

NADA HYDE, Individually and on Behalf of the Estate of HIRAM B. HYDE, Deceased, and on Behalf of All Persons Entitled to Recover for the Wrongful Death of HIRAM B. HYDE; HIRAM PRESTON HYDE and HOLLY ELENA HYDE, Individually, Plaintiffs,

v.

VERMEER MANUFACTURING COMPANY, Defendant.

No. SA-06-CV-0191 FB NN

United States District Court, Western District, Texas I San Antonio Division

August 07, 2007

MEMORANDUM AND RECOMMENDATION OF THE UNITED STATES MAGISTRATE JUDGE ON MOTIONS TO EXCLUDE

TO: Hon. Fred Biery, United States District Judge.

This memorandum and recommendation addresses the motions to exclude experts that are pending in this case.[1] I have jurisdiction to enter this memorandum and recommendation under 28 U.S.C. § 636(b) and the district court's order referring all pretrial matters to me for disposition by order or to aid the district court by recommendation where my authority as a Magistrate Judge is statutorily constrained.[2] After considering the motions and the pleadings in this case, I recommend excluding certain testimony by one of the defendant's experts and denying all other relief sought by the motions.

Jurisdiction

The district court has jurisdiction over the parties and subject matter of this suit under 28 U.S.C. § 1332(a). There is complete diversity between the parties and the amount in controversy exceeds \$75,000.

Nature of the Action

This lawsuit arose from an accident in which Hiram B. Hyde died when attempting to grind a tree stump using a stump cutter and becoming entangled in the cutting/grinding wheel of the stump cutter. Hiram's surviving spouse—Nada Hyde—and Hiram's two surviving adult children—Preston Hyde and Holly Elena Hyde—brought this lawsuit under the Texas Wrongful Death and Survival Statute. The plaintiffs contend that the stump cutter—a Vermeer model SC252 stump cutter—was designed, manufactured and distributed by defendant

Vermeer Manufacturing Company (Vermeer).

The SC252 is a compact, self-propelled, hydraulically-controlled stump cutter. The cutter wheel is the component that grinds the stump. The stump cutter has three hydraulic controls for the cutter wheel. One control lever is used to move the cutter wheel forward and backward. A second control lever is used to swing the cutter wheel from left to right. The third control lever is used to move the cutter wheel up and down. To operate the stump cutter, the operator positions the machine so the cutter wheel is at the stump and then lowers the rotating cutter wheel to the stump. The cutter wheel is then swung from side to side to cut one pass of the stump. Depending on the stump, the cutter wheel is lowered for another pass or the machine is moved forward, further into the stump, to make another pass at the same depth. The process is repeated until the stump is removed.

The plaintiffs contend that the stump cutter that Mr. Hyde was using was defective and unreasonably dangerous, that the stump cutter was negligently designed, and that Vermeer was negligent in marketing the stump cutter. The plaintiffs sued Vermeer for money damages under the doctrine of strict products liability for alleged defects in the stump cutter; negligence in the design, manufacture, sale, and marketing of the stump cutter; negligence in failing to give adequate or proper warnings or instructions for the stump cutter; negligence based on failure to recall the stump cutter; breach of warranty that the stump cutter was fit for the purposes for which it was intended; and for exemplary damages based on gross negligence.[3] Previously, the parties agreed to summary judgment on the plaintiffs's claims for negligence based on failure to recall the stump cutter and exemplary damages.[4] Because Hiram was alone when the accident occurred and no one witnessed the accident, the trial of this case will likely depend on the jury's consideration of expert opinions about the design of the stump cutter. Each party has moved to exclude the other party's expert(s). Because whether a motion to exclude an expert witness is a dispositive motion is unclear in this circuit, and because the resolution of the pending motions could be dispositive in this case, I have prepared a memorandum and recommendation.

Rules Applicable to Expert Testimony

Rule 702 of the Federal Rules of Evidence provides for the admissibility of expert testimony if it will "assist the trier of fact to understand the evidence or to determine a fact in issue," and "if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." Rule 703 of the Federal Rules of Evidence further provides that an expert's opinion is generally admissible so long as the facts and data

underlying that opinion are of a type reasonably relied on by experts in the field. The party offering the expert must prove by a preponderance of the evidence that the proffered testimony satisfies the requirements for expert testimony.[5]

Vermeer's Motion to Exclude Testimony by Plaintiffs' Expert Russ Rasnic

The plaintiffs designated Russ Rasnic as an expert[6] to testify about feasible alternative designs that Vermeer could have incorporated into the SC252 stump cutter to reduce the risk of an operator contacting a rotating cutter wheel. According to Rasnic—a mechanical engineer—Vermeer could have incorporated a simple modification—an operator presence system (OPS)—to automatically disengage the cutter wheel drive when the operator leaves the control station, minimizing the possibility that the operator will come into contact with a rotating cutter wheel. The modification requires the installation of a switch onto the swing lever that would require constant pressure to engage the clutch and rotate the cutter wheel. Vermeer moved to exclude Rasnic's testimony on two grounds: (1) that Rasnic is not qualified to render his proposed opinions, and (2) that Rasnic's proposed opinions are unreliable.

