

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF KENTUCKY
LOUISVILLE DIVISION
CIVIL ACTION NO. 3:12-CV-00154-TBR

LORA MADONNA JACKSON, *et al.*,

PLAINTIFFS

v.

E-Z-GO Division of TEXTRON, INC., *et al.*,

DEFENDANTS

MEMORANDUM OPINION AND ORDER

Currently pending before the Court are four motions by Plaintiffs and three motions by Defendant to exclude testimony of various witnesses pursuant to Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). [DN 130; DN 131; DN 132; DN 133; DN 134; DN 135; DN 136.] All motions have been responded to and replied to. Fully briefed, these matters are now ripe for adjudication. For the reasons explained in detail below, Defendant E-Z-GO's Motion to Exclude Opinion Testimony of Andrew Lawyer II is **GRANTED IN PART AND DENIED IN PART**; its Motion to Exclude Proposed Opinion Testimony of William Kitzes is **GRANTED IN PART AND DENIED IN PART**; and its Motion to Exclude Opinion Testimony of Kristopher Seluga is **GRANTED IN PART AND DENIED IN PART**.

Plaintiffs' Motion to Exclude Testimony of Richard L. Stern is **DENIED**; their Motion to Exclude David J. Bizzak, H. Frank Entwisle, and Graeme F. Fowler is **GRANTED IN PART AND DENIED IN PART**; their Motion to Exclude Testimony About the Law by Fact Witnesses & Textron's Expert Witnesses is **GRANTED**; and their Motion to Exclude Nathan T. Dorris is **GRANTED IN PART AND DENIED IN PART**.

BACKGROUND

This lawsuit arises out of a rollover accident involving an electric personnel carrier vehicle that led to the tragic death of one of the passengers, fifteen year-old Jordan Kori Jackson, on July 25, 2010 in Grayson County, Kentucky. [See DN 1-2 (Complaint).] The personnel carrier vehicle (the “Vehicle”) was a 1993 E-Z-GO PC-4X manufactured and sold by Defendant E-Z-GO (“Defendant” or “E-Z-GO”).¹ Jordan Jackson was a passenger in the front right seat of the Vehicle. Three other teenage passengers were also present: Molly Kyle, who was driving, Andrew O’Neill, whose parents owned the Vehicle, and Samantha Compton. Both Andrew O’Neill and Samantha Compton were sitting in the back of the Vehicle at the time of the incident.

Lora Madonna Jackson, Jordan’s mother and the administratrix of her estate, and Carmine T. Jackson, administratrix of the estate of Charles T. Jackson Jr., Jordan’s father, brought the instant lawsuit against Defendant E-Z-GO Division of Textron, Inc. Herein, Plaintiffs allege that the Vehicle’s design was defective, that E-Z-GO failed to provide adequate warnings regarding its safe operation, and that E-Z-GO breached express and implied warranties. [See DN 1-2 at 4–7.] Plaintiffs also bring negligence and gross negligence claims against Keith and Dianna O’Neill, Andrew O’Neill’s parents, alleging that the O’Neills wrongly allowed their then-underage son and others to operate the Vehicle on the day of the incident. [DN 1-2 at 7–8.]

This matter is scheduled for a jury trial beginning on August 1, 2018. Presently, both parties make motions to exclude the testimony of several witnesses expected to testify at trial.

¹ Though technically referred to as a “personnel carrier vehicle,” some of the parties and witnesses use the term interchangeably with “golf car” or “golf cart.” For the sake of simplicity, the Court will refer to the 1993 E-Z-GO PC-4X vehicle involved in this case as “the Vehicle.”

STANDARD

When a party challenges an opponent's expert witness, this Court must assume "a gatekeeping role" to ensure the relevance and reliability of the expert's testimony. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993); *see also Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999) (extending *Daubert* to nonscientific expert testimony). Federal Rule of Evidence 702 guides the Court through this inquiry. The plain language of Rule 702 says, first, that an expert must be qualified to testify on account of his "knowledge, skill, experience, training, or education." Fed. R. Evid. 702; *see also Bradley v. Ameristep, Inc.*, 800 F.3d 205, 208 (6th Cir. 2015). The Court does "not consider 'the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.' " *Burgett v. Troy-Bilt LLC*, 579 Fed.Appx. 372, 376 (6th Cir. 2014) (quoting *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994)). A qualified expert may then testify so long as his opinions will aid the factfinder and are reliable, meaning the opinions are based on sufficient data, reliable methods, and the facts of the case. Fed. R. Evid. 702(a)–(d); *see also Clark v. W & M Kraft, Inc.*, 476 Fed.Appx. 612, 616 (6th Cir. 2012); *Adler v. Elk Glenn, LLC*, 986 F. Supp. 2d 851, 854 (E.D. Ky. 2013).

There are a number of factors typically considered to resolve questions concerning the reliability (and admissibility) of expert testimony, but no list is exhaustive. *See Daubert*, 509 U.S. at 593–94; *see also Newell Rubbermaid, Inc. v. Raymond Corp.*, 676 F.3d 521, 527 (6th Cir. 2012); *Powell v. Tosh*, 942 F. Supp. 2d 678, 686–88 (W.D. Ky. 2013). Such factors may include "(1) whether the theory or method in question 'can be (and has been tested)'; (2) whether it 'has been subjected to peer review and publication'; (3) whether it has a 'known or potential rate of error'; and (4) whether the theory or technique enjoys 'general acceptance' in the 'relevant

scientific community.” *Sierra Enterprises Inc. v. SWO & ISM, LLC*, 264 F. Supp. 3d 826, 834 (W.D. Ky. 2017) (quoting *Daubert*, 509 U.S. at 593–94).

Where a party challenges the testimony of a proffered expert for insufficient “factual basis, data, principles, methods, or their application . . . the trial judge must determine whether the testimony has a reliable basis in the knowledge and experience of [his or her] discipline.” *Kumho Tire*, 526 U.S. at 149 (quoting *Daubert*, 509 U.S. at 592). Although a *Daubert* hearing is not a prerequisite, the court must ensure that the disputed testimony is both relevant and reliable. *See Clay v. Ford Motor Co.* 215 F.3d 663, 667 (6th Cir. 2000). In any case, the Court has considerable leeway over where to draw the line. *Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 671–72 (6th Cir. 2010) (“[W]here one person sees speculation, we acknowledge, another may see knowledge, which is why the district court enjoys broad discretion over where to draw the line.” (citing *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 139 (1997))). The proponent of the expert testimony must establish its admissibility by a preponderance of the evidence. *Sigler v. Am. Honda Motor Co.*, 532 F.3d 469, 478 (6th Cir. 2008).

DISCUSSION

Neither party has been shy about filing *Daubert* and numerous other motions in this matter. This case has been ongoing for several years, and much of the delay can be attributed to hotly contested discovery issues. However, counsel for both parties have been strong advocates for their clients and, despite differences of opinion, counsel have been professional and served their clients well. The Court is confident that this degree of professionalism will carry forward during the trial of this matter.

There are currently seven *Daubert* motions pending before the Court. The Court will address each in turn.

1. Defendant's Motion to Exclude Opinion Testimony of Andrew Lawyer II

Defendant first moves to exclude the testimony of Plaintiffs' expert Andrew Lawyer II, who, according to his Curriculum Vitae, is a "[c]onsulting engineer specializing in accident reconstruction and safety analysis in electrical design safety and failure analysis, fire cause and origin, and vehicular traffic accidents. He has been qualified as an expert in trial litigation in Florida, Louisiana and Mississippi." [DN 112-2 at 2 (Lawyer Curriculum Vitae).] Lawyer is registered professional engineer in Florida and Alabama. [*Id.*] He is a certified fire and explosion investigator, a certified crash data retrieval operator, and a certified accident reconstructionist. [*Id.*] Since 1999, Lawyer has run his own reconstruction services company. [*Id.*] Before doing so, he worked as an engineer for the Florida Department of Transportation and before that, for Benedict Engineering Company in Tallahassee, FL. [*Id.*] Lawyer testified that, at Benedict Engineering, "we did everything from research and development to classical engineering design to forensic accident reconstruction, and safety consulting." [DN 130-7 at 5 (Lawyer Deposition).] Lawyer is also a member of the American Society of Safety Engineers, the Institute of Electrical and Electronic Engineers, the National Society of Professional Engineers, and the Society of Automotive Engineers, to name a few. [DN 112-2 at 1-2.]

In preparation for his testimony, Lawyer reviewed numerous documents and information, including, for example, police reports from the incident, U.S. Patents, photographs taken at the scene of the accident, E-Z-GO Textron operation manuals and laboratory engineering tests, Engineering Design Specifications and Drawings, an article containing an interview with a former E-Z-GO engineer, National Highway Traffic Safety Administration statistics, deposition testimony, discovery responses, and the expert disclosures of other expert witnesses expected to testify in the case. [DN 119-1 at 2-4 (Lawyer Supplemental Report).]

In his Supplemental Expert Report, Lawyer offers six main opinions which he explains in greater detail in his Report:

1. There were available electronic technologies, in the form of dynamic braking/plug braking and regenerative braking, available to E-Z-GO Textron at the time of manufacture of the incident 1993-94 E-Z-GO PC4X electric personnel carrier vehicle to have limited the maximum operating speed of the incident personnel carrier vehicle to less than 15 mph.
2. E-Z-GO Textron knew or should have known of this technology and implemented it on all their personnel carrier vehicles as a non-optional safety measure to protect its consumers and users from personnel carrier vehicle that could attain speeds greater than its maximum allowable speed. A prudent company engaged in the design or manufacture of similar products being fully aware of the risk should not have put it on the market.
3. E-Z-GO Textron knew or should have known of the inherent dangers of the electric personnel carrier vehicle attaining speeds greater than its maximum allowable speed, potential for rollover and implemented these speed retarding technologies to protect its consumers and users. The subject E-Z-GO electric personnel carrier vehicle designed without these electronic technologies was defective and unreasonable dangerous.
4. Had E-Z-GO Textron equipped the incident electric personnel carrier vehicle with the proper speed limiting mechanism(s) then the subject 1993-94 E-Z-GO electric personnel carrier vehicle would not have been able to attain speeds significant enough to cause the vehicle to rollover.
5. Had E-Z-GO Textron equipped the incident 1993-94 E-Z-GO electric personnel carrier vehicle with the proper speed limiting mechanism(s) to limit the speed of the cart to less than 15 mph then the subject accident and Miss Jackson's unfortunate and untimely death would have been avoided.
6. The defective and unreasonably dangerous condition of the subject personnel carrier vehicle was a substantial factor in causing the incident, the injuries and the subsequent death of Jordan Jackson.

[DN 119-1 at 5–7.]

In its motion to exclude Lawyer's report and testimony, Defendant argues both that Lawyer is not qualified to offer the opinions included in his report and that he did not use

sufficiently reliable principles and methods in reaching those opinions. [See DN 130-1 at 25.]
The Court will address these issues in turn.

a) Qualified to Offer Opinions

With regard to Lawyer's professional background, training, and experience, Defendant alleges that "Lawyer has no education, training or experience in the area of regenerative braking, the precise subject about which he seeks to testify at trial." [DN 130-1 at 8.] According to Defendant, "[a]lthough Mr. Lawyer's testimony is aimed at the commercial feasibility of an alternative design for the 1993 PC-4X personnel carrier employing an electric motor with separately excited winding fields and an electronic controller to produce regenerative retarding forces in a layout suitable for use in golf cars and personnel carriers, he expresses no background in that area." [*Id.* at 10.] Defendant further contends that Lawyer "has completed no study, much less any scientific study, in the design, manufacture or testing of electronic controllers or electric motors that would be used to control the speed of an electric powered vehicle, such as the personnel carrier involved in this case." [*Id.*] Rather, Defendant stresses that "[t]he vast majority of Mr. Lawyer's work and consultations have been in the area of accident reconstruction, electrical distribution systems in buildings, and fire investigation, none of which are contained in his report." [*Id.* at 9.]

The Court does not find the mere fact that Lawyer does not have specific experience with regenerative braking or electronic controllers to be dispositive, however. Our sister district courts have often held that "to be qualified as an expert witness under Rule 702, an expert need not be a 'blue-ribbon practitioner [] with optimal qualifications' or have 'an intimate level of familiarity with every component of a [product] as a prerequisite to offering expert testimony.'" *Ashland Hosp. Corp. v. Affiliated FM Ins. Co.*, No. CIV.A. 11-16-DLB-EBA, 2013 WL 3213051, at *2

(E.D. Ky. June 24, 2013) (citing *Bartlett v. Mutual Pharmaceutical Company, Inc.*, 760 F.Supp.2d 220, 222 (D.N.H. 2011)). In other words, “[e]xperts need not even have direct experience with the precise subject matter or product at issue.” *Id.* For instance, in *Burke ex rel. Burke v. U-Haul International, Inc.*, Judge Heyburn explained:

U-Haul explains that Anderson cannot qualify because he has no professional experience in the design or manufacture of tow dollies and trailers. He is not a member of any towable equipment professional association of industry committee, has never authored any scholarly articles on towable equipment and apparently has no prior testing experience involving tow dollies.

Anderson’s professional qualifications appear more than ample to permit him to testify on the subject of vehicle dynamics and accident reconstruction. The only question is whether this and his credentials transfer from the general field of vehicle accident reconstruction to the subject of vehicle accidents involving a tow dolly combination. The federal courts in a number of product liability cases involving engineering experts have permitted an expert witness with general knowledge to give expert testimony where the subject of that testimony related to such general knowledge but the expert had no specialized knowledge of the particular product. For example, in *DaSilva v. American Brands, Inc.*, 845 F.2d 356, 361 (1st Cir. 1988), the trial court properly permitted an expert qualified as a mechanical engineer to give an opinion on the safety of the design of an industrial mixing machine even though the witness had no design experience with the particular machine at issue. Anderson’s qualifications appear similarly appropriate here.

No. CIV 3:03CV32 H, 2006 WL 3043421, at *3–4 (W.D. Ky. Oct. 20, 2006). In 2016, in reliance on *Burke*, Judge McKinley held that “the fact that Boutaugh [the expert] never personally designed a roof bolter or a Caterpillar RB220 Roof Bolter prior to his opinions rendered in this case does not disqualify him as an expert.” *Brooks v. Caterpillar Glob. Mining Am., LLC*, No. 4:14CV-00022-JHM, 2016 WL 276126, at *3 (W.D. Ky. Jan. 21, 2016). Rather, the *Brooks* court held:

The Court finds that Boutaugh’s knowledge as an engineer and his experience as both a mining and a project engineer qualify him to be able to offer opinions about whether the location of the operator handle on the Caterpillar RB220 Roof Bolter rendered it a defective and unreasonably dangerous piece of equipment. Boutaugh’s lack of practical experience designing safety features on roof bolters is an issue of weight best suited for cross-examination.

Id.

Similarly, here, though Lawyer does not have extensive experience with regenerative braking specifically, his experience in the field of electrical engineering in general is extensive. During his work in forensic consulting, he “worked on everything from automobile accidents, fire-causing origin, electrical failures, construction, industrial accidents, plant operations, product failures, slip, trip, and falls.” [DN 130-7 at 5.] Importantly, Lawyer also testified that he did some work with separately excited fields in electrical motors, a concept involved in regenerative braking, during his time at Benedict Engineering. [*Id.* at 5.] Lawyer explained that “we did testing and evaluation of various types of electronic equipment, and motorized equipment, vehicles, so we had opportunities to test those types of motors, see how they work, see how they run, do failure modes and effects analysis with respect to those -- but that -- and that was back when I was with Benedict Engineering, and that would have been between 1993 and '97, '98.” [*Id.* at 11.] Additionally, in the realm of accident reconstruction, Lawyer has been “[r]esponsible for analysis of electronic products regarding design and electrical-failure safeguards” and he has “[p]erform[ed] testing and evaluation of components based on ANSI, UL, IEEE and other national recognized standards.” [DN 1121-2 at 6.] He also “[i]nvestigates failures in products including compressors, kitchen appliances, treadmills, service meters, and telecommunications systems, analyzing them for evidence of damage from lightning contact and/or electrical surge.” [*Id.*] The Court finds that that Lawyer’s knowledge and experience qualify him to be able to offer opinions on regenerative braking in this case despite the fact that Lawyer does not have specific experience with that type of technology.

b) Opinions Based on CPSC NEISS Data

Second, Defendant argues that Lawyer should not be permitted to testify about his analysis data from Consumer Product Safety Commission (CPSC) National Electronic Injury Surveillance System (NEISS) reports on golf car and personnell carrier incidents because “his proffered testimony merely is an attempt to present irrelevant extrapolated reports of projected accidents without any demonstrated relationship to the accident before the court in this case.”

[DN 130-1 at 22–24.] As the Court noted above, Lawyer opines in his report that

E-Z-GO Textron knew or should have known of the inherent dangers of the electric personnel carrier vehicle attaining speeds greater than its maximum allowable speed, potential for rollover and implemented these speed retarding technologies to protect its consumers and users. The subject E-Z-GO electric personnel carrier vehicle designed without these electronic technologies was defective and unreasonable dangerous.

[DN 119-1 at 6.] Lawyer identified three grounds in support of this opinion:

- a. Consumer Product Safety Commission (CPSC) National Electronic Injury Surveillance System (NEISS) injury databases depict an annual average of approximately 6,000 personnel carrier vehicle type related injuries requiring emergency room treatment in the US from 1991 to 1993. (See 1991 – 1993 CPSC NEISS Data for Golf Carts, Code: 1213)
- b. Of these 6,000 personnel carrier vehicle type related injuries, 8.9% were because of rollovers. (See American Journal of Preventive Medicine, Volume 35, Number 1: Golf Cart - Related Injuries in the U.S., pp. 55-59)
- c. Having such a large share of the market industry, E-Z-GO Textron would have been involved in many of these rollover accidents.

[*Id.*]

In its motion to exclude, Defendant argues that, though Lawyer identified 8.9% of incidents as having involved rollovers, “Lawyer[‘s] testimony made clear he had not examined the underlying accident reports from which the NEISS data projections were extrapolated to determine any circumstances of the reported accidents, the manufacturer of the vehicles

involved, and whether any actual accident, or the extrapolated projected number of accidents, involved any of the ‘four areas of concern’ that the Plaintiffs use as the foundation for their case.” [DN 130-1 at 14.] During his deposition, Defendant asked Lawyer whether he investigated “the NEISS data to determine how it’s collected,” and Lawyer responded that he tried to do so, however he explained that “[a] lot of . . . the data that I specifically notated did not give me the ability to look at anything other than the data that they had provided -- the numbers that they had provided.” [DN 130-7 at 18.] Lawyer further testified that he was not “able to obtain from the NEISS data how the rollovers occurred,” nor did he “look up every single last one of them, and determine how each one was occurred.” [*Id.* at 19.] Rather, Lawyer simply opines that, because E-Z-GO had “a large share of the market industry” from 1991 to 1993, it “would have been involved in many of these rollover accidents.” [DN 119-1 at 6.]

In their response, Plaintiffs assert that Lawyer demonstrated “a detailed understanding of the NEISS data, the methods employed by the CPSC to collect the data, and the CPSC’s statistical adjustment of the data in order to reliably make national estimates.” [DN 149 at 18.] Plaintiffs further argue that the existence of the publicly available NEISS information on golf cart and personnel carrier incidents “is not only relevant but at the heart of this litigation” because, “under the strict [products] liability theory, a supplier or manufacturer is in effect charged with hindsight. That is, it is legally responsible for risks which could not have been known or appreciated at the time of manufacture, but came to light later....” [*Id.* at 19 (quoting *Sadler v. Advanced Bionics, Inc.*, 929 F. Supp. 2d 670, 684 (W.D. Ky. 2013)).]

However, the Sixth Circuit has made clear that, when used for the purpose of “show[ing] [that] Defendant had been on notice of incidents likely to lead to the kind of injury suffered by Plaintiff,” “[o]nly prior incidents that are ‘substantially similar’ to the one at issue will be

admissible in evidence.” *Surles ex rel. Johnson v. Greyhound Lines, Inc.*, 474 F.3d 288, 297 (6th Cir. 2007) (citing *Rye v. Black & Decker Mfg. Co.*, 889 F.2d 100, 102 (6th Cir. 1989)). “Substantial similarity means that the accidents must have occurred under similar circumstances or share the same cause.” *Croskey v. BMW of N. Am., Inc.*, 532 F.3d 511, 518 (6th Cir. 2008) (citing *Brooks v. Chrysler Corp.*, 786 F.2d 1191, 1195 (D.C. Cir. 1986)). The purpose of the substantial similarity requirement is to “insure[] that the evidence meets the relevancy requirements of Rules 401 and 403.” *Surles*, 474 F.3d at 297. “The plaintiff has the burden of showing the substantial similarity between prior accidents and his own.” *Croskey*, 532 F.3d at 518 (citing *Lewy v. Remington Arms Co.*, 836 F.2d 1104, 1109 (8th Cir. 1988)).

Here, without any additional information or analysis, the Court cannot say that the 8.9% of personnel carrier and golf cart related injuries involving rollovers between 1991 and 1993, which Lawyer opines must have involved “many” E-Z-GO products, were substantially similar to the rollover accident that occurred in this case. It is unclear where these accidents occurred, what company manufactured the vehicles, what model of vehicles were involved, what the weather conditions were, what the speed was, who was driving, and so on. Accordingly, it is unclear whether those accidents have “similar circumstances” or “the same cause” as the accident in this case. *Croskey*, 532 F.3d at 518.

Moreover, Lawyer offered no analysis for his opinion that E-Z-GO had a large share of the market and that, by extension, they must have been involved in many of the golf cart accidents in the 8.9%. Accordingly, the Court cannot say that Lawyer’s principles and methods on this issue are reliable as to his opinion on this issue. *See Newell Rubbermaid, Inc.*, 676 F.3d at 528 (quoting *Newell Rubbermaid, Inc. v. Raymond Corp.*, No. 5:08-CV-2632, 2010 WL 2643417, at *6 (N.D. Ohio July 1, 2010)) (“Railsback’s methods are clearly not scientifically

sound. He merely counts accidents from accident reports relating to non-Raymond forklifts. Without questioning or verifying the data and without conducting any tests of his own ..., he reaches conclusions about the forklift involved in this case.”). Because Lawyer’s analysis of the NEISS data for the purpose of opining that “E-Z-GO Textron *knew or should have known* of the inherent dangers of the electric personnel carrier vehicle attaining speeds greater than its maximum allowable speed [and the] potential for rollover” is unreliable, it will be excluded. Therefore, this portion of Defendant’s motion is granted.

c) Regenerative Braking as a Feasible Alternative Design

Third, Defendant argues that Lawyer should not be permitted to testify regarding the availability of an alternative feasible design; specifically, of regenerative braking. [DN 130.] Under Kentucky law, “a plaintiff can bring a defective design claim under a theory of strict liability or negligence, the foundation of both theories being that the product is ‘unreasonably dangerous.’” *Prather v. Abbott Labs.*, 960 F. Supp. 2d 700, 712 (W.D. Ky. 2013) (citing *Ulrich v. Kasco Abrasives Co.*, 532 S.W.2d 197, 200 (Ky. 1976)). “[U]nder either theory, it is the legal duty of a manufacturer to use reasonable care to protect against foreseeable dangers. In a design defect case, courts use some form of risk-utility analysis to assess the decisions made by manufacturers with respect to the design of their products.” *Ostendorf v. Clark Equip. Co.*, 122 S.W.3d 530, 535 (Ky. 2003) (citing *Prentis v. Yale Mfg. Co.*, 421 Mich. 670, 365 N.W.2d 176, 183 (1984)). “Significantly, the risk-utility test examines what the manufacturer knew or should have known *at the time the product was sold.*” *Id.*

Regardless of which theory a plaintiff chooses, “design defect liability requires proof of a feasible alternative design.” *Toyota Motor Corp. v. Gregory*, 136 S.W.3d 35, 42 (Ky. 2004), *as amended* (June 14, 2004). However, “[i]n establishing a defect in product design, a plaintiff must

show something more than that it was ‘theoretically probable that a different design would have been feasible.’” *Brock v. Caterpillar, Inc.*, 94 F.3d 220, 224 (6th Cir. 1996) (quoting *Ingersoll–Rand Co. v. Rice*, 775 S.W.2d 924, 929 (Ky. Ct. App. 1988)). Moreover, “[e]ven evidence or ‘proof that technology existed, which if implemented would feasibly have avoided a dangerous condition, does not alone establish a defect.’” *Lambert v. G.A. Braun Int’l, Ltd.*, No. 3:14-CV-00390-JHM, 2016 WL 3406155, at *2 (W.D. Ky. June 17, 2016) (quoting *Estate of Bigham v. DaimlerChrysler Corp.*, 462 F. Supp. 2d 766, 776 (E.D. Ky. 2006)). Rather, a “plaintiff’s proof in such cases must include competent evidence of some practicable, feasible, safer, alternative design.” *Gray v. Gen. Motors Corp.*, 133 F. Supp. 2d 530, 535 (E.D. Ky. 2001), *aff’d*, 312 F.3d 240 (6th Cir. 2002) (quoting *O’Bryan v. Volkswagen of Am.*, 39 F.3d 1182 (6th Cir. 1994)). Finally, a plaintiff must prove that the “feasible alternative design . . . would have prevented the injury.” *Dalton v. Animas Corp.*, 913 F. Supp. 2d 370, 375 (W.D. Ky. 2012) (quoting *Cummins v. BIC USA, Inc.*, 835 F. Supp. 2d 322, 326 (W.D. Ky. 2011)).

