand his background. I understand his knowledge. But he’s still a lay witness. He was never offered as an expert. He never gave an expert opinion.” (*Id.*)

The trial court then put the question to the plaintiffs as “how could [Krishnaswami] possibly admit to something that required an expert opinion as a lay person, assuming he did make an admission by opposing parties?” (*Id.*) The plaintiffs argued that a company representative can admit liability on behalf of the company, to which the Court responded: “I guess that’s where you and I disagree, okay? I just don’t see where Mr. Krishnaswami’s testimony was admission. I mean he did answer some of your questions yes or no, then he gave an explanation which qualified the answer. I never viewed him as a party per say [sic] or as you suggested earlier I believe in chambers about request to admit.” (*Id.*)

Ford responded to the plaintiffs’ additional argument, including as to the lack of an alternative feasible design. (*Id.*) On this issue, the trial court noted that “it was never clear as to whether” the plaintiffs were “talking about one sensor moving or two sensors or three sensors or what as far as a specific design,” which the court noted as being “a major problem from my perspective of causation” (*Id.*) Ford also added that there was also no evidence on the

negligence claim of any violation of the applicable standard of care, no evidence on reasonableness, nor any analysis as to a reasonably prudent manufacturer. (*Id.*)

In further response, the plaintiffs' counsel then added "I think it is crystalizing now that you have to have expert testimony to prove this," but argued "that's not what the cases say." (*Id.*) The plaintiffs argued that, in certain cases, a party may rely on circumstantial evidence without expert testimony. (*Id.*) The trial court agreed with that general premise, but added "I don't think this is that situation." (*Id.*)

The plaintiffs then addressed the lack of evidence on causation, which their counsel specifically noted as "something else that bother[ed]" the trial court. (*Id.*) They argued that they proved causation because their biomechanic opined "that nobody would have been injured if the airbag didn't go off." (*Id.*) The trial court responded that this was "sort of a res ipsa argument. We don't have that in South Carolina." (*Id.*) The plaintiffs reiterated this same argument before concluding, "I understand the Court's reservations." (*Id.*) The trial court thereupon directed verdict for Ford. (*Id.*) This appeal ensued.

Argument

South Carolina Rule of Civil Procedure 50(a) permits a trial court to grant directed verdict for a party when "the case presents only questions of law" S.C. R. Civ. P. 50(a). In ruling on a motion for directed verdict, a trial court must "view the evidence and the inferences that reasonably can be drawn therefrom in the light most favorable to the party opposing the motion." *Estate of Carr ex rel. Bolton v. Circle S Enters., Inc.*, 379 S.C. 31, 38–39, 664 S.E.2d 83, 86 (Ct. App. 2008) (citing *Law v. S.C. Dep't of Corr.*, 368 S.C. 424, 434, 629 S.E.2d 642, 648 (2006)). Whether expert testimony is required to prove a case, however, "is a question of law." *Graves v. CAS Med. Sys., Inc.*, 401 S.C. 63, 81, 735 S.E.2d 650, 659 (2012).

The Supreme Court has admonished “that verdicts may not be permitted to rest upon surmise, conjecture or speculation.” *Hanahan v. Simpson*, 326 S.C. 140, 149, 485 S.E.2d 903, 908 (1997) (citing cases). Nor may trial courts submit “speculative, theoretical, or hypothetical views to the jury.” *Estate of Carr*, 379 S.C. at 38–39, 664 S.E.2d at 86.

“When considering directed verdict motions, neither the trial court nor the appellate court has authority to decide credibility issues or to resolve conflicts in the testimony or evidence. *Id.* Rather, “the trial court is concerned with the existence or non-existence of evidence, not its weight.” *State v. Saltz*, 346 S.C. 114, 138, 551 S.E.2d 240, 253 (2001). Similarly, in reviewing a directed verdict, the appellate court must affirm unless “there is no evidence to support the ruling” or “the ruling is controlled by an error of law.” *Id.*

Here, the trial court correctly applied these longstanding principles in directing verdict for Ford. This Court should therefore affirm.

As the trial court properly recognized, and as explained more below, South Carolina law requires that in complex product liability design defect cases involving highly technical issues—such as this case involving automotive airbag design and analysis, mechanical engineering, electrical engineering, and computer science, among other disciplines—plaintiffs must present competent expert evidence on these issues, including as to defect, risk-utility, alternative design, and causation. *Watson v. Ford Motor Co.*, 389 S.C. 434, 445, 699 S.E.2d 169, 175 (2010); *also Graves v. CAS Med. Sys., Inc.*, 401 S.C. 63, 80–81, 735 S.E.2d 650, 659 (2012).

Moreover, the trial court properly followed established South Carolina product liability law which required the plaintiffs to prove by competent and sufficient evidence the fundamental elements of their product liability design defect action. Under *Branham v. Ford Motor Co.*, the central inquiry at trial was whether the plaintiffs’ 2009 Ford Focus was “safe enough” when

analyzed under a risk-utility test. 390 S.C. 203, 222–24, 701 S.E.2d 5, 15–16 (2010). This inquiry required the plaintiffs to “present evidence of a reasonable alternative design” and “point to a design flaw in the product and show how his alternative design would have prevented the product from being unreasonably dangerous.” *Id.* at 225, 701 S.E.2d at 16.

