

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF ILLINOISRUSS STALLINGS, Administrator of the Estate of
RICHARD R. STALLINGS, Deceased,

Plaintiff,

v.

THE BLACK & DECKER CORPORATION,
formerly known as THE BLACK & DECKER
MANUFACTURING COMPANY, and BLACK &
DECKER (U.S.) INC.,

Defendants.

Case No. 06-cv-4078-JPG

MEMORANDUM AND ORDER

This matter comes before the Court on the motion for summary judgment filed by defendant Black & Decker (U.S.), Inc. (“Black & Decker”) (Doc. 73). That motion depends in part on Black & Decker’s contemporaneous motion to exclude the testimony of Stan Johnson (“Johnson”), one of the plaintiff’s expert witnesses (Doc. 75). Plaintiff Russ Stallings, administrator of the estate of Richard R. Stallings (“Stallings”), has responded to the motion for summary judgment (Doc. 78) and the motion to exclude Johnson’s testimony (Doc. 79), and Black & Decker has replied to those responses (Docs. 87 & 84). Black & Decker has also requested a hearing on the pending motions (Doc. 76), to which the plaintiff has objected (Doc. 80), and has moved to strike portions of the plaintiff’s evidence (Doc. 83), to which the plaintiff has not responded.

The Court held a hearing on August 13, 2008, pursuant to *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), at which Johnson was called as a witness. That hearing rendered Black & Decker’s motion for a hearing (Doc. 76) moot. In a summary order

dated August 27, 2008 (Doc. 100), the Court granted Black & Decker's motion to exclude Johnson's testimony (Doc. 75) and motion for summary judgment (Doc. 73). This order provides the rationale for those rulings.

I. Summary Judgment Standard

Summary judgment is appropriate where “the pleadings, the discovery and disclosed materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(c); *see Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986); *Spath v. Hayes Wheels Int'l-Ind., Inc.*, 211 F.3d 392, 396 (7th Cir. 2000). The reviewing court must construe the evidence in the light most favorable to the nonmoving party and draw all reasonable inferences in favor of that party. *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986); *Chelios v. Heavener*, 520 F.3d 678, 685 (7th Cir. 2008); *Spath*, 211 F.3d at 396. Where the moving party fails to meet its strict burden of proof, a court cannot enter summary judgment for the moving party even if the opposing party fails to present relevant evidence in response to the motion. *Cooper v. Lane*, 969 F.2d 368, 371 (7th Cir. 1992).

In responding to a summary judgment motion, the nonmoving party may not simply rest upon the allegations contained in the pleadings but must present specific facts to show that a genuine issue of material fact exists. Fed. R. Civ. P. 56(e)(2); *Celotex*, 477 U.S. at 322-26; *Johnson v. City of Fort Wayne*, 91 F.3d 922, 931 (7th Cir. 1996). A genuine issue of material fact exists only if “a fair-minded jury could return a verdict for the [nonmoving party] on the evidence presented.” *Anderson*, 477 U.S. at 252; *accord Michas v. Health Cost Controls of Ill., Inc.*, 209 F.3d 687, 692 (7th Cir. 2000).

II. Background

A. Motion to Strike (Doc. 83)

As a preliminary matter, the Court addresses Black & Decker's motion to strike (Doc. 83) portions of the transcript of the White County coroner's inquest into the cause of Stallings's death, which the plaintiff has submitted in support of his responses to Black & Decker's motions for summary judgment and to exclude Johnson's testimony. The plaintiff has not responded to the motion.

Black & Decker argues that parts of the testimony do not satisfy the requirements of Rule 56(e)(1): "A supporting or opposing affidavit must be made on personal knowledge, set out facts that would be admissible in evidence, and show that the affiant is competent to testify on the matter stated." Specifically, the three witnesses at the inquest, none of whom were present at Stallings's death, expressed their personal theories about the events that could have led to his death even though they had no personal knowledge of those events. They were not tendered as or qualified to be experts on the subjects under Federal Rule of Evidence 702, and their opinions have not been shown to qualify as admissible lay opinions under Federal Rule of Evidence 701. Furthermore, the White County Coroner Carl McVey ("McVey"), was not sworn as a witness and made statements about which he had no personal knowledge.