In his report, Lawyer opines that:

There were available electronic technologies, in the form of dynamic braking/plug braking and regenerative braking, available to E-Z-GO Textron at the time of manufacture of the incident 1993-94 E-Z-GO PC4X electric personnel carrier vehicle to have limited the maximum operating speed of the incident personnel carrier vehicle to less than 15 mph.

[DN 119-1 at 5.] Lawyer offers three primary reasons to support this opinion:

- a. E-Z-GO Textron implemented speed governing mechanisms on its gas-fueled personnel carrier vehicles to limit maximum speeds on inclines.
- b. The concept of speed limiting, and/or dynamic braking/plug braking/regenerative braking, has been a known concept in the electrical powered vehicle industry since at least 1980 (see US Patents No. 4242617 & 4730151).

- e. In a 2002 interview, Craig Journey, a former E-Z-GO electrical engineer, stated that “speed control went standard in 1990...Electronic Speed Controls (ESCs) had been used in industrial trucks for some time before this, but for golf car use it was a cost barrier.” (See February 19, 2002 Golf Cart Talk article). Mr. Journey indicates that E-Z-GO knew about this technology in in early 1990’s, but chose not to use the technology due to the costs associated with the technology.

[*Id.*]

With regard to Lawyer’s first reason in support of his opinion, he testified in his deposition that the first E-Z-GO vehicle manufactured with regenerative braking “was the 1995 Medalist.” [DN 130-7 at 11.] Indeed, E-Z-GO acknowledges that it “stated in answer to interrogatory and in testimony that . . . the 1995 Medalist/TXT DCS golf car was the first E-Z-GO vehicle to incorporate a controller with regenerative braking capability.” [DN 150 at 11–12.] In his deposition, Lawyer testified that E-Z-GO “very well could have done it quicker, in my opinion.” [DN 130-7 at 17.] Lawyer explained:

Well, in my opinion right here, what I’m defining as commercially feasible is that concept. That concept that was designed through the patents, through the previous knowledge with respect to electronic speed control devices, knowledge of excited motor systems, and that you could use all of those to come to a technologically and commercially feasible design. And that E-Z-GO Textron, using its various . . . product producers and their contacts had the means by which to do that.”

[*Id.*] However, Lawyer could identify no “manufacturer who had the separately excited motor available in 1993,” when the Vehicle was manufactured. [*Id.*] In its motion to exclude, Defendant argues that it is improper for Lawyer to opine that regenerative braking was feasible in 1993 simply by virtue of the fact that E-Z-GO implemented it on a golf car in 1995, two years later. In detail, Defendant argues that Lawyer has not “performed any technical analysis or demonstrated prototype of a regenerative braking system that would have been a ‘feasible alternative design’ constructed of components available *in 1993 when this vehicle was manufactured.*” [DN 130-1 at 21 (emphasis added).]

Defendant additionally argues that it is unreasonable to assume that the regenerative braking implemented in 1995 was feasible in 1993 because “[t]he undisputed testimony is that the availability of a ‘separately excited field’ electric motor suitable for golf car application was the catalyst for development of the Drive Control System early regenerative braking system that first was introduced by E-Z-GO in 1995.” [DN 150 at 12.] Defendant refers to the testimony of Craig Journey, a former lead electrical engineer at E-Z-GO who worked directly with the first separately excited systems there. During his deposition, Journey testified that when he began at E-Z-GO in “the late ‘80s, early ‘90s . . . up until the manufacture of the TXT,” he had no knowledge that there was “any engineering capability to design regenerative braking prior to the separately excited motor becoming available.”² [*Id.* (quoting DN 130-6 at 36 (Journey Deposition)).] Journey also testified that he “doubt[ed] it very seriously” that regenerative braking was known to E-Z-GO before the late ‘80s and early 1990s. [DN 130-6 at 12.] Additionally, “[n]o other manufacturer produced a similar vehicle with regenerative braking system prior to E-Z-GO’s introduction of the feature” in 1995. [DN 150 at 12 (citing DN 130-6 at 33).] When asked “was there any reason why separately excited systems could not have been used by E-Z-GO in models that were manufactured a year or two before the TXT?,” Journey responded “To my knowledge, they didn't have them. I didn't have them until we developed them,” which Journey testified it took “a couple [years] at least” to do. [DN 130-6 at 14.]

Lawyer also relies on a 2002 interview Journey gave for a publication called Golf Cart Talk Magazine. That article, attached as an exhibit to Defendant’s motion, states that “Craig

² Journey explained the definition of “separately excited systems” as “a class of motors and controls. Historically, we had used series motors and series controllers, which are just power application devices. Separately excited was a winding on the motor that was different than a shunt wound motor than we had used for fifty years. It had a multi-turn field lining on it and a controller that was in control of that winding. That's the separately excited terminology.” [DN 130-6 at 14.] Journey testified that separately excited systems made the use of regenerative braking “possible.” [*Id.*]

Journey was the lead electrical engineer with E-Z-GO starting in the early 1990s and a pioneer in the development of Electronic Speed Controllers for Separately Excited Field DC Motors.” [DN 130-7 at 58.] The article quotes Journey as explaining that:

[t]he Speed Control went standard in 90, when I got there they had learned a lot about them. Soon after we did away with the 1204 [model] and went to the 1206 which had more ‘golf car features’ than the 1204. The 2014 was a fork lift controller and had the reduced speed reverse in it and it was credible. ESCs (Electronic Speed Controls) had been used in industrial trucks for some time before this, but for golf car use it was a cost barrier.

[*Id.*] When asked “What brought ESCs down to a feasible introduction?”, Journey responded “The number of dollars generated in the volume. When E-Z-GO decided to make the commitment and go with the 1204, the Curtis volume of Controller manufactured increased greatly, which allowed for a lower cost.” [*Id.*] When asked if it was “about \$100 to \$150 increase,” Journey responded “I’d say that would be a good number, but there was a trade off in that we didn’t have to put so many resistor packs in and the reliability did rise. There are some failure modes associated with all these electronic systems and it took us a couple years to figure them out.” [*Id.*] Journey further explained that “based on the skill of the operator and the number of people doing reckless things on the golf course, we felt this [free wheeling speed] was an extremely important issue . . . We took most of those known things such as over-speed and rollaway kind of things and put them in the first DCS Controller.” [*Id.* at 59.]

In reliance on Journey’s statements recorded in this article, Lawyer stated in his report that “Mr. Journey indicates that E-Z-GO knew about this technology in in early 1990’s, but chose not to use the technology due to the costs associated with the technology.” [DN 119-1 at 5.] In its motion to exclude, Defendant argues that Lawyer’s reliance on this article is improper. First, Defendant contends that “[t]he article itself is not a peer review journal, and there is no showing of reliability as contemplated by Rule 702.” [DN 130-1 at 21.] However, during his deposition,

Journey acknowledged that he made the statements in the article and he further “agree[d] that the article accurately reflects [his] understanding of the issues that are discussed in the article.” [DN 130-6 at 6.] Journey has personal knowledge of those statements and has personally testified in this case. Accordingly, the Court does not find the lack of peer review to be relevant here.

Defendant next argues, however, that Lawyer “became confused over the generic name of ‘electronic speed controllers’, since th[e] 1993 PC-4X personnel carrier [at issue in this case] was in fact equipped with an electronic speed controller at the time of its manufacture.” [DN 130-1 at 5.] Journey testified during his deposition that the term “electronic speed control” is “a very generic name . . . I mean, your phone might be controlled, your fan at home, that can be called an electronic speed control. So it’s a very generic name.” [DN 130-6 at 19.] Journey went on to explain that E-Z-GO was using “electronic speed controllers” when he began work there in the late ‘80s, early ‘90s, but that “[t]hey were called . . . shunt motors and shunt controllers or series controllers,” which “offer[ed] no ability to regulate speed or retard speed when going downhill on an incline.” [*Id.*] In his deposition, Lawyer, too, testified “[i]t’s my understanding that [the PC-4X in this case] did have some type of electronic speed control.” [DN 130-7 at 11.]

Finally, Defendant takes issue with Lawyer’s reliance on pre-1993 patents related to regenerative braking concepts in support of his opinion that such technology was available at the time the Vehicle was manufactured. Specifically, Lawyer cites U.S. Patents 4,242,617 and 4,730,151. Patent No. 4,242,617 was issued on December 30, 1980 (the “1980 Patent”) and is for an “electric vehicle having dynamic braking and regeneration.” [DN 149-4.] Patent No. 4, 730, 151 was issued on March 8, 1988 (The “1988 Patent”) and is for “continuous field control of series wound motors.” [DN 149-5.] In his report, Lawyer cites to these two patents for the proposition that “[t]he concept of speed limiting, and/or dynamic braking/plug

braking/regenerative braking, has been a known concept in the electrical powered vehicle industry since at least 1980.” [DN 119-1 at 5.] Defendant contends that:

[t]he sum and substance of Mr. Lawyer’s ‘patent’ testimony is that a ‘concept’ of ‘regenerative braking’ was protected in pre-1993 patents awarded to other companies. He has performed no evaluation nor research beyond citing to U.S.P.O. claims relating to regenerative braking. These patents were not awarded to E-Z-GO, and there is no research or showing by Mr. Lawyer that the patent disclosed any components that actually were available to E-Z-GO in 1993 or were demonstrated through industry testing as suitable for use in E-Z-GO electric vehicles.

[DN 150 at 11.]

In response, Plaintiffs argue, in part, that, “[b]ecause Textron has manufactured, and continues to manufacture, golf cars and personnel carrier vehicles that utilize regenerative braking technology and separately excited field electric motors, it was not necessary for Lawyer to perform any testing to support his opinions regarding this safer alternative feasible design. The fact that this technology has been, and is currently, on the market is sufficient.” [DN 149 at 10.] Plaintiffs further argue that, “[u]nder Kentucky products liability law, the plaintiff is **not** required to prove that a safer alternative design was technologically and commercially *available* at the time of the incident. Kentucky law requires plaintiffs establish only that a safer alternative design was *feasible* at the time of the incident.” [*Id.* at 10–11.] However, the fact remains that the expert testimony must establish that the concept of regenerative braking “could have been *practically* adopted at the time of sale.” *Johnson*, 484 F.3d at 433 (quoting *Martin*, 92 F.Supp.2d at 753).

Though a close call, the Court finds that Lawyer’s reliance on the 1980 and 1988 patents is insufficient. Though Lawyer may be correct that the Patents demonstrate the existence of certain *concepts* as of 1980 and 1988, Lawyer has not applied his engineering expertise in any way to interpret the complex language of these patents and explain how those technological concepts could have been feasibly incorporated into the Vehicle in this case when it was

manufactured in 1993. *See, e.g., Hendricks v. Ford Motor Co.*, No. 4:12CV71, 2012 WL 7958760, at *1 (E.D. Tex. Oct. 15, 2012) (“Based on the information presently before the Court, the patents Plaintiff wishes to introduce have not been tested, examined, or analyzed by her, or any, expert. Plaintiff has presented no evidence that her expert has evaluated and tested the patents to determine whether they are feasible designs or whether they are in fact safer . . . For these reasons, the Court finds that the patents should not be admitted into evidence at this time.”); *Brawn v. Fuji Heavy Indus., Ltd.*, 817 F. Supp. 184, 186 (D. Me. 1993) (“On the second part, his patent search evidence (proposed elsewhere) does not reveal whether his ‘design alternatives’ are feasible or what their costs would be and is therefore inadmissible under both Rule 702 and Rule 403.”). Accordingly, the Court finds the 1980 and 1988 patents to be inadmissible.

Next, with regard to Lawyer’s reliance on the fact that E-Z-GO first manufactured a personnel carrier vehicle with alternative braking in 1995, two years after the Vehicle in this case was manufactured, the Court also finds this ground to be too tenuous. Again, it must be the case that the alternative design “could have been *practically* adopted at the time of sale.” *Johnson*, 484 F.3d at 433 (quoting *Martin*, 92 F.Supp.2d at 753). Here, though Lawyer opines that E-Z-GO “very well could have done it quicker,” [DN 130-7 at 17], he does not apply any expertise or testing to explain *how* it could have been done sooner.

Finally, with regard to Lawyer’s reliance on the article interview in which Journey stated that speed control went standard in 1990 and that E-Z-GO was aware of issues with over-speed and rollovers, the Court finds Lawyer’s opinion to be permissible. Unlike the other two grounds on which Lawyer relies for his opinions as to feasibility, the Journey article could suggest that E-Z-GO was aware of and knew of a need for the regenerative braking technology before the

Vehicle was manufactured in 1993. Though Defendant argues that Lawyer misunderstands some of Journey's terminology, the Court finds that these issues should be directed toward cross-examination rather than admissibility. Of course, whether the jury believes that the ultimate opinion Lawyer renders based on this article is correct is a matter reserved for trial. *See Powell v. Tosh*, 942 F. Supp. 2d at 690 (citing *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 529–30 (6th Cir. 2008) (“[T]he Court’s role here is not to determine the correctness of Clay’s opinion but instead simply whether it is based upon a reliable foundation.”)).

d) Lawyer’s Reliance on Seluga’s Expert Opinions

Finally, with regard to Lawyer’s references to the findings of Plaintiffs’ other expert, Kristopher Seluga, Defendant argues that “Plaintiffs propose to have Mr. Lawyer repeat the testimony and opinions of Seluga as his own expert opinion.” [DN 130-1 at 24.] Defendant argues that this would not be helpful to the trier of fact and that Lawyer seeks to “give testimony embracing the ultimate fact of an allegedly defective condition simply by repeating the report of Seluga.” [*Id.* at 25.]

Here, because Lawyer acknowledged that he did not perform any accident reconstruction in this case, he relied on certain facts from the accident reconstruction work Plaintiffs’ expert Kristopher Seluga performed. These include the following two statements in Lawyer’s report: “The accident reconstruction performed by Kris Seluga identifies a speed range of 26-30 mph for the accident personnel carrier vehicle that Molly Kyle was operating” and “Based on the testing and analysis performed by Kris Seluga, he determined that the rollover would have been avoided if the vehicle’s speed had been limited to approximately 15 mph or less.” [DN 119-1 at 5, 7.] In its motion to exclude, Defendant argues that “Plaintiffs seek to call Mr. Lawyer to give

testimony embracing the ultimate fact of an allegedly defective condition simply by repeating the report of Seluga.” The Court disagrees.

Although an expert “may not adopt another expert's opinions wholesale,” *Siegel v. Fisher & Paykel Appliances Holdings Ltd.*, No. 3:08CV-429-JDM, 2010 WL 4174629, at *2 (W.D. Ky. Oct. 19, 2010), pursuant to “Rule 703, an expert’s testimony may be formulated by the use of the facts, data and conclusions of other experts.” *Asad v. Cont'l Airlines, Inc.*, 314 F. Supp. 2d 726, 740 (N.D. Ohio 2004) (citing *Barris v. Bob's Drag Chutes & Safety Equipment, Inc.*, 685 F.2d 94, 102 n. 10 (3rd Cir. 1982)). Here, Seluga relied on certain conclusions made by Seluga regarding the speed of the Vehicle. He then used these conclusions in support of his own opinions in this case. This is permissible. Accordingly, the Court will not exclude Lawyer’s testimony related to Seluga’s testing. For the reasons explained in detail above, Defendant’s motion to exclude Lawyer’s testimony is granted in part and denied in part.

2. Defendant’s Motion to Exclude Proposed Opinion Testimony of William Kitzes

Defendant also moves to exclude the report and testimony of Plaintiffs’ expert William Kitzes. [DN 131.] Kitzes has a B.A. from the University of Wisconsin and a J.D. from Washington College of Law. [DN 111-2 at 2 (Kitzes Curriculum Vitae).] He further explains his qualifications as follows:

I am a Board Certified Product Safety Manager and Hazard Control Manager. I hold an Executive Certificate in Safety Management from the American Society of Safety Engineers, and I am a member of the Human Factors and Ergonomics Society. I hold a Certificate in Risk Communication from the Harvard School of Public Health. For the past 30 years, I have provided risk assessment and product safety management services to attorneys, corporations and government organizations.

From 1974 to 1981, I worked at the U.S. Consumer Product Safety Commission (CPSC), part of which time I served as Legal Advisor to the Director, Office of Product Defect Identification, and was responsible for identifying products which contained a defect which could create a substantial product hazard, developing

voluntary corrective action plans under Section 15 of the Consumer Product Safety Act including the recall of substantially hazardous consumer products, and notification to the public of the danger through warnings and other media. (See attached Curriculum Vitae).

As CPSC *Program Manager for Sports, Recreation and Power Equipment (1977-1980)*, I supervised a team of engineers, epidemiologists, human factors specialists, and technical communication staff in the evaluation of injury statistics, engineering data, and product use information to achieve a reduction in consumer products injuries. Injury prevention tools combined mandatory and voluntary standards, on-product warnings, and safety education campaigns resulting in publication of the *Federal Safety Standard for Walk-Behind Power Lawn Mowers 16 CFR 1205 (1979)*. I served as Commission representative to various industry groups and standards development committees, including American National Standards Institute (ANSI), American Society for Testing & Materials (ASTM), the Outdoor Power Equipment Institute and the Sporting Goods Manufacturers Association.

Kitzes has consulted for numerous companies, manufacturers, and distributors regarding product safety issues and “on-product warnings and instructions.” [DN 111 at 7–8.] He also “lectured at the National Safety Council Annual Congress and Exposition” in 1996, 1997, and 1998 regarding product safety, recalls, and warnings. [*Id.* at 8–9.]

Kitzes reviewed several materials in preparation for his work in this case, including pleadings, depositions, accident scene photographs, warning label photographs, multiple E-Z-GO owner’s manuals for different years, the ASME B56.8-1993 safety standard, the police report from the accident, discovery responses, and certain academic literature regarding product safety and warning labels. [DN 111-1 at 20–21.] Kitzes began his report by summarizing various product safety management information, procedures, and sources. [*Id.* at 3–6.] In reliance on these materials and his knowledge and experience, Kitzes first offers the following opinion in his report:

Based on the information available to date, E-Z-GO clearly failed to advise or warn operators of the dangers associated with the foreseeable an intended use of the PC4X as clearly described in the ASME B56.8. The Standard and all available E-Z-GO documents are silent on the issue of operator age, and the Standard

clearly foresees and describes the intended use of the PC4X in traffic conditions on public roads.

[DN 111-1 at 15.] Next, after a lengthy discussion of the relevant safety standards and academic literature, Kitzes summarizes his additional opinions as follows:

1. No where [sic] in the material produced by E-Z,-GO is there any warning about or identification of an age limitation for the operation of the vehicle.
2. The owner's manual, as well as the ASME standard that they "strongly endorse," fully recognizes and supports the intended use of the vehicle on a public road.
3. The on-product warning failed to adequately communicate the hazards, the risks, the injury consequences to users and failed to comply with the ANSI Z535.4 Standard for Product Safety Signs and Labels as well as the independently published criteria for warnings by other industry members and companies such as FMC, Westinghouse, and as further described by the National Safety Council chartered by Congress in the mid-1800's to provide safety services to industrial corporations.

It is clear from the above that E-Z-GO did not adequately warn users of the dangers associates with the foreseeable and intended use of the PC4X personnel carrier. As a result of E-Z-GO's failure to adequately warn users of the danger associated with the foreseeable and intended use of the PC4X personnel carrier, and the foreseeable misuse of the vehicle, the PC4X personnel carrier was defective and unreasonably dangerous to the consumer and user. The inadequate warnings and defective and unreasonably dangerous condition of the PC4X personnel carrier were a substantial factor in causing the incident and the resulting injuries and death of Jordan Jackson.

[DN 111-1 at 19.]

In its motion to exclude Kitzes's report and testimony, Defendant makes three primary arguments, which the Court will address in turn.

a) Reliance on CPSC NEISS Data

Like Plaintiffs' other experts, Kitzes discussed other golf cart-related injuries in his report and during his deposition. In his report, Kitzes wrote:

According to an article published in the Journal of Trauma Injury, Infection, and Critical Care (2008) by McGwin, et al., entitled "Incidence of Golf Cart-Related

Injury in the United States,” there are approximately 12,000 estimated hospital emergency room treatments for golf cart injuries each year. The article states that injuries in golf carts to those under 20 occur in higher proportion at home, suggesting they are ridden on terrain other than a golf course.

Although we do not know whether those injured were operators or passengers, it is likely that some younger individuals were indeed operating the golf cart at the time of injury. The lack of driving experience among younger individuals may also therefore contribute to their increased rate.

Based on the information available to date, E-Z-GO clearly failed to advise or warn operators of the dangers associated with the foreseeable and intended use of the PC4X as clearly described in the ASME B56.8. The Standard and all available E-Z-GO documents are silent on the issue of operator age, and the Standard clearly foresees and describes the intended use of the PC4X in traffic conditions on public roads.

[DN 111-1 at 15.] During his deposition, Kitzes explained that the article he cited in his report was based off of NEISS data. Kitzes explained that the NEISS collects this data using “a scientifically developed algorithm to represent all hospital emergency rooms. They’re weighted by size, by location to, again, replicate the national estimate.” [DN 131-6 at 9 (Kitzes Deposition).] However, Kitzes testified that he did not personally review the NEISS reports and that he is unaware “[w]hat percentage involve rollover.” [*Id.* at 9–10.] Kitzes explained that “the NEISS system does not address causation. It addresses facts.” [*Id.* at 10.]