Vermeer maintains that Rasnic is not qualified to proffer opinions on design defects or modifications to stump cutters because he does not have the requisite qualifications, experience or training.[7] Vermeer complains that prior to this litigation, Rasnic's experience with stump cutters was limited to using a handlebar stump cutter to cut less than 10 stumps and observing a worker operate a hydraulic stump cutter. Vermeer also complains that since the litigation Rasnic's experience with the SC252 consists of only 2.8 hours of operating a stump cutter. Vermeer further complains that Rasnic has never worked for a manufacturer of stump cutters.

Rule 702 provides that a witness may be qualified as an expert "by knowledge, skill, experience, training, or education... ."[8] Under this rule, "an expert may be qualified on any of the five bases listed. A witness therefore can qualify as an expert even though he lacks practical experience, provided that he has received suitable training or education or has otherwise gained the requisite knowledge or skill." [9] The absence of hands-on experience with the particular equipment is relevant to the determination whether to accept a witness as an expert, but it is not determinative.[10]

The plaintiffs have shown that Rasnic is a qualified mechanical engineer. He earned a Bachelor's and a Master's Degree in mechanical engineering through the University of Arkansas. Rasnic's expertise includes industrial equipment, machine design, hydraulics, guarding, and safety engineering. During his deposition, Rasnic testified that he also has expertise in plant

manufacturing, plant engineering, and warnings and instructions.[11] Rasnic has designed machinery using clutch brakes.[12] He is a member of the American Society of Mechanical Engineers, American Society of Metals, and the National Safety Council.[13] Rasnic was involved in the development of safety standards for loading docks through his affiliation with the Loading Dock Equipment Manufacturer's Section of Material Handling Industry and for lift and tilt tables through the Lift Manufacturer's Product Section of the Material Handling Industry.[14] Rasnic has evaluated a number of machines in his forensic engineering practice for both plaintiffs and defendants.[15] He has tested standards compliance in new products and evaluated machine systems for manufacturers.[16] Rasnic has worked for manufacturers of pallet jacks, lift tables, stackers, dock equipment, load transfer systems, forklift attachments, storm doors and aluminum components, and spark plugs.[17]

Rasnic has used a handlebar stump cutter to cut stumps on his property.[18] He has also observed a hydraulic stump cutter in operation before using one that he modified for purposes of testing the safety feature he recommends in this case.[19] On the day he tested his proposed modification, he cut one stump with the SC252 before the modification and then used the modified stump cutter for the rest of the day to cut about 15 stumps—the run time on the machine was approximately 2.8 hours.[20] Rasnic is familiar with electrical switches that can operate as OPSs[21] and he attested that such switches have been used successfully on forklift attachments for many years.[22]

Rasnic may have limited experience with hydraulically-controlled stump cutters—most likely, a characteristic shared by most mechanical engineers—but his credentials, training, and experience are sufficient to qualify him as an expert on guarding systems for the Vermeer SC252 stump cutter. Rasnic has received suitable training and education and has gained the requisite knowledge and skills to serve as an expert. Rasnic's testimony complies with Rule 702 because his technical and specialized knowledge will assist a jury to understand the evidence or to determine whether feasible alternative designs existed that Vermeer could have been incorporated into the SC252 stump cutter to reduce the risk of an operator contacting a rotating cutter wheel. The amount of time Rasnic has with stump cutters and his experience in designing and manufacturing stump cutters go to the weight of Rasnic's testimony, not to its admissibility.

Vermeer maintains that Rasnic's proposed opinions are unreliable for numerous reasons. Vermeer asks the court to apply the *Daubert* factors[23] to analyze the reliability of Rasnic's opinions. Although the *Daubert* Court was concerned with the reliability of scientific evidence, the Supreme Court later determined that a trial court may also consider one or more of the more *Daubert*

factors in determining the reliability of the testimony of engineers and other experts who are not scientists.[24] The Court instructed that the trial court should use the specific factors identified in *Daubert* where they are reasonable measures of the reliability of expert testimony." [25] In this case, the *Daubert* factors are reasonable measures of reliability if applied to the area of mechanical engineering, but are unreasonable if applied to the design and engineering of stump cutters because of the scarcity of engineers who specialize in stump cutters. Engineers who specialize in stump cutters necessarily work for the manufacturers of stump cutters and would unlikely be available to plaintiffs.

Whether Rasnic's recommendation has been tested.

Vermeer complains that Rasnic failed to adequately test the stump cutter. Specifically, Vermeer complains that: Rasnic tested his proposal only once, Rasnic did not test his proposal to determine whether it would actually reduce injuries, and Rasnic did not test the feasibility of his proposal.

Rasnic's discussion of his test follows:

23. I purchased a waterproof, normally open cable switch and a kit to install it from a forklift dealer.... This type of switch, for similar operator functions, has been in use on forklifts since at least the late 1980s; thus, its utility and function have already been demonstrated through at least two decades of use in the real world.

24. In August of 2006, I rented a Vermeer SC252 stump cutter and installed the electrical switch, attaching the push button of the switch to the sweep lever. The prototype was installed without having to modify the machine except for rewiring. The switch was taped to the handle in lieu of using the heat shrink Wrap provided by the supplier that would have made for a more permanent installation, since the machine used to demonstrate the concept was a rental. The electrical switch accomplished its main purpose and was fitted functionally to the machine in less than ten minutes. This installation of the switch constitutes a concept of a functioning operator presence system on the SC252.