The trial court here properly directed a verdict for Ford because the plaintiffs failed to support their case on numerous fundamental levels. As the trial court noted, they presented no expert testimony whatsoever on design defect, as required for a case such as this by *Watson*, *Graves*, and others. (R. p. 768, line 7-p. 769, line 11.) They likewise failed to present sufficient evidence to prove a defect under the required risk-utility analysis, including the threshold element of proving a safer alternative feasible design, as required under *Branham*. (See R. p. 764, lines 10-24.) And they failed to present sufficient evidence on causation with respect to an alternative design, as well as on negligence. (R. p. 766, line 12-p. 767, line 20.)

On appeal, the plaintiffs imply that they were in the dark as to the trial court’s concerns and the “specific grounds upon which it granted” Ford’s motion. (App.’s Br. p. 14.) And they suggest that the trial court’s consideration of Ford’s motion and the plaintiffs’ opposition to it was less than thoughtful and robust. The trial record belies their implication and suggestion.

The transcripts from the two days of argument show extensive back-and-forth dialogue, with the trial court asking pointed questions, stating clearly its concerns, and offering the plaintiffs every opportunity to address them. The plaintiffs have nonetheless argued here that it is unclear to them whether the trial court directed verdict because of, for example, “an absence of proof or a finding that Krishnaswami could not admit elements of the causes of action on behalf of Ford.” (App.’s Br. p. 14.) The trial transcript shows that, in fact, *both* these issues were of concern to the trial court and were reasons why it directed verdict for Ford, among many others.

(*E.g.*, R. p. 766, lines 12-24; R. p. 770, lines 10-23.) The trial court similarly identified the failings it observed in the plaintiffs' case in numerous other respects, such as the lack of evidence on the requisite risk-utility analysis, the lack of qualified expert testimony on design defect, and the lack of evidence on causation. (R. p. 764, lines 10-14; R. p. 766, lines 12-16; R. p. 768, lines 7-9; R. p. 773, lines 15-23.)

The plaintiffs' attempt to paint the trial court's ruling as knee-jerk or nebulous does a disservice to the trial court's diligent and thoughtful consideration of these issues over the course of two days. The plaintiffs' current arguments aside, the reality is that the evidentiary shortcomings in their case were well-known to all, including to their trial counsel, who acknowledged not only the weaknesses in their case, but also the trial court's various concerns on numerous levels. (*E.g.*, R. p. 752, lines 8-10; R. p. 775, lines 14-15.) The record shows that the plaintiffs understood full well that the trial court directed verdict for Ford because of the "non-existence of evidence" required on the essential elements of their product liability design defect case. *See Saltz*, 346 S.C. at 138, 551 S.E.2d at 253. The plaintiffs' suggestion to the contrary is unfounded.

The plaintiffs present nothing new here on appeal to alter the reality of their failures of proof on multiple levels. Instead, and as discussed below, they ignore established South Carolina precedent and urge a result that would undermine longstanding product liability law in this state. The plaintiffs provide no reason for this Court to reject longstanding South Carolina law and to rescue them from an outcome that was wholly of their own making by not presenting the requisite proofs as to alleged design defect. The plaintiffs retained an expert to testify on alleged design defect. They told the jury and the trial court that they would call this expert, who was *in the courthouse*. For whatever reason, they didn't call him, and instead rested. Ford disputes that

this expert would have supported a finding of any actual design defect. But the fact remains that the plaintiffs alone were solely responsible for the lack of evidence on their claims, including as to a design defect, risk-utility analysis, alternative feasible design, causation, and negligence.

There was no error in directing verdict for Ford, given the plaintiffs' failures of proof on multiple levels, as the trial court found and as discussed more below. This Court should affirm.

I. Under established South Carolina law, the plaintiffs' failure to present any expert evidence on alleged design defect is dispositive of their claims and on its own supports both the trial court directing verdict for Ford and this Court affirming.

In a products liability action, "a plaintiff must establish three things: (1) he was injured by the product;² (2) the product was in essentially the same condition at the time of the accident as it was when it left the hands of the defendant, and (3) the injury occurred because the product "was in a defective condition unreasonably dangerous to the user." *Graves*, 401 S.C. at 79, 735 S.E.2d at 658 (quoting *Madden v. Cox*, 284 S.C. 574, 579, 328 S.E.2d 108, 112 (Ct. App. 1985)). In an alleged design defect case, the third element requires the plaintiff to point "to a design flaw in the product" and show "how his alternative design would have prevented the product from being unreasonably dangerous." *Id.* (quoting *Branham*, 390 S.C. at 225, 701 S.E.2d at 16).

In terms of proving these fundamental elements, South Carolina law is well-established that "expert evidence is required where a factual issue must be resolved with scientific, technical, or any other specialized knowledge." *Watson*, 389 S.C. at 445, 699 S.E.2d at 175; *also Graves*, 401 S.C. at 80, 735 S.E.2d at 659. Thus, in complex product liability cases involving alleged design defects—such as this one involving alleged design defects in automotive airbag supplemental restraint systems—a plaintiff must present competent, reliable expert testimony to support his or her case. *Watson*, 389 S.C. at 445, 699 S.E.2d at 175; *also Graves*, 401 S.C. at 80,

² The plaintiffs' assertion that Ford does not challenge this first aspect is inaccurate. (App.'s Br. p. 16.) Ford maintains that it was the plaintiff's drinking glass that caused his eye injury.

735 S.E.2d at 659 (recognizing that expert testimony is required in cases alleging design defects in products like automotive fuel systems, sports equipment, escalators, and even shopping carts).