For these reasons, the Court will grant Black & Decker's motion to strike (Doc. 83) and will exclude all statements in the coroner's inquest transcript that are not sworn or that are not based on personal knowledge. It will, however, consider inquest witnesses' sworn statements based on their personal knowledge.

B. Facts

Viewing the remaining relevant evidence and drawing all reasonable inferences in the

plaintiff's favor, the Court finds the following facts for the purposes of this motion.

On April 17, 1991, at approximately 6:30 p.m., the decedent's uncle, Rex Stallings, found the decedent's lifeless body on the floor of a shed on Rex Stallings's farm amid splatters of blood. Stallings was face down on top of a piece of oriented strand board ("OSB"), a type of particle board, and there were massive amounts of blood around him. A portable circular saw manufactured by Black & Decker was on a nearby workbench and had blood on it. The saw was plugged into an electrical outlet. White County Sheriff's Deputy David Burroughs picked up the saw when he arrived on the scene, then later, at the direction of McVey, replaced it where he found it. Photographs were taken of Stallings as he was found, after he was turned over on his back and after his body was taken to a funeral home. McVey also removed and photographed the OSB on which Stallings was found, which had a straight cut in it beginning from one side and stopping in the middle of the board. A note was found on Stallings's person indicating that Stallings had planned to repair hog feeders and do other chores. McVey determined that Stallings had died from blood loss caused by a throat laceration an inch or more deep and three to four inches wide in the area of Stallings's carotid arteries. All parties agree that the laceration was caused by the saw blade coming into contact with Stallings's throat.

The circular saw found at the scene of the incident did not have a riving knife to prevent or lessen kickback. In a portable circular saw, kickback occurs when the rotating saw blade becomes bound by the material being cut, causing the rotational force of the motor to propel the saw suddenly back toward the saw operator. It can occur when sawing into a knot or nail or cutting not in a straight line. A riving knife reduces the ability of the material being cut to bind the blade and cause kickback. Portable circular saws sold in the United States generally do not have riving knives, although such saws are available, but those sold in numerous other countries

generally do.

Since the accident over seventeen years ago, the OSB found under Stallings's body and the note found in his pocket have been lost and the shed in which Stallings was found has been torn down.

C. The Litigation

On April 12, 1993, the administrator of Stallings's estate filed a lawsuit in state court. The case against Black & Decker was tried and Black & Decker prevailed, but the Illinois Appellate Court remanded the case for retrial. Before it could be tried again, on April 1, 2005, the suit was dismissed without prejudice. On March 22, 2006, the plaintiff filed another complaint in state court, and the case was removed to this Court. The only counts remaining are claims for negligence and strict liability against Black & Decker based on an alleged design defect, namely, the failure of the saw to have a riving knife or an anti-kickback device that would prevent the saw from kicking back and would act as a guard and protect from injuries.

The plaintiff has two expert witnesses: Bruce Levy, M.D., a forensic pathologist and death scene investigator, and Stan Johnson, a design engineer and power tool accident reconstructor.

Dr. Levy opined that Stallings died from blood loss following a wound to his neck and throat made by the Black & Decker portable circular saw found on the scene and that Stallings had been using the saw to cut a board when he was suddenly and accidentally cut by the saw and fell on top of the board. Dr. Levy further concluded that Stallings did not die immediately after the accident but bled to death over a period of 3 to 20 minutes, possibly longer.

In a report dated October 29, 2007, Johnson stated that Stallings was killed while cutting a piece of OSB and opined that the saw had kicked back and rotated approximately 90 degrees

by pivoting on Stallings's wrist, elbow and shoulder and then had come into contact with his neck quicker than the blade guard was able to close. He noted that "[t]he propensity of circular saws to kickback during sawing is well documented in safety standards, instruction manuals, patents, and anti kickback circular saw designs worldwide." He based his opinion that kickback had occurred on (1) his conversation with Dr. Levy, (2) McVey's report and the coroner's inquest transcript, which contained inadmissible speculation from the witnesses that kickback had caused the accident and (3) his own re-enactment of the events leading to Stallings's death. Johnson further stated that "riving knives are a proven solution to kickback."