25. I then tested the concept by cutting stumps on my property for the remainder of the day, which was approximately 8 hours in the field. The SC252 continued to effectively and efficiently cut stumps. The use of the switch did not change the functioning of the SC252. In fact, the use of the switch actually improved the functioning of the SC252 because it made stopping quicker and easier when the stump cutter unintentionally got into some metal edging, thereby reducing the damage done to the metal edging.

26. No failures occurred in testing this concept because the functioning and handling remained the same and there was no operator fatigue detected.

27. The main purpose of this redesign was validated with

the concept installed on the machine. Additional testing was unnecessary as a matter of mechanical engineering because this same switch has been utilized in similar applications on forklifts for decades... [26]

This evidence establishes that Rasnic chose a control device that has long been used in other machines, he tested his proposed modification on the same type of machine at issue here, he cut stumps with the modified machine, and explained why further testing was not required. It is difficult to imagine what else Rasnic could have done to test his proposal. The purported deficiencies in Rasnic's testing go to the weight of his testimony, not to the reliability of his proposal.

Whether Rasnic's proposal has been subjected to peer review and publication. Although Rasnic testified that his proposal for modification of the SC252 has not been reviewed by his peers and has not been published, the plaintiffs established that the use of OPS on other machinery has proven to be effective. Requiring peer review and publication for a proposal to modify a stump cutter using a OPS where other machines have used OPSs successfully for many years and where a successful test has been conducted is an unreasonable requirement in determining the reliability of Rasnic's testimony.

Potential error rate. Vermeer complains that Rasnic has presented no proof of rigorous testing that would reveal the potential flaws in his proposed modification.[27] Vermeer maintains that rigorous testing would show that the proposed modification is impractical because it would lead operators to defeat or bypass the switch. Vermeer also complains that Rasnic did not test the modified stump cutter with different types of stumps and under varying conditions. But as Vermeer's authority indicates, error rate is a consideration where there is "a high 'known or potential rate of error.'" [28] Here, the switch used in Rasnic's proposed modification has been used successfully for many years on other types of machines. "The concept of rate or error does not apply... because the immutable laws of physics apply and a properly manufactured mechanical device should function the same in each iteration." [29] Whether a stump cutter with Rasnic's modification would have a high error rate or encourage operators to bypass the constant pressure switch can be fully explored through cross-examination and the presentation of controverting expert testimony.

Whether the modification has attracted widespread acceptance within the relevant engineering community Vermeer complains that Rasnic failed to identify a manufacturer who has incorporated an OPS in a stump cutter and that no regulatory body has required one.[30] The fact that manufacturers have failed to incorporate an OPS does not render Rasnic's proposal unreliable. Rasnic has explained the engineering principles supporting his proposed modification and how those principles have led to the use of OPSs in other types of machines. A jury is

capable of listening to Rasnic's proposal and considering why a manufacturer would choose not to incorporate an OPS.

An expert's opinion is generally admissible so long as the facts and data underlying that opinion are of a type reasonably relied on by experts in the field. The plaintiffs have demonstrated by a preponderance of the evidence that Rasnic's testimony would satisfy the requirements for expert testimony. The motion to exclude Rasnic's testimony should be denied.

Vermeer's Motion to Exclude Testimony by Plaintiffs' Expert Way Johnston

The plaintiffs designated Way Johnston as an expert[31] to testify about the inadequacy of the warnings on the SC252 stump cutter. According to Johnston—a safety engineering consultant—Vermeer was negligent in respect to safety warnings because the warnings about the dangers of a rotating cutter wheel on the actual machine are not presented with the same urgency as the warnings presented in the operator manual.[32] Johnston opines that Vermeer should have designed the stump cutter in such a manner that would have prevented and/or minimized the possibility that an operator might contact a rotating cutter wheel.[33] Johnston also rebuts testimony by Vermeer's expert—Michael L. Gililland—that the incorporation of an OPS on a stump cutter would result in operator fatigue, that the modification would increase the potential for muscular disorders, and that the modification is an ergonomically poor design. Vermeer moved to exclude Johnston's testimony on two grounds: (1) that Johnston is not qualified to render his proposed opinions, and (2) that Johnston's proposed opinions are unreliable.[34]

Vermeer maintains that Johnston is not qualified to render his proposed opinions because Johnston does not have the requisite qualifications, experience or training concerning stump cutters to proffer opinions on modifications to stump cutters.[35] Vermeer complains that Johnston's experience with stump cutters is limited to his observation of the operation of a stump cutters prior to this litigation and to his operation of the stump cutter that Rasnic modified to test the use of an OPS. Although Johnston may have little experience with stump cutters, he has the requisite background to proffer his opinions because his opinions address the human factors aspects of Rasnic's proposal and the adequacy of the warnings on the SC252, not the modification itself

