

¶ 2 The basic factual and procedural background of this case is not in dispute. At approximately 4:15 a.m. on June 20, 2001, the Deceased was driving a 1996 Ford F-150 pickup truck in his private community association in Lackawaxen, Pennsylvania on his way to work. As he approached a "T" intersection where the stop sign had been knocked down, he applied his brakes but skidded through the intersection into a ditch, where he hit a dirt embankment. When emergency personnel arrived on the scene, the Deceased was found dead in the passenger seat. The truck's air bag had deployed. The Deceased was not wearing a seat belt. Expert witnesses for Gaudio and Ford agreed that the Deceased had been traveling between 30-34 miles per hour before applying his brakes. Gaudio's experts estimated that he was traveling at a barrier equivalent speed of 8.6 mph when he hit the embankment, while Ford's experts estimated the speed at the time of impact to be 14 mph. An investigative report prepared by the National Highway Transportation Safety Association ("NHTSA"), entitled the "Veridian Report", estimated his speed at 11.6 miles per hour.

¶ 3 On November 13, 2002, Gaudio filed this civil action against, *inter alia*, Ford,¹ asserting claims sounding in negligence and strict liability. Prior to trial, the trial court issued a series of evidentiary rulings in response to motions *in limine* filed by the parties. Rulings on these motions relevant to

¹ Gaudio's claim against Masthope Rapids Property Owners Counsel, which was responsible for the fallen stop sign, settled prior to trial.

this appeal included denials of Gaudio's motions to exclude evidence and argument related to the Deceased's non-use of a seat belt, expert testimony regarding the Deceased's pre-impact conduct, and various statistical and risk/benefit evidence.

¶ 4 The case proceeded to trial only on Gaudio's strict liability claims. Gaudio presented evidence at trial to attempt to prove that the design of the F-150's air bag system was defective because (1) the placement and quantity of the timing sensors caused the driver's side air bag to deploy at a low collision speed where it should not have deployed at all, or (2) that it deployed too late, causing the Deceased's body to be too close to the steering wheel at the time of deployment. Gaudio argued that if the air bag had not deployed at all, or had deployed in a timely fashion, the Deceased would have suffered only minor injuries, if any.

¶ 5 Ford argued that its air bag system was not defective and that the air bag deployed precisely as designed. Through expert witnesses, Ford contended that the Deceased's heavy breaking at the intersection, his failure to use a seat belt, and perhaps other pre-impact conduct (e.g., reaching for something on the truck's floor) caused him to be out of position and too close to the steering wheel at the time of air bag deployment. Ford also argued that if the air bag had not deployed, Gaudio would have suffered significant injuries in the crash.

¶ 6 The jury returned a verdict in favor of Ford, indicating on the verdict form that the F-150's air bag crash sensor system was not defective. Based upon this finding, the jury did not reach the issues of causation or damages. The trial court denied Gaudio's post-trial motions and entered judgment in favor of Ford.

¶ 7 This timely appeal followed, in which Gaudio contests a number of the trial court's evidentiary rulings and jury instructions. Gaudio challenges the trial court's evidentiary rulings on the Deceased's non-use of a seat belt, Ford's introduction of evidence relating to the Deceased's pre-impact behavior, the F-150's compliance with government safety standards, various generalized statistics, and risk/benefit evidence. Gaudio raises four objections to the trial court's charge to the jury, contending that the charge failed to instruct the jury regarding the definition of crashworthiness and the irrelevance of Ford's due care, the Deceased's pre-impact behavior, and compliance with industry and government standards. Appellants' Brief at 9.