Although at the time he had not tested any portable circular saws for kickback and had not used a saw with a riving knife, he stated in his report that he had tested a Black & Decker portable circular saw with a riving knife and that it was not detrimental to the saw's function. Johnson later admitted that this statement in his report was incorrect because he had, in fact, not performed any such test at the time of the statement. Johnson further concluded that the inclusion of a riving knife in models sold outside the United States proves it is technologically and economically feasible to incorporate a riving knife into Black & Decker portable circular saws sold in the United States and that the absence of a riving knife and two other anti-kickback devices (a blade brake and a blade clutch) rendered the saw defective and unreasonably dangerous. He concluded, "There is a reasonable probability that Richard Stallings [*sic*] fatal injury would not have occurred had his Black & Decker saw not kicked back."

In a letter dated December 4, 2007, Johnson further opined that because of the length of the cord, Stallings must have been standing up, facing the board, steadying the board vertically on the floor with his left hand while making a downward cut with the saw in his right hand.

In his December 10, 2007, deposition, Johnson admitted that he had conducted his first

and only test of a portable circular the week before the deposition. In that test, he compared a Festool brand saw with a riving knife to his own Black & Decker saw (a different but similar model to Stallings's saw) without a riving knife to assess their relative tendency to kick back or bind and to see if the riving knife inhibited the performance of the saw. The test was the first time he had used a portable circular saw with a riving knife. In that test, Johnson cut four S-curves in OSB with each saw. He believed cutting curves, as opposed to straight lines, was the "typical way a circular saw would bind and/or kick back" and that a straight line cut "wouldn't prove much of anything" as far as saw performance. Johnson Dep. at 63-64. He described the test as "strictly a feel test" to see if he could "feel a difference between the two saws and whether the riving knife felt any different." *Id.* at 65. He made no notes or recording of the testing, but observed that the blade of the Black & Decker saw without the riving knife bound twice but the blade of the Festool with the riving knife did not bind at all. *Id.* at 65-66. Johnson was able to prevent the Black & Decker saw from kicking back by holding onto it tightly once he felt the blade begin to bind. *Id.* at 66. He concluded that the riving knife was not detrimental to the quality of the saw. *Id.* at 68. He drew no conclusions about the relative tendency of the saws to kick back based on this test. *Id.* at 68-69.

In his deposition testimony, Johnson also opined that the kickback was caused by a misalignment of the blade in the kerf line, not by a closure of the kerf, *id.* at 90, 93, 123, and that a riving knife would have prevented the kickback. He also stated he assumed Stallings had been cutting the board at the time of the accident because of the note in his pocket indicating he was going to repair hog feeders. *Id.* at 57.

Johnson also signed an affidavit on February 15, 2008, in which he states that the materials he consulted demonstrate it is well-known and reliably accepted in the field of power

tool design/engineering that kickback can occur when a portable circular saw does not have a riving knife and that a riving knife prevents portable circular saw kickback. He also reiterates that his accident reconstruction opinion is based on the testimony adduced at the coroner's inquest (some of which has been excluded by the Court as hearsay, made without personal knowledge or unsworn), and he added the details that Stallings was standing facing the board, steadying it with his left hand while making a downward cut with the saw in his right hand, when the saw kicked back.

At the August 13, 2008, hearing, Johnson testified about his qualifications to render his expert opinions and expanded on and explained his opinions and their bases.

Black & Decker asks the Court for summary judgment on both counts because it believes the plaintiff cannot prove the portable circular saw in question was defective or that the alleged defect caused Stallings's injury and subsequent death without Johnson's expert testimony, and it believes Johnson's testimony is inadmissible under Federal Rule of Evidence 702 as well as *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and its progeny.

The plaintiff argues that Johnson is qualified to give the opinions he has given and that those opinions are based on sufficient facts, are the product of reliable principles and methods applied reliably to the case.