For example, in *Watson*, the Supreme Court addressed the admissibility of expert testimony proffered to support a claim of alleged design defects in a vehicle's cruise control system and seat belts. 389 S.C. at 441–42, 445–53, 699 S.E.2d at 173, 175–79. After determining that some of the plaintiffs' experts' testimony on design defect was improperly admitted, the court agreed with Ford that the trial court erred in not directing verdict in its favor. *Id.* at 449–53, 455, 699 S.E.2d at 177–79, 180. In particular, the court concluded that because the plaintiffs there failed to present admissible expert testimony on alleged design defect, they “failed to present a case for products liability.” *Id.* at 455, 699 S.E.2d at 180. The Supreme Court therefore reversed and entered judgment for Ford. *Id.*

Moreover, where the “claims are too complex to be within the ken of the average lay juror,” *Graves*, 401 S.C. at 80, 735 S.E.2d at 659, the party not only must proffer expert testimony, but must also affirmatively show that the expert testimony satisfies the standards for admissibility under Rule 702. *Watson*, 389 S.C. at 446, 699 S.E.2d at 175 (“Expert testimony is not admissible unless it satisfies all three requirements with respect to subject matter, expert qualifications, and reliability.”); *Graves*, 401 S.C. at 74, 735 S.E.2d at 655 (“All expert testimony must meet the requirements of Rule 702, regardless of whether it is scientific, technical, or otherwise.”).

The plaintiffs here didn't present *any* expert testimony on the issues of their alleged design defect, as they never called their retained airbag design expert Nranian. And they certainly never presented any evidence on design defect for the trial court to perform its Rule 702 gatekeeping analysis. As in *Watson*, this lack of expert testimony on the central issue of alleged

design defect is dispositive of their entire action and fully supports directed verdict for Ford. *See Watson*, 390 S.C. at 455, 699 S.E.2d at 180; *Graves*, 401 S.C. at 80, 735 S.E.2d at 658.

The plaintiffs attempt to avoid this critical failure of proof with three arguments. First, they assert that they didn't need to present any expert testimony on design defect, and could instead rely merely on circumstantial evidence. Second, and contradictorily, they assert that they *did* present expert testimony in the form of Ford witness Krishnaswami. Third, they assert that Krishnaswami's testimony as a manufacturing-company witness constituted "party admissions" and avoided the need for expert testimony altogether. None of their arguments are valid.

A. Established South Carolina law rejects the plaintiffs' argument that expert testimony was not required to support their alleged design defect claims involving complex, highly technical issues.

As shown above, South Carolina law firmly holds that expert testimony is required in cases involving complex, highly technical issues that are beyond the ken of the average lay juror. *Watson*, 389 S.C. at 445, 699 S.E.2d at 175; *Graves*, 401 S.C. at 80, 735 S.E.2d at 659. Indeed, *Watson* is unequivocal on this point. 390 S.C. at 455, 699 S.E.2d at 175. Yet the plaintiffs ignore *Watson* entirely—they don't cite it, much less attempt to distinguish it. And while they briefly cite *Graves*, they ignore that decision's explicit recognition that expert testimony is required in design defect claims involving scientific and technical issues involving automobiles, not to mention in products far less complex than an airbag system. 401 S.C. at 80, 735 S.E.2d at 659.

Contrary to this established body of law, the plaintiffs assert that "expert testimony is not required to prove a design defect product liability case," citing *Graves*, but without discussion. (App.'s Br. p. 29.) The plaintiffs misread and misplace their reliance on *Graves*.

In *Graves*, the plaintiffs asserted a design defect claim against a medical-device manufacturer, alleging that a computer software design defect in a heart-rate and breathing

monitor was responsible for their child's death. 401 S.C. at 68, 735 S.E.2d at 652. The trial court excluded the plaintiffs' computer experts' testimony as unreliable under Rule 702, and therefore granted summary judgment for the manufacturer. *Id.* at 72–73, 735 S.E.2d at 654–55.

In affirming the trial court's rulings and holding, the Supreme Court noted that without the testimony of their experts, which was properly excluded, the plaintiffs had "no direct evidence of whether the monitor was unreasonably dangerous" 401 S.C. at 79, 735 S.E.2d at 658. The *Graves* court reiterated "the general rule" that "any fact can be shown through circumstantial evidence." 401 S.C. at 79–80, 735 S.E.2d at 658. But immediately thereafter, the court acknowledged that in "some design defect cases, expert testimony is required to make this showing [as to an unreasonably dangerous condition] because the claims are too complex to be within the ken of the ordinary lay juror." *Id.* at 80, 735 S.E.2d at 658 (citing *Watson*, 389 S.C. at 445, 699 S.E.2d at 175). In support, and in addition to *Watson*, the *Graves* court cited examples from other jurisdictions of design defect claims similarly involving complex issues requiring expert testimony, including claims involving an escalator, a shopping cart, sports equipment, and an automotive fuel system. *Id.* at 80–81, 735 S.E.2d at 659.