To show that Johnston is qualified as an expert in human factors and product safety warnings, the plaintiffs demonstrated that Johnston is a duly qualified human factors engineering and product safety warnings expert.[36] Johnston earned a Bachelor's Degree in mechanical engineering through the University of Missouri-Rolla, a Master's Degree in industrial

engineering through the University of Missouri-Columbia, and a Doctorate in industrial engineering with emphasis on human factors and ergonomics through Texas Tech University.[37] Johnston has experience in industrial safety engineering, product safety engineering and human factors engineering.[38] He is a registered professional engineer—inactive status—and a certified safety professional. Johnston is a member of multiple engineering societies and has been elected to the Texas Tech University Industrial Engineering Department's "Academy of Industrial Engineers." After working as an engineer, primarily in the oil and gas industry, Johnston taught courses in safety engineering, product safety and human factors at Texas Tech University and Texas A&M University for 24 years. He has experience with a variety of cutting machines that have rotating cutting wheels and stationary blades, to include truck-mounted saws, hand saws, radial arm saws, miter box saws, table saws, large saws used in saw mills, saws used in butcher shops and meat-packing plants, and saws used in lumber yards.[39]

Johnston is familiar with OPSs through his education and teaching.[40] He has experience with OPSs that must be depressed to operate machines, to include riding lawnmowers and ditch witches.[41] He observed the professional operation of a stump cutter,[42] as well as operated the stump cutter that Rasnic modified for about one hour—once before the stump cutter was modified and once after the modification.[43]

Johnston may have limited experience with hydraulically-controlled stump cutters, but his credentials, training, and experience are sufficient to qualify him as an expert on the need to design products in a manner that will prevent or minimize operator injury, the human factors aspects of safety features, and the adequacy of safety warnings. Johnston has received suitable training and education and has gained the requisite knowledge and skills to serve as an expert. Johnston's testimony complies with Rule 702 because his technical and specialized knowledge will assist a jury to understand the evidence and to determine whether Vermeer should have designed the stump cutter in a manner that would have prevented and/or minimized the possibility that an operator might contact a rotating cutter wheel, whether Vermeer was negligent in respect to safety warnings, and whether Rasnic's proposed modification is feasible from a human factors perspective. The amount of experience Johnston has with stump cutters goes to the weight of Johnston's testimony, not to the admissibility of his testimony.

In addition to asserting that Johnston is unqualified, Vermeer also maintains that Johnston's testimony would be unreliable. Most of Vermeer's arguments apply to Rasnic's proposed modification, not to Johnston's opinions about the need to design safe product, the adequacy of warnings on the SC252, and the human factors impact of Rasnic's modification. Consequently, I

address only the arguments that apply to Johnston's opinions about the need to design a safe product, the adequacy of the warnings on the stump cutter, and the human factors impact of the proposed modification. I will use the *Daubert* factors as a guide.

Whether Johnston's opinions have been tested. Vermeer complains that Johnston's testing of Rasnic's proposed modification was insufficient to reveal the infeasibility of the modification because use of an OPS will result in operator hand fatigue. Vermeer also complains that Johnston's one hour of testing failed to demonstrate that different warnings would actually reduce injuries. These arguments are based on little more than the conflicting opinions of Johnston and Vermeer's expert, Gililland. Johnston operated a unmodified SC252 and then operated a SC252 modified with Rasnic's proposal. He testified that he saw no problems from a human factors or ergonomic standpoint with having to depress the constant pressure switch during the operation of the modified SC252.[44] He opined that the use of the OPS was an effective safety device—the only acceptable safety device—for a stump cutter. Whether additional testing would prove Vermeer's hypotheses—that use of an OPS would result in operator hand fatigue and different warnings would not have made a difference—go to the weight of Johnston's opinions, not to the reliability of his testimony.

Whether Johnston's opinions have been subjected to peer review and publication. Vermeer complains that Johnston's theory that an OPS is the only adequate safety device for a stump cutter and that Vermeer's warnings for the SC252 are inadequate have not been published or reviewed by peers.[45] Johnston's affidavit and reports, however, demonstrate that Johnston's opinions are based on well-established principles and methodology in the areas of human factors and products safety warnings.[46] He refers to several leading treatises in these areas to demonstrate that the principles and methodology supporting his opinions are well-established within the applicable scientific and engineering communities. Nothing in Johnston's opinions suggest novel science or untested theories. Nothing about Johnston's opinions suggest the need for further peer review.

Potential error rate. Vermeer's argument about error rate apply to Rasnic's modification, not to Johnston's opinions about the need to design a safe product, the adequacy of the warnings on the stump cutter, and the human factors impact of the proposed modification.[47] I need not address potential error rate.

Whether Johnston's opinions have been accepted within the relevant engineering community. Vermeer further complains that Johnston has failed to identify a manufacturer who has incorporated an OPS into the design of a stump cutter and no regulatory body requires an OPS.[48] The relevant point here is whether a manufacturer should incorporate an OPS into the design

of a stump cutter, not whether a manufacturer has incorporated an OPS into the design of a stump cutter. The use of OPSs has been long accepted in the design of other dangerous machines. Vermeer will have its opportunity at trial to explain why it chose not to use an OPS.