Defendant argues that “Mr. Kitzes has made no study of the collected NEISS data, the manner in which the underlying accidents occurred, the projection of the underlying lay reports to any overall accident rates, nor shown any relationship whatsoever to the claimed defect ‘areas of concern’ upon which Plaintiffs base their case,” and therefore that this portion of his report and testimony must be excluded. [DN 131-1 at 19.] In response, Plaintiff argues that “the fact that there is publicly available information, such as the NEISS data, which the federal government has compiled over the years regarding incidents involving its golf cars and personal

transport vehicles is not only relevant but at the heart of this litigation” because Kentucky law holds manufacturers strictly liable even for product defects “which could not have been known or appreciated at the time of manufacture, **but came to light later.**” [DN 143 at 15 (quoting *Sadler*, 2013 WL 898152, *10).]

However, as the Court explained above, when used for the purpose of “show[ing] [that] Defendant had been on notice of incidents likely to lead to the kind of injury suffered by Plaintiff,” “[o]nly prior incidents that are ‘substantially similar’ to the one at issue will be admissible in evidence.” *Surles*, 474 F.3d at 297 (citing *Rye*, 889 F.2d at 102). “Substantial similarity means that the accidents must have occurred under similar circumstances or share the same cause.” *Croskey*, 532 F.3d at 518 (citing *Brooks*, 786 F.2d at 119). The purpose of the substantial similarity requirement is to “insure[] that the evidence meets the relevancy requirements of Rules 401 and 403.” *Surles*, 474 F.3d at 297. “The plaintiff has the burden of showing the substantial similarity between prior accidents and his own.” *Croskey*, 532 F.3d at 518 (citing *Lewy v. Remington Arms Co.*, 836 F.2d 1104, 1109 (8th Cir. 1988)).

Here, Kitzes acknowledges that the NEISS data “does not address causation. It addresses facts.” [DN 131-6 at 10.] Accordingly, it is not possible to analyze the data to compare it to the facts of the instant case in order to determine whether those accidents occurred under similar circumstances or due to the same cause as the accident in this case. *Croskey*, 532 F.3d at 518. Therefore, the Court agrees that Kitzes testimony about the NEISS data must be excluded. *See Newell Rubbermaid*, 676 F.3d at 528 (quoting *Newell Rubbermaid*, 2010 WL 2643417, at *6) (“Railsback’s methods are clearly not scientifically sound. He merely counts accidents from accident reports relating to non-Raymond forklifts. Without questioning or verifying the data and without conducting any tests of his own ..., he reaches conclusions about the forklift involved in

this case.”); *contrast Moore v. Kawasaki Motors Corp., U.S.A.*, 703 So. 2d 990, 993 (Ala. Civ. App. 1997) (Discussing NEISS data after “Kawasaki [the manufacturer] had received substantial information from the Consumer Product Safety Commission and other sources that the sale and distribution of three-wheeled ATVs for use by 9–year–old children created an unreasonably dangerous condition. The CPSC had held hearings on the subject, and had informed Kawasaki of over 200,000 hospital emergency room-treated injuries and over 500 deaths; 40% of these were children under 16, and 20% to children under 12).

b) Reliance on Seluga’s Conclusions

Next, Defendant argues that “Plaintiffs seek to call Mr. Kitzes to give testimony embracing the ultimate fact of an allegedly defective condition simply by repeating the report of Seluga.” [DN 131-1 at 22.] However, Defendant does not identify which of Seluga’s opinions Kitzes allegedly repeats, and the Court cannot find where Kitzes mentions Seluga once in his report or deposition testimony. [See DN 111; DN 111-1.] In their response, Plaintiffs similarly argue that Defendant “fails to point to a single fact to support its supposition that Kitzes . . . merely repeated Seluga’s opinions.” [DN 143 at 14.] Accordingly, the Court will deny this portion of Defendant’s motion at this time, but Defendant will be permitted to raise it again should the issue arise at trial.

c) Testimony Regarding Adequacy of Warnings

Finally, Defendant argues that Kitzes’s proposed testimony regarding the adequacy of the Vehicle’s warnings and the condition of the Vehicle are inadmissible. First, Defendant cites cases in which other courts have excluded Kitzes’s proposed opinions regarding warnings on the basis that the opinions were not based on a sufficient methodology. [DN 131-1 at 22–25]; *see, e.g., Ruggiero v. Yamaha Motor Corp., U.S.A.*, No. CV 15-49 (JBS/KMW), 2017 WL 1197755,

at *7 (D.N.J. Mar. 31, 2017) (“The Court finds that Mr. Kitzes’ conclusion regarding the location of the warning is not based upon any sufficiently reliable methodology under Rule 702. The problem with his conclusion is that in developing it, he failed to perform any tests or focus groups, take any measurements, rely on any articles on location of warnings (besides the very generalized ANSI standard itself), conduct any reenactments or even examine the PWC itself, leaving his conclusion to be, at best, an educated guess. Speculation is not methodology.”).

Next, Defendant argues that, “[i]n the case at bar, Mr. Kitzes states only that the PC-4X is unreasonably dangerous due to lack of ‘warning’, yet he has performed no analysis of what warning would have prevented this accident.” [DN 131-1 at 25.] However, courts in the Western District have previously held, regarding Kitzes in particular, that the formulation of alternative warnings is not an absolute prerequisite to admissibility. *See In re Yamaha Motor Corp. Rhino ATV Prod. Liab. Litig.*, 816 F. Supp. 2d 442, 458 (W.D. Ky. 2011) (“Here, Kitzes did not formulate alternative warnings; however, he compared the Rhino’s actual warnings to the general ANSI guidelines. Based on this comparison, Kitzes concludes that the warnings were deficient. Contrary to Yamaha’s contention, he does not simply formulate an off-the-cuff conclusion about the warnings that any juror could make. Rather, he explains why the particular characteristics of the Rhino make the specific warnings used insufficient in light of industry standards and academic research.”). Accordingly, the Court does not find Kitzes’s decision not to propose alternative warnings to be dispositive here.

Defendant further argues that Kitzes’s opinion that “[t]he inadequate warnings and defective and unreasonably dangerous condition of the PC4X personnel carrier were a substantial factor in causing the incident and the resulting injuries and death of Jordan Jackson” is “legal conclusion” testimony that goes beyond the scope of Federal Rule of Evidence 704. [DN 131-1

at 25.] Under Kentucky failure to warn law, “[a] plaintiff can show that a manufacturer failed to apprise him of dangers inherent in the design of the product, rendering it unreasonably dangerous.” *Low v. Lowe's Home Centers, Inc.*, 771 F. Supp. 2d 739, 742 (E.D. Ky. 2011) (citing *Tipton v. Michelin Tire Co.*, 101 F.3d 1145, 1149 (6th Cir. 1996)). In Kentucky, “the duty to warn extends to the dangers likely to result from foreseeable misuse of a product.” *Morales v. Am. Honda Motor Co.*, 71 F.3d 531, 537 (6th Cir. 1995). The Sixth Circuit has further explained that, “under Kentucky law, causation or proximate cause is defined by the substantial factor test: was the defendant's conduct a substantial factor in bringing about plaintiff's harm?” *Id.* (citing *Deutsch v. Shein*, 597 S.W.2d 141, 144 (Ky. 1980)).

Pursuant to Rule 704, an expert’s testimony can “embrace[] an ultimate issue,” Fed. R. Evid. 704(a), however, “the issue embraced must be a factual one,” not a legal one. *Berry v. City of Detroit*, 25 F.3d 1342, 1353 (6th Cir. 1994) (“The expert can testify, if a proper foundation is laid, that the discipline in the Detroit Police Department was lax. He also could testify regarding what he believed to be the consequences of lax discipline. He may not testify, however, that the lax discipline policies of the Detroit Police Department indicated that the City was *deliberately indifferent* to the welfare of its citizens.”).

The question for the Court, then, is whether Kitzes’s proposed opinions that the alleged inadequacy of Defendant’s warnings rendered the product “unreasonably dangerous” and that they were a “substantial factor” in causing Jordan’s injuries embrace ultimate legal issues. Upon review of the relevant authorities, the Court finds that they do not. Though the Sixth Circuit explained in one decision that it had “found no case in which a Kentucky court has held that a plaintiff in a products liability case *must* produce expert opinion evidence that the product is unreasonably dangerous,” the Court certainly left open the possibility that a plaintiff in a

products liability *can* produce expert testimony as to the allegedly unreasonably dangerous nature of a product. *Stevens v. Keller Ladders*, 1 F. App'x 452, 458 (6th Cir. 2001). In addition, several courts have stated that “expert witnesses are generally *necessary, indeed essential*, in products liability cases ... to prove such matters as a product defect and proximate causation[.]” *Fimbres v. Garlock Equip. Co.*, No. 3:11-CV-226-CRS-JDM, 2014 WL 2612513, at *3 (W.D. Ky. June 11, 2014) (quoting *Thomas v. Manchester Tank & Equip. Corp.*, 2005 WL 3673118, *1 (W.D.Ky. May 13, 2005)); *see also Templeton v. Wal-Mart Stores E., LP*, No. CIV. 08-169-GFVT, 2011 WL 4591937, at *3 (E.D. Ky. Sept. 30, 2011) (same); *see also Brooks*, 2016 WL 276126, at *3 (McKinley, J.) (emphasis added) (Finding an expert qualified through his “knowledge as an engineer and his experience as both a mining and a project engineer . . . be able to *offer opinions* about whether the location of the operator handle on the Caterpillar RB220 Roof Bolter rendered it a defective and *unreasonably dangerous* piece of equipment.”). Based on the foregoing authorities, the Court finds that Kitzes’s testimony regarding the allegedly unreasonably dangerous condition of the Vehicle and regarding proximate cause is permissible.

With regard to Kitzes’s remaining analysis regarding the adequacy of the warnings, the Court also finds his testimony to be reliable and admissible. In his report, Kitzes identified relevant product safety management procedures, product safety guidelines and standards, and scholarship published about warnings prior to 1993. [*See* DN 111-1.] Based on those sources and his knowledge and experience, he rendered his opinions that the warnings E-Z-GO provided on the Vehicle and in the owner’s manual were inadequate under the ANSI standard and other independently published criteria. [*Id.* at 19.] Our sister district court recently found expert testimony Kitzes offered after following a nearly identical analysis to be admissible:

Mr. Kitzes’ proffered testimony on the adequacy of the Product’s existing warning, in terms of the application of product safety management theory and

compliance with FDA labeling requirements, is sufficiently reliable due to Mr. Kitzes' long experience in applying such established and peer-reviewed theories to consumer products. Additionally, this testimony is relevant under Rule 702 because it may help the jury determine factual issues such as foreseeable use and the adequacy of the Product warning. For these reasons, the court will admit Mr. Kitzes' testimony to the extent he testifies to the Product's packaging, labeling, and warnings.

Miller v. Coty, Inc., No. 3:14-CV-00443-CRS, 2018 WL 1440608, at *7 (W.D. Ky. Mar. 22, 2018). The Court finds the same reasoning to be applicable here and therefore will not exclude Kitzes's opinions as to the adequacy of Defendant's warnings.

3. Defendant's Motion to Exclude Opinion Testimony of Kristopher Seluga

Defendant next moves to exclude the report and testimony of Plaintiffs' expert Kristopher Seluga. [DN 132.] Seluga is a licensed professional engineer in Connecticut and New York. [DN 113-2 at 2 (Seluga Curriculum Vitae).] He is an accredited traffic accident reconstructionist pursuant to the Accreditation Commission for Traffic Accident Reconstructionists (ACTAR) and has "[i]nvestigated hundreds of motor vehicle, machinery, product liability and fall accidents." [Id.] Seluga reviewed the accident files relevant to the incident in this case, photos of the scene, deposition testimony, and discovery requests and responses. [DN 113-1 at 8 (Seluga Report).] He "also inspected, measured and photographed the incident site and the subject vehicle on October 4, 2010 and returned to the incident site on April 26, 2013 to conduct dynamic vehicle testing with an exemplar 1991 E-Z-Go PC4X equipped with rollover-preventing outriggers for safety." [Id.] Next, Seluga "generated computer simulations of the subject vehicle driving on the subject hill to further evaluate the vehicle's braking stability at the incident site." [Id.] Based on his testing and analysis, Seluga offered the following nine opinions:

1. The speed of the vehicle at the time of the incident was approximately 30 mph.
2. Immediately after the brakes were applied, the vehicle experienced a violent yaw instability followed by a rollover.

3. The descriptions of the incident by the vehicle occupants and the documented physical evidence are consistent with yaw instability of the vehicle, which was initiated when Molly Kyle attempted to stop the car by applying the brakes aggressively.
4. This yaw instability could be manifested at speeds as low as 20 mph at the incident site based on my dynamic testing at the scene.
5. The subject vehicle was design and manufactured with brakes on only the rear axle, despite the fact that it was technically and economically feasible to provide brakes on all four wheels, which would have made the subject vehicle safer.
6. The rear-only braking system rendered the vehicle's baking [sic] performance directionally unstable under the conditions that existed at the time of the incident.
7. If the vehicle had been equipped with either front-wheel brakes or four-wheel brakes, it would not have had a tendency to yaw when the brakes were applied and the subject incident would have been prevented.
8. The subject vehicle, as designed with rear wheel only braking was defective and unreasonably dangerous and that defect was a substantial factor in causing the subject incident. Furthermore, an ordinarily prudent company being fully aware of the risks associated with rear-only brake systems should not have put such a rear-only brake vehicle on the market.
9. E-Z-Go failed to provide adequate warnings of dangers associated with the use and reasonably foreseeable misuse of the vehicle including dangers known to E-Z-Go but not known to persons who could be reasonably anticipated to use the vehicle.

[DN 113-1 at 28–29.] For the most part, Defendant does not argue that Seluga is unqualified to testify under *Daubert* and Rule 702. However, Defendant does challenge Seluga's proposed opinions and testimony on the grounds that they are not based on reliable principles and methods. The Court will address each of Defendant's arguments in turn.

a) Speed at the Time of the Accident

First, Defendant argues that "Seluga's opinions regarding speed at the time of the accident are not reliable." [DN 132-1 at 14.] To approximate the speed at which the PC4X was

travelling during the incident, Seluga relied upon Molly Kyle and Andrew O’Neill’s deposition testimony that Kyle “start[ed] driving down the subject hill at least as far back as the top of the hill and from there, drove down with her foot fully depressing the accelerator pedal in an attempt to make the vehicle go as fast as it could go.” [DN 113-1 at 18.] During his reconstruction, Seluga “tested what speed this would produce by driving an exemplar E-Z-Go PC4X down the subject hill with [his] foot fully depressing the accelerator while it was loaded similarly to the subject vehicle at the time of the incident.” [*Id.*] According to Seluga, “[t]hese tests produced maximum speeds of approximately 30 mph by the time the vehicle reached the incident location, in contrast to the maximum speed of the exemplar vehicle on level ground, which was 14-15 mph.” [*Id.* at 18–19.] Seluga “also performed this test with [his] foot off the pedals (i.e. coasting) and recorded the same speed of approximately 30 mph.” [*Id.* at 19.] Accordingly, Seluga concluded that, “[b]ased on these tests and the testimony of the occupants, the speed of the vehicle at the moment Molly Kyle applied the brakes was approximately 30 mph.” [*Id.*]

Seluga further stated in his report that:

The vehicle’s speed can also be estimated based on the distance it traveled during the skid and subsequent rollover. According to measurements taken by Kris Whittington (Jordan Jackson’s uncle) at the scene shortly after the incident, the two tire marks visible in the police photos were approximately 23’ and 26’ long and the blood stain in the road near the vehicle’s rest position was located approximately 19’ beyond the end of the closest tire mark. Using standard accident reconstruction methods and assuming nominal average decelerations of 0.5 g during the rollover and approximately 0.5 g from braking alone while the tire marks were being created, the speed of the vehicle at the beginning of the tire marks can be calculated to be at least 26 mph. In fact, the average deceleration of the vehicle during the yaw would have been slightly greater than the deceleration from braking alone, since the front tires would have also contributed some drag as the vehicle reached a large yaw rotation. Therefore, this calculation is consistent with the test results that indicate a pre-braking speed of approximately 30 mph.

[*Id.*]

Defendant takes issue with the fact that, while performing his tests to determine the maximum speed the exemplar vehicle could reach while traveling down the hill, Seluga only recorded in his notes maximum speeds of “~30 mph” rather than recording the exact readings of the GPS device. [DN 132-1 at 14–15; *see* DN 156-3 at 2 (Seluga Handwritten Notes).] However, when Seluga performed seventeen other test runs in order to evaluate the effect of various brake applications, he recorded each maximum speed to within a tenth of a point. [*Id.*; DN 132-6 at 43 (Seluga Deposition); DN 156-3 at 3.] During his deposition, Seluga testified that, during his other seventeen tests, the highest speed he recorded was 28.9 mph. [DN 132-6 at 43.] In Defendant’s view, because Seluga did not record the “approximately 30 mph” with as much specificity as he recorded the speeds during the other seventeen test runs, his “opinion that the vehicle was traveling 30 mph at the time of the accident is unreliable under FRE 702 and should be excluded.” [DN 132-1 at 15.]

In response, Plaintiffs argue that Defendant’s “claim that there is no record of Seluga reaching approximately 30 mph in the exemplar vehicle is incorrect” because “[i]n Seluga’s handwritten notes from the exemplar testing, he documented the results of his testing of the top speed of the loaded exemplar PC4X vehicle on the subject hill” by writing “~30 mph.” [DN 145 at 18.] Plaintiffs assert that “[t]he mere fact that Seluga recorded the speeds from the tests to determine the top speeds the exemplar vehicle could reach going downhill on Panther Creek Road as “~30 mph” instead of stating the speeds to a tenth does not affect the reliability of the measurement.” [*Id.* 18 n.5.] Finally, Plaintiffs argue that Seluga’s “~30 mph” approximation is supported by other testing he performed. For example, during Seluga’s seventeen braking test runs, he recorded speeds as high as 28.9, 27.2, 26, and 25 miles per hour. [*Id.* at 18–19.] He further explained, as the Court noted above, that “[t]he vehicle’s speed can also be estimated

based on the distance it traveled during the skid and subsequent rollover,” and, based on these measurements, “the speed of the vehicle at the beginning of the tire marks can be calculated to be at least 26 mph.” [DN 113-1 at 19.] Finally, Plaintiffs argue that, if Defendant “disputes Seluga’s objective notes of the speed from the GPS device, then that is an issue of credibility and weight of the evidence, which is not the proper basis of a *Daubert* motion and should be addressed on cross-examination instead.” [DN 145 at 17–18.]

Overall, the Court agrees with Plaintiffs on this issue. Defendant has not persuaded the Court that the mere fact that Seluga recorded the maximum speeds attained during his speed testing as “approximately 30 mph” rather than recording the speeds to the tenth makes his results unreliable such that exclusion is warranted. Moreover, Seluga’s approximation during his speed tests is also supported by his brake tests and his calculations based on the skid and rollover. Furthermore, Defendant’s own expert, David Bizzak, opined in his report “that the minimum speed of the PC4X at the time Molly Kyle lost control was in the range of 24 to 27 mph.” [DN 118-2 at 8.] Similarly, Defendant’s expert Graeme Fowler wrote in his report that “[t]he speed of the vehicle when it overturned is estimated to be 19-20 mph *and likely in the mid-20s at the start of the final yaw marks.*” [DN 118-5 at 26 (emphasis added).] The fact that Defendant’s own experts also identified speeds of “24 to 27 mph” and “in the mid-20s” supports, rather than contradicts, Seluga’s findings. Additionally, neither Bizzak nor Fowler criticized Seluga’s method of calculating the approximate maximum speed in their reports. In sum, the Court finds that Seluga’s analysis on this issue rests on reliable principles and methods and that any issues Defendant has raised go to weight rather than admissibility. Accordingly, the Court will not exclude Seluga’s opinions regarding the speed at the time of the accident.

b) Exemplar Testing

Second, Defendant argues that “Seluga’s ‘exemplar testing’ does not meet the standards of repeatability required by FRE 702.” [DN 132-1 at 15.] As Seluga explained in his report, the Vehicle which was the subject of the incident at issue in this case is “a 1993 model E-Z-Go PC4X electric powered vehicle manufactured in 1994.” [DN 113-1 at 17.] For purposes of the simulations and accident reconstruction Seluga performed in this case, he conducted exemplar testing with a 1991 E-Z-Go PC4X, which is the same model as the 1993 PC4X involved in the accident at issue in this case. [DN 145 at 7.] Additionally, “[l]ike the subject vehicle, the exemplar had four Carlisle Links 18x8.50-8NHS tires.” [*Id.* (citing Seluga Dep. Exh. 1, at p. 59).] Seluga used the exemplar vehicle to perform “dynamic vehicle testing,” “testing at the site,” and “brake testing at the scene.” [DN 132-1 at 15 (quoting DN 113-1 at 5, 11, 13, 15).] According to Defendant, however, Seluga’s tests “were not performed under conditions identical to the accident at issue here” and therefore must be excluded. [*Id.* at 15.]

In their response, Plaintiffs address the alleged insufficiencies with Seluga’s exemplar testing. As an initial matter, Plaintiffs argue that, because “there was no video of the incident, and the subject vehicle did not have any sort of measuring or recording device on it at the time of the incident,” it would be impossible for anyone to replicate the accident “exactly.” [DN 145 at 22.] Therefore, Plaintiffs assert that “[s]imilar to’ the incident is the best standard available to conduct the tests. Neither Rule 702 of the Federal Rules of Evidence, nor *Daubert* requires that exemplar tests be conducted under ‘identical’ or ‘exact’ conditions of an incident that was not recorded in the first place.” [*Id.*]

Indeed, Defendant cites no case stating that an expert’s exemplar testing must be “identical” to the incident in question. Rather, as one court explained, “[t]o be relevant, an

accident reconstruction must be *substantially similar* to the original accident.” *Bado-Santana v. Ford Motor Co.*, 482 F. Supp. 2d 197, 201 (D.P.R. 2007) (citing *Jodoin v. Toyota Motor Corp.*, 284 F.3d 272, 278 (1st Cir. 2002)). Importantly, “[p]erfect identity between the experimental conditions and the actual conditions is not necessary.” *Id.* (citing *Robbins v. Whelan*, 653 F.2d 47, 49 (1st Cir. 1981)). Instead, “the party seeking to introduce evidence reconstructing an accident must show a ‘substantial similarity in circumstances’ between the reconstruction and the original accident.” *Id.* (citing *Jodoin*, 284 F.3d at 278). Courts in the Sixth Circuit have acknowledged this standard, explaining that when an expert conducts testing which “purports to replicate actual events, the proponent of the evidence must show that the replication and the experiment are substantially similar. The closer the experimental evidence simulates actual events rather than demonstrates a scientific principle, the higher the foundational standard: the experiment and event must be sufficiently similar to provide a fair comparison.” *Dortch v. Fowler*, No. 305-CV-216-JDM, 2007 WL 1794940, at *1 (W.D. Ky. June 15, 2007). Accordingly, Defendant is incorrect that Seluga’s testing must be excluded solely because it was “not performed under conditions identical to the accident at issue here.” [DN 132-1 at 15.] Rather, the question for the Court is whether Seluga’s testing was conducted under conditions that were “substantially similar” to those of the actual incident. The Court will address each of Defendant’s arguments in favor of exclusion of Seluga’s exemplar testing below.

i) Differences Between Subject Vehicle and Exemplar Vehicle

Defendant first argues that certain differences between the subject Vehicle and the Exemplar require the exclusion of all of Seluga’s simulation testing. For example, Defendant states that the exemplar “vehicle did not have the roof assembly and rear bracket [handhold] present on the subject vehicle at the time of the accident. Additionally, Whittington installed

‘outriggers’ designed by a Mr. Sanchez, not by Seluga, on the exemplar vehicle.” [Id. (quoting DN 132-6 at 28).] Defendant further argues that “[t]he measurements taken by Seluga in October 2010 and April 2013 also show that the two vehicles have, for reasons unknown, different weight distribution - particularly in the front passenger seat where Jordan Jackson was sitting.” [Id.]