IV. Analysis

In Illinois, a manufacturer has a nondelegable duty to produce a product that is reasonably safe. *Hansen v. Baxter Healthcare Corp.*, 764 N.E.2d 35, 43 (Ill. 2002); *Anderson v. Hyster Co.*, 385 N.E.2d 690, 692 (Ill. 1979); *see* Restatement (Second) of Torts § 402A (1965). Under Illinois law, in order to succeed on a claim for negligence or strict liability for a design defect, a plaintiff must prove (1) "the existence of a defective condition in the product at the time

it left the manufacturer's control," and (2) "a causal link between the alleged design defect ... and [the plaintiff's] injury." *Fuesting v. Zimmer, Inc.*, 421 F.3d 528, 532 (7th Cir. 2005), (internal citations and quotations omitted), *vacated in part on other grounds*, 448 F.3d 936 (7th Cir. 2006), *cert. denied*, 127 S. Ct. 1151 (2007); *see Suvada v. White Motor Co.*, 210 N.E.2d 182, 188 (Ill. 1965), *overruled in part on other grounds*, *Dixon v. Chicago & N.W. Transp. Co.*, 601 N.E.2d 704, 711 (Ill. 1992); *Miller v. Rinker Boat Co.*, 815 N.E.2d 1219, 1240-41 (Ill. App. Ct. 2004); *Carrizales v. Rheem Mfg. Co.*, 589 N.E.2d 569, 580 (Ill. App. Ct. 1991). The first element is shown in a strict liability case by establishing that the product is unreasonably dangerous and in a negligence case by showing that the product was negligently designed. *See Carrizales*, 589 N.E.2d at 580. One of the ways a plaintiff can prove a product is unreasonably dangerous – indeed the method the plaintiff in this case has chosen – is to show that there is “an alternative design that would have prevented the injury and was feasible in terms of cost, practicality and technological possibility.” *Hansen*, 764 N.E.2d at 45.

The plaintiff offers Johnson's expert testimony to show the saw was unreasonably dangerous or negligently designed and to re-enact the incident in order to establish proximate cause.

Black & Decker argues that Johnson is not qualified to render an expert opinion about the saw design or to reconstruct the incident and has offered opinion testimony that is not based on sufficient facts or data and that is not the product of reliable principles or methods reliably applied to the facts of this case. Without Johnson's testimony, Black & Decker argues, there is no genuine issue of material fact with respect to the existence of a design defect or proximate cause.

A. Design Defect

Because products liability actions often involve specialized knowledge or expertise outside the layperson's knowledge, they generally require expert testimony to establish a design defect. *Baltus v. Weaver Div. of Kidde & Co.*, 557 N.E.2d 580, 588-89 (Ill. App. Ct. 1990) (citing *Pease v. Ace Hardware Home Ctr.*, 498 N.E.2d 343 (Ill. App. Ct. 1986); *Sutkowski v. Universal Marion Corp.*, 281 N.E.2d 749 (Ill. App. Ct. 1972)). The case at bar involves specialized knowledge about the design of portable circular saws, which is outside the scope of a layperson's knowledge. Accordingly, expert testimony will not only be helpful to the jury but will be required to establish a design defect in the saw in question.

Admissibility of expert testimony is governed by Federal Rule of Evidence 702, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and its progeny. In *Daubert*, the Supreme Court held that Federal Rule of Evidence 702 did not incorporate the "general acceptance" test set forth in *Frye v. United States*, 54 App. D.C. 46 (D.C. Cir. 1923). Instead, the Court held that Rule 702 required district judges to be gatekeepers for proposed scientific evidence. *Daubert*, 509 U.S. at 589; *see also General Elec. v. Joiner*, 522 U.S. 136, 142 (1997). For scientific evidence to be admissible, the Court found, a district court must find it both relevant and reliable; it must be scientific knowledge grounded "in the methods and procedures of science" and consist of more than "subjective belief or unsupported speculation." *Daubert*, 509 U.S. at 589-90.

In 2000, Rule 702 was amended in response to *Daubert*. *United States v. Conn*, 297 F.3d 548, 555 (7th Cir. 2002). In its current form, it reads as follows:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify

thereto in the form of an opinion or otherwise, 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.

Fed. R. Evid. 702.