The plaintiffs have demonstrated that Johnston's opinions are based on principles and methodology of the type reasonably relied on by experts in the fields of human factors and products safety warnings. The plaintiffs have demonstrated by a preponderance of the evidence that Johnston's testimony satisfies the requirements for expert testimony. The motion to exclude Johnston's testimony should be denied.

The Plaintiffs' Motions to Exclude Vermeer's Expert Michael Gililland

Vermeer designated Gililland as an expert to rebut the plaintiffs' expert testimony about the need for an OPS and to testify about the adequacy of the warnings on the SC252. According to Gililland—an electrical engineer—Rasnic's proposal to add a constant pressure switch to the SC252 is an ergonomically poor design that will lead to operator fatigue and premature failure of the clutch.[49] In his expert's report, Gililland opined that the addition of the constant pressure switch will cause operators to defeat the switch.[50] Gililland also opined that the SC252 is not unreasonably dangerous and the warnings on the machine are adequate.[51]

After receiving Gililland's report, the plaintiffs deposed Gililland. During his deposition, Gililland explained that he was testifying in this case in the areas of safety engineering and human factors engineering.[52] Gililland testified that since preparing his report, he had interviewed five people who had participated in a Vermeer test of a SC252 stump cutter modified with Rasnic's proposal.[53] Because Vermeer's test involved five operators, the parties refer to the test as the 5-user test. Gililland stated that his interviews confirmed the opinions expressed in his expert report.[54]

The plaintiffs have moved to exclude Gililland's testimony about the 5-user test.[55] The plaintiffs complain that Vermeer failed to supplement Gililland's report and that the plaintiffs did not learn about the 5-user test until after the discovery period had closed, leaving them unfairly surprised by the new information. In response, Vermeer characterizes Gililland's deposition testimony about the 5-user test as a supplementation of his expert report.[56] Vermeer maintains that supplementation was timely because Gililland's deposition occurred 30 days prior to trial.

Rule 26 of the Federal Rules of Civil Procedure requires a party who designates an expert witness to submit a written report prepared and signed by the expert.[57] The report must include a complete statement

of all opinions that the expert will express and their bases and reasons.[58] The rule also requires a party to supplement discovery disclosures and responses upon learning that a disclosure or response is incomplete.[59] The advisory committee notes suggest that supplementation can be accomplished in writing or by deposition.[60] "With respect to testimony of an expert from whom a report is required ... the duty [to supplement] extends both to information contained in the report and to information provided through a deposition of the expert, and any additions or other changes to this information shall be disclosed by the time the party's disclosures under Rule 26(a)(3) are due."

Rule 26(a)(3) applies to pretrial disclosures. Under Rule 26(a)(3), disclosures—and thus supplementation—must be made at least 30 days before trial. In this district, the court ordinarily sets the deadline for pretrial disclosures in the scheduling order. In this case, the scheduling order does not schedule a date for trial or a date for pretrial disclosures, making the "at least 30 days before trial" deadline applicable. In the absence of a trial date, the supplementation may have been timely even though it occurred outside the discovery period. Assuming the supplementation through deposition was timely, there are still problems with Gililland's testimony about the 5-user test.

Rule 703 of the Federal Rules of Evidence anticipates that experts may rely on three sources of information to form their opinions: (1) first-hand observation by the witness, (2) presentation at trial, and (3) presentation of data to the expert outside of court and other than by his own perception.[61] Gililland's testimony about the 5-user test falls within the third category because Gililland did not participate in, or observe, the 5-user test. Gililland's knowledge of the 5-user test was presented by Vermeer outside of court and was obtained by interviewing the five operators. Testimony about that knowledge constitutes hearsay because Vermeer seeks to use statements by the five operators to support the opinions in Gililland's report—that Rasnic's proposal to add a constant pressure switch to the SC252 is an ergonomically poor design that will lead to operator fatigue, causing an operator to defeat the switch. Ordinarily, such statements constitute inadmissible hearsay because they were not made while testifying at the trial of this case and are offered to prove the truth of Gililland's opinions. But under Rule 703, "an expert can discuss as the basis for an opinion facts or data which are otherwise inadmissible hearsay, [i]f of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject." [62] Whether this standard is satisfied is determined on a case-by-case basis and focuses "on the reliability of the opinion and its foundation rather than merely on the fact that it was based, technically speaking, upon hearsay." [63]