After noting that whether "expert testimony is required is a question of law," the *Graves* court had "little trouble concluding as a matter of law that the *Graves*' claim is one such case because it involves complex issues of computer science." *Id.* at 81, 735 S.E.2d at 659. The court acknowledged that we all "use computers in some form or fashion almost every day of our lives, the design and structure of software they run is beyond the ordinary understanding and experience of laymen." *Id.* The *Graves* court therefore concluded that the plaintiffs there had to "support their allegations with expert testimony, and without it, their claims are subject to dismissal." *Id.*

The same analysis and result applies here. The plaintiffs' claims here involve complex issues of automotive airbag system design, including the design of computer algorithms, the design and placement of crash sensors, the determination of deployment versus no-deployment scenarios, and other highly technical, scientific, and specialized matters for a system that must detect, analyze, predict, and determine whether to deploy an airbag within a matter of milliseconds. Similar to the *Graves* court's statement with respect to computers, everyone or nearly everyone uses automobiles in some form or fashion almost every day. However, people rarely—if ever—encounter airbags. But more importantly, the mechanical, electrical, structural, and computer engineering underlying airbag system design are simply “beyond the understanding and experience of laymen.” *Id.*

Rather than supporting the plaintiffs argument, *Graves* shows that the trial court here was correct to conclude, as a matter of law, that expert testimony was required here, given the complex nature of the issues involved in the plaintiffs' claims here of alleged design defect in the Ford Focus's airbag system. As in *Graves* and *Watson*, the “lack of expert testimony” here is dispositive, and the trial court was correct to direct verdict for Ford. This Court should affirm.

B. The plaintiffs' argument that they satisfied their obligation to present expert by relying on Ford witness Krishnaswami finds no support in South Carolina law or the facts.

Contradicting their argument that expert testimony was not required here, the plaintiffs alternatively assert that they satisfied this threshold requirement by calling Ford engineer Krishnaswami, whom they argue they called “as an expert” and “without objection.” (App.'s Br. p. 27–28.) They further argue that Krishnaswami was somehow automatically an expert because he testified “as Ford,” who is “held to be an expert under South Carolina law.” (*Id.* p. 28.) They are incorrect on all fronts.

1. South Carolina law rejects the plaintiffs' argument that they can rely on a witness to testify on an issue requiring expert testimony without calling the witness as an expert or having him qualified by the court as such.

The plaintiffs cannot legitimately dispute that they never called Krishnaswami as an expert. Indeed, the trial court confirmed this during the argument on directed verdict. As the court noted, Krishnaswami “was a lay witness,” he “was never offered as an expert,” and he “never gave an expert opinion.” (R. p. 769, lines 3-7.) The plaintiffs cannot credibly refute these facts. Instead, they argue that the fact that “the Court did not qualify Krishnaswami as an expert is irrelevant under the circumstances of this case.” (App.’s Br. p. 28.) South Carolina law squarely rebuts their argument.

The Supreme Court has stated repeatedly that in *every* case in which a party attempts to rely on expert testimony, the party must first affirmatively proffer the witness as an expert in a particular field to testify on specific subject matter, so that the trial court may fulfill its mandatory gatekeeping analysis under Rule 702. *Watson*, 389 S.C. at 445–46, 699 S.E.2d at 175; *Graves*, 401 S.C. at 74, 735 S.E.2d at 655; *State v. White*, 382 S.C. 265, 270, 676 S.E.2d 684, 686 (2009); *State v. Schumpert*, 312 S.C. 502, 505, 435 S.E.2d 859, 861 (1993). This includes determining whether the issue on which the witness would testify requires expert testimony, whether the witness is qualified to testify as an expert, and whether the proposed testimony is reliable. *Watson*, 389 S.C. at 446, 699 S.E.2d at 175; *Graves*, 401 S.C. at 74, 735 S.E.2d at 655. This analysis and these determinations must be made *before* the witness is permitted to testify as an expert. *Watson*, 389 S.C. at 446, 699 S.E.2d at 175 (“Expert testimony is not admissible unless it satisfies all three requirements with respect to subject matter, expert qualifications, and reliability.”).

As this steadfast body of law shows, contrary to the plaintiffs' assertion, Krishnaswami could not have testified—and did not testify—as an expert for the fundamental reasons that the plaintiffs never tendered him as such, never identified in what field he was offered as an expert, never asked that he be qualified in that field, and never presented any proposed expert testimony or elicited any expert opinions to a reasonable degree of engineering certainty from him. The trial court therefore necessarily never conducted any Rule 702 analysis, as it would have to before admitting any expert testimony. The trial court fully recognized this reality and these fundamental failings in rejecting the plaintiffs' attempt to argue that they called Krishnaswami as an expert. (R. p. 768, line 7-p. 770, line 23.)

The plaintiffs attempt to avoid the truth that they never called Krishnaswami as an expert and never asked the trial court to qualify him as such by citing two cases as supposedly supporting that “a witness may provide expert testimony without being formally qualified by the Court to do so.” (App.'s Br. pp. 28–29.) Neither case supports their arguments.

Primarily, neither of the plaintiffs' two cited cases is remotely factually similar to this case. Neither case involves alleged product liability for design defects involving highly technical and complex issues. And neither case supports that a party may rely on lay witness testimony to satisfy an element of their case that requires expert testimony. Rather, both cases stand merely for the unremarkable proposition that “a property owner, who is familiar with his property and its value, may give his estimate as to its value or the damage inflicted upon it even though he is not otherwise an expert.” *Whisenant v. James Island Corp.*, 277 S.C. 10, 13, 281 S.E.2d 794, 796 (1981); *Doty v. Parkway Homes Co.*, 295 S.C. 368, 370, 368 S.E.2d 670, 671 (1988) (same).

Neither of these two cases undermines *Watson* or *Graves* or support that the plaintiffs could prove with non-expert testimony “a factual issue [that] must be resolved with scientific,

technical, or any other specialized knowledge.” *Watson*, 389 S.C. at 445, 699 S.E.2d at 175. Their cases are therefore irrelevant. *Watson*, *Graves*, and other established South Carolina case law instead control, and they required expert testimony on the plaintiffs’ alleged design defect—testimony the plaintiffs never presented.