When dealing with scientific evidence, the preliminary question is “whether the reasoning or methodology underlying the testimony is scientifically valid and . . . whether that reasoning or methodology properly can be applied to the facts in issue.” *Daubert*, 509 U.S. at 592-93. Considerations pertinent to this inquiry include whether a theory or technique is capable of being or has been tested, whether it has been subjected to peer review and publication, its known or potential rate of error when applied, and whether it has gained general acceptance. *Id.* at 593-94; *accord Conn*, 297 F.3d at 555. Rule 702’s advisory committee’s note suggests courts also consider:

(5) whether “maintenance standards and controls” exist; (6) whether the testimony relates to “matters growing naturally and directly out of research they have conducted independent of the litigation,” or developed “expressly for purposes of testifying”; (7) “[w]hether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion”; (8) “[w]hether the expert has adequately accounted for obvious alternative explanations”; (9) “[w]hether the expert is being as careful as he would be in his regular professional work outside his paid litigation consulting”; and (10) “[w]hether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert would give.”

Fed. R. Evid. 702 advisory committee’s note (2000 amends.); *accord Fuesting v. Zimmer, Inc.*, 421 F.3d 528, 534-35 (7th Cir. 2005), *vacated in part on other grounds*, 448 F.3d 936 (7th Cir. 2006), *cert. denied*, 127 S. Ct. 1151 (2007).

Rule 702 and the directions from *Daubert* and its progeny govern the inquiry in this case.

1. Qualification as Expert

To determine if an expert is qualified to testify on a particular matter, a court should

“consider a proposed expert’s full range of practical experience as well as academic or technical training.” *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000). However, generalized knowledge within an area is not necessarily enough to qualify an expert:

[A]n expert’s qualifications must be within the same technical area as the subject matter of the expert’s testimony; in other words, a person with expertise may only testify as to matters within that person’s expertise. Generalized knowledge of a particular subject will not necessarily enable an expert to testify as to a specific subset of the general field of the expert’s knowledge.

Martinez v. Sakurai Graphic Sys. Corp., No. 04 C 1274, 2007 WL 2570362, at * 2 (N.D. Ill. Aug. 30, 2007) (citing *O’Conner v. Commonwealth Edison Co.*, 807 F. Supp. 1376, 1390 (C.D. Ill. 1992), *aff’d*, 13 F.3d 1090 (7th Cir. 1994)).

Black & Decker argues Johnson is not qualified to render an opinion regarding the design of portable circular saws or riving knives because he lacks training, education, experience, skill or knowledge in that area. It notes Johnson’s experience and training has never focused on portable circular saws.

The plaintiff argues Johnson is qualified to render an opinion as to portable circular saw design because of his product design education and his extensive practical experience in power hand tool design and safety, human factors and product styling. He also points out that he has designed a guard for a circular table saw and testified in a case involving that guard.

Johnson is qualified to render an expert opinion on a design defect in a portable circular saw. While he is not a licensed engineer and has no degree in engineering, he has substantial knowledge, practical experience and training in relation to industrial design and safety, including his 45 years of experience as a product designer. That none of his experience or training prior to this litigation involved portable circular saws (at least not beyond that of an average handyman) does not disqualify him from rendering a design safety opinion so long as he is knowledgeable

about design and safety principles. The plaintiff has testified that the design skills, training and experience he has acquired from working with numerous other tools and equipment, such as chain saws, brush cutters, hedge trimmers or table saws, and his research on this case qualify him to express an opinion on the design aspects of portable circular saw safety. The Court agrees.

2. Reliability and Relevance of Opinion

Although the Court has found Johnson qualified to testify to a design defect in a portable circular saw, the Court rejects his proffered opinion as unreliable. When evaluating the reliability of an expert's testimony in design defect cases asserting an alternative design should have been used, courts should, but are not required to, consider whether the expert tested the alternative design. *Winters v. Fru-Con Inc.*, 498 F.3d 734, 742 (7th Cir. 2007).

“Testing an alternative design can assist a proposed expert in considering: (1) the alternative's compatibility with existing systems, (2) relative efficiency of the current versus alternative design, (3) short and long term maintenance costs for the alternative design, (4) ability of the proposed purchaser to service and maintain the alternative design, (5) cost of installing the alternative design, and (6) change in cost to the machine.”

Id.