In this case, Vermeer has not shown that Gililland's

testimony about his interviews with the five operators are of a type reasonably relied upon by experts in his field. First, Gililland had no control over the test. Gililland did not modify the SC252 stump cutters used in the 5-user test, he did not observe the modification of the stump cutters, he did not know who modified the stump cutters, and he did not know who took his photos of the modified machines. Gililland testified that Ivan Brand—Vermeer's senior technical coordinator for product safety—arranged the test. Gililland stated that he did not know how Vermeer selected the operators for the test and explained that he had no contact with the five operators until after they had completed their use of the machine. Gililland did not record the interviews with the five operators, but instead he recorded the interviewees' answers to his questions on a checklist form. In at least two circumstances, the checklist suggested the desired answer. For example, one question asked, "On a scale of 1 -10, which number in your opinion best describes the extent to which the device was easy to use or difficult to use with 1 being very easy to use and 10 being impossible to use for extend [sic] periods." Another question asked, "On a scale of 1 -10, which number in your opinion best describes the probability that users would defeat the system with 1 being very unlikely and 10 being very likely." These questions seek responses to support the opinions in Gililland's report—that Rasnic's proposal to add a constant pressure switch to the SC252 is an ergonomically poor design that will lead to operator fatigue, causing an operator to defeat the switch. Finally, Gililland's testimony is based on information about a test developed and conducted by his client in anticipation of litigation. Although Vermeer insists that Gililland was involved in the development of the test, common sense casts a shadow of skepticism over the reliability of an expert opinion where the expert relies on facts and data provided by his client in anticipation of litigation, rather than from personal observation. Without observing the operators test the modified stump cutters, Gililland cannot compare how the machine was operated before the modification with how it was operated after the modification, or confirm whether the switch was defeated. Without more involvement in the 5-user test, the hearsay information that forms the basis of Gililland's opinions about the 5-user test cannot be considered to be of the type reasonably relied upon by experts in the safety engineering and human factors engineering fields in forming opinions about the ergonomics of a proposed modification or the likelihood that an operator would defeat the proposed modification. Gililland's testimony about the 5-user test should be excluded.

In addition to seeking to exclude Gililland's testimony about the 5-user test, the plaintiffs moved to exclude Gililland's remaining testimony on two grounds: (1) that Gililland is not qualified to testify on the issues in the case, and (2) that Gililland's testimony is unreliable.[64] The plaintiffs maintain that Gililland is not qualified because he is an electrical engineer and no

issue in this case relates to electrical engineering. Instead, the plaintiffs maintain that the relevant issue—whether the incorporation of an OPS is a feasible alternative safer design for the SC252—relates to mechanical engineering. In addition, the plaintiffs argue that Gililland's failure to consider how Rasnic's proposal could be designed in an ergonomically appealing manner demonstrates that he is not qualified to offer opinions in the areas of human factors and safety engineering.

Vermeer has shown the Gililland has over 30 years of experience in the design, manufacture, and safety management of mechanical and electrical devices and systems.[65] Gililland received a Bachelor's Degree in electrical engineering through Louisiana Tech University. Gililland is a registered professional engineer and a certified safety professional in product safety. He is a member of the Human Factors and Ergonomics Society, American Society of Safety Engineers, National Society of Professional Engineers, and National Fire Protection Association. Gililland serves as the chair of the American National Standard Committee for Industrial Woodworking Machinery and has participated on standards committees for organizations such as the American National Standards Institute, Northwest Forest Fire Protection Association, Underwriters Laboratories, Consumer Product Safety Commission, and Canadian Standards Association.[66]

Gililland has designed and managed the design of various consumer and industrial power tools and machines.[67] He has experience in the design of mechanical devices similar to the stump cutter.[68] His employment at Beaird-Poulan (1972-80), Aircap Industries (1985-88), and Emerson Electric Special Products Division (1988-94) involved designing mechanical devices and supervising the design of mechanical devices.[69] During that time, Gililland was the chief design engineer and/or the safety engineer for products such as hydraulic log splitters, chain saws, lawn mowers, tillers, and various woodworking saws with rotating cutters.[70] Gililland's design experience includes the application of ergonomics and human factors. He has written operating manuals and on-product warnings and instruction labels for numerous products.[71]

Gililland also has experience with stump cutters and OPSs. He operated a Vermeer SC252 for personal use prior to becoming involved in this lawsuit. Gililland has evaluated handlebar stump cutters and has cut stumps with such stump cutters. He has evaluated and operated a hydraulically-controlled stump cutter manufactured by Rayco. Gililland has operated stump cutters on approximately six different occasions, for over forty hours, and has cut 35 to 50 stumps.[72] Gililland has tested OPS concepts as applied to stump cutters and has designed OPSs for tillers, riding law mowers, walk

behind lawn mowers, and a radial arm saw.[73]

Gililland is not a mechanical engineer, but his education, training, and experience in the design, manufacture, and safety management of mechanical and electrical devices, and his experience with stump cutters and OPSs, qualify him to testify as an expert in the areas of human factors and products safety engineering. Gililland's testimony complies with Rule 702 because his technical and specialized knowledge will assist the jury in understanding the evidence and to determine whether Rasnic's proposal to add a constant pressure switch to the SC252 is an ergonomically poor design that will lead to operator fatigue and premature failure of the clutch. Gililland's education as an electrical engineer goes to weight of Gililland's testimony, not to the admissibility of his testimony.

In his report, Gililland analyzed purported facts of Mr. Hyde's accident and concluded that Mr. Hyde was negligent in causing the accident. The plaintiffs maintain that Gililland's analysis of fact evidence is unreliable because Gililland did not inspect the accident scene and has not reconstructed the accident. The plaintiffs also complain that Gililland's conclusions about Mr. Hyde's purported negligence lack foundation.

The failure to inspect the accident scene and to reconstruct the accident do not preclude Gililland from analyzing the facts of the accident. Gililland reviewed the photographs taken of the accident scene on the day of the accident, he inspected the stump cutter, he read the reports and depositions of people at the accident, and tested a stump cutter with Rasnic's proposed modification. So long as he is clear about the bases of his analysis, Gililland can testify about facts of the case. He cannot, however, testify about his conclusions about the respective negligence of the parties.