2. By never calling or qualifying any expert witness on alleged design defect, it is the plaintiffs—and not Ford—who waived any arguments on this issue.

The plaintiffs’ argument that “Ford waived the ability to argue that Krishnaswami did not provide expert testimony” is likewise legally and factually baseless. (App.’s Br. p. 27.) They cite *Cogdill v. Watson*, 289 S.C. 531, 347 S.E.2d 126 (Ct. App. 1986), for the proposition that the “failure to make an objection at the time evidence is offered constitutes a waiver of the rights to object.” (App.’s Br. p. 27.) But their argument rests on a false premise, as the plaintiffs never offered Krishnaswami as an expert witness—no one did, as the trial court recognized. (R. p. 769, lines 3-7.) There is thus no waiver; Ford had no opportunity and no reason to object to Krishnaswami being offered as an expert because the plaintiffs never offered him as an expert. As Ford stated at trial, a party cannot waive an objection to evidence that was never presented. (R. p. 771, lines 3-8.) Nothing in *Cogdill* supports the plaintiffs’ position.

The only waiver here is by the plaintiffs, who in resisting directed verdict and now on appeal argue that a witness should be considered retroactively as an expert despite never being called, tendered, or qualified as such. The plaintiffs’ waiver is all the more manifest in juxtaposing their presentation of the witnesses that bookended Krishnaswami (biomechanic Lewis and ophthalmologist Eiseman), both of whom they called, tendered, and had qualified as experts in their respective fields. The plaintiffs did none of those with Krishnaswami.

3. The plaintiffs' argument that a manufacturing-company witness is *de facto* deemed an expert witness has no support in the plaintiffs' cited cases or elsewhere in South Carolina law.

The plaintiffs alternatively attempt to evade the outcome of their tactical decision not to call their own airbag design expert Nranian (or any design expert) with their contorted argument that Krishnaswami testified “as Ford,” which is a product manufacturer, which is “held to be an expert under South Carolina law,” and which means he necessarily testified “as an expert”—despite the plaintiffs never calling or qualifying Krishnaswami as such. (App.’s Br. p. 28 (citing *Carolina Home Builders, Inc. v. Armstrong Furnace Co.*, 259 S.C. 346, 358, 191 S.E.2d 774, 779 (1972); *Humphries v. Mack Trucks, Inc.*, 198 F.3d 236, 1999 WL 815067 (4th Cir. 1999) (unpublished)). The plaintiffs again misread the cases on which they rely.

Neither *Carolina Home Builders* nor the unpublished *Humphries*, which relies on *Carolina Home Builders*, supports the notion that a party can satisfy its obligation to present qualified expert testimony on the issue of product liability for design defect merely by calling a company witness as a non-expert. These cases instead both address only the limited issue of the applicable standard of care to which a product manufacturer is held on a negligence claim for product liability. *E.g.*, *Humphries*, 1999 WL 815067, at *2. Neither of these two cases—nor any of the foreign cases the plaintiffs string-cite in their footnote³—supports the plaintiffs’ leap that “Krishnaswami, testifying as Ford” therefore “testified as an expert.” (App.’s Br. p. 28.)

The plaintiffs’ argument that a manufacturing-company witness is automatically an expert witness is wholly unsupported on the law. It would also lead to absurd results. Following the plaintiffs’ argument, a manufacturing defendant would not need to retain or call technical or engineering expert witnesses in product liability cases and could instead rely merely on calling a company witness to provide “expert” testimony —regardless of the witness’s actual

³ (App.’s Br. p. 28 n.10.)

qualifications or lack thereof in the particular field or fields at issue. Likewise, plaintiffs would not have to retain or call technical or engineering experts, and could instead rely merely on calling a defendant-company witness as an “expert.” That the plaintiffs retained, disclosed, and promised the trial court and the jury that they would present their own airbag design expert Nranian also undermines their argument now that they could instead rely on Ford’s company-witness testimony to carry their burden to produce expert testimony, or that such a tactic was a legitimate and legally permissible approach under South Carolina law.

If followed, the plaintiffs’ argument would also eviscerate Rule 702’s requirements. Expert testimony must first be scrutinized in terms of the proposed witness’s actual qualifications, which depends “on the particular witness’s reference to the subject.” *Watson*, 389 S.C. at 447, 699 S.E.2d at 175–76; *also Schumpert*, 312 S.C. at 505, 435 S.E.2d at 861 (holding that the “party offering the expert has the burden of showing his witness possesses the necessary learning, skill, or practical experience to enable the witness to give opinion testimony”); *State v. Tapp*, 398 S.C. 376, 388, 728 S.E.2d 468, 474–75 (2012) (holding that “expertise” is a “threshold” that must be “made prior to the admission of expert testimony). Under the plaintiffs’ argument, however, there would be no such Rule 702 analysis when a party sought to rely on a manufacturing-company witness as an “expert” witness.

The plaintiffs’ arguments find no support in the law, the facts, or logic. That they resort to such legal contortions reveals both the weakness of their position, as well as the propriety of the trial court’s grant of directed verdict, which this Court should affirm.

C. The plaintiffs' alternative argument that Krishnaswami provided party admissions that relieved them of the requirement to produce qualified expert testimony is likewise unsupported by the facts or the law.

Having failed to support their case with properly qualified expert testimony, as required under *Watson, Graves*, and their progeny, the plaintiffs alternatively argue that they carried their burden of proof because Krishnaswami testified not as an expert, but “as Ford,” and that his “testimony binds Ford and constitutes an admission by a party.” (App.’s Br. p. 24.) This argument is convoluted and contrary to both the law and the facts for multiple reasons.