Black & Decker argues that Johnson's opinion regarding portable circular saw design, including that it was defective and unreasonably dangerous because it failed to have a riving knife, is inadmissible because it is not the product of reliable scientific principles and methods applied in a reliable fashion to the fact of this case. First, Black & Decker notes that Johnson had not used a portable circular saw with a riving knife and had not done any testing of such a saw before arriving at the conclusions in his October 29, 2007, report that a riving knife was not detrimental to a portable circular saw's performance, that a riving knife was technologically and

economically feasible and that a portable circular saw was defective and unreasonably dangerous without it. Second, Black & Decker notes that Johnson's early December 2007 "feel test" only led to a conclusion regarding whether a riving knife would be detrimental to the saw's performance in cutting OSB and was not performed under accepted testing protocol or conditions similar to those he opined existed when Stallings was killed. Therefore, it argues, Johnson's test does not support his conclusion that Stallings's saw was unreasonably dangerous or negligently designed because it did not have a riving knife.

The plaintiff believes Johnson's statement that circular saws have a propensity to kick back and his stated reasons for such kickback are supported by published literature (including Black & Decker instruction manuals) and by his many years of experience using a circular saw. He also argues that Johnson's statement that riving knives prevent kickback is supported by international safety regulations, which require riving knives. He further notes that the Festool saw with the riving knife did not bind in Johnson's early December 2007 test. Furthermore, he states that Johnson's test was designed to determine whether the riving knife would impair the saw's function, not to demonstrate the feasibility of an alternative design with a riving knife because its feasibility is evident from the fact that Black & Decker's portable circular saws sold outside the United States use this alternative design.

Johnson's ultimate opinion that Black & Decker's portable circular saw is defective because it does not have a riving knife is inadmissible because it is not the product of reliable scientific principles and methods applied in a reliable fashion to the facts of this case. The Court is satisfied that Johnson's general opinions that portable circular saws kick back and that riving knives can prevent or reduce such kickback are based on sufficient facts and data found in literature reasonably relied on by experts in the field. However, his opinion that the alternative

design – a portable circular saw with a riving knife – would have prevented the injury and was feasible in terms of cost, practicality and technological possibility is unreliable.

First, for reasons discussed later in this order, Johnson’s opinion that a riving knife would have prevented Stallings’s death is based on pure speculation that kickback from Black & Decker’s saw caused Stallings’s death.

As for feasibility of the alternative design, Johnson’s opinion that a riving knife is feasible in the American portable circular saw market is not reliable. He points to the presence of riving knives on European portable circular saws and on American portable circular saws in the 1970s as evidence of their feasibility. While this may demonstrate the addition of a riving knife is technologically feasible, it does not establish it is feasible in terms of cost or practicality. While he opined that each riving knife cost only twenty cents, he did not consider the riving knife’s impact on the saw’s maintenance costs, ability to be repaired by consumers, overall saw manufacturing costs, or attractiveness to consumers. These factors are relevant in determining the validity of an expert’s opinion that an alternative design should have been used. *See Winters v. Fru-Con Inc.*, 498 F.3d 734, 742 (7th Cir. 2007). Nor has he considered accident rates in saws with and without riving knives, which would shed light on whether the additional costs were warranted by gains in safety.

Furthermore, the methodology Johnson used to test the practical feasibility of the riving knife was not scientifically valid. He admitted the test referred to in his October 29, 2007, report had not occurred at the time he wrote the report. Thus, his October 29, 2007, opinion that a riving knife would not impair the saw’s performance has no reliable basis. Later, his December 2007 “feel test” purported to show no impairment of the saw’s function with a riving knife, but that test was virtually devoid of reliable principles and methods. First, the saw comparison may

not have been appropriate because he compared two different saws as opposed to the same saw with and without the riving knife. He also tested the saws in only one application – cutting curves – and omitted tests of other applications – such as plunge cuts¹ – to see the impact of the riving knife.