In his report, Gililland advances several opinions about why Mr. Hyde's actions constituted negligence and why Vermeer was not negligent. Some of those opinions are listed below:

[Mr. Hyde] was negligent in one of two ways.

Defendant Vermeer manufacturing was not negligent in the design, manufacture, sale, and marketing of the model SC252 stump cutter.

Hiram B. Hyde was negligent in his operation of the SC252 stump cutter. It was his negligence and his failure to take reasonable care for his own safety that resulted in his accident on March 24, 2004.

These opinions are legal conclusions that Gililland is not qualified to advance. The jury will determine the negligence of the parties in the trial of this case. Although Vermeer asserts that Gililland can testify about these conclusions because Mr. Hyde had raised the cutter-wheel guard bar before his accident and raising the

guard bar constitutes misuse of the stump cutter, whether the guard bar was in place is a determination for the jury in its consideration of the evidence. Gililland should not be permitted to testify about his conclusions about the respective negligence of the parties.

The plaintiffs next complain about Gililland's testimony that: (1) inadvertent release of the Rasnic switch will cause the cutter wheel to stop while imbedded in the stump, thereby damaging the clutch; (2) the Rasnic switch will cause fatigue and musculo-skeletal injuries such as tendinitis, arthritis, nerve damage, and Raynaud's syndrome; (3) operators will find the Rasnic switch so undesirable that they will defeat the switch; (4) inadvertent contact will increase the hazards and risks presented by the SC252 stump cutter; and (5) the Rasnic switch will cause a longer stopping time when the cutter wheel is engaged. The plaintiffs maintain that Gililland has no basis for these opinions except for his subjective beliefs.

In response, Vermeer relies on Gililland's interviews with the five operators who participated in the 5-user test to explain why Gililland is qualified to testify that the Rasnic switch will cause fatigue and musculo-skeletal injuries and that operators will find the Rasnic switch so undesirable that they will defeat the switch. For the reasons discussed above, Gililland's testimony about the 5-user test should be excluded. Without testimony about the 5-user test, the opinions are unsupported. While Gililland can testify that he found the use of the Rasnic switch tiring and that he considered defeating the switch to avoid fatigue, he offered no basis to support such opinions as to operators in general. "[A] district court [is not required] to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert."^[74] In this case, there is an analytical gap between the facts of the case and Gililland's opinions that the Rasnic switch will cause fatigue and musculo-skeletal injuries and that operators will find the Rasnic switch so undesirable that they will defeat the switch. Testimony about these two opinions should be excluded.

As for the other challenged testimony—that inadvertent release of the Rasnic switch will cause the cutter wheel to stop while imbedded in the stump, thereby damaging the clutch; that inadvertent contact will increase the hazards and risks presented by the SC252 stump cutter; and that the Rasnic switch will cause a longer stopping time when the cutter wheel is engaged—Gililland's experience as an engineer and his experience in product design provide a sufficient basis for him to testify about those matters.

Recommendations

The plaintiffs have demonstrated by a preponderance of the evidence that Rasnic's testimony satisfies the requirements for expert testimony; therefore, I recommend DENYING the motion to exclude Rasnic's

testimony (docket entry # 38). They have also demonstrated that Johnston's testimony satisfies the requirements for expert testimony, so I recommend DENYING the motion to exclude Johnston's testimony (docket entry # 45). Vermeer, however, has failed to demonstrate that all of Gililland's testimony satisfies the requirements for expert testimony. I recommend GRANTING the plaintiffs's motion to strike Gililland's testimony about the 5-user test (docket entry # 94). I recommend GRANTING in part and DENYING in part the plaintiffs' motion to exclude Gililland's remaining testimony (docket entry # 66), such that Gililland's testimony about the following is excluded: (1) Gililland's conclusions about the respective negligence of the parties, (2) his opinion that the Rasnic switch will cause fatigue and musculoskeletal injuries, and (3) his opinion that operators will find the Rasnic switch so undesirable that they will defeat the switch.

Instructions for Service and Notice of Right to Object/Appeal

The United States District Clerk shall serve a copy of this memorandum and recommendation on all parties who have entered an appearance, by either (1) electronic transmittal to all parties represented by attorneys registered as a "Filing User" with the Clerk of Court, or (2) by mailing a copy to those not registered by certified mail, return receipt requested. Written objections to this Memorandum and Recommendation must be filed within 10 days after being served with a copy of same, unless this time period is modified.^[75] **Such party shall file the objections with the Clerk of the Court, and serve the objections on all other parties and the Magistrate Judge.** A party filing objections must specifically identify those findings, conclusions or recommendations to which objections are being made and the basis for such objections; the district court need not consider frivolous, conclusive or general objections. A party's failure to file written objections to the proposed findings, conclusions and recommendations contained in this report shall bar the party from a *de novo* determination by the district court.^[76] Additionally, failure to file timely written objections to the proposed findings, conclusions and recommendations contained in this Memorandum and Recommendation shall bar the aggrieved party, except upon grounds of plain error, from attacking on appeal the unobjected-to proposed factual findings and legal conclusions accepted by the district court.^[77]

NANCY STEIN NOWAK, United States Magistrate Judge

Notes:

[1] Docket entry #s 38, 45, 66 & 94.