First, the plaintiffs insist that it “is obvious from the substance of Krishnaswami’s testimony that the lower court and the parties knew and understood him to be testifying as Ford.” (*Id.* p. 25.) The trial court squarely rejected this assertion in responding to the plaintiffs’ argument on directed verdict: “I just don’t see where Mr. Krishnaswami’s testimony was admission. . . . *I never viewed him as a party* per say [sic] or as you suggested earlier I believe in chambers about request to admit. So I disagree with you there.” (R. p. 770, lines 10-23 (emphasis added).) The plaintiffs ignore the trial court’s unequivocal statements.

Second, the plaintiffs misplace their reliance Rule 30(b)(6), which governs depositions of a corporate party, for the simple reason that this was not a deposition—it was trial. (*See* App.’s Br. pp. 24–25.) The plaintiffs cite no authority for the proposition that by calling at trial a witness who had previously testified as a corporate representative in a deposition under Rule 30(b)(6) pursuant to a notice outlining the areas of inquiry as required under that rule, the witness is automatically considered a corporate representative with respect to any and all testimony the witness offers at trial. This argument is again an unsupported reach.

Third, the plaintiffs’ reliance on Krishnaswami’s testimony for “party admissions” further fails on the substance because he did not “admit elements of Appellants’ causes of action,

thereby eliminating the need for any further proof,” as the plaintiffs assert. (App.’s Br. p. 24.) The testimony the plaintiffs elicited from Krishnaswami in their case-in-chief was that the 2009 Ford Focus and its airbag system in particular were thoroughly and properly designed and tested over the course of several years and in accordance with both industry standards and Ford’s internal practices. (*Supra* pp. 7–15.) Krishnaswami also squarely rejected plaintiffs’ counsel’s argument that the Ford Focus’s airbag system didn’t meet Ford’s internal “requirements.” (R. p. 411, line 5-p. 415, line 23.)

Moreover, Krishnaswami confirmed that the 2009 Ford Focus was properly designed to do exactly what the plaintiffs maintain it should have—to deploy an airbag when needed, and not to deploy an airbag when not needed. (R. p. 460, lines 3-18 (emphasis added).) And on redirect, he reiterated that the “technology to make sure that airbags don’t deploy when they are not supposed to” was already incorporated into the 2009 Ford Focus’s design. (R. p. 603, lines 1-7.)

The plaintiffs’ assertion that Krishnaswami “admitted” elements of their claims is merely unsupported attorney argument. The trial court rejected this same argument on directed verdict, properly finding that Krishnaswami never made any “admissions” that satisfied elements of the plaintiffs’ claims. (R. p. 770, lines 10-23.) Indeed, he did not. Krishnaswami’s testimony did nothing to save the plaintiffs from directed verdict.

* * * * *

The plaintiffs’ contradictory and unsupported arguments cannot evade the reality that they failed to present the required expert testimony to support their case. This failure is dispositive and ends the inquiry. *Graves*, 401 S.C. at 81, 735 S.E.2d at 659; *Watson*, 389 S.C. at 454, 699 S.E.2d at 180. The Court should therefore affirm.

II. In addition to the dispositive failure to present any expert testimony on design defect, as required, the trial court’s grant of directed verdict was further supported by the plaintiffs’ failure to present evidence on the essential elements of their product liability design defect claim.

The plaintiffs acknowledge that South Carolina law required them to prove several essential elements of their product liability design defect claim, including an actual design defect, an alternative design, causation, and negligence. (*See* App.’s Br. pp. 17–24.) They proved none of these. Their failure only further supports affirmance.

A. As the trial court correctly noted, the plaintiffs failed to present sufficient evidence to support the threshold elements of proving design defect, an alternative feasible design, and causation, which failures compelled directed verdict for Ford.

A design defect claim requires a plaintiff to “show that the design of the product caused it to be ‘unreasonably dangerous.’” *Branham*, 390 S.C. at 218, 701 S.E.2d at 13. As *Branham* established, “the exclusive test in a products liability design defect case,” such as this one, “is the risk-utility test with its requirement of showing a feasible alternative design.” *Branham*, 390 S.C. at 220, 701 S.E.2d at 14. Moreover, as an element of the proof with regard to an alternative design is the requirement for the plaintiff to produce sufficient evidence to “show how his alternative design would have prevented the product from being unreasonably dangerous” *Id.* at 225, 701 S.E.2d at 16. The plaintiffs’ evidence failed on all these requirements.

At the outset, there is no competent evidence of an alleged defect, primarily because of the plaintiffs’ failure to present any qualified expert testimony as to one. On this score, the plaintiffs instead assert that Ford “violated its own calibration requirements.” (App.’s Br. p. 18.) But their only evidence as to Ford’s calibration came from Krishnaswami, and he squarely refuted both the notion that what the plaintiffs allude to were “requirements,” as well as that Ford “violated” them. This is nothing more than unsupported attorney argument.

Equally unavailing is the plaintiffs' assertion that "Ford admitted it is 'unreasonably dangerous' to manufacture a restraint system that will deploy an airbag when it is not needed," and therefore admitted that the 2009 Ford Focus was defective. (App.'s Br. p. 18.) Again, Krishnaswami—the plaintiffs' only evidence as to the Ford Focus's airbags—testified that the Newbern's 2009 Ford Focus airbag system is designed to deploy an airbag when needed, and not to deploy one when it is not needed. (R. p. 460, lines 3-18; R. p. 603, lines 1-7) The plaintiffs want to discard that testimony, yet it is the only testimony on this issue.