In response, Plaintiffs contend that “any differences between the E-Z-GO vehicle and the exemplar vehicle were *de minimis*. For example, in its motion, Textron notes that the exemplar vehicle did not have a canopy, rear handholds, and seat restraints.” [Id. at 24.] According to Plaintiffs, “[t]he presence or absence of these items is irrelevant to the operation of the vehicle and the testing.” [Id. at 24.] Additionally, Plaintiffs argue that the presence of outriggers was necessary “for safety purposes to prevent the vehicle from rolling over during the testing. Without the outriggers, then the testing could not have been performed without jeopardizing the safety of the test driver.” [Id.]

The Court agrees with Plaintiffs that these small differences, such as the lack of the roof canopy and rear handhold on the Exemplar, or the addition of outriggers to the Exemplar for safety purposes, are not sufficient to violate the “substantially similar” standard. Defendant has not, and nor have its experts, explained to the Court *how* these differences render Seluga’s principles and methods unreliable. Rather, Defendant simply identifies each difference and moves on without argument. Importantly, however, Seluga indicated that he took many of the alleged differences into account during his testing. For example, during his deposition, Seluga explained that, when he measured and weighed the subject Vehicle in 2010, “the roof was placed on it when [he] took that measurement” so that the weight and height of the roof could be taken into account. [DN 132-6 at 28.] Seluga also explained that he accounted for the presence of the outriggers by measuring them separately. [Id.] Accordingly, these differences can be identified

and accounted for when comparing the Vehicle and the Exemplar and can be addressed during cross-examination.

With regard to the difference in weight distribution, Defendant includes the following chart in their motion to summarize Seluga’s recordings of the weight of both the subject Vehicle and the Exemplar:

Seat	Subject PC-4X (lbs)	Exemplar PC-4X (lbs)
Front Left (driver)	169.5	169
Front Right (Jordan)	157.5	179
Rear Left	372.5	391.5
Rear Right	391.5	353.5

[DN 132-1 at 16 (citing Exhibit 9 to DN 132-6).] When added together, the subject Vehicle and the Exemplar, according to the above chart, had a total weight of 1,091 and 1,093 pounds, respectively. During his deposition, Seluga explained his attempts to match the exemplar’s weight to the weight of the PC4X at the time of the incident. With regard to the total weight, Seluga explained that he “loaded the vehicle with ballast in addition to my own body weight. The total payload was approximately the same as the payload at the time of the accident.” [DN 132-6 at 29.] To attempt to match the specific distribution of weight, Seluga explained that he “had different weight and applied them to the back so that they roughly matched the weight of the back passengers, and added a balance of weight to the front so that my weight plus the ballasts was roughly equal to the two front seat passengers.” [*Id.*] However, Seluga acknowledged that some of the distributions in the Exemplar did not match the distributions in the subject Vehicle exactly, as demonstrated by the above chart.

However, as Plaintiffs have pointed out, Defendant fails to explain what, if any, significance the difference in weight distribution has on the reliability of Seluga's principles and methods. [DN 145 at 25.] Defendant's experts do not address the issue of weight distribution in their reports or attempt to explain why the difference in weight distribution between the Vehicle and the Exemplar would render Seluga's testing unreliable. Additionally, Seluga thoroughly explained how he attempted to match the distribution as best he could, though he could not do so exactly. However, "[i]n evaluating an expert witness, 'Daubert and Rule 702 require only that the expert testimony be derived from inferences based on a scientific method and that those inferences be derived from the facts on the case at hand ... not that they know the answers to all the questions a case presents-even to the most fundamental questions.'" *Nemir v. Mitsubishi Motor Sales of Am., Inc.*, 6 F. App'x 266, 275 (6th Cir. 2001) (quoting *Jahn v. Equine Servs., PSC*, 233 F.3d 382, 390 (6th Cir. 2000)). Here, without a persuasive argument from Defendant about why the various differences between the Vehicle and the Exemplar are significant, the Court does not find that they are so great as to warrant exclusion for lack of substantial similarity. Rather, Defendant will be free to raise these issues on cross-examination at trial.

ii) Differences in Road Conditions

Next, Defendant contends that "the road conditions between the accident and the date of 'testing' were quite different." [*Id.* at 17.] The accident occurred on July 25, 2010, and Seluga first visited the scene on October 4, 2010. [DN 132-6 at 20.] Sometime in between when Seluga visited the scene in October 2010 and when he went back to perform more testing on April 26, 2013, Panther Creek Road was resurfaced. [DN 132-1 at 17.] Defendant asserts that the resurfacing "significantly changed" the road: "[i]n October 2010 the road shown to be a hard

pavement surface with spotty areas of road debris and/or gravel. In April 2013 the hard pavement surface is uniformly covered with a thick layer of spread gravel.” [*Id.* (citing DN 156).]

Indeed, Seluga acknowledged in a footnote to his report “that the subject road had been repaved between the time of the accident and the time of the exemplar vehicle testing.” [DN 113-1 at 16 n. 37.] However, Seluga went on to note that “the friction coefficient of the repaved road, as determined by drag sled testing, was comparable to the drag sled test results that were performed before the road was repaved.” [*Id.*] When Seluga performed testing with the Exemplar in 2013, Seluga identified “a tire sliding friction coefficient in the range of approximately 0.6 to 0.8.” [*Id.*] Defendant’s experts do not challenge Seluga’s calculation of the coefficients of friction; rather, they used similar numbers. One of Defendant’s experts, Graeme Fowler, explained in his deposition that, rather than conducting testing to find an approximate coefficient of friction, he simply chose the figure of 0.7 because “.7 is something . . . pretty representative of peak coefficients of friction for [automotive] tires on road surfaces.” [DN 134-4 at 47 (Fowler Deposition).] Fowler testified that 0.7 is a coefficient of friction that he has “used many times in . . . analyzing . . . both yaw marks and speed estimates. So it’s representative. It’s a reasonable representation of the coefficient of friction.” [*Id.* at 48.] Fowler further testified that, “even Mr. Seluga estimated between .6 and .8, and I believe it was closer to .7, which is halfway in between anyway.” [*Id.*] Further, Defendant’s expert David Bizzak also chose “a coefficient of friction in the range of 0.7 to 0.85, which are reasonable values for a dry asphalt surface.” [DN 118-2 at 8.] In other words, contrary to challenging Seluga’s approximate measure, Fowler and Bizzak’s opinions actually support it.

Plaintiff further argues that “the photographs from the scene show that the road’s surface in 2013 was similar to its condition in 2010.” [DN 145 at 23.] Below are two pictures of Panther Creek Road, with a photo from 2010 on the top and a photo from 2013 on the bottom.



[DN 156-6 at 11.]



[*Id.* at 2.] According to Plaintiffs, “Textron ignores that fact that in 2013, the surface of the road was a hard pavement. Even if Textron is correct and the road was re-surfaced by the application

of a ‘thick layer of gravel,’ the gravel was cemented together into a solid, hard pavement.” [Id.] Further, Plaintiffs point out that “Seluga noted the presence of the road debris and loose gravel and used a range for the dynamic coefficient of friction to account, in part, for the presence of any road debris loose gravel.” [Id.] Finally, Plaintiffs argue that, “[b]ecause there was some road debris and loose gravel present on the road in 2010 and 2013 and because accounted for the presence of the road debris and gravel by using a range for the dynamic coefficient of friction, the exemplar testing done on the roadway after the resurfacing was still ‘similar to’ the conditions of the road at the time of the incident, and the results of those tests are reliable.” [Id.]

On the whole, the Court agrees. Seluga wrote in his report that, despite the resurfacing, the coefficient of frictions he measured in 2010 and 2013 were “comparable,” [DN 113-1 at 16 n. 37], and neither Defendant nor its experts have challenged Seluga’s assertion on this issue. Additionally, though Defendant contends that the above photographs demonstrate that Panther Creek Road was “significantly changed” after being resurfaced, the Court does not agree. Upon examination of the photographs, though there are differences in the road in 2010 and 2013, both photos show gravel and debris. This, combined with the facts that Seluga found that the road had comparable coefficients of friction in 2010 and 2013 and that he used a range of values to account for any debris or gravel, persuades the Court that his exemplar testing was conducted under “substantially similar” circumstances such that his methods are reliable and that the various differences Defendant has identified go to weight, not admissibility.

As the First Circuit has explained in applying this same standard, “[w]hen the *relevant elements* are sufficiently similar, we further emphasize that *other differences* are for defendants to highlight and the jury to weigh in its deliberations.” *Jodoin v. Toyota Motor Corp.*, 284 F.3d 272, 280 (1st Cir. 2002) (emphasis added). Here, the relevant elements between the incident and

Seluga's exemplar testing are substantially similar: he used the same model vehicle, with the same tires, a nearly identical total weight, he conducted his testing at the same location as the incident, on the same hill with the same slope, and which had a similar coefficient of friction as the one that existed in 2010.

To be sure, Defendant has pointed out differences between Seluga's exemplar testing in 2013 and the conditions that existed at the time of the accident in 2010. However, the Court is satisfied that the exemplar testing Seluga performed is substantially similar, albeit not identical, to the conditions present at the time of the accident. Accordingly, the Court will not exclude Seluga's exemplar testing based on these differences, but rather will permit vigorous cross-examination by Defendant at trial. *See Daubert*, 509 U.S. at 596 (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”); *Daugherty v. Chubb Grp. of Ins. Companies*, No. 3:08-CV-48-R, 2011 WL 5525738, at *2 (W.D. Ky. Nov. 14, 2011) (“Once the court is satisfied this [*Daubert*] standard has been met, the expert's testimony ‘should be tested by the adversary process—competing expert testimony and active cross-examination—rather than excluded from jurors' scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies.’”) (citations omitted).

iii) Recording of Parameters

Defendant also asserts that “the ‘exemplar tests’ do not have reliable and consistent recording of parameters” and therefore that they must be excluded on this basis. [DN 132-1 at 17.] Defendant argues that Seluga failed to keep a precise enough record of the steering inputs he made during his test runs by making notations such as “correct,” “some right input,” and “~0.” [*Id.* at 17–18.] During his deposition, Seluga testified that he did not use specialized equipment

to record the number of degrees he turned the steering wheel during each of his seventeen test runs, but that he instead used video cameras attached to the vehicle and placed on the road behind and in front of the place where he was conducting his tests. [See DN 132-6 at 30–31.] Seluga explained that, “for many of the tests, there’s a camera mounted basically above my shoulder looking at the steering wheel and the dashboard” which demonstrate the precise steering inputs he made during the tests. [DN 136-6 at 30.] However, for certain of the tests, Seluga acknowledged that he “was switching cameras because some ran out of memory on the battery,” so not every test he conducted was videotaped from all angles. [Id.]

Defendant argues, however, that even in the videos which do show the steering wheel from behind Seluga’s shoulder, “the dummy he placed in the right front passenger seat to represent Jordan obscures any view of the speedometer and Seluga’s hands in several videos while Seluga’s clipboard obscures any view of these inputs in the others.” [DN 132-1 at 19.] Next, Defendant argues that “the exact speed of the vehicle at the time of braking or the location on Panther Creek Road (*i.e.*, to determine the exact slope of the road at the time of the braking or steering inputs) [is not] known or repeatable.” [Id.] Finally, though Seluga recorded that he applied the break in 14 of the 17 tests at the 53 foot mark, Defendant contends that “this is a record of intent rather than result” because “Seluga testified that he did not have a camera set up at the 53-foot mark to establish that brake application was at that location for each test.” [Id. at 19–20.]

The Court has viewed all of the video footage of Seluga’s 17 simulations and, for the most part, disagrees with Defendant that the videos fail to show the steering wheel inputs Seluga made during each test. [See DN 181 (Notice of Intent to Physically File Additional Exhibits); DN 182 (Notice of Receipt of 3 Disks).] For tests 1, 2, 3, 4, and 5, the “SILVER” videos, as they are

labeled on the files submitted to the Court, show footage of each test run as Seluga comes toward the camera in the Exemplar vehicle. In each of these videos, the viewer can see the input Seluga makes on the steering wheel and therefore can understand how much he did or did not turn the wheel. For tests 6 through 8, however, only the “BLACK” videos were given to the Court, which show footage of Seluga performing test runs from behind, with Seluga moving further away from the camera as each video progresses. In these videos, Defendant is correct that the viewer is unable to see Seluga make any input on the steering wheel because his back is to the steering wheel. Accordingly, for tests 6 through 8, the Court and the jury are left with Seluga’s rough notes that he inputted “~0” on the steering wheel, steered only to “correct” so as to keep the wheel straight, or used “some right input,” respectively. [See DN 156-3 at 3).]

For the remaining simulations, tests 9 through 17, the “Free” videos, taken from a camera mounted behind Seluga’s shoulder and facing the steering wheel, allow the viewer a direct view of Seluga’s hands on the steering wheel and the movements he made during each test. With regard to these videos, the Court disagrees with Defendant that either the weighted dummy or the clipboard obscures the view of the steering wheel. Though both of these items are certainly visible during the “Free” videos of tests 9 through 17, they do not block the view of Seluga’s hands on the steering wheel.

On the whole, the Court is satisfied that Seluga’s notes and videos sufficiently document if and how much Seluga turned the steering wheel on each test run. This is certainly true for tests 1 through 5 and 9 through 17, as we have both Seluga’s notes and video footage of his inputs on the steering wheel. And though Defendant is correct that the Court does not have video footage of Seluga’s input on the steering wheel for tests 6 through 8, it does have Seluga’s notes. True, Seluga did not record his inputs to the exact number of degrees he turned the wheel. However,

the Court finds that Seluga's notes, combined with his testimony, are sufficient. To the extent Defendant believes Seluga's results are questionable, it will be free to cross-examine him at trial.

With regard to Defendant's argument that the viewer of Seluga's videos cannot determine the exact speed of the Exemplar at the time of braking, Plaintiffs argue in response that "since the maximum speed of the vehicle, which was measured by the GPS device, would have been obtained immediately before Seluga started applying the brakes, the speed at the time of braking would equal the maximum speed attained during the test turn." [DN 145 at 27.] Defendant does not refute this argument in its reply, but merely repeats its assertion that there is no measurement to "depict the speed of the vehicle at the time of the input." [DN 152 at 3.] Indeed, Defendant acknowledges that Seluga "used a hand-held GPS that . . . registered the maximum speed attained" during each test run, [DN 132-1 at 19], but does not explain why this is inadequate. Additionally, Defendant's experts, so far as the Court can tell, have not criticized Seluga's methodology in this regard. The Court will allow Defendant to cross-examine Seluga on this point rather than excluding Seluga's results and testimony.

Defendant also argues that, "while 14 of the 17 test runs note 'Slope @ Brake Application [deg]' as '53 [foot] mark . . . Seluga testified that he did not have a camera set up at the 53-foot mark to establish that brake application was at that location for each test." [*Id.* at 19–20.] However, Seluga did draw a chalk line, visible in each video,³ to mark the 53 foot mark. [DN 132-6 at 26.] Seluga testified during his deposition that he marked "the 53-foot mark distance from the utility pole" because "that's where Mr. Whittington had recorded he thought the tire marks started." [*Id.*] In the videos provided to the Court, the chalk line Seluga drew is visible, as is when he applied the brakes in relation to that line. Accordingly, the Court agrees

³ In its reply, Defendant argues that "[t]he 'green line' chalk mark that was Seluga's 'target' for 'approximate' brake application is not depicted in any video produced," [DN 152 at 4], but Defendant is mistaken. Though the line is faint, it is visible in the videos.

with Plaintiffs that, “by comparing the video of the test runs with the chalk marks that Seluga made on the road prior to testing, the exact location where Seluga began applying the brakes in the test runs can be determined.” [DN 145 at 27.]

While Defendant is correct that Seluga did not brake exactly on the chalk line in every test, Seluga testified that he attempted to do so and that the precise time he applied the brakes can be determined by “looking at to the video . . . from one test to another.” [DN 132-6 at 31.] *Daubert* and Rule 702 do not require perfection; rather, they “require only that the expert testimony be derived from inferences based on a scientific method and that those inferences be derived from the facts on the case at hand.” *Nemir*, 6 F. App’x at 275. Here, the Court agrees with Plaintiffs that Seluga employed a reliable scientific method and that he derived inferences based on that method and the facts of the case.

In support of its motion to exclude Seluga’s exemplar testing, Defendant repeatedly argues that Seluga’s simulations “were not performed under conditions identical to the accident at issue here” and that the simulations “cannot be replicated by him or any other engineer.” [DN 132-1 at 15, 20.] However, Defendant cites no case, and the Court is aware of none, for the proposition that an expert’s simulation must be able to be replicated “to the exact degree” rather than, as Seluga testified, “[a]pproximately.” [See DN 132-6 at 31.] Additionally, as the Court explained above, “identical” is not the standard for the admissibility of accident reconstruction evidence. Rather, when an expert conducts testing which “purports to replicate actual events, the proponent of the evidence must show that the replication and the experiment are substantially similar.” *Dortch*, 2007 WL 1794940, at *1. Importantly, however, “[p]erfect identity between the experimental conditions and the actual conditions is not necessary.” *Bado-Santana*, 482 F. Supp. 2d at 201 (citing *Robbins*, 653 F.2d at 49). The Court is satisfied that Seluga’s simulation testing

satisfied this substantial similarity standard and the standards established by *Daubert* and Rule 702. Accordingly, this portion of Defendant’s motion to exclude is denied.

c) Computer Simulations

Third, Defendant argues that “Seluga’s simulation model does not meet the standards of repeatability required by FRE 702.” [DN 132-1 at 20.] Seluga used computer software called Matlab to test whether, “using input parameters that match the test conditions,” the software would render computer simulations confirming the results of the physical exemplar testing Seluga conducted on Panther Creek Road. [DN 113-1 at 20–21.] According to Seluga, his exemplar testing results did “closely match [the] computer simulation results.” [*Id.*] Based on his exemplar and computer simulations, Seluga concluded that, “[b]ased upon these results, the combination of vehicle speed, tire friction, steering and brake application were sufficient in this case to cause the car to yaw and rollover when the brakes were applied.” [DN 113-1 at 21.]

During his deposition, Seluga explained that, based on modeling techniques described in references on vehicle dynamics and physics, he developed the modeling code he used to run simulations in Matlab. [DN 132-6 at 37.] In this context, “modeling code” means “the specific calculations with designated variable inputs and assumption[s].” [*Id.*] Seluga explained that his colleagues at Technology Associates have looked at and used his modeling code in their own work and he described the modeling code in two of his peer-reviewed publications in 2009 and 2006. However, aside from that, Seluga testified “I haven't distributed in any active way” and, outside of his company, Seluga has not had anyone validate his modeling code line-for-line. [*Id.*]

In its motion to exclude, Defendant argues that Seluga’s computer simulations must be excluded because Seluga’s computer simulation model is unreliable, has not been validated or peer-reviewed, and has an unknown and undeterminable error rate. [DN 132-1 at 20–25.] In

support of this argument, Defendant relies heavily on *Valente v. Textron, Inc.*, 931 F. Supp. 2d 409 (E.D.N.Y. 2013), *aff'd*, 559 F. App'x 11 (2d Cir. 2014). In *Valente*, the District Court for the Eastern District of New York excluded computer simulations Seluga generated in a golf cart accident case by inputting his own formulas and equations into Matlab, and the Second Circuit affirmed that decision. Similar to what he did in this case, in *Valente*, “Seluga utilized the computer simulations in order to determine the ‘yaw instability of [a] golf car’” which had been the subject of an accident in which “[t]he golf car rolled over onto its passenger side.” *Id.* at 424, 414. There, the plaintiff sought to introduce “Seluga's testimony that yaw instability—resulting from a design defect in the use of a two-wheel rear braking system as opposed to a four-wheel braking system—was responsible for Valente's accident.” *Valente*, 559 F. App'x at 13.

In a lengthy analysis, the district court in *Valente* held that Seluga’s computer simulations had not been sufficiently validated based on several factors, including “Seluga’s reliance on equations created and verified for automobiles, as opposed to golf cars,” *id.* at 421–22, his use of “confidential data from an unknown” manufacturer to attempt to validate his model, *id.* at 422, his use of data “that d[id] not involve similar circumstances” to the accident at issue in the case, *id.* at 423, and the fact that Seluga did not “put certain inputs into both the simulation and the real-world system and compare the results to see if ‘they [we]re similar enough within some desired degree of accuracy’” or “conduct any real-world testing to validate the yaw instability portion of his model.” *Id.* at 423–24. Additionally, the *Valente* court relied on the fact that the “Plaintiffs . . . ha[d] not provided any peer-reviewed literature supporting his model or his opinion or any other evidence that either his model or his opinion is generally accepted in the scientific community.” *Id.* at 425. Next, the court held “that Seluga’s simulation model is not reliable because its error rate is unknown and cannot be determined” because he used a “random

noise component” for each simulation which “automatically changes the steering input and coefficient of friction each time that it is run.” *Id.* The court held that, “[a]s a result of random noise, a different expert cannot verify Seluga’s results.” *Id.* at 26. Finally, the court excluded Seluga’s simulation testing because of “the unreasonably low coefficient of friction used in his simulations,” which, according to the court, was “so unrealistic and speculative that it render[ed] his simulations unreliable.” *Id.* at 426–27.

The Second Circuit affirmed the district court based, primarily, on its reasoning regarding Seluga’s use of an unreasonably low coefficient of friction. The Second Circuit explained:

There is no dispute that the coefficient of friction was the determining factor in Seluga's opinion that yaw instability was responsible for Valente's accident. But the 0.53 coefficient of friction used by Seluga, based on flat surface testing, was approximately 40% lower than the coefficient measured by Seluga and defendants' expert on the actual path, as well as the coefficient relied upon by Seluga in a 2006 peer-reviewed article where he concluded that his simulations “consistently” showed that “rear wheel only braking configuration does not lead to large yaw instabilities.” Thus, the district court acted well within its discretion in concluding that Seluga’s 0.53 coefficient derived from testing that was not comparable

Nor do we identify abuse of discretion in the district court’s determination that Seluga’s proposed opinion testimony was not supported by simulation results using the 0.53 coefficient of friction. Seluga admitted that he used the 0.53 coefficient because he “wanted to see if this accident could happen in a certain way and the lowest friction value that was measured is the most likely to see if it could happen.” Indeed, Seluga continued to use a 0.53 coefficient in his simulations despite acknowledging that the low end of the coefficient range was actually 0.54. Moreover, even assuming the reliability of the 0.53 coefficient, Seluga testified that his simulation would predict a rollover due to yaw instability somewhere between 25% and 50% of the time. The purpose for which Valente sought to offer Seluga's testimony, however, was not that under certain circumstances there was a 25% chance that the accident could have occurred as a result of the defect in the golf car, but rather that the design defect actually caused the accident “to a reasonable degree of engineering certainty.” Seluga Expert Rep. 14, J.A. 273. Where, as here, data is “simply inadequate to support the conclusions reached, *Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony.” *Ruggiero v. Warner–Lambert Co.*, 424 F.3d 249, 253 (2d Cir. 2005) (internal quotation marks omitted).

Here, the district court reasonably concluded that Seluga's selection of a 0.53 coefficient of friction and the low prediction rate resulting from the use of this number rendered Seluga's opinion unreliable. Accordingly, we identify no abuse of discretion in the exclusion of Seluga's testimony.