[2] Docket entry # 53.

- [3] Docket entry # 1.
- [4] Docket entry # 85.
- [5] *See Mathis v. Exxon*, 302 F.3d 448,459-60 (5th Cir. 2002).
- [6] Docket entry # 27.
- [7] Docket entry # 38, pp. 1 & 6-7.
- [8] Fed. R. Evid. 702.
- [9] *Lavespere v. Niagara Mach. & Tool Works*, 910 F.2d 167, 176-7 (5th Cir. 1990).
- [10] *Lavespere*, 910 F.2d at 117.
- [11] Docket entry # 46, exh. B, p. 62.
- [12] *Id.* at pp. 67-8.
- [13] *Id.* at p. 94.
- [14] *Id.* at pp. 94-95.
- [15] *Id.* at pp. 81-90.
- [16] *Id.* at pp. 90-1.
- [17] *Id.* at pp. 92-3.
- [18] *Id.* at pp. 7-8.
- [19] *Id.* at p. 9.
- [20] *Id.* at p. 15.
- [21] *Id.* at pp. 17-25.
- [22] Docket entry # 46, exh. C, 123.
- [23] *See Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 593-8 (1993) (explaining that many considerations bear on determining the reliability of scientific evidence, including whether the theory has been tested, whether the theory has been subjected to peer review and publication, the known or potential error rate and the existence and maintenance of standards controlling its operation, and whether the theory has attracted widespread acceptance within a relevant scientific community).
- [24] *See Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999).
- [25] *Kumho Tire Co.*, 526 U.S. at 152.
- [26] Docket entry # 46, exh. C.
- [27] Docket entry # 38, p. 12.
- [28] *Black v. Food Lion*, 171 F.3d 308, 311 (5th Cir. 1999).
- [29] Docket entry # 46, exh. C, ¶ 32.
- [30] Docket entry # 38, p. 13.
- [31] Docket entry # 27.
- [32] Docket entry # 45, exh. M, ¶ 116.
- [33] *Id.* at 115.
- [34] Docket entry # 45.
- [35] *Id.* at pp. 5-7.
- [36] Docket entry # 54, exh. E., ¶¶ 5-12.
- [37] *Id.* at exh. E, appx A.
- [38] *Id.*
- [39] Docket entry # 45, exh. K, pp. 14-5.
- [40] Docket entry # 54, exh. E.
- [41] Docket entry 45, exh. K, pp. 20-1.
- [42] Docket entry # 45, exh. D, p. 12.
- [43] *Id.* at pp. 9-11.
- [44] Docket entry # 45, exh. K, p. 16.
- [45] Docket entry # 45, p. 13.
- [46] Docket entry # 54, exh. E.
- [47] Docket entry # 45, p. 14.
- [48] *Id.* at p. 15.
- [49] Docket entry # 94, exh. A, p. 6.
- [50] *Id.*
- [51] *Id.* at p. 11.
- [52] Docket entry # 94, exh. B, p. 20.
- [53] *Id.* at pp. 62-5.
- [54] *Id.*
- [55] Docket entry # 94.
- [56] Docket entry # 96.
- [57] See Fed. R. Civ. P. 26(a)(2)(B).
- [58] *See id.*
- [59] See Fed. R. Civ. P. 26(e).
- [60] The advisory committee note states the following:

"Revised subdivision (e)(1) requires disclosure of any material changes made in the opinions of an expert from whom a report is required, whether the changes are in the written report or in the testimony given at a deposition.. ... There, is however, no obligation to provide supplemental or corrective information that has been otherwise made known to the parties in writing or during the discovery process, as ... when an expert during deposition corrects information contained in an earlier report." Committee note of 1993 to Rule 26.

[61] See the Advisory Committee Notes for Rule 703 for the 1972 proposed rules.

[62] *Soden v. Freightliner Corp.*, 714 F.2d 498, 502 (5th Cir. 1983) (quoting rule 703).

[63] *Soden*, 714 F.2d at 503.

[64] Docket entry # 66.

[65] Docket entry # 83, exh. A.

[66] *Id.*

[67] *Id.*

[68] Docket entry # B, pp. 143-5.

[69] Docket entry # 83, Gililland's affidavit, ¶ 3.

[70] *Id.* at ¶ 4; Docket entry # 83, exh. B, pp. 143-4.

[71] Docket entry # 83, Gililland's affidavit, ¶ 5.

[72] Docket entry # B, pp. at 84,141-2.

[73] *Id.* at pp. 74-75

[74] *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997).

[75] 28 U.S.C. § 636(b)(1); Fed. R. Civ. P. 72(b).

[76] *Thomas v. Arn*, 474 U.S. 140, 149-152 (1985); *Acuna v. Brown & Root, Inc.*, 200 F.3d 335, 340 (5th Cir. 2000).

[77] *Douglass v. UnitedServs. Auto. Ass'n*, 79 F.3d 1415,1428-29 (5th Cir. 1996).