As with the lack of evidence on actual defect, there was similarly no evidence at trial of any risk-utility analysis to support a finding that the alleged danger from the 2009 Ford Focus outweighed its usefulness, as required under *Branham*—much less evidence supported by qualified expert testimony, as required under *Watson* and *Graves*. The trial court targeted this deficiency, asking the plaintiffs pointedly to walk the court through how and with what specific evidence they satisfied this requirement. (R. p. 764, line 10-p. 768, line 6.) The plaintiffs responded with nothing more than general statements of their defect theory. (*Id.*) Particularly telling on the failure of proof as to this essential element is that the plaintiffs in their opening appellate brief don't mention the risk-utility analysis or point to any trial evidence on it. They simply ignore this issue.

The plaintiffs' failing with regard to the lack of proof on alternative design is equally glaring. Under *Branham*, this element is mandatory: "in a product liability action, the plaintiff *must* present evidence of a reasonable alternative design." 390 S.C. at 225, 701 S.E.2d at 16 (emphasis added). And this includes the need for the plaintiff "to point to a design flaw in the product and to show how his alternative design would have prevented the product from being unreasonably dangerous"—in other words, causation. *Id.* Moreover, this "presentation of an

alternative design must include consideration of costs, safety and functionality associated with the alternative design.” *Id.*

In addition, a proposed alternative design must be sufficiently specific. *Holland ex rel. Knox v. Morbark*, 407 S.C. 227, 237–38, 754 S.E.2d 714, 720 (2014). Where the proposed alternative is merely conceptual, it is “insufficient to establish a reasonable alternative design,” and the plaintiff’s “claim for design defect fails as a matter of law.” *Id.* at 238, 754 S.E.2d at 720. And because “proof of a reasonable alternative design is necessary to establish whether a product is unreasonably dangerous in a design defect case,” the failure to present sufficient evidence on this issue is dispositive and renders it unnecessary to consider any other issues. *Id.*

As the trial court properly observed, the plaintiffs failed on multiple levels to present sufficient evidence of a specific alternative feasible design to support their design defect claim. Nowhere in their case did they identify any specific alternative. They argued that Ford should have considered different crash sensor paths, or different numbers of sensors, or different placement of the sensors. But as the trial court accurately noted, “it was never clear as to whether talking about one sensor moving or two sensors or three sensors or what as far as a specific design.” (R. p. 773, lines 15-23.) As a result of their lack of evidence on this issue, any finding as to an alternative feasible design would be based on nothing more than impermissible speculation, guesswork, and conjecture. *See Hanahan*, 326 S.C. at 149, 485 S.E.2d at 908; *Estate of Carr*, 379 S.C. at 38–39, 664 S.E.2d at 86.

The plaintiffs’ alternative design—whatever it was—was beyond conceptual. It was nonexistent. As a result, there was no evidence at trial of what specifically any alternative design would comprise, whether and how it would work, or that anyone else in the industry used it. *See Morbark*, 407 S.C. at 237–38, 754 S.E.2d at 720 (finding that the plaintiff failed to prove an

alternative feasible design because his expert “was unaware of anyone, including himself, in the industry that had performed a feasibility analysis for an alternative design,” and he had “not prepared an actual design” for the alternative); *Bragg v. Hi-Ranger, Inc.*, 319 S.C. 531, 546, 462 S.E.2d 321, 330 (1995) (affirming directed verdict where the plaintiff presented evidence of a specific alternative design, but his expert “conceded the device he designed and advanced as a non-defective alternative was simply for demonstration purposes and would not work”).

This latter deficiency distinguishes this case from the one on which the plaintiffs rely. (App.’s Br. p. 22.) In that case, the court held that the plaintiff satisfied the alternative-design requirement by pointing to a particular design already in use by others in the industry. *See Wickersham v. Ford Motor Co.*, 194 F. Supp. 2d 434, 439 (2016).⁴ There was no such evidence here. *See Morbark*, 407 S.C. at 237–38, 754 S.E.2d at 720.

A further deficiency in the plaintiffs’ evidence here was the lack of analysis with regard to cost, safety and functionality of the alternative design. *Branham* 390 S.C. at 225, 701 S.E.2d at 16. There was no evidence on what any of the alternative systems would cost to design, test, and implement. And on safety and functionality, Krishnaswami explained that the driver and passenger airbags were inextricably tied together, and it was impossible to deploy one without the other. (R. p. 439, line 18-p. 441, line 11; R. p. 443, lines 6-24.) Changing the system to suppress the passenger airbag would have implications for the safety of the system with respect to the driver. Moreover, changing the design of the airbag system would have implications with respect to the system’s performance in other crash modes and circumstances. (R. p. 561, lines 5-12.) The plaintiffs’ evidence ignored these issues as well.

⁴ *Wickersham* is currently on post-trial motions, and Ford disputes that the evidence in that case supported the claims there.

The plaintiffs' evidence on alternative design likewise failed, with respect to causation, as the trial court noted. Specifically, on *Branham's* requirement that a plaintiff must "show how his alternative design would have prevented the product from being unreasonably dangerous," 390 S.C. at 225, 701 S.E.2d at 16, the trial court asked the plaintiffs repeatedly to explain where in their evidence they satisfied this element. (R. p. 765, line 9-p. 768, line 6.) They failed to point to any such evidence—because there was none. Instead, the plaintiffs merely argued that the airbag should not have deployed and if it hadn't, Mr. Newbern would not have been injured. The trial court properly rejected this argument as contrary to South Carolina law. (R. p. 774, line 22-p. 775, line 15); *see also Graves*, 401 S.C. at 80, 735 S.E.2d at 658–59; *Branham*, 390 S.C. at 224, 701 S.E.2d at 16; *Watson*, 389 S.C. at 455, 699 S.E.2d at 180.