Valente, 559 F. App'x at 13–14 (internal citations omitted),

Defendant argues that the district court and Second Circuit's decisions in the *Valente* case apply squarely to this case and that, using that reasoning, all of Seluga's computer simulations should be excluded here. However, having carefully read both the district court and Second Circuit's opinions in *Valente*, the Court finds Seluga's methodology in this case to be quite distinguishable from that in *Valente*.

Though Seluga testified that he relied on certain principles of physics related to automobiles in this case, [*see* DN 132-6 at 19], as he did in *Valente*, here, there is no argument from Defendant that any of Seluga's automobile-based assumptions are flawed. By contrast, in *Valente*, "Seluga concede[d] that at least one of the automobile-based assumptions used in the original model, the yaw moment of inertia, had to be modified after he learned that a portion of the calculation was different for golf cars." *Valente*, 931 F. Supp. 2d at 422. Indeed, in this case, Defendant's experts likewise used assumptions based on automobiles. For instance, Graeme Fowler, who is a licensed professional mechanical engineer in California and Mississippi with a Ph.D in applied mechanics, explained in his deposition that, rather than conducting testing to find an approximate coefficient of friction, he simply chose the figure of 0.7 because ".7 is something . . . pretty representative of peak coefficients of friction for [automotive] tires on road surfaces." [DN 134-4 at 47 (Fowler Deposition).] Fowler further testified that, between golf carts and automobiles, "we'd be putting in different parameters" based on the difference in tires and other factors, but "the basic physical equations will be similar." [*Id.*] In sum, here, the Court does not find that Seluga's use of certain automobile-based assumptions requires exclusion.

Next, unlike in *Valente*, Seluga has not merely claimed that he “adequately validated his model with test data that he received from a[n] [unknown] manufacturer.” [DN 132-1 at 23.] Rather, here, Seluga specifically used data derived from real-world testing he performed *for this case*. As the Court discussed in detail above, Seluga conducted testing with an Exemplar vehicle on Panther Creek Road, where the subject accident occurred in 2010. Accordingly, Seluga did not use data that involved dissimilar circumstances, as the district court held in *Valente*. In this case, after conducting his real-world testing, Seluga then conducted his computer simulations “using input parameters that match[ed] the test conditions,” [DN 113-1 at 20–21], which he also specifically did not do in *Valente*. Seluga also testified during his deposition that, unlike in *Valente*, he “calculated the yaw inertia of the vehicle outside of the simulation, and used it as a direct input rather than trying to calculate it with a new simulation script.” [DN 132-6 at 49.]

Then, Seluga “compar[ed] the simulated with the full-scale testing results.” [DN 132-6 at 50.] In doing so, Seluga found that his real-world “test results closely match[ed] [the] computer simulation results.” [DN 113-1 at 20–21.] This is in direct contrast to *Valente*, in which the district court found that Seluga failed to “put certain inputs into both the simulation and the real-world system and compare the results to see if ‘they [we]re similar enough within some desired degree of accuracy’” or “conduct any real-world testing to validate the yaw instability portion of his model.” *Valente*, 931 F. Supp. 2d at 423–24. Here, Seluga testified that “the vehicle response in the testing matched the simulated response, and there were differences in both cases between the cases with and without steering.” [DN 132-6 at 37.]

Importantly, Seluga also changed another key factor which was the subject of criticism in *Valente*—he did not “add any random noise components” into his computer simulations, which, as the *Valente* court held, means “the input values change each time he runs the simulation” and

therefore “a different expert cannot verify Seluga’s results.” *Valente*, 931 F. Supp. 2d at 426; [DN 132-6 at 39.] In its motion, Defendant argues that Seluga’s testing still cannot be verified, however, because “Seluga did not keep a record of the input values used in his computer simulations.” [DN 132-1 at 25.] However, this argument is quite puzzling in light of the fact that, when asked during his deposition, “Did you bring a copy of the parameters that you used with your computer simulation?”, Seluga responded “Yes.” [DN 132-6 at 14.] Seluga explained “[t]hat would be included -- some of that form can be derived from the printouts in the yellow folder, but *the complete simulation input is on the DVD.*” [*Id.*] Defendant suggests that Seluga somehow incorrectly “believes that his parameters and inputs can be divined from the Matlab results produced on [DV]D at his deposition,” but Defendant provides absolutely no explanation for why Seluga’s parameters and inputs *cannot* be derived from this DVD. If Defendant had uncertainties about whether it could decipher the data Seluga produced on the DVD at his deposition, Defendant should have questioned Seluga regarding that data at that time. The Court is not persuaded by Defendant’s claim, without any argument or explanation, that the DVD Seluga produced containing all of the parameters he used in his computer simulations is insufficient. To the extent Defendant wishes Seluga to explain the data saved on the DVD, Defendant will be free to address this at trial.

Finally, there is no contention in this case that Seluga used “a . . . coefficient of friction [which] is so unrealistic and speculative that it renders his simulations unreliable,” as was the case in *Valente*. *Valente*, 931 F. Supp. 2d at 426–27. Rather, in this case, two of Defendant’s experts, Bizzak and Fowler, both assumed coefficients of friction in a range quite similar to Seluga’s. Specifically, Seluga used a range of 0.6 to 0.8, [DN 113-1 at 16], Fowler used 0.7, [DN 134-4 at 47], and Bizzak used a “range of 0.7 to 0.85.” [DN 118-2 at 8.] Given the fact that the

ground on which the Second Circuit affirmed the district court in *Valente* was Seluga's unreasonable coefficient of friction of 0.53, *see Valente*, 559 F. App'x at 14, the Court finds it especially persuasive that this issue is not before the Court here.

With regard to peer review and acceptance in the scientific community, Seluga conceded that he has not distributed the code he uses in his computer simulations to the public or the scientific community in any active way. [DN 132-6 at 37.] However, Seluga testified that two peer-reviewed articles he has published, one in 2009 titled "A Parametric Study of Golf Car and Personal Transport Vehicle Braking Stability," published in the *Journal of Accident Analysis and Prevention*, and one in 2006 titled "Braking Hazards of Golf Cars and Low Speed Vehicles," published in the *Journal of Accident Analysis and Prevention*. Seluga testified that both articles were "based off of the mathematical calculation that go into [his] computer simulations."⁴ [*Id.* at 19.] According to Seluga, therefore, his model for the simulations "was reviewed to some extent in the terms of the publication, the peer-review publications." [*Id.* at 37.] In this regard, then, there is some evidence of peer review, though it is slight. And while Defendant argues that Seluga's 2006 article is unreliable because it relied upon erroneous automobile-related assumptions, the Court finds that this argument goes to the weight of Seluga's testimony, rather than the admissibility. However, even if Seluga had not subjected his modeling code to peer review within the meaning of *Daubert*, "the mere fact that the opinion of the proposed expert may not have been subjected to peer review, or that its validity was not confirmed through empirical analysis, does not automatically render that expert's opinion unreliable and thus inadmissible." *Scanlan v. Sunbeam Prod., Inc.*, No. 3:12-CV-9-S, 2015 WL 10711206, at *4 (W.D. Ky. Sept. 1, 2015) (citing *United States v. Demjanjuk*, 367 F.3d 623, 634 (6th Cir. 2004)).

⁴ The full titles of these articles are: "A Parametric Study of Golf Car and Personal Transport Vehicle Braking Stability," published in the *Journal of Accident Analysis and Prevention* in 2009, and "Braking Hazards of Golf Cars and Low Speed Vehicles," published in the *Journal of Accident Analysis and Prevention* in 2006.

The Court also finds persuasive the principles enunciated by our sister district court in *In re Yamaha Motor Corp. Rhino ATV Prod. Liab. Litig.*, 816 F. Supp. 2d 442, 461–62 (W.D. Ky. 2011). That case was “a products-liability MDL involving an off-road vehicle called the ‘Rhino’ that [wa]s designed, manufactured, marketed, and distributed by Yamaha. The plaintiffs in these cases allege[d] that the Rhino was defectively designed and that the defects caused them injury.” *Id.* at 446. In that case, plaintiffs sought to offer the expert testimony of Ronald Carr, who performed “computer simulation[s] . . . rooted in a program known as HVE–SIMON . . . To accurately simulate the vastly different array of vehicles available to consumers, [the manufacturer] creates a program ‘model’ for many different types of vehicles,” and it created a model for the Rhino involved in the *Yamaha* case. *Id.* at 460. Yamaha challenged Carr’s use of HVE and the Rhino model he used to run simulations. In addressing Yamaha’s motion to exclude, the district court explained as follows:

Typically, where an expert seeks to testify regarding a program or simulation that itself passes *Daubert*, an objection to the particular *inputs* utilized by the expert will not result in the testimony being stricken. In *Shadow Lake Management Co. Inc. v. Landmark American Ins. Co.*, 2008 WL 2510121 (E.D.La. June 17, 2008), the court noted that a computer program utilized by an expert was “commonly used” and “sufficiently reliable” and that “[t]he Defendant’s concerns about the factual basis of [the expert’s] reports and opinions are best resolved by vigorous cross-examination and the presentation of contrary evidence.” Similarly, in *Phillips v. The Raymond Corp.*, the plaintiff challenged a computer simulation offered by the defendant’s expert. The court held that “the miscalculations and inaccuracies Phillips contends he has identified go to the weight of the evidence and not its admissibility.” In *Turner v. Williams*, the court considered a challenge to expert testimony regarding an accident-reconstruction program. 326 Ill.App.3d 541, 260 Ill.Dec. 804, 762 N.E.2d 70, 81–82 (2001). According to the court, “[the expert] testified that the computer programs used, EDCRASH and EDSMAC4, are widely used and accepted in the field of crash analysis’ In our view, the information used or not used by [the expert] was not a sufficient basis to bar his testimony. This issue could have been adequately brought to light before the jury on cross-examination.”

Id. at 461–62. The *Yamaha* court also relied on an Eastern District of Pennsylvania case, *Montgomery v. Mitsubishi Motors Corp.*, No. CIV.A. 04-3234, 2006 WL 1310657, at *6 (E.D.

Pa. May 12, 2006). In *Montgomery*, another vehicle rollover case, the court explained that, even if the specifications an expert chooses for his computer simulation “may not seem sensible, logical or compelling, the Court must focus on its role in this process—that is, the Court is not to pass judgment on an expert’s choices in selecting data to use in a particular scientific or engineering model, but acts at this juncture as a gatekeeper.” *Id.*

Applying the reasoning of *Montgomery*, the *Yamaha* court explained:

Yamaha’s critiques of Carr’s testimony do not go to its reliability. Yamaha nowhere suggests that the model is not accurately simulating the data and specifications entered by Carr. For instance, although Yamaha alleges that Carr used incorrect tire data, it does not allege that his model fails to adequately simulate tires with the specifications he selected. This challenge, and similar challenges, goes to the accuracy of the model, not its reliability. Although a computer program must pass *Daubert*, questions about the accuracy of the data used as inputs into an otherwise reliable program are best left for cross examination.

In re Yamaha Motor, 816 F. Supp. 2d at 462–63.

In sum, the Court finds that Seluga has cured nearly all of the deficiencies identified by the district court and the Second Circuit in *Valente*. In this case, Seluga conducted real-world exemplar testing, used inputs from those tests in his computer simulations, and he did not use a random noise component or an unreliable coefficient of friction. Moreover, the Court finds the *Yamaha* court’s reasoning to be persuasive. Defendant does not “suggest[] that the model is not accurately simulating the data and specifications entered by” Seluga. *In re Yamaha Motor*, 816 F. Supp. 2d at 462. Indeed, during his deposition, Seluga testified that “[t]he simulation itself is not going to make errors in terms of calculations” because the program calculates correctly based on whatever inputs it receives. [DN 132-6 at 39.] Rather, Defendant takes issue with the code Seluga used in the program and other inputs he entered to run simulations, which it argues may render the calculations incorrect. Like the *Yamaha* court, however, this Court finds that these arguments go to the weight rather than admissibility of Seluga’s testimony. Defendant will have

the opportunity to vigorously cross-examine Seluga about his code and inputs at trial. Accordingly, the portion of Defendant's motion seeking to exclude Seluga's computer simulations is denied.

d) Alternative Braking

Fourth, Defendant argues that "Seluga's opinions on alternative braking configurations are not reliable as they have not been tested or validated in any way relevant to the case at bar." [DN 132-1 at 26.] As the Court explained above, under Kentucky law, "a plaintiff can bring a defective design claim under a theory of strict liability or negligence, the foundation of both theories being that the product is 'unreasonably dangerous.'" *Prather*, 960 F. Supp. 2d at 712 (citing *Ulrich*, 532 S.W.2d at 200). "[U]nder either theory, it is the legal duty of a manufacturer to use reasonable care to protect against foreseeable dangers. In a design defect case, courts use some form of risk-utility analysis to assess the decisions made by manufacturers with respect to the design of their products." *Ostendorf*, 122 S.W.3d at 535 (citing *Prentis*, 365 N.W.2d at 183). "Significantly, the risk-utility test examines what the manufacturer knew or should have known at the time the product was sold." *Id.*

Under either theory, "design defect liability requires proof of a feasible alternative design." *Toyota Motor Corp*, 136 S.W.3d at 42. However, "[i]n establishing a defect in product design, a plaintiff must show something more than that it was 'theoretically probable that a different design would have been feasible.'" *Brock*, 94 F.3d at 224 (quoting *Ingersoll-Rand*, 775 S.W.2d at 929). Moreover, "[e]ven evidence or 'proof that technology existed, which if implemented would feasibly have avoided a dangerous condition, does not alone establish a defect.'" *Lambert*, 2016 WL 3406155, at *2 (quoting *Estate of Bingham*, 462 F. Supp. 2d at 776). Rather, a "plaintiff's proof in such cases must include competent evidence of some

practicable, feasible, safer, alternative design.” *Gray*, 133 F. Supp. 2d at 535 (quoting *O’Bryan*, 39 F.3d 1182). Finally, a plaintiff must prove that the “feasible alternative design . . . would have prevented the injury.” *Dalton*, 913 F. Supp. 2d at 375 (quoting *Cummins*, 835 F. Supp. 2d at 326).

In his report, Seluga opines that, “had the subject vehicle been equipped with either front wheel brakes or properly balanced four-wheel brakes, the car would not have had a tendency to yaw when the brakes were applied and the subject incident would have been prevented.” [DN 113-1 at 21.] In support of this opinion, Seluga writes that “many of the utility and transport vehicles manufactured by E-Z-Go and its competitors were equipped with brakes on all four wheels going back at least as far as 1990.” [*Id.* at 26.] For this proposition, Seluga cites to the deposition testimony of James Fisher, a 24-year employee of E-Z-GO, the current Manager of Reliability Engineering for E-Z-GO, and the designated corporate representative in this case. [DN 52-4 at 4 (Fisher Deposition).] During his deposition, Plaintiffs’ counsel asked Fisher “Has E-Z-GO ever manufactured a personnel-carrier vehicle, be it electric or gas-powered, with all-wheel braking?”, and Fisher answered “Yes.” [*Id.* at 48.]

Fisher explained that E-Z-GO previously manufactured some of its personnel carrier vehicles, both gas and electric, with four-wheel brakes. [*Id.*] When asked which models used all-wheel braking, Fisher stated “we no longer build these vehicles anymore, but the PC956 – nope, nine – 952, 954, 956, 955, and 957” all had four-wheel brakes. [*Id.*] Additionally, [t]he Shuttle 6 is a vehicle that – I’m not sure it’s equipped with four-wheel brakes, but I – if it isn’t, then front-wheel is an option that you can buy.” [*Id.*] Plaintiffs’ counsel went on to ask Fisher “Was E-Z-GO manufacturing vehicles with four-wheel brakes when you joined E-Z-GO in 1990?”, and Fisher responded, “We had cars with four-wheel brakes; yes.” [*Id.*] Plaintiffs’ counsel followed

up with “So E-Z-GO had the capability of producing vehicles with four-wheel brakes when the PC4X was manufactured, right?”, and Fisher responded “Yes.” [*Id.*] Fisher testified that the PC4X was not manufactured with four-wheel brakes because “[i]t wasn’t necessary” based on “[t]he speed and mass of the vehicle.” [*Id.*]

According to Seluga, Fisher’s testimony demonstrates “[t]he existence of such vehicles [and] that four-wheel braking systems were technically and economically feasible when the subject vehicle was manufactured. Thus a safer alternative design was feasible and available to E-Z-Go at the time the subject vehicle was manufactured.” [*Id.* at 11.] During his deposition, Seluga further testified that, “in terms of technical feasibility, four-wheel brakes have been around for at least a hundred years, and the technology really isn’t necessarily very different than what’s already on the vehicle on the rear.” [DN 132-6 at 44.] Though, as Defendant argues, Seluga could not specifically name a brand or model of personnel carriers or golf cars, whether manufactured by E-Z-GO or another company, with four-wheel brakes or front-wheel only brakes before 1994, [*id.* at 44–46], *Daubert* and Rule 702 do not require an expert to “know the answers to all the questions a case presents.” *Nemir, Inc.*, 6 F. App’x at 275 (quoting *Jahn*, 233 F.3d at 390).

Additionally, “in terms of economic feasibility, [Seluga] cited some after-market kits that show what those sorts of systems add in terms of the cost when sold as a separate add-on kit. And presumably, if it were sold with the vehicle originally, it would be less expensive due to the scale of reproduction.” [*Id.*] For example, Seluga wrote in his report that, “[p]resently, add-on after market front wheel brake kits are available for E-Z-Go vehicles and retail for approximately \$320.” [DN 113-1 at 26.] Seluga opines that, “[g]iven the fact that this technology has not fundamentally changed in the last 25 years, it is likely that the cost to add such a braking system

to the subject vehicle would have been similar as it is today once inflation is taken into account (i.e. about \$190 retail in 1994).” [Id.]

In its motion, Defendant argues that, “[i]n forming his opinion, he solely relies on a 1996 article (published after the subject vehicle was manufactured and first sold), a ‘concept car of the week’ from a different manufacturer, various unrelated patents, and speculates that after-market adaption kits means ‘technical and economic feasibility’ in 1993.” [DN 132-1 at 27.] According to Defendant, Seluga’s “inability to establish any proof of feasibility for his speculative alternative design at the time the subject vehicle was manufactured and first sold is fatal in and of itself.” [Id. at 28.] Defendant also argues that “Seluga did not test any vehicle configured with front wheel or ‘properly balanced’ four- wheel brakes” and therefore that “he cannot state with any reliable certainty for the aid and benefit of the jury that this accident would not have happened with an alternative design.” [Id.]

As an initial matter, the Court disagrees with Defendant’s characterization of the basis for Seluga’s opinion regarding the technologic feasibility of alternative braking designs. Specifically, Defendant fails to mention or address Seluga’s reliance on Fisher’s testimony, which confirms that E-Z-GO “had the capability of producing vehicles with four-wheel brakes when the [subject] PC4X was manufactured” and that E-Z-GO has manufactured in the past and continues to manufacture some of its personnel carrier vehicles with four-wheel brakes. [DN 52-4 at 47–48.] Further, this Court has previously held that “[t]esting is generally needed in cases where the alternative design is either complex in itself or its interaction with other components would be difficult to predict absent testing, however, “[t]he need for testing is blunted if the proposed alternative design is simple or is already used in the industry.” *Mackenzie v. JLG Indus., Inc.*, No. 3:13-CV-01046-TBR, 2014 WL 7375546, at *7 (W.D. Ky. Dec. 29, 2014); *see*,

e.g., Clark v. Chrysler Corp., 310 F.3d 461, 479 (6th Cir. 2002), *cert. granted, judgment vacated on other grounds*, 540 U.S. 801 (2003) (“Here, Mrs. Clark has produced evidence that there were feasible alternative designs to the Chrysler K latch system that would have prevented Mr. Clark’s injuries. Mr. Gilberg testified that several simple fixes would have prevented bypass failure and that a state-of-the-art or state-of-the-industry latch would not have allowed the door to come open. Many of the alternative latch systems proposed by Mr. Gilberg had actually been in use by vehicle manufacturers for many years prior to the time the Dodge Ram was manufactured.”); *Bah v. Nordson Corp.*, No. 00CIV9060DAB, 2005 WL 1813023, at *8 (S.D.N.Y. Aug. 1, 2005) (“[T]he interlock switch and nozzle diffuser proffered by Dr. Storace do exist in the marketplace in products similar to the subject machine that he helped design, and thus testing is not needed to establish their feasibility.”). Here, the Court finds that Fisher’s testimony provides a legitimate basis for Seluga to offer the opinion that alternative braking designs he proposes, consisting of either four wheel or front wheel brakes, are designs that would have been technologically feasible when the Vehicle was manufactured.

Next, E-Z-GO argues that “Seluga has no basis for his opinion that the subject vehicle . . . equipped with an alternative brake design, would not have resulted in an accident.” [DN 132-1 at 28.] Though Defendant is correct that “Seluga did not test any vehicle configured with front wheel or ‘properly balanced’ four- wheel brakes,” Defendant is *incorrect* that “[h]e did not perform any computer simulations of a PC-4X vehicle equipped with ‘properly balanced’ four-wheel brakes or front wheel brakes.” [*Id.*] In their response, Plaintiffs clarify that Seluga “did perform a computer simulation to support this opinion. Seluga ran a simulation for a vehicle with four-wheel braking, and that simulation confirmed that the vehicle would not roll over under like

circumstances to the incident at issue in this case if the vehicle had brakes on all four wheel[s].”
[DN 145 at 35–36 (citing DN 145-1 at 3–4 (Seluga Declaration).]

In its reply, Defendant argues:

Seulga has not provided any documentation that his computer simulation produces results that are verified for different brake configurations. As the computer simulation, which is designed for rear-wheel only brake configuration, has been deemed unreliable under *Valente*, Seluga and Plaintiffs face a higher burden establishing that any computer model simulation results relating to four-wheel or “front-wheel only” braking would be reliable under *Daubert* and FRE 702.

[DN 152 at 8.] Because the Court has declined to apply *Valente* to exclude Seluga’s computer simulations in this case, however, the only argument the Court is left with on this point is that “Seulga has not provided any documentation that his computer simulation produces results that are verified for different brake configurations.” [*Id.*] This claim, without any support, is insufficient for the Court to exclude Seluga’s computer simulation using four wheel brakes. Certainly, Defendant can cross-examine Seluga on his lack of physical testing of the proposed alternative design and on his computer simulation at trial. However, Defendant has not persuaded the Court that Seluga’s opinions on this issue must be excluded. *See Mackenzie*, 2014 WL 7375546, at *6 (“[W]hile Webster did not conduct physical tests, he did construct a 3–D [computerized] model and used this to recreate the conditions under which the jack screw failed . . . The Court agrees that physical testing is not required, especially as Webster physically observed the evidence and has tested his theories through computer simulations. JLG may raise Webster’s failure to physically test in regards to the ‘weight of his testimony,’ but Plaintiff has satisfactorily shown it is admissible.”).

e) Warnings

Fifth, Defendant argues that “Seluga has no training and experience from which he can offer the opinion that the warnings present on the PC-4X at the time of the accident were inadequate.” [DN 132-1 at 29.] Under Kentucky law, in order to succeed on a “failure to warn claim, [the plaintiff] must provide evidence that: (1) [the defendant] had a duty to warn; (2) the warnings [defendant] gave were inadequate; and (3) the inadequate warnings were the proximate cause of [the plaintiff’s] injury.” *Stewart v. Gen. Motors Corp.*, 102 F. App’x 961, 964 (6th Cir. 2004) (citing *Morales v. Am. Honda Motor Co.*, 71 F.3d 531, 537 (6th Cir. 1995)). “Under Kentucky products liability law, a warning is adequate if it conveys the product’s underlying risk to a reasonable consumer.” *Yonts v. Easton Tech. Prod., Inc.*, 676 F. App’x 413, 418 (6th Cir. 2017) (citing *Post v. Am. Cleaning Equip. Corp.*, 437 S.W.2d 516, 520 (Ky. Ct. App. 1968)). “In turn, determining whether a particular warning sufficiently conveys the product’s underlying danger requires examining the likelihood and seriousness of the risk involved.” *Id.* (citing *Edwards v. Hop Sin, Inc.*, 140 S.W.3d 13, 16 (Ky. Ct. App. 2003)). Additionally, Kentucky law generally requires a plaintiff to demonstrate that different or additional injuries would have changed the outcome. *See Stewart*, 102 F. App’x at 965 (citing *Demaree v. Toyota Motor Corp.*, 37 F.Supp.2d. 959, 968 (W.D. Ky. 1999)) (“Stewart failed to demonstrate causation because she has not presented evidence that *if* she had seen the same warning in a different location she would have changed her behavior in a way that would have prevented her from being injured.”).