In addition, his “feel test” lacked the standards and controls that are the hallmark of scientific testing. As its name suggests, the “feel test” had too many unmeasured variables – e.g., the human force applied to advance the saw or to resist potential kickback – to draw any reliable scientific conclusions about the relative performance of the saws. Furthermore, neither “ease of use” nor kickback from the saws was scientifically measured. As Johnson testified, designing a test that included such standards and controls was possible but was too expensive and time-consuming to be done for this case. Johnson’s reliance on a test without scientific standards and controls is further suspect because he had already issued a groundless report concluding that a riving knife would not impair the performance of the saw. His desire to confirm that conclusion in a test that relied on subjective factors may have affected his perception of the test results. Finally, there is no evidence that such a “feel test” is an accepted method of testing in the field of safety engineering, that it has been peer reviewed, or that its rate of error is acceptable.

In sum, Johnson’s opinion that a portable circular saw without a riving knife is defective because it is unreasonably dangerous is not reliable enough to be presented to a jury under the gatekeeping standards set forth in Rule 702.

¹A plunge cut begins in the middle of the wood as opposed to the end.

B. Proximate Cause

Under Illinois law, “[p]roximate cause can only be established when there is a reasonable certainty that the defendant’s acts caused the injury.” *Schultz v. Hennessy Indus., Inc.*, 584 N.E.2d 235, 241 (Ill. App. Ct. 1991); *accord Wintz by & Through Wintz v. Northrop Corp.*, 110 F.3d 508, 515 (7th Cir. 1997). To avoid summary judgment in a strict liability or negligence products liability case, a plaintiff must point to evidence that the product at issue caused the injury, that is, that the *product’s defect* cause the injury. *See Wintz*, 110 F.3d at 515. The plaintiff cannot rely on “speculation, surmise or conjecture.” *Lindenmier v. City of Rockford*, 508 N.E.2d 1201, 1207 (Ill. App. Ct. 1987); *accord Zimmer v. Celotex Corp.*, 549 N.E.2d 881, 883 (Ill. App. Ct. 1989).

Proximate cause is difficult in this case because there were no eyewitnesses to the incident. While Black & Decker does not contest that the saw blade caused the laceration to Stallings’s throat, it argues that there is no evidence that the laceration was caused by the alleged defect in the saw, that is, that the laceration was caused by kickback that would have been prevented by a riving knife.

1. Qualifications as Expert

Black & Decker again challenges Johnson’s qualification to give an expert opinion regarding accident reconstruction or biomechanics. It points out Johnson lacks formal education in accident reconstruction, much less portable circular saw accident reconstruction, and lacks expertise in blood spatter analysis.

The plaintiff admits that Johnson has no formal education available in reconstruction of power tool accidents but argues that Johnson’s experience in reconstructing the circumstances of over 180 accidents sufficiently qualifies him to render an expert opinion regarding the

reconstruction of this accident, including how Stallings was likely using the saw before the accident. Johnson states that in his reconstructions, he used the methodology and principles of “ergonomics, human factors, and product safety” he learned in his educational training as a mechanical and product design engineer and in his decades of experience in product design, focus group studies of how products injure people and how products fail. Johnson Aff. ¶ 5.

Johnson is not qualified to render an expert opinion on the cause of this accident. Johnson’s knowledge, skill, experience, training and education in design qualifies him to do such things as make models based on measurements and photographs and opine about possible arrangements of items based on those measurements, some of which he has done in this case. However, beyond those tasks, Johnson opines about how Stallings was using the saw at the time of the accident and how the accident occurred as a result. He has no formal training in “human factors” and bases his opinion about how Stallings was using the saw in part on his experience with user focus groups and handle design and his knowledge about “how people use saws.” The Court is not convinced that there is any education, training or experience that could qualify an expert to testify about how someone actually used a particular saw in an unconventional situation, as Johnson believes occurred in this case, in the absence of eyewitness evidence or concrete, measurable evidence of that use.