The plaintiffs' failure to present sufficient evidence of a reasonable, feasible alternative design compelled directed verdict for Ford, and is dispositive without the need to consider other issues. *See Morbark*, 407 S.C. at 238, 754 S.E.2d at 720. The Court should therefore affirm.

B. While the lack of evidence on product defect defeats the negligence claim as a matter of law, the plaintiffs' negligence claim further fails for lack of any evidence of a lack of due care.

Under South Carolina law, the failure to establish that a product was in a defective condition unreasonably dangerous to the user for purposes of the strict liability claim requires dismissal of a companion negligent design claim. *Branham*, 390 S.C. 210–12, 701 S.E.2d. at 8–9; *also Claytor v. Gen. Motors. Corp.*, 277 S.C. 259, 265, 286 S.E.2d 129, 132 (1982). "The fault-based element" of a negligence claim "is of no moment where, as here, there is no showing in the first instance of a product in a defective condition unreasonably dangerous to the user." *Branham*, 390 S.C. at 201, 701 S.E.2d at 9. That is the case here. Both the strict liability and negligent design claims shared the common required element of proving an actual defect and

unreasonably dangerous condition. The failure to prove this common element supported directed verdict on both claims, and supports affirmance here.

The plaintiffs' negligence claim further fails because they presented insufficient evidence of any lack of due care. "A negligence theory imposes the additional burden on a plaintiff of demonstrating the defendant (seller or manufacturer) failed to exercise due care in some respect . . ." *Id.* This required showing of lack of due care is not met merely by asserting that the product could "be made more safe." *Id.* at 224, 701 S.E.2d at 16. Nor is a manufacturer "under a duty to make his automobile accident-proof or fool-proof . . ." *Mickle v. Blackmon*, 252 S.C. 202, 254, 166 S.E.2d 173, 197–98 (1969). Rather, assessment of an automobile manufacturer's exercise of due care typically entails considering the design of the vehicle as a whole, as well as evaluating the state of the art at the time of manufacture, and whether the vehicle complied with applicable standards, including industry standards. *See, e.g., Jimenez v. DaimlerChrysler Corp.*, 269 F.3d 439, 454 (4th Cir. 2001) (applying South Carolina law); *Stonehocker v. Gen. Motors Corp.*, 587 F.2d 151, 157 (4th Cir. 1978) (applying South Carolina law). The plaintiffs presented no evidence on these issues.

Their only evidence with regard to the design of the Ford Focus's airbag system came from Krishnaswami, who testified that Ford conducted industry-standard crash tests, and that Ford adhered to its own internal design practices and standards. Moreover, their evidence—again, from Krishnaswami—was that Ford took years in designing this airbag system, conducted hundreds of crash tests, evaluated and re-evaluated its performance, and only after ensuring that the system was optimized as a whole did it release it for production. *See supra* pp. 7–15.

The plaintiffs' only argument on alleged negligence is that Ford supposedly deviated "from its own internal policies." (App.'s Br. p. 23.) This is again simply unsupported attorney

argument and a mischaracterization of the evidence, as Krishnaswami's testimony actual testimony shows.

The plaintiffs simply failed to carry the additional burdens to prove any negligence. The Court should therefore affirm directed verdict as to this claim as well.

CONCLUSION

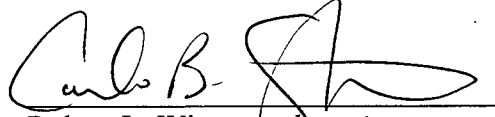
The trial court directing verdict for Ford was entirely of the plaintiffs' own making. They chose not to present any expert testimony on design defect, despite having an airbag design expert they were prepared to call but didn't. This lack of required proof alone compelled directed verdict for Ford. And the plaintiffs are likewise responsible for not presenting sufficient proofs on the essential elements of their design defect case, including risk-utility, alternative design, causation, and negligence.

There is no error here. The outcome here was compelled by the case the plaintiffs chose to present. For the reasons stated, this Court should affirm the judgment of the circuit court on its directed verdict in favor of Ford.

[Signature on the following page.]

July 25, 2017.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert L. Wise", written over a horizontal line.

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THE STATE OF SOUTH CAROLINA
In the Court of Appeals

Appeal from Charleston County
Court of Common Pleas

The Honorable J.C. Nicholson, Jr., Circuit Court Judge

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SC Court of Appeals

Appellate Case No. 2016-002209
Civil Action No. 2013-CP-10-02928

Steven Newbern and Claudia Newbern Appellants,

v.

Ford Motor Company Respondent.

CERTIFICATE OF COUNSEL

The undersigned certifies that the FINAL BRIEF OF RESPONDENT complies with Rule 211(b), SCACR, as well as the South Carolina Supreme Court's Order dated August 13, 2007.

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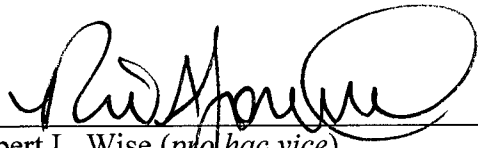
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