In his report, Seluga offers the opinion that “E-Z-Go failed to provide adequate warnings of dangers associated with the use and reasonably foreseeable misuse of the vehicle including dangers known to E-Z-Go but not known to persons who could be reasonably anticipated to use the vehicle.” [DN 113-1 at 29.] Seluga explains in his report that:

The warnings on the E-Z-Go PC4X state in part: “For golf course and non-highway use only, and to be operated only by authorized drivers in designated areas.”

The warnings contained in the E-Z-Go PC4X owner’s manual acknowledge the problems associated with rear wheel braking in part where they state: “Avoid driving fast downhill. Sudden stops or change of direction may results [sic] in a loss of control” (see Pg. A-3). The manual also warns the user to “Avoid steep slopes”, though it does not quantify what E-Z-Go considers to be a steep slope. Later E-Z-Go manuals have warnings instructing users to never drive on slopes of 14° (25%) or more. However, it is foreseeable that not all users of this vehicle will have access to the owner’s manual. The subject vehicle also contains a warning on the instrument panel that states: “Drive slowly straight up and down slopes and in turns.” However, it is foreseeable that not all drivers will drive slowly when traveling downhill, and that some will apply the brake suddenly when the vehicle’s speed becomes high, as was the case in this incident. Furthermore, the provided warnings do not describe the particular nature of the rear-wheel brake hazard. They do not tell the driver how to use the brakes in a way that will not lead to a loss of control (i.e. do not skid the tires) and they do not mention the likelihood of rollover resulting from a yaw instability.

According to well established and accepted engineering design principles, once product hazards have been identified, they should be reduced in accordance with a safety hierarch which assigns the following order of priority to hazard countermeasures: 1) eliminate the hazard by design, 2) safeguard the hazard and 3) emphatically warn/train against the hazard . . . In this case, although E-Z-Go was aware of the hazard created by rear-only braking it chose to warn against the hazard rather than mitigate the hazard with a design improvement, thus bypassing the first two priorities in the safety hierarchy. Rather than attempting to warn about the hazard associated with the use of the defective braking system, E-Z-Go should have equipped the vehicle with a braking system that would safely bring it to a stop even when traveling fast downhill. The choice to warn rather than to eliminate is a particular concern when the warnings can be expected to not reach all users. Alternatively, the vehicle could have been equipped with a speed governing system that would have automatically limited the vehicle’s speed to a safe level, even when traveling downhill.

[*Id.* at 25.]

In its motion to exclude Seluga’s testimony about warnings, Defendant argues that “Seluga offers no opinion as to the adequacy or inadequacy of the warnings present on the PC-

4X at the time of the accident,” but instead only opines that “[r]ather than attempting to warn about the hazard associated with the use of the defective braking system, E-Z-Go should have equipped the vehicle with a braking system that would safely bring it to a stop even when traveling fast downhill.” [DN 132-1 at 30 (quoting DN 113-1 at 25).] During his deposition, Defendant’s counsel asked Seluga what, if any, alternative language would have been adequate, and Seluga responded “It should say something like, Do not lock brakes; vehicle may los[e] control. Or better yet, vehicle may rotate violently, something to that effect.” [DN 132-6 at 46.]

However, Defendant argues that Seluga is not qualified to offer this opinion because he

has no work experience designing warnings. [DE 113-2, Resume of Seluga] He has no academic training or qualifications designing warnings. *Id.* He has published no papers regarding warnings. *Id.* He cites no published studies regarding the sufficiency of his off-the-cuff proposed language. He offers no opinions that Molly Kyle, the driver, Jordan Jackson, the decedent, the O’Neils, the owners of the vehicle, or any other person associated with this accident would have read and heeded the warnings. Nor has Seluga offered the opinion that the allegedly inadequate warnings were the proximate cause of the sustained injuries.

[DN 132-1 at 30.] Accordingly, Defendant contends that Seluga’s “opinions on ‘warnings’ are not based Seluga’s ‘scientific, technical, or other specialized knowledge’ and will not ‘help the trier of fact to understand the evidence or to determine a fact in issue’ and therefore should be excluded.” [*Id.*]

In response, Plaintiffs argue that Defendant “misconstrues Seluga’s testimony and report about the safety hierarchy and claims that Seluga believes that no warning would be adequate. That is incorrect.” [DN 145 at 36.] Plaintiffs state that Seluga “explained that the safety hierarchy requires a manufacturer first to eliminate a hazard and then, if unable to eliminate the hazard, then the manufacturer must safeguard against the hazard. If the manufacturer is unable to eliminate or safeguard against the hazard, then, as the last line of defense, the manufacturer must

adequately warn and train against the hazard.” [Id.] Additionally, Plaintiffs point out that Seluga did testify “about alternative language for the warnings.” [Id. at 37.]

Plaintiffs further argue that, based on his experience, Seluga is more than qualified to offer these opinions. [Id.] For instance, Seluga did “course work in mechanical engineering at M.I.T. [which] included courses on product design and the related topics of human factors and warnings.” [DN 145-1 at 2.] He also “participated in and contributed to the revision of warnings contained in the 2012 American National Standards Institute (“ANSI”) z130.1 and z135 safety standards for golf cars and personal transport vehicles.” [Id.] Seluga further states that he has “experience with multiple ANSI standards as they relate to warnings, and [he] ha[s] reviewed and analyzed numerous consumer product and machine warnings and applied the applicable ANSI standards for warnings.” [Id.]

Though Seluga may be qualified to offer expert testimony related to consumer product warnings, the Court does not find that the opinions he offers in his report related to the safety hierarchy and adequacy of the warnings on the Vehicle are based on reliable principles and methods. In contrast to *Kitzes*, Seluga did not identify and *apply* any standard in his report to demonstrate *why and how* the warnings on the Vehicle and in its manual were inadequate. He also did not apply or test any standard to demonstrate how the alternative language he proposed during his deposition *would* be adequate. *Contrast In re Yamaha Motor Corp. Rhino ATV Prod. Liab. Litig.*, 816 F. Supp. 2d at 458 (Explaining that an expert “compared the Rhino’s actual warnings to the general ANSI guidelines. Based on this comparison, *Kitzes* concludes that the warnings were deficient. Contrary to Yamaha’s contention, he does not simply formulate an off-the-cuff conclusion about the warnings that any juror could make. Rather, he explains why the

particular characteristics of the Rhino make the specific warnings used insufficient in light of industry standards and academic research.”).

Though Seluga identifies the ANSI B56.8 standard in the early pages of his report, [DN 113-1 at 6, 12–13], he does not discuss or apply that standard in the section of his report in which he discussed “warnings and engineering safety.” [*Id.* at 23–24.] He also did not cite any industry standards or academic literature in the section of his report discussing why the warnings were inadequate or during his deposition when he proposed alternative language. Accordingly, the Court will grant the portion of Defendant’s motion seeking to exclude Seluga’s testimony about the adequacy of the Vehicle’s warnings.

f) CPSC and NEISS Database

Sixth and finally, Defendant argues that “Seluga offers no analysis of the reports extracted from the CPSC NEISS database and therefore his proffered testimony merely is an attempt to present irrelevant extrapolated reports of projected accidents without any demonstrated relationship to the accident before the Court in this case.” [DN 132-1 at 31.] The Court agrees. Seluga includes a short section in his report titled “Evidence of Prior Incidents.” [DN 113-1 at 25–26.] That section reads as follows:

CPSC NEISS⁵ data indicate that there was an annual average of approximately 6,000 golf car type vehicle related injuries requiring emergency room treatment in the US from 1991 to 1993. For all of the available CPSC detailed data on these types of incidents, rollovers consistently represent approximately 10% of all incidents. Therefore, E-Z-Go vehicles, which represent a significant market share, must have been involved in many rollover accidents prior to the manufacture of the subject vehicle.

It is my understanding that specific E-Z-Go prior incident records have been requested in this matter but have not been produced yet. As that information becomes available I plan to review it, evaluate it to determine if the provided

⁵ These acronyms stand for “Consumer Product Safety Commission” and “National Electronic Injury Surveillance System.”

incidents are substantially similar to the subject rollover and supplement this report if necessary.

In its motion to exclude Seluga's testimony, Defendant argues that, "[a]t his deposition, he offered no specific opinion on the NEISS data and acknowledged that the data does not distinguish 'golf car' injuries from 'personnel carrier injuries' and does not distinguish a roll-over accident on a paved surface from driving into a ditch; nor does the data differentiate between three-wheeled and four-wheeled vehicles, or by braking system." [DN 132-1 at 31.] Accordingly, Defendant contends that "[i]t is clear from his testimony that Seluga has, at best, a general understanding of the collection of this NEISS data. He is unable to differentiate general categories derived from the projection of the underlying lay reports to the overall accident rates from the claimed defect 'areas of concern' upon which Plaintiffs base their case." [*Id.*] Defendant cites an excerpt from the Sixth Circuit's decision in *Newell Rubbermaid* in which the court affirmed the district court's reasoning that an expert's "methods are clearly not scientifically sound. He merely counts accidents from accident reports relating to non-Raymond forklifts. Without questioning or verifying the data and without conducting any tests of his own ..., he reaches conclusions about the forklift involved in this case. *Newell Rubbermaid*, 676 F.3d at 528 (quoting *Newell Rubbermaid, Inc.*, 2010 WL 2643417, at *6).

In response, Plaintiffs once again argue that "the fact that there is publicly available information, such as the NEISS data, which the federal government has compiled over the years regarding incidents involving its golf cars and personal transport vehicles is not only relevant but at the heart of this litigation." [DN 145 at 39.] Plaintiffs also argue that "[d]uring his deposition, Seluga was able to answer detailed questions regarding the NEISS data and how it is collected and compiled." [*Id.* at 38.] The Court disagrees. Seluga testified that, as to the accidents recorded by the NEISS "[s]ome of those represent accidents that occurred at golf courses. Some of them

are accidents that occurred in other places.” [DN 132-6 at 10.] Seluga also testified that the data he analyzed did not distinguish between golf cars and personnel carriers like the Vehicle at issue in this litigation. [*Id.*] He further testified that the data “summarizes all of the data that the people at the hospitals entering the codes categorized as golf-car related,” but did not testify as to any of the specific circumstances of any of the injuries. [*Id.* at 11.]

As the Court explained above in addressing Lawyer and Kitzes’s proposed testimony, the standard for the admission of prior incidents is “substantial similarity.” The Court excluded Lawyer and Kitzes’s testimony regarding the NEISS data because they had not analyzed the circumstances of the NEISS data to determine whether any of the incidents were substantially similar to the circumstances of this case. Seluga has not done so either, and therefore the Court will exclude his testimony on this issue for the same reason it excluded Lawyer and Kitzes’s.

4. Plaintiffs’ Motion to Exclude Testimony of Richard L. Stern

Plaintiffs first move to exclude the report and testimony of E-Z-GO’s expert Richard L. Stern. [DN 133.] Stern completed research regarding “E-Z-GO’s product safety management system associated with the Model PC4X Electric Powered Personnel Carrier” involved in this case. [DN 118-6 at 4 (Stern Report).] Stern has extensive experience in the field of product safety. From 1998 to 2007, Stern was the Associate Director at the United States Consumer Product Safety Commission (CPSC), where he supervised compliance officers in charge of “investigating allegations of safety-related defects and regulatory violations involving fuel, electrical, recreational products and tools.” [*Id.* at 26.] From there he went on to manage Whirlpool Corporation’s Global Product Safety Training Program until 2013 before moving to Exponent, Inc. in 2016 where he “[s]pecialize[d] in evaluating and developing management systems and processes intended to design, manufacture, import, distribute, and sell reasonably

safe products.” [Id.] Currently, he is the Global Product Safety Director at Techtronic Industries where he “[d]irects the development, implementation, and maintenance of a comprehensive product safety and consumer product regulatory compliance system.” [Id.]

Stern reviewed numerous documents and evidence from the instant case, including deposition testimony, pleadings, E-Z-GO operation manuals, and public documents such as the CPSC Recall Handbook, Federal Regulations for the CPSC, CPSC records for golf cart and utility vehicle accidents, and documents published by the National Safety Council. In reliance on these materials, Stern rendered the following general opinions which he explains in more detail in his report:

1. No evidence has been presented to demonstrate that E-Z-GO failed to act in a manner consistent with the applicable regulatory requirements and best industry safety practices with regard to the design and manufacture of the Vehicle;
2. No evidence has been presented to demonstrate that E-Z-GO failed to act in a manner consistent with the applicable regulatory requirements and best industry safety practices with regard to their post-sale actions associated with the Vehicle; and,
3. The evidence indicates that the Vehicle was being operated without regard to the warnings and instructions provided by E-Z-GO with the Vehicle as well as by two of the passengers, and was being operated in violation of local laws.

[Id. at 5.]

In their motion to exclude Stern’s report and testimony, Plaintiffs emphasize that Stern did not do an independent review of E-Z-GO’s safety system. [DN 133 at 6.] Indeed, Stern states in his report that “[n]o product testing or evaluation was performed.” [DN 118-6 at 4.] Rather, Stern exclusively reviewed documents that E-Z-GO supplied to him in addition to publicly available product safety information and rendered his opinions based on those materials. [Id.] According to Plaintiffs, however, because Stern “did not perform an independent assessment or

evaluation of Textron’s safety system and warnings,” “his opinions lack any objective basis in facts and are not the product of any scientific evaluations or analysis.” [DN 154 at 1–2.]

In response, Defendant contends that an independent assessment of E-Z-GO’s actual safety system was unnecessary because “Plaintiffs’ arguments as to the alleged product defects in the PC-4X Personnel Carrier do not deal with characteristics unique to the electric motor driven E-Z-GO PC-4X. Indeed, as Mr. Stern noted in his report, the Plaintiffs’ alleged ‘defect’ of rear-wheel braking on golf cars, utility vehicles, and personnel carriers is a design characteristic common among all manufacturers of such vehicles.” [DN 141 at 4.] Accordingly, Defendant argues that it was reasonable for Stern to render his opinion based on publicly available information regarding the risks of these types of vehicles.

Stern explained in his report the “pre-sale” and “post-sale” actions manufacturers generally engage in to evaluate the safety of a product. [DN 118-3 at 9–10.] For instance, pre-sale, manufacturers do things like become aware of applicable laws and regulations, identify industry standards, determine if the product is reasonably safe, manufacture the product, and distribute it. [*Id.*] Post-sale, manufacturers should establish a procedure for users to report safety issues, follow up on those issues, implement a process to become proactively aware of potential safety concerns, ensure compliance with post-sale regulations and reporting requirements, and adequately address safety issues in future productions and in considering whether to issue recalls for past productions. [*Id.* at 10.] Though Stern did not personally study E-Z-GO’s product safety management system, which he testified would have taken months to do, he used certain evidence “to identify several of the critical pieces necessary for an effective product safety management process.” [*Id.* at 11.] According to Stern, “[t]he evidence indicates that E-Z-GO took specific actions both pre-sale and post-sale of the Vehicle.” [*Id.*]

With regard to E-Z-GO's pre-sale actions, Stern opines in his report that "E-Z-GO's design and manufacture of the Vehicle was consistent with the actions expected from the applicable regulatory requirements and best industry product safety practices." [*Id.*] Stern bases this opinion on a number of considerations. Though Stern was not presented with and "information . . . which specifically addresses compliance with the applicable regulatory requirements," Stern found the lack of evidence of *no* compliance to be persuasive. Stern found "no recalls associated with rear braking design-related rollovers (excluding assembly and/or maintenance related brake issues)" posted on the CPSC website for the utility, off-road vehicles and golf cart category." [*Id.* at 11–12.] However, he did find two unrelated recalls E-Z-GO issued for golf carts and utility vehicles which, according to Stern, means that "E-Z-GO has demonstrated its knowledge of its regulatory responsibilities by conducting two unrelated product recalls prior to the incident in this matter." [*Id.* at 12.] Moreover, Stern opined that the lack of evidence that E-Z-GO was ever given a civil penalty by the CPSC for failure to comply with its regulations to be evidence that E-Z-GO knew of and complied with its safety obligations. [*Id.*]

Stern also concluded that direct evidence exists to show "that E-Z-GO identified the applicable voluntary industry standards for the Vehicle" because "E-Z-GO submitted several test reports indicating that it has conducted testing to verify conformance with the ASME standard." [*Id.*] The "ANSI/ASME B56.8" standard is a voluntary industry "safety standard for personnel and burden carriers." [*See id.*] Defendant further points out in their response that James Fisher, and E-Z-GO engineer, confirmed in his deposition testimony that E-Z-GO complied with the ASME standard." [DN 141 at 10.]⁶ Stern further explained during his deposition that he

⁶ Plaintiffs argue that, "[i]n his deposition, Stern admitted that he has not seen any policy documents that says it is Textron's policy or intent to comply with the American Society of Mechanical Engineers ("ASME") B56.8

reviewed a photograph of the Vehicle involved in this case which bears a label stating “Conforms to ASME/ANSI B56.” [DN 133-2 at 28.] According to Stern, E-Z-GO “would need to have . . . approval from ANSI to be able to make that statement.” [Id.]

Stern also evaluated the public information available prior to the Vehicle’s manufacture in 1993 which could have alerted E-Z-GO to potential existing safety issues. Stern looked at CPSC recalls prior to 1993 and found none “which indicate[d] a relation to brake-related rollover of any brake design.” [Id. at 15.] The CPSC National Electronic Injury Surveillance System (NEISS) data for 1992 “show[ed] a national injury estimate of 6,985.” [Id.] However, Stern found this data to be less reliable because it did not differentiate between golf carts and utility vehicles like the one at issue in this case. Next, Stern reviewed “internal data produced by E-Z-GO,” which “did not show any incidents prior to 1992.” [Id. at 16.]

During his deposition, Stern explained that his “opinions on what [E-Z-GO] did or didn't do is simply based on the deposition testimony of . . . Mr. Fisher where he talks about things that they considered during design, that they were aware of particular uses and misuses, and that as they were designing braking systems that they factored in the uniqueness of particular vehicles to help dictate what braking system it required. So there’s certainly evidence that they were aware of and gave consideration to these things.” [DN 133-2 at 16.]⁷

standard, Safety Standard for Personnel and Burden Carriers. [DN 133-1 at 10.] However, Stern qualified this response during his deposition by saying that he *had* “seen evidence . . . that they assert that this particular vehicle did conform to the standard.” [DN 133-2 at 27 (Stern Deposition).] This includes both test reports and the ASME label on the Vehicle which was the subject of the wreck. Accordingly, the Court does not find persuasive Plaintiffs’ argument that Stern has no reliable basis for concluding that E-Z-GO complied with the ASME standard.

⁷ Plaintiffs challenge Stern’s reliance on Fisher’s testimony on the basis “that Fisher was not at E-Z-GO before 1993,” when the Vehicle was manufactured. [DN 133-1 at 8.] However, in response, Defendant clarifies that Fisher *was* at E-Z-GO in 1993. Fisher testified during his deposition that he was hired at E-Z-GO in 1990 as “a design engineer, and [] was assigned to the industrial commercial line. So it would be the lines that did the personnel carriers, beverage trucks, those kind of products.” [DN141-3 at 9 (Fisher Deposition).] Accordingly, Plaintiffs’ argument that Fisher’s testimony is “speculative” and that it is an invalid basis upon which for Stern to base his opinion is unpersuasive.

With regard to post-sale actions, Stern found evidence “of a process to collect and follow-up on safety-related field complaints. Additionally, the incident information provided by Mr. Fisher demonstrates that E-Z-GO also proactively searches out potentially safety-related information pertaining to its products.” [*Id.* at 19.] As noted above, Stern found that E-Z-GO previously issued two voluntary recalls in cooperation with the CPSC. [*Id.*] Finally, “between the production of the Vehicle in 1993 and the incident in July 2010, the CPSC announced 31 recalls of Utility, Off-Road Vehicles/Golf Carts” and “[n]one of the recall press releases indicate that the recalls were associated with rear brake-induced rollover hazards.” [*Id.* at 20.] In reliance on this and other evidence, Stern rendered the above opinions about the reasonableness of E-Z-GO’s actions in the context of applicable regulatory requirements and best industry safety practices.

Though Plaintiffs are correct that Stern “has not done any independent evaluation or assessment of Textron’s safety system,” which Stern readily stated in his report and during his deposition, the Court does not find that his testimony should be excluded on this basis. Stern testified in his deposition that to perform an independent assessment of Textron’s full safety system “would have been a month’s long process.” [DN 133-2 at 52.] Accordingly, Stern instead reviewed litigation documents, public safety information, and deposition testimony. Stern stated during his deposition that, “[i]f asked to testify, I will testify that there is evidence that [E-Z-GO] had a system in place and that in hindsight, looking at the incident data, I don’t see anything that calls that into question.” [DN 133-2 at 52.] However, Stern made clear that he did not attempt to evaluate and does not plan to testify specifically that “Textron had an adequate safety system.” [*Id.*] With this distinction made clear, the Court finds Stern’s proposed opinions and testimony to be reliable. Stern rendered his opinions based primarily on publicly available information about federal regulations, industry standards, and incident reports. Based on those sources, Stern opines

that there is no evidence suggesting that E-Z-GO *failed* to comply with regulations or industry standards. In other words, Stern intends to explain that publicly available information *supports a finding* that E-Z-GO had a system in place and that it was effective. Stern can testify as to these opinions; however, whether the evidence upon which Stern relied led him to opinions that are *accurate* is a matter to be left for cross-examination at trial. *See Powell v. Tosh*, 942 F. Supp. 2d at 690 (citing *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 529–30 (“[T]he Court’s role here is not to determine the correctness of Clay’s opinion but instead simply whether it is based upon a reliable foundation.”)).

The Court also finds Plaintiffs’ reliance on *Newell Rubbermaid, Inc. v. Raymond Corp.*, 676 F.3d 521, 528 (6th Cir. 2012) to be unpersuasive. In that case, the Sixth Circuit affirmed the district court’s exclusion of an expert witness who was “a forensic engineer with no experience in driving a Raymond forklift and only limited experience in driving forklifts from other manufacturers, [and who] opined that the Dockstocker was defectively designed because it did not have a rear guard door to prevent the operator’s feet from accidentally leaving the operator compartment.” *Newell Rubbermaid*, 676 F.3d at 526. Quoting the district court, the court explained:

Railsback’s methods are clearly not scientifically sound. He merely counts accidents from accident reports relating to non-Raymond forklifts. Without questioning or verifying the data and without conducting any tests of his own ..., he reaches conclusions about the forklift involved in this case. Furthermore, although ... he opines that a latching or spring-loaded rear door is necessary to make this forklift safe and that such a modification would be technically and economically feasible, he never actually tested either of these alternative designs.