¶ 8 Before addressing these issues, we will first respond to Ford's argument that the trial court erred in denying its motions for a compulsory nonsuit and directed verdict on Gaudio's strict liability-crashworthiness claims, which Ford contends should have been granted as a result of our Supreme Court's decision in ***Pennsylvania Dep't of General Services v. United States Mineral Products Co.***, 587 Pa. 236, 898 A.2d 590 (2006) ("***General Services I***"). To this end, we will briefly review the history of

products liability law and the crashworthiness doctrine in this Commonwealth. Our Supreme Court first adopted section 402A of the Restatement (Second) of Torts in **Webb v. Zern**, 422 Pa. 424, 220 A.2d 853 (1966). To state a section 402A products liability claim in Pennsylvania, the plaintiff must prove that the defendant sold a product "in a defective condition," that the defect existed when the product left the defendant's hands, and that the defect caused the plaintiff's injuries. *See, e.g., Hadar v. AVCO Corp.*, 886 A.2d 225, 228 (Pa. Super. 2005). A product is "in a defective condition" when it lacks "any element necessary to make it safe for its intended use or possessing any element that renders it unsafe for the intended use." **Azzarello v. Black Bros. Co., Inc.**, 480 Pa. 547, 559, 391 A.2d 1020, 1027 (1978). Because the key inquiry in all products liability cases is whether or not there is a defect, it is the product, and not the defendant's conduct, that is on trial. *See, e.g., Hutchinson v. Penske Truck Leasing Co.*, 876 A.2d 978, 983 (Pa. Super. 2005), *affirmed*, 592 Pa. 38, 922 A.2d 890 (2007).

¶ 9 The crashworthiness doctrine is a subset of strict products liability law that most typically arises in the context of vehicular accidents. *See, e.g., Colville v. Crown Equip. Corp.*, 809 A.2d 916, 922 (Pa. Super. 2002), *appeal denied*, 574 Pa. 742, 829 A.2d 310 (2003). First explicitly recognized as a specific subset of product liability law by this Court in **Kupetz v. Deere & Co., Inc.**, 644 A.2d 1213 (Pa. Super. 1994), the term

"crashworthiness" means "the protection that a motor vehicle affords its passenger against personal injury or death as a result of a motor vehicle accident." *Id.* at 1218. The doctrine extends the liability of manufacturers and sellers to "situations in which the defect did not cause the accident or initial impact, but rather increased the severity of the injury over that which would have occurred absent the design defect." *Id.* To avoid liability, a manufacturer must design and manufacture the product so that it is "reasonably crashworthy," or, stated another way, the manufacturer must include accidents as intended uses of its product and design accordingly. *Id.*

¶ 10 A crashworthiness claim requires proof of three elements. First, the plaintiff must prove that the design of the vehicle was defective, and that at the time of design an alternative, safer, and practicable design existed that could have been incorporated instead. *Id.* Second, the plaintiff must identify those injuries he or she would have received if the alternative design had instead been used. *Id.* Third, the plaintiff must demonstrate what injuries were attributable to the defective design. *Id.*

¶ 11 In recognizing the crashworthiness doctrine in *Kupetz*, this Court relied upon our Supreme Court's prior decision in *McCown v. International Harvester Co.*, 463 Pa. 13, 342 A.2d 381 (1975), which adopted the principle tenet of the crashworthiness doctrine, i.e., manufacturers are strictly liable for defects that do not cause the accident but nevertheless

cause an increase in the severity of injuries that would have occurred without the defect. In **McCown**, the plaintiff's truck hit a guardrail as he was attempting to make a right turn. The collision caused the steering wheel to spin rapidly to the left, and when this occurred the spokes of the steering wheel struck plaintiff's right arm, resulting in fractures to his wrist and forearm. The manufacturer admitted that the steering wheel mechanism was defective, but claimed that the defect was not the cause of the accident. Our Supreme Court rejected the manufacturer's contributory negligence defense (i.e., that the plaintiff's careless driving caused the accident) and affirmed the judgment in plaintiff's favor. **Id.** at 17, 342 A.2d at 382. In so doing, the Court recognized that for purposes of a products liability claim, the defect does not have to be the cause of the accident resulting in the plaintiff's injuries, and instead acknowledged that a strict liability claim may allow recovery for injuries resulting after the collision occurred. **Id.**