Furthermore, even assuming Johnson’s hypothetical method of use is a possibility, Johnson is not qualified to testify about the vectors created by the hypothetical kickback or the biomechanical response to those vectors, that is, that the force of kickback would cause Stallings’s wrist and arm to move in certain ways. Johnson bases his expertise in the effects of kickback on literature documenting that it occurs and on his own anecdotal experience. However, he did not consider a report entitled, “The Design of a Portable Circular Saw Kickback

Evaluation System,” which Johnson admitted is an “exhaustive study” of kickback and the forces it creates. Furthermore, although his 45 years of product design experience has taught him about certain aspects of power tool comfort and safety, there is no indication that such experience included scientific study of the direction or magnitude of kickback force or medical analysis of the human body’s response to those forces. In fact, at the hearing Johnson admitted he had done no scientific tests on the phenomenon of kickback and was unable to explain how his knowledge of kickback was greater than the knowledge of the average woodworker or carpenter. He is simply not qualified to render an expert opinion on the dynamics of kickback, how they could interact with the human body and whether they actually did interact with Stallings at the time of the accident.

Johnson testified that he had been involved as an expert in about 180 cases and that he had recreated the accident in all of those cases. However, in the absence of any evidence that such cases were similar to the case at bar or any indication Johnson has expertise in kickback and biomechanics, that experience does not convince the Court that he is qualified in this case.

2. Reliability and Relevance of Opinion

Even if the Court had found Johnson qualified to testify regarding the cause of the accident, the Court would reject his opinion as unreliable because it is not based on sufficient facts or data and is not the product of reliable principles and methods. With respect to accident reconstruction expert opinion, “it is both common sense and a universal principle of law that, to be a reliable basis for an expert opinion, the reconstruction of an accident must accurately simulate as many of the actual variables, factors, and conditions that were present and/or existed at the time of the accident as possible.” *Large v. Mobile Tool Int’l, Inc.*, No. 1:02cv177, 2007 WL 4580034, at * 10 (N.D. Ind. Dec. 27, 2007) (citing *Silbernagel v. Voss*, 265 F.2d 390, 392

(7th Cir. 1959)); *Robb v. Burlington N. & Santa Fe Ry.*, 100 F. Supp. 2d 867, 874 (N.D. Ill. 2000).

Black & Decker argues Johnson's accident reconstruction methodology is unreliable because it is based on the assumption that Stallings was cutting the OSB found at the scene when the accident occurred. The assumption, in turn, was based on the note in Stallings's pocket indicating he had to repair hog feeders, which Johnson construed to indicate the repair required a piece of wood and Stallings was actually cutting that wood. The assumption then led to Johnson's conclusions about the position of Stallings as he was allegedly sawing the OSB.

Black & Decker further notes that Johnson's October 29, 2007, opinion that the saw kicked back, rotated 90 degrees and cut Stallings's throat purported to be based in part on his re-enactment of the incident, which he did not actually perform until approximately a month later. Johnson later clarified that the re-enactment he referred to in his October 29, 2007, opinion was a "mental re-enactment" based on pictures of the scene, information from McVey and deposition and inquest testimony. Black & Decker challenges the scientific validity of such a "mental re-enactment" for lack of scientific principles or methodology.

As for Johnson's actual re-enactment in December 2007, Black & Decker charges that Johnson formed his opinion about the position of the blade guard at the time of the accident without any calculation or testing.²

The plaintiff argues that the statements in the coroner's inquest – the ones made without personal knowledge – about what Stallings was doing at the time of the incident and about

²Black & Decker also challenges the opinions in the October 29, 2007, expert report that the absence of a blade brake and blade clutch also rendered the saw defective. The plaintiff has not argued this point. Therefore, the Court construes this as a concession that his case rests entirely on the absence of a riving knife.

theories regarding the cause of the incident support Johnson's assumption that Stallings was cutting a piece of OSB when the saw kicked back.

After hearing Johnson testify, the Court is left with the firm impression that Johnson assumed, based on the inquest witnesses' speculation, that kickback caused Stallings's death, set out to find a scenario where that could have happened, then used the existence of that scenario to conclude that the accident *must* have happened that way. Such circular reasoning is not scientific, is not based on facts and is not reliable.

The Court first notes that Johnson formed his October 29, 2007, opinion without doing any actual tests – much less ones that simulated the actual accident – *and* without even knowing the relevant measurements necessary to his re-enactment. Furthermore, one basis for his opinion was the speculative inquest testimony that kickback caused the accident, but such speculation is not an acceptable factual basis for a reliable expert opinion. Johnson has pointed to no scientific method he used to conclude from the facts he knew that kickback caused Stallings's