Id. at 528. However, *Newell*, and the cases upon which the *Newell* court relied, all dealt with an expert witness offering opinions as to the defectiveness of a product or the availability of feasible alternative designs. *See Brown v. Raymond Corp.*, 432 F.3d 640, 648 (6th Cir. 2005) (citations omitted) (“Romansky’s failure to empirically test his theories with alternative designs

undermined the reliability of his testimony because ‘the design of industrial equipment is a complex process and changes to prevent one problem could create other problems, thus increasing the overall danger of using a product.’”); *Dhillon v. Crown Controls Corp.*, 269 F.3d 865, 869–70 (7th Cir. 2001) (“Although both experts wanted to assert that the truck design was defective because it did not include a rear door, neither expert has actually designed a model of a forklift truck with a rear door. Nor has either performed any tests of such a model to see if it is both economically feasible and just as safe or safer than the model without the door. In alternative design cases, we have consistently recognized the importance of testing the alternative design.”). Here, by contrast, Stern has simply reviewed evidence from this case in addition to public safety information and intends to testify that, based on these sources of information, “there is evidence that [E-Z-GO] had a safety system that in this case was effective.” [DN 133-2 at 16.] The Court finds that Stern’s proposed testimony is permissible.

Finally, Plaintiffs argue that “Stern should not be permitted to offer any opinion testimony regarding the safety of the E-Z-GO vehicle and the adequacy of any warnings.” [DN 133-1 at 11.] In their response, however, Defendant explains that Stern will not testify to either of those issues. Rather, according to Defendant,

Mr. Stern will offer opinions as outlined in his report and above, *i.e.*, that E-Z-GO was aware of its regulatory and industry standards and responsibilities, that it had evaluated the product’s safety prior to manufacture, and that his review of statistical records and CPSC data showed no trends that would have indicated latent defects or hazards in the use of the PC-4X. Mr. Stern testified that others will address the effectiveness or content of the on-product warnings.

[DN 141 at 12.] Because Stern will not testify as to the safety of the E-Z-GO Vehicle or the adequacy of the warnings, this portion of Plaintiffs’ motion is moot.

In sum, the Court finds that Stern is qualified to offer expert testimony and that he based his opinions in this case on reliable principles and methods. Accordingly, Plaintiffs’ motion to

exclude his report and testimony is denied. *See In re Yamaha Motor Corp. Rhino ATV Prod. Liab. Litig.*, 816 F. Supp. 2d at 459 (Concluding that an expert’s “testimony could assist the jury by distilling disparate incident reports and analyzing how a large corporation such as Yamaha digests and processes such information.”).

5. Plaintiffs’ Motion to Exclude David J. Bizzak, H. Frank Entwisle, and Graeme F. Fowler

Plaintiffs also move to exclude the reports and testimony of Defendant’s experts David J. Bizzak, H. Frank Entwisle, and Graeme F. Fowler on the grounds that “none . . . performed any scientific testing or modeling, and, therefore, no standards or controls can be applied to verify or otherwise evaluate their opinions.” [DN 134-1 at 6.]

a) Qualifications and Opinions of Bizzak, Entwisle, and Fowler

David Bizzak has his Ph.D in mechanical engineering and is a registered professional engineer in Pennsylvania, South Carolina, and Mississippi. [DN 118-2 at 19 (Bizzak Curriculum Vitae).] He specializes in “[a]nalysis of machine and consumer product design/manufacturing defects; automotive defect investigation; analysis of electronic and hydraulic equipment malfunctions; traffic accident reconstruction; slip, trip and fall accidents; property loss investigation; and fire investigation.” [*Id.*] Bizzak has “[c]onducted engineering investigations related to a variety of litigation issues including: reconstruction of industrial accidents, machine design and machine guarding, automotive design and manufacturing defects, faulty or improper maintenance responsible for machine or automotive system failures . . . and consumer product design and manufacturing defects.” [*Id.*] His “[e]ngineering investigations of golf car accidents have included performance testing and design evaluations of specific components and subsystems of electric- and gasoline-powered cars. Similar design evaluations have been performed on components and/or systems of motorcycles, all-terrain vehicles, and riding lawn

mowers.” [*Id.* at 20.] In the past four years, Bizzak has provided testimony in nearly forty civil cases involving accidents. [*See id.* at 23–27.]

Bizzak reviewed several materials, including depositions, discovery, and the reports of other proposed expert witnesses, to render his opinions in this case. [*Id.* at 17–18.] Bizzak reconstructed the accident in an effort to determine the proximate cause of the wreck. [*Id.* at 1.] On June 26, 2012, Bizzak examined the Vehicle involved in this case. [*Id.*] That “same day, [he] traveled to the site of the accident and performed a total station survey of the section of Panther Creek Road where the accident occurred.” [*Id.*] Based upon his analysis, Bizzak rendered the following conclusions in his report:

1. Molly Kyle’s reckless operation of the subject PC4X was the proximate cause of the accident in which Jordan Jackson was fatally injured.
2. The loss of control that resulted in the rollover of the PC4X occurred as a result of Molly Kyle, the operator of the vehicle, traveling at a high rate of speed *and* oscillating or sawing the steering wheel as she descended the hill to cause the rear of the vehicle to wag or fish tail.
3. The loss of control that precipitated the accident was not caused by Molly Kyle applying and locking the rear brakes.
4. There is no physical evidence that the brakes on the vehicle were applied before Molly lost directional control of the vehicle.
5. The subject PC4X transport vehicle was manufactured in accordance with the design and performance requirements of ANSI/ASME B56.8 [Reference 1].
6. The mechanical drum brakes on the rear axle of the vehicle are adequately sized to allow the operator to effectively limit travel speed while descending an incline so as to prevent a loss of control.
7. Use of brakes on the rear axle of the vehicle only is reasonable and proper given the design and travel speed of the vehicle. The design of this braking system, which is not unique to this particular class of vehicles, is not defective.

8. Dashboard instructions on the vehicle instruct operators to travel slowly up and down slopes. Molly Kyle, who testified that she had the accelerator pedal full depressed as she traveled down the hill, violated this instruction.
9. At the time the vehicle was manufactured, a regenerative motor controller that would limit the maximum travel speed of the vehicle was not technically feasible and was not commercially available.
10. Even if the vehicle had been equipped with a regenerative motor controller than would have limited the travel speed of the vehicle, Molly Kyle's action of oscillating or sawing the steering wheel to cause the rear of the vehicle to fish tail was the cause of the loss of control, and such a loss of control could readily have occurred at a travel speed within the regulated speed range of a regenerative motor controller.

[DN 118-2 at 8–9.] Bizzak also dedicated portions of his report to disputing the opinions offered by Plaintiffs' experts Andrew Lawyer and Kristopher Seluga. [*Id.* at 3–6.]

H. Frank Entwisle is a retired professional engineer who specializes in “[c]onsult[ing] in accident reconstruction and safety analysis of highway, industrial, off-highway, commercial, and recreational vehicles, including safety regulations and standards.” [DN 118-4 at 6 (Entwisle Curriculum Vitae).] Entwisle also develops “demonstrative vehicular graphics” and analyzes and develops “instructional and warning materials.” [*Id.*] Entwisle reviewed depositions, discovery produced in this case, Kentucky statutes, and the reports of Plaintiffs' proposed expert witnesses. [*Id.* at 2.] Defendant hired Entwisle to conduct an “[a]nalysis of the accident with regard to the contribution, if any, of the design of the machine as related to its operation and the ensuing loss of control by Miss Kyle.” [*Id.* at 1.] In his report, Entwisle summarized his conclusions as follows:

The design of the personnel carrier is reasonably safe and non-defective, the overall design and its components are appropriate for its intended use.

There is no evidence that proposed changes relative to the braking system advanced by plaintiff's experts would have had any change on the outcome of the incident. There is no evidence that the braking system of the personnel carrier was not capable of controlling the speed of the machine on the

approximate 12% (maximum) grade being traversed just prior to the time of loss of control.

Front wheel braking only as advanced by plaintiff's expert would result in machine instability and would be unsafe during expected operation.

It is my opinion that the likely cause of the loss of control of the E-Z GO personnel carrier, was the result of an unlicensed, untrained, inexperienced person illegally operating the machine in an extra ordinary and obviously reckless manner on a roadway not designated for its operation despite being admonished to stop the reckless behavior immediately before the crash by two passengers. Further, this operation on a paved roadway was contrary to instructions for safety given her by both Mr. and Mrs. O'Neil. The overturn was caused by a simultaneous combination of intentional excessive speed, and intentional, repeated rapid steering input.

[*Id.* at 1–2.]

Graeme Fowler is a licensed professional mechanical engineer in California and Mississippi and has a Ph.D in applied mechanics. [DN 118-5 at 32 (Fowler Curriculum Vitae).] He “specializes in issues related to both on-road and off-road vehicles, including handling and stability, component evaluation and testing, accident reconstruction, crash testing, patents, and risk analysis.” [*Id.*] Fowler’s experience includes “working on automobiles, light trucks/SUVs, on- and off-road motorcycles, All-Terrain Vehicles (ATVs), Recreational Off-Highway Vehicles (ROVs) or side-by-sides, golf carts and construction/industrial equipment.” [*Id.*] Fowler has “extensive experience operating, testing and evaluating ATVs and side-by-sides focusing on handling and stability, general operation, analysis of accident records and data, comparative risk analysis and accident reconstruction.” [*Id.*] “Fowler also has experience reconstructing passenger vehicle rollover crashes and analyzing the causes of loss of control through vehicle testing, analysis of crash data files and, review of driver performance data and literature.” [*Id.*] He also “has experience both using and analyzing computer software for vehicle dynamics and accident reconstruction.” [*Id.*]

Fowler reviewed the discovery from the instant lawsuit, photographs from the accident scene, depositions, and the reports of Plaintiffs' proposed expert witnesses. [*Id.* at 29–30.] Based on his review of these materials, Fowler rendered the following opinions in his report:

1. The subject accident was the result of the driver, Molly Kyle's failure to use ordinary care in operating the vehicle. As an inexperienced, under aged and unsupervised operator of the personnel carrier, she intentionally steered aggressively from side to side on Panther Creek Road using the downward slope of the road to increase the vehicle's speed to a point where she was unable to maintain control of the vehicle. During a steer reversal Molly veered to the right side of the road then likely over corrected to the left causing the vehicle to approach the left road edge at a high incident angle for the speed. The driver then input a large, abrupt right steer to avoid leaving the left side of the road causing the personnel carrier to yaw rapidly clockwise, out of control and overturn.
2. The photographic evidence revealed that contrary to Molly's and other occupant's testimony, she did not brake immediately before or during the final loss-of-control.
3. The speed of the vehicle when it overturned is estimated to be 19-20 mph and likely in the mid-20s at the start of the final yaw marks. Due to the driver maintaining the throttle and not controlling the speed down the hill, at the time of the crash the personnel carrier's speed significantly exceeded the vehicle's maximum speed on level ground of 12 mph.
4. Prior to the crash Molly Kyle failed to respond to her passengers' repeated concerns that she was operating the vehicle at too high a speed.
5. The personnel carrier rolled one complete revolution on the roadway, ending up on its wheels and then rolled to the right side of the road.
6. Jordan Jackson was seated in the front passenger seat and was ejected ahead of the vehicle during the rollover. Jordan was stuck by the vehicle as it rolled over and past her, resulting in her fatal head injuries.
7. Given that the road was straight with a mild downward slope leading up to the location of the subject incident, there is no reason why the personnel carrier could not have been safely driven at that location, even at the speeds ultimately achieved in this incident, given reasonable and prudent steering inputs by the driver.

8. At the time of the subject incident, the personnel carrier was being operated illegally on a public road and in a manner contrary to the warnings provided on the vehicle.
9. The subject crash was not caused by rear brake-induced instability.

[*Id.* at 26.]

Plaintiffs do not argue that Bizzak, Entwisle, or Fowler is unqualified to testify as experts, and the Court finds each qualified to do so. Rather, Plaintiffs argue that each “should be excluded from trial because their opinions are not based upon reliable scientific evidence.” [DN 134-1 at 5.] For instance, Plaintiffs argue that “[i]nstead of basing their opinions on testing, computer models, or other reliable scientific evidence, Bizzak, Entwisle, and Fowler rely on photographs of incomplete views of the scene taken by untrained persons and on their own experience.” [DN 134-1 at 7.] Plaintiffs emphasize repeatedly that “[d]espite the fact that the view of the road is obstructed in the photographs, Textron’s experts continue to claim that these photographs support their claim that there is no physical evidence that the brakes of the E-Z-GO vehicle were applied before the rollover.” [DN 134-1 at 10.] According to Plaintiffs, “[b]ecause Textron’s experts have based their opinions on unreliable sources, such as poor-quality photographs taken by persons who are not trained accident reconstructionists and photographs that do not depict the complete scene of the rollover, their opinions do not satisfy the requirements of *Daubert* and should be excluded.” [DN 134-1 at 10.]

b) Reliance on Photographs

In its response, Defendant first contests Plaintiffs’ assertion that the photographs relied on by Bizzak, Entwisle, and Fowler were of “poor quality.” According to Defendant, “Plaintiffs’ consultant Kristopher Seluga used the *same* digital photographs taken by the Grayson County Sheriff’s Department to support his opinions in the case.” [DN 142 at 1.] Additionally,

Defendant argues that the copy of the photograph Plaintiffs attached to their motion and which they claim to be of poor quality is a many-time scanned version of the original photo, which is “actually is of an excellent quality.” [*Id.* at 2.] Defendant attached a copy of the original photograph as an exhibit to their response. [*See* DN 142-1.] Upon examining that version of the accident scene photograph, the Court does not find it to be of poor quality.

With regard to Plaintiffs’ argument that the photographs are unreliable because they were taken by Bryan Hammons, a deputy sheriff with the Grayson County Sheriff’s Department, and Kristen Whittington, an uncle of Jordan Jackson, neither of whom are trained accident reconstructionists, [DN 134-1 at 8–10], the Court also finds this argument unpersuasive. Plaintiffs cited no case law in support of their argument that photographs of an accident scene taken by untrained persons are per se unreliable, and the Court can find no case to that effect. In turn, Defendant argues that, “[i]n fact, the vast majority of photographic evidence utilized by accident reconstruction experts are taken by police investigators and other witnesses.” [DN 142 at 6.] Without some legal authority in support of Plaintiffs’ argument, the Court does not find that the mere fact that Bizzak, Entwisle, and Fowler relied on photographs taken by Deputy Hammons and Kristen Whittington, who are untrained in accident reconstruction, warrants exclusion.

Plaintiffs next take issue with the fact that Bizzak, Entwisle, and Fowler relied on the photographs at issue to conclude “that there is no physical evidence of braking” when the “sworn testimony of eyewitnesses who were present” contradicts that finding. [DN 134-1 at 8.] Specifically, both Molly Kyle and Andrew O’Neil testified that the PC4X did not actually go out of control until after Molly hit the brakes. [*See* DN 130-4 at 20–21 (Kyle Deposition); DN 130-2 at 11 (Andrew O’Neill Deposition).] Additionally, in one of the photographs upon which Bizzak,

Entwisle, and Fowler rely, Plaintiffs argue that “a police car and other vehicles obstruct the full view of the road,” and therefore that it is unreasonable to conclude that there is no evidence of braking. [DN 134-1 at 9.] According to Plaintiffs, though they concede the photographs are authentic and useful in some respects in this case, they “cannot be used to prove *lack of* physical evidence of braking, which is precisely how Bizzak, Entwisle, and Fowler attempt to use them.” [DN 153 at 2–3.] This is because, according to Plaintiffs, “[t]he photographs do not depict the *entire* road, and they do not provide unobstructed views of the road.” [*Id.* at 3.]

Certainly, strong cross-examination on these issues is warranted. However, the Court finds that Plaintiffs arguments regarding photo obstruction and the contrary testimony of Molly Kyle and Andrew O’Neill go to weight, rather than admissibility of the experts’ opinions. Plaintiffs do not dispute that relying on photographic evidence, generally speaking, is a reliable method for expert witnesses to use, and Plaintiffs’ experts likewise rely on photographic evidence in this case. While Plaintiffs are free to challenge Bizzak, Entwisle, and Fowler’s *conclusions* about the photographs through cross-examination, the questionability of those conclusions does not require exclusion. *See Newell Rubbermaid*, 676 F.3d at 527 (The reliability “inquiry is ‘a flexible one,’ and ‘[t]he focus ... must be solely on principles and methodology, *not on the conclusions they generate.*’”) (citations omitted) (emphasis added); *Daubert*, 509 U.S. at 596 (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”).

c) Photogrammetry Analysis

Plaintiffs next argue that “Bizzak, Entwisle, and Fowler base their opinions on photogrammetry, but they have failed to show that the photogrammetry upon which they rely is

reliable scientific evidence.” [DN 134-1 at 10.] Generally speaking, “[p]hotogrammetry is a technique in which engineers take measurements of an accident scene from various photographs and use those calculations to reconstruct the accident.” *Cantu v. United States*, No. CV1400219MMMJCX, 2015 WL 4720580, at *7 (C.D. Cal. Aug. 7, 2015). Plaintiffs take issue with the fact that “Bizzak was unable to identify or name the software program used for the photogrammetry which he used for his opinion” and that he could not “testify[] about any scientific validation of the software used for the photogrammetry or the qualifications [of] the individual who did the photogrammetry.” [DN 134-1 at 11.] Plaintiffs also argue that, because Fowler did not personally inspect the scene of the rollover, and instead “relied on an inspection done by his former colleague, Matthew Schwall, in 2014, four years after the incident,” that his photogrammetry calculations are unreliable. [*Id.*] Finally, Plaintiffs assert that Entwisle also did not personally inspect the scene of the accident, and therefore that his reliance on Bizzak and Fowler’s photogrammetry analysis is unreliable. [*Id.* at 11–12.] Once again, Plaintiffs cite no case law in support of their arguments.

With regard to Bizzak’s photogrammetry analysis, Defendant argues that “Dr. Bizzak testified his work and involvement with the graphics firm and the technician in this matter and over many times in the past,” and he “explained his methods in preparing the overhead plan view as well as the basis for his opinions.” [DN 142 at 13.] According to Defendant, the mere fact that Dr. Bizzak could not identify “the name of the commercial software used by the graphics firm to make the plan view” does not warrant exclusion for unreliability. [*Id.*] The Court agrees. Plaintiffs will be permitted to address this issue on cross-examination.

With regard to Fowler, he “testified that he used the preliminary analysis photogrammetry of Dr. Schwall, but performed his own analysis.” [DN 142 at 16 (citing Fowler

Deposition).] Specifically, Fowler testified that he used some of Schwall's initial measurements, but he then "worked with his staff at Exponet to prepare the speed analysis by using the scene photographs, the scene survey completed by Dr. Bizzak, the testimony of witnesses, and his expertise in accident reconstruction." [*Id.* at 17.] Overall, the Court does not find that the mere fact that Fowler did not investigate the scene himself to justify exclusion. Photogrammetry is defined by taking measurements based on objects in *photographs* of an accident scene and does not require examination of the scene itself. *See Cantu*, 2015 WL 4720580, at *7. Nor does the Court find that Fowler's use of his former colleague's initial measurements, which Fowler and his colleagues then analyzed and expanded upon, require exclusion. The mere fact that Schwall, who was a co-worker of Fowler's at the time he completed his portion of the work, began work that Fowler then continued after Schwall's departure from his position does not demonstrate unreliability. Plaintiffs have not provided any case law to convince the Court otherwise.

Next, Court does not find that Entwisle's reliance on the photogrammetry analyses of Bizzak and Fowler warrant exclusion. Plaintiffs state in their motion that, "[e]ven though he had no involvement in the inspection of Bizzak, which was done 2 years after the incident, and Schwall's later inspection, Entwisle claims that these inspections somehow support his opinions. Entwisle should not be permitted to rely on inspections in which he was not involved or the photogrammetry analyses resulting from such inspections." [DN 134-1 at 11–12.]

Although an expert "may not adopt another expert's opinions wholesale," *Siegel v. Fisher & Paykel Appliances Holdings Ltd.*, No. 3:08CV-429-JDM, 2010 WL 4174629, at *2 (W.D. Ky. Oct. 19, 2010), pursuant to "Rule 703, an expert's testimony may be formulated by the use of the facts, data and conclusions of other experts." *Asad v. Cont'l Airlines, Inc.*, 314 F. Supp. 2d 726, 740 (N.D. Ohio 2004) (citing *Barris v. Bob's Drag Chutes & Safety Equipment, Inc.*, 685 F.2d

94, 102 n. 10 (3rd Cir. 1982)). Here, Entwisle used the photogrammetry testing of Bizzak and Fowler to perform his own work. Entwisle testified during his deposition that because he did not personally inspect the scene of the incident, he relied “primarily the photographs that were taken and the photogrammetry work that Mr. Fowler had done, for example . . . And also Mr. Bizzak.” [DN 134-3 at 11 (Entwisle Deposition).] Entwisle testified that he then used the dimensions of the vehicle and the testimony of Andrew O’Neill about the incident to do “graphical work on looking at the positioning of the vehicle . . . just prior to the time it finally tripped and overturned.” [*Id.*] Based on Entwisle’s explanation of the work he did in this case, the Court finds that he did not merely adopt Bizzak or Fowler’s opinions wholesale. Rather, he used some of their facts and data to perform his own testing and then to form his own opinions. For these same reasons, the Court does not find that the fact that Entwisle did not personally examine the scene renders his opinions excludable. Accordingly, Entwisle’s testimony is not excludable on this basis.

d) Accident Reconstruction

Plaintiffs next argue that “Entwisle should not be permitted to provide any opinions regarding accident reconstruction” because he “did not perform an accident reconstruction or any analysis of tire marks or vehicle damages.” [DN 134-1 at 12.] In response, Defendant asserts that “Plaintiffs incorrectly state that Mr. Entwisle did not perform any accident reconstruction in this case” because “Entwisle used his experience in vehicle dynamics and described the effect the movement of the vehicle’s center of gravity would have on the path of the vehicle due to the intentional steering inputs made by the driver immediately prior to the loss of control.” [DN 142 at 20.] However, Entwisle repeatedly testified that he did *not* perform any accident reconstruction in this case. When asked whether he did so during his deposition, Entwisle

responded “No. As far as accident reconstruction, I would defer to Mr. Fowler and Bizzak for that.” [DN 134-3 at 11.] Later, in response to a question about the cause of the rollover, Entwisle responded “you’re getting into areas of reconstruction, now, that I’m -- I’m not going to handle. Those will be touched on by someone else; Mr. Fowler and Mr. Bizzak.” [DN 134-3 at 17.] Based on Entwisle’s unambiguous testimony, the Court agrees that that he cannot testify as to accident reconstruction. Accordingly, the Court will grant this portion of Plaintiffs’ motion to exclude.