¶ 12 Against this background, in **General Services I**, the Commonwealth brought a strict products liability property damage claim against a chemical manufacturer and others for contamination of a government office building. In the aftermath of a fire, the presence of polychlorinated biphenyls ("PCBs") was detected on surfaces and in the ambient air inside the building. The Commonwealth brought suit against, *inter alia*, the Monsanto Company (the PCB manufacturer) as well as the manufacturers and installers of PCB-

containing building products used in construction. Monsanto argued that it could not be held responsible for chemical contamination resulting from the fire because subjecting a building product to a fire is an abnormal use of the building product, not an intended use. The Commonwealth acknowledged the role of the fire in spreading the PCBs, but argued that fire is a foreseeable event against which Monsanto should have guarded. Trial resulted in a \$90 million verdict against Monsanto.

¶ 13 Our Supreme Court agreed with Monsanto and ordered a new trial. The Court recognized at an "abstract theoretical level" that the "overall concept of intended use should include all reasonably foreseeable uses and/or occurrences." **General Services I**, 587 Pa. at 257, 898 A.2d at 603. It refused, however, to "import[] the foreseeability concept into existing strict liability doctrine in a generalized fashion" because the "central tenets of such liability scheme have been constructed on the contrary notion that negligence concepts are foreign to it." **Id.** As a result, the Supreme Court concluded that "a manufacturer can be deemed liable only for harm that occurs in connection with a product's intended use by an intended user; the general rule is that there is no strict liability in Pennsylvania relative to non-intended uses even where foreseeable by a manufacturer." **Id.** at 253, 898 A.2d at 600 (citing **Phillips v. Cricket Lighters**, 576 Pa. 644, 841 A.2d 1000 (2003) (plurality decision)). Put another way, the Supreme Court held

that because incineration was not an intended use of building products, the manufacturer had no obligation to make the products "fireworthy".²

¶ 14 Ford argues that our Supreme Court's decision in **General Services I** precludes the application of the crashworthiness doctrine in this case. Ford contends that the fundamental basis for the crashworthiness doctrine is that crashes are intended uses of automobiles because they are foreseeable, and thus manufacturers must design their products to make them "crashworthy." Appellees' Brief at 15-19. As such, Ford concludes that "[w]hile [**General Services I**] was a 'fireworthiness' case rather than a 'crashworthiness' case, a holding that motor vehicle manufacturers – and only motor vehicle manufacturers – can be held strictly liable for harm resulting from foreseeable but unintended uses of products without the protection of the 'level field' available under negligence law would be flatly inconsistent with the holding of that decision." **Id.** at 18-19.³

² On remand, the Commonwealth tried the case again, on the theory that an unsafe level of PCBs existed in the building for reasons unrelated to the fire. The Commonwealth argued that the PCB contamination resulted from the intended use of the building materials (i.e., as construction supplies), and that vapors from the PCB-laden building materials had spread throughout the building from the ordinary use of the heating and ventilation systems. The retrial resulted in a defense verdict, which has subsequently been affirmed by both the Commonwealth Court, 927 A.2d 717 (Pa. Commw. 2007), and the Supreme Court, -- Pa. --, 956 A.2d 967 (2008).

³ The Product Liability Advisory Council, Inc. filed an *amicus curiae* brief in support of this position. **See** Brief of *Amicus Curiae* Product Liability Advisory Council, Inc. in Support of Defendants-Appellees at 3 ("Crashworthiness cannot qualify as a strict liability theory under

¶ 15 We disagree. Our Supreme Court in **General Services I** carefully avoided eliminating the crashworthiness doctrine as a cognizable subset of strict liability law and refused to equate crashworthiness with "fireworthiness". It began by describing the crashworthiness doctrine as follows:

[C]rashworthiness doctrine has developed as a discrete facet of product liability jurisprudence, having particularized elements requiring the fact finder to distinguish non-compensable injury (namely, that which would have occurred in a vehicular accident in the absence of any product defect) from the enhanced and compensable harm resulting from the product defect. **See generally Kupetz v. Deere & Co., Inc.**, 435 Pa. Super. 16, 26-27, 644 A.2d 1213, 1218 (1994).

General Services I, 587 Pa. at 255, 898 A.2d at 601. Without disapproving the discrete use of the foreseeable use concept in crashworthiness cases (i.e., motor vehicle accidents), the Supreme Court refused to extend the foreseeability test to other products:

[W]e are of the view that the metamorphosis of the particularized crashworthiness doctrine into a generalized conditions-of-use/outside-cause-or-instigator exception to the bar against resort to foreseeability concepts in the strict liability arena would, in fact, represent an extension of the type

Pennsylvania law. . . . The Supreme Court agrees. Only last year, it rejected 'fireworthiness' as a basis for strict liability on exactly the same rationale. [citing **General Services I**"].

that was disapproved by a majority of Justices in **Phillips**.⁴

Id. at 257, 898 A.2d at 603.

¶ 16 Thus, contrary to the interpretation urged by Ford, the Supreme Court in **General Services I** did not reject the crashworthiness doctrine. Although the Supreme Court refused to extend the rationale of the crashworthiness doctrine to other products, it clearly recognized the continued viability of the doctrine as a targeted exception to the prohibition against utilizing an analysis of the foreseeability of an intended use in strict liability law in Pennsylvania. **Id.** at 254 n.10, 257, 898 A.2d at 601 n.10, 603. The case *sub judice* presents a straightforward application of the

⁴ In **Phillips v. Cricket Lighters**, 576 Pa. 644, 841 A.2d 1000 (2003) (plurality), our Supreme Court affirmed the trial court's grant of summary judgment in favor of the manufacturer on a strict liability design defect claim after a small child's use of a butane lighter resulted in a fire. Based upon the finding that small children were not the intended users of butane lighters, the Supreme Court ruled that "in a strict liability design defect claim, the plaintiff must establish that the product was unsafe for its intended user." **Id.** at 657, 841 A.2d at 1006. In so ruling, the Supreme Court emphasized that the limitation on the scope of strict liability only to intended users was necessary because extending liability to use by all foreseeable users "would improperly import negligence concepts into strict liability law." **Id.**

In a concurring opinion in **Phillips**, Justice Saylor suggested that the negligence concepts included in Section 2 of the Restatement (Third) of Torts should be introduced into Pennsylvania's strict liability law, rather than continued adherence to Section 402A of the Restatement (Second) of Torts. **Id.** at 664-82, 841 A.2d at 1012-23 (Saylor, J., concurring). We note that the Supreme Court has granted appeal in a more recent case, **Bugosh v. Allen Refractories Co.**, 932 A.2d 901 (Pa. Super. 2007), *appeal granted*, 596 Pa. 265, 942 A.2d 897 (2008), to address the specific issue of "[w]hether this Court should apply § 2 of the Restatement (Third) of Torts in place of § 402A of the Restatement (Second) of Torts".

crashworthiness doctrine, as Gaudio argues that if the air bag had not deployed at all, or had timely deployed, the Deceased would have suffered at most only minor injuries. Accordingly, we find no error in the trial court's refusal to grant Ford a compulsory nonsuit or a directed verdict.

Evidentiary Issues

¶ 17 We turn now to the issues Gaudio raises on appeal, starting with her challenges to the trial court's evidentiary rulings. Although Gaudio raises a wide variety of such issues, for sake of discussion we will divide them into five broad categories: (1) evidence regarding seat belt usage, (2) evidence of the pre-impact conduct of the Deceased, (3) evidence of Ford's compliance with federal safety standards, (4) various statistical evidence, and (5) evidence relating to risk/benefit analysis.

¶ 18 In considering these issues raised by Gaudio, we note that our standard of review is a narrow one:

When we review a trial court's ruling on admission of evidence, we must acknowledge that decisions on admissibility are within the sound discretion of the trial court and will not be overturned absent an abuse of discretion or misapplication of law. In addition, for a ruling on evidence to constitute reversible error, it must have been harmful or prejudicial to the complaining party.

Stumpf v. Nye, 950 A.2d 1032, 1036 (Pa. Super. 2008); A party suffers prejudice when the trial court's error could have affected the verdict.