However, Entwisle’s opinions regarding “the instantaneous velocity of the center of gravity of the vehicle,” [*see* DN 134-3 at 12], are not opinions related to accident reconstruction and are permissible. Rather, these are opinions regarding the proposed alternative front-wheel braking and the alleged instability Entwisle opines that type of braking would cause. Entwisle based these opinions on his experience in vehicle dynamics and on Andrew O’Neill’s testimony “that the brakes were not applied until the machine had rotated approximately 30 degrees off of a parallel path to the roadway,” which, in Entwisle’s opinion, meant that “the instantaneous velocity of the center of gravity of the vehicle would be outside the footprint of the vehicle. And if there was any retardation effect from front brakes, that it would continue that rotation, it would not stop the rotation, and that the machine would overturn even if brakes were applied at that point.” [*Id.* at 12.] Entwisle’s can testify as to these opinions based on his knowledge and experience.

e) Simulation Testing

Plaintiffs further take issue with the fact that Bizzak did not conduct any simulation testing on Panther Creek Road, as Plaintiffs’ expert Kristopher Seluga did. According to Plaintiffs, “[i]n his deposition, Bizzak did not testify that the re-surfacing of the road prevented

him from doing testing. Instead, he simply claimed that he “[d]idn’t feel a need to’ conduct testing in this case.” [DN 153 at 7 (quoting DN 134-2 at 29.) In actuality, however, Bizzak elaborated that “[t]he subject vehicle could not be tested. I went to the accident site, I took measurements of the slope. The only information that we had about the accident were the photographs that showed the tire marks on the road. Based upon what I saw, I understood how the accident occurred, and I didn't think that testing was necessary.” [DN 134-2 at 29.] While Plaintiffs are certainly free to question Bizzak further about his decision on cross-examination, the Court does not find that Bizzak’s lack of simulation testing warrants exclusion. *See Scanlan v. Sunbeam Prod., Inc.*, No. 3:12-CV-9-S, 2015 WL 10711206, at *24 (W.D. Ky. Sept. 1, 2015) (“Certainly . . . Sunbeam may raise all of the same points raised in its motion to exclude concerning the lack of testing . . . as a basis for its cross-examination of the doctor . . . The arguments raised by Sunbeam, however, are not a basis on which to exclude Dr. Wogalter’s testimony concerning warnings in its entirety.”).

Plaintiffs have indeed raised important issues to address during their cross-examination of Bizzak, Entwisle, and Fowler. However, the Court finds that these issues go to the weight rather than the admissibility of these experts’ testimony, and Plaintiffs will have an adequate opportunity to raise each of these issues on cross-examination. In sum, Plaintiffs’ motion to exclude Bizzak, Entwisle, and Fowler is granted in part and denied in part as explained in detail above.

6. Plaintiffs’ Motion to Exclude Testimony About the Law by Fact Witnesses & Textron's Expert Witnesses

Next, Plaintiffs move “to preclude any testimony and opinions about the law from fact witnesses and from expert witnesses of . . . E-Z-GO.” [DN 135.] Plaintiffs take issue with the fact that Defendant’s expert witness, H. Frank Entwisle, and Defendant’s fact witness, Special

Deputy Sherriff Dave Colston, both testified about legal issues related to the operation of golf carts. [DN 135-1 at 2–4.]

Deputy Colston, who was called to the scene of the accident in this case, testified during his deposition that it is illegal to operate a golf cart on a county road and that golf carts are not fit for driving on public roads because they do not have lights, turn signals, are not insured, and are often driven by underage drivers. [DN 136 at 2–3 (citing Colston Deposition).] In his expert report, Entwisle opines

that the likely cause of the loss of control of the E-Z GO personnel earner, was the result of an unlicensed, untrained, inexperienced person illegally operating the machine in an extra ordinary and obviously reckless manner on a roadway not designated for its operation despite being admonished to stop the reckless behavior immediately before the crash by two passengers.

[DN 135-1 at 3 (quoting DN 118-4 at 2 (Entwisle Report).] During his deposition, Entwisle testified that he based his opinion that the golf cart was being operated illegally on Deputy Colston’s testimony, Kentucky statutes regarding golf carts, and Defense counsel’s interpretation of those statutes.⁸ [*Id.* (quoting Entwisle Deposition).] In their motion, Plaintiffs contend that, because neither is an attorney, neither Deputy Colston nor Entwisle should be permitted to testify regarding Kentucky laws governing the operation of golf carts. Additionally, Plaintiffs argue that “Entwisle’s testimony also confirms that his opinions about the law are irrelevant because he admits that the fact that the road on which the rollover occurred was a public road instead of a private road did not matter.” [DN 135-1 at 4.]

In response, E-Z-GO argues that “Plaintiffs mistakenly represent that E-Z-GO has offered Deputy Colston and Mr. Entwisle as ‘experts’ on the statutory law applicable to the operation of the PC-4X on Panther Creek Road. The fact the PC-4X was being operated on the public

⁸ Plaintiffs do not argue that Entwisle is not qualified to testify as an expert under Rule 702, only that certain of his proposed opinions are improper.

roadway simply is a fact of the case.” [DN 137 at 1.] Deputy Colston testified during his deposition that he has previously issued “several citations” for operating a golf cart on a county road in Grayson County. [*Id.* at 3.] Accordingly, E-Z-GO argues that “the testimony related by Deputy Colston in this area referred to his experiences as a Grayson County law enforcement officer observing both appropriate use on golf courses and the misuse of golf vehicles and other off road vehicles on the public roadways.” [*Id.* at 3–4.]

With regard to Entwisle, E-Z-GO argues that “the quoted testimony addresses the appropriate use of the PC-4X, an area within the expertise of the witness.” [*Id.* at 4.] E-Z-GO argues that all of the issues Entwisle opines contributed to the loss of control of the golf cart “are factors and underlying considerations as to the opinions of Mr. Entwisle related to his expertise as an engineer, and none are ‘legal opinions’ on the law of Commonwealth.” [*Id.* at 5.] Further, E-Z-GO points out that “whether the operation of this vehicle on Panther Creek Road by an unlicensed, under age driver was ‘illegal’ is not an ultimate fact for the jury to determine.” [*Id.*]

However, E-Z-GO’s argument that the legality of operating the golf cart on a public road is not a fact in issue in this case actually cuts against it rather than in its favor. A prerequisite to admissibility under Rule 702 is that “the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine *a fact in issue.*” Fed. R. Evid. 702(a) (emphasis added). Here, the fact that the golf cart was being operated on a public road by an unlicensed minor, which is illegal under Kentucky law, is irrelevant to the loss of control of the golf cart. Indeed, Entwisle testified during his deposition that “if it was a private roadway of the . . . same slope, the same four kids on it, the operator’s going down the hill, going from left side to right side, jerking the wheel as hard as she can at full speed, no, it wouldn’t matter” whether the road was public or private. [DN 134-3 at 14 (Entwisle Deposition).] He

similarly agreed that “someone can operate a vehicle without a license and still operate that vehicle safely” and that “a person who has a license to drive an automobile . . . and who has experience driving an automobile -- may not have experience driving a golf cart.” [*Id.* at 13–14.] Accordingly, the Court agrees with Plaintiffs that whether Molly Kyle, the driver of the golf cart, was driving it “legally,” is irrelevant to the cause or causes of her loss of control of the golf cart.

The threshold inquiry under *Daubert* and Rule 702 is “the evidentiary relevance and reliability” of an expert’s proposed testimony. *Daubert*, 509 U.S. at 595. Because the “legal” operation of the golf cart is irrelevant to the cause of the wreck in this case, the Court finds that Entwisle’s proposed testimony that Kyle was “unlicensed” and “illegally operating the machine” is improper. That being said, Entwisle *can* testify that golf carts are not designed to travel on public roadways and how, if at all, the use of the golf cart on a public road in this case contributed to the loss of control. For instance, Entwisle indicates in his deposition that a paved, rather than gravel road, may be more likely to lead to an overturn of a golf cart due to factors of force, gravity, and friction. [*See* DN 134-3 at 14.] These matters fall within the purview of Entwisle’s expert knowledge. However, the mere fact that it is “illegal” to drive a golf cart on a public road is irrelevant to Kyle’s loss of control of the vehicle.

Though Deputy Colston is a fact, rather than expert witness, his testimony still must be relevant to be admissible. *See* Fed. R. Evid. 401; 402. Like Entwisle’s testimony, Deputy Colston’s testimony that golf carts don’t have lights or turn signals and that it is illegal to operate them on a roadway is also irrelevant to the cause of the accident. Specifically, no party contends that the absence of lights or a turn signal contributed to the rollover accident in this case. No other cars or third parties were alleged to be involved. Therefore, this testimony, too, is irrelevant

and will be excluded. However, Deputy Colston is free to testify regarding his experience and observations as a responding officer at the scene of the accident in this case.

In sum, the Court agrees that testimony from Entwisle and Deputy Colston regarding the legality of operating a golf cart on a public roadway under Kentucky law must be excluded as irrelevant. Accordingly, Plaintiff's motion to exclude testimony about the law by these witnesses is granted.

7. Plaintiffs' Motion to Exclude Nathan T. Dorris

Last, Plaintiffs move to exclude the testimony and report of Nathan T. Dorris, who Defendant wishes to call as an expert witness to testify based on his "extensive professional experience in product safety and the evaluation of instructions, warnings and other safety communications." [DN 118-3 (Dorris Report and Curriculum Vitae).] Dr. Dorris has a Ph.D in industrial and systems engineering and specializes in "human factors engineering," which "is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, including written communications." [*Id.* at 1, 5.] Dr. Dorris has "routinely performed evaluations of the design and development of warnings and similar precautionary information." [*Id.* at 1.]

E-Z-GO summarizes the opinions Dr. Dorris gives in his report as follows:

1. It is readily apparent to anticipated users that a number of factors affect the possibility of a driver losing control of a vehicle or a tip-over occurring. The risk of serious injury associated with an accident resulting from losing control, such as a tip-over, is also readily apparent. The nature of the hazard and consequences of tip-over are not technical and do not require specialized training or knowledge to recognize. As it relates to this matter, individuals present on the vehicle at the time of the incident recognized the potential for the vehicle to overturn. Andrew O'Neill and Samantha Compton, passengers on the vehicle, testified that they were concerned about the vehicle "flipping" based on how Molly Kyle was driving.
2. The safety messages provided by E-Z-GO are reasonable and appropriate for the reasons described in this report. The safety information is provided in a manner

consistent with the principles of effective and appropriate safety communication. The vehicle is neither defective nor unreasonably dangerous as it relates to warnings and instructions.

3. E-Z-Go provided information that if followed would have prevented this incident. As it relates to this matter, there is no basis to conclude that any different or additional warnings provided by E-Z-Go would have changed the behavior of the O'Neill family or Molly Kyle in terms of operating the subject E-Z-Go PC4X at the time of this incident. For a warning to change behavior, the safety information must not only be noticed and read, but the reader must also agree with the message and decide to follow the precautions.
4. From a human factors perspective, there is no single age at which a child is ready to operate a vehicle, such as the E-Z-Go PC4X. Physical size, strength, and perceptual motor skills are not the only considerations. Riders must also be mature and capable of exercising good judgment. As such, vehicle owners and other adult care givers must always judge whether the individual child is not only physically capable, but also sufficiently mature and responsible so that the driver will use good judgment and does not operate contrary to available warnings.
5. The safety messages provided by E-Z-Go with the subject vehicle are reasonable and appropriate.

[DN 138 at 5–6 (citing DN 118-3 (Dorris Report).]

Plaintiffs do not challenge Dr. Dorris's qualifications to testify as an expert, but rather argue that his proposed opinions are not based on reliable scientific principles and methods. [See DN 144 at 5.] For example, in their motion to exclude the report and testimony of Dr. Dorris, Plaintiffs argue that, “[i]nstead of offering opinions based on reliable scientific evidence, his opinions were based on anecdotal evidence and his own personal beliefs.” [DN 136-1 at 1.] For instance, Plaintiffs assert in their motion that

Dorris claims that the possibility of loss of control of the E-Z-GO vehicle or a tip-over is “intuitively obvious.” He offers no scientific support for this statement and instead claims that “[t]his expected knowledge is garnered through common life experiences, such as operating other vehicles, playing with familiar children’s toys, or even watching television and movies.”

[*Id.* (quoting DN 118-3.) Plaintiffs also contend that

Dorris also argues, without any factual or scientific support, that an alternative warning would not have altered Molly Kyle’s behavior in operating the E-Z-GO vehicle. In his deposition, he cites to the article, “Safety Signs & Labels: Does Compliance with ANSI Z535 Increase Compliance with Warnings?,” from the *Professional Safety* journal as support for this opinion. Deposition of Nathan T. Dorris, dated February 26, 2018 (attached at Exhibit A), at pp. 116-117. However, this article (attached at Exhibit B) is not a scientific study; it is simply a literature review and summary.

[*Id.* at 2.]

With regard to Dr. Dorris’s opinion entitled “*Possibility of Loss of Control or a Tip-Over Is Intuitively Obvious*,” the Court agrees that exclusion is warranted. Dr. Dorris explains the basis for this opinion as follows:

It is readily apparent to anticipated users that a number of factors affect the possibility of a driver losing control of a vehicle or a tip-over occurring.

Among these are vehicle speed, steering input, the characteristics of the vehicle and the terrain. The potential for a vehicle to tip-over in at least some circumstances is common to virtually all types of mobile equipment. Further, that the likelihood of occurrence would be related to the circumstances and manner of operation can also be reasonably expected to be appreciated by end users. This expected knowledge is garnered through common life experiences, such as operating other vehicles, playing with familiar children's toys, or even watching television and movies.

Sensory feedback from operating a vehicle would also indicate to users that the risk of losing control or a tip-over is elevated. Finally, the available warnings and instructions (as discussed later in this report) explicitly address the risk of losing of control, including providing information about how to avoid such an incident, such as driving slowly on slopes and in turns.

* * *

As it relates to this matter, individuals present on the vehicle at the time of the incident recognized the potential for the vehicle to overturn. Andrew O’Neill and Samantha Compton, passengers on the vehicle, testified that they were concerned about the vehicle “flipping” based on how Molly Kyle was driving (outlined later in this report).

[DN 118-3 at 6–7.]

Dr. Dorris does not cite any academic sources in support of his statement that the possibility of a rollover is “intuitively obvious” and “readily apparent.” [*See id.*] Rather, he supports this statement with references to “vehicle speed, steering input, the characteristics of the vehicle and the terrain,” assumed “life experiences, such as operating other vehicles, playing with familiar children’s toys, or even watching television and movies,” “sensory feedback,” and the testimony of Andrew O’Neill and Samantha Compton. [*See id.*] Though O’Neill and Compton both testified that they feared the golf cart would flip over as a result of the way Kyle was driving, [*id.* at 7], there is a difference between “concern” or “fear” of flipping over and flipping over being “intuitively obvious” to an anticipated user.

The Sixth Circuit has identified various “[r]ed flags that caution against” the allowance of certain expert testimony “includ[ing] reliance on anecdotal evidence, improper extrapolation, failure to consider other possible causes, lack of testing, and subjectivity. *Newell Rubbermaid*, 676 F.3d at 527 (citing *Best v. Lowe’s Home Ctrs., Inc.*, 563 F.3d 171, 177 (6th Cir. 2009)). Whether knowledge of a possibility of something happening is “intuitively obvious” or “readily apparent” raises several of these red flags, including use of anecdotal evidence, extrapolation, and subjectivity. Though Dr. Dorris has “extensive professional experience in product safety” [DN 118-3 at 20], and although “[o]pinions based on practical experience or study in a particular technical field may still be sufficiently reliable,” *Scanlan v. Sunbeam Prod., Inc.*, No. 3:12-CV-00009-CRS, 2018 WL 476165, at *3 (W.D. Ky. Jan. 18, 2018) (citing *First Tennessee Bank*, 268 F.3d at 334), Dr. Dorris has failed to connect the dots between his practical experience in product safety and his opinion that the possibility of a tip-over is “intuitively obvious” or “readily apparent” to anticipated users such as Molly Kyle. Accordingly, the Court will exclude Dr. Dorris’s opinion on that issue.

Next, with regard to Dr. Dorris’s opinion that different or additional warnings would not have changed Molly Kyle’s behavior, E-Z-GO argues that “there was no ‘anecdotal evidence’ used by Dr. Dorris in arriving at his opinions” but rather that “Dr. Dorris used the testimonial statements of the PC-4X operator, Molly Kyle, and the occupants, Andrew O’Neil and Samantha Compton” in rendering this opinion. [DN 138 at 6 (capitalization removed).] For instance, Dr. Dorris relied in part on Molly Kyle’s testimony that she did not see any warnings on the Vehicle itself and that the O’Neills did not give her any specific instructions or limitations other than not to drive the Vehicle into the lake. [DN 118-3 at 11 (quoting Kyle Deposition).] Samantha Compton, another passenger in the Vehicle, testified that “it seemed like [Molly] didn’t care about what was going to happen because she didn’t try to stop it or nothing.” [*Id.* at 11–12 (quoting Compton Deposition).] Andrew O’Neill testified that both he and Samantha told Molly to stop “fishtailing” the Vehicle, but “[s]he kept doing it” about “three or four more times.” [*Id.* at 12–13 (quoting Andrew O’Neill Deposition).]

Kyle disputes that either Compton or O’Neill ever yelled at her to stop, but she does not dispute that she was trying to drive the Vehicle as fast as possible. [*See id.* at 14 (quoting Kyle Deposition).] After summarizing the above deposition testimony in his report, Dr. Dorris wrote:

There is consensus within the available scientific literature that personal characteristics and situational factors influence if a user will notice, read, and comply with a warning. As described earlier in this report, receivers that are not seeking safety information about a product are unlikely to notice and use warnings they encounter (Ayres et al., 1989). Molly Kyle did not read the available warnings. Further, the testimony of Andrew O’Neill and Samantha Compton suggests that Molly was intentional driving aggressively. And Molly’s testimony reflects her understanding that certain maneuvers could cause the vehicle to overturn. The available research suggests that even users that read safety messages may choose not to follow the admonishments for a variety of reasons, including risk-taking style.

[*Id.* at 14.] Dr. Dorris also quoted the following two article excerpts in support of his opinion. He wrote:

Dejoy (1989) states:

“The user’s product-related perceptions may over-ride the best designed warning message. The overall magnitude and consistency of the warning attribute findings suggest that the configuration of the warning may not be as important as the expectations that the user brings to the situation.” (pg. 939).

In another review of warnings literature, Rogers et al. (2000) concluded:

“Even a perfectly designed warning that has been noticed, encoded, and comprehended might not be complied with. Several of the person variables that influence compliance are unique to that component of the warning process. For example, individuals' perception of their control over the process, their analyses of the costs of compliance, and their risk-taking style have all been shown to influence compliance.” (pg. 130).

[*Id.* at 14–15.] Dr. Dorris listed out a total of sixteen articles he referenced in forming the opinions in his expert report, including the two from which the above excerpts were taken. Plaintiffs do not challenge the Dejoy and Rogers articles Dr. Dorris quoted in his report nor the Ayers article Dr. Dorris cited before that, which makes their argument that Dr. Dorris rendered his opinion about additional warnings “without any factual or scientific support” rather puzzling. [DN 136-1 at 2.]

Plaintiffs do take issue, however, with a different article Dr. Dorris referenced during his deposition testimony and included in his list of references which is entitled “Safety Signs & Labels: Does Compliance with ANSI Z535 Increase Compliance with Warnings?”. [DN 136-1 at 2.] With regard to that article, Plaintiffs argue that it “is not a scientific study; it is simply a literature review and summary. Many of the studies discussed in this article involve products and situations that are vastly different than the E-Z-GO vehicle and operating the vehicle. For instance, one of the studies involves warning labels on a file cabinet.” [*Id.*] Accordingly,

Plaintiffs argue that “[t]here is simply too great an analytical gap between a wide-ranging literature review that involves a variety of products and Dorris’s opinions regarding whether Molly Kyle’s operation of the E-Z-GO vehicle would have changed had Textron utilized an alternative warning.” *Id.*

The Court disagrees for two reasons. First, Dr. Dorris based his opinion on more than just the “Safety Signs & Labels” literature review article. He also cited to three different articles he listed in his references: 1) Ayres, T., Wood, C., Schmidt, R., Young, D. & Murray, J. (1998). Effectiveness of warning labels and signs: An update on compliance research. *Proceedings of the Silicon Valley Ergonomics Conference and Exposition, 199-205*, 2) Dejoy, D.M. (1989). Consumer product warnings: Review and analysis of effectiveness research. *Proceedings of the Human Factors Society 33rd Annual Meeting, 936-940*, and 3) Rogers, W.A., Lamson, N & Rousseau, G.K. (2000). Warning research: An integrative perspective. *Human Factors*, 42, 102-139. [See DN 118-3 at 14–15, 18–19.] Plaintiffs make no attempt to challenge the reliability of these articles.

Second, the Court does not find that the “Safety Signs & Labels” literature review article Dr. Dorris cites in his report is unreliable simply because it contains examples of products that are different from golf carts and personnel carrier vehicles. As other district courts within the Sixth Circuit have explained, “[w]eakness in the factual basis of an expert witness’ opinion simply bears on the weight of the evidence, not its admissibility.” *Dow Corning Corp. v. Weather Shield Mfg., Inc.*, No. 09-10429, 2011 WL 2490962, at *9 (E.D. Mich. June 22, 2011) (citing *United States v. L.E. Cooke Co.*, 991 F.2d 336, 342 (6th Cir. 1993) (“[A]ny weaknesses in the factual basis of an expert witness’ opinion, including unfamiliarity with standards, bear on the weight of the evidence rather than on its admissibility.”)); see also *Little Hocking Water*

Ass'n, Inc. v. E.I. du Pont de Nemours & Co., 90 F. Supp. 3d 746, 769 (S.D. Ohio 2015) (“This Court considers such partial discrepancies in [the expert witness’s] literature review to be ‘weaknesses in the factual basis’ of her opinion, but not grounds for exclusion.”); *Cooey v. Strickland*, 589 F.3d 210, 231 (6th Cir. 2009) (“Dr. Dershwitz has a Ph.D. in pharmacology, has taught the subject for more than thirty years, and has published extensively in the field. He based his expert opinions of the intramuscular injection protocol on an extensive literature review as well as his own professional experience.”).

Accordingly, while Plaintiffs are certainly free to vigorously cross-examine Dr. Dorris regarding the literature review he cites, the Court does not find that reliance on it is grounds for the exclusion of his testimony. *See Daubert*, 509 U.S. at 596 (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”). Therefore, Plaintiffs’ motion to exclude Dr. Dorris’s report and testimony is granted in part and denied in part.

CONCLUSION

For the reasons stated herein, **IT IS HEREBY ORDERED** as follows:

1. Defendant E-Z-GO’s Motion to Exclude Opinion Testimony of Andrew Lawyer II is **GRANTED IN PART AND DENIED IN PART.**
2. Defendant’s Motion to Exclude Proposed Opinion Testimony of William Kitzes is **GRANTED IN PART AND DENIED IN PART.**
3. Defendant’s Motion to Exclude Opinion Testimony of Kristopher Seluga is **GRANTED IN PART AND DENIED IN PART.**
4. Plaintiffs’ Motion to Exclude Testimony of Richard L. Stern is **DENIED.**

5. Plaintiffs' Motion to Exclude David J. Bizzak, H. Frank Entwisle, and Graeme F. Fowler is **GRANTED IN PART AND DENIED IN PART.**

6. Plaintiffs' Motion to Exclude Testimony About the Law by Fact Witnesses & Textron's Expert Witnesses is **GRANTED.**

7. Plaintiffs' Motion to Exclude Nathan T. Dorris is **GRANTED IN PART AND DENIED IN PART.**

IT IS SO ORDERED.

Date: July 23, 2018

cc: Counsel

The image shows a handwritten signature in black ink that reads "Thomas B. Russell". The signature is written over a circular seal of the United States District Court. The seal features an eagle with wings spread, perched on a shield, with the words "UNITED STATES DISTRICT COURT" around the perimeter.

**Thomas B. Russell, Senior Judge
United States District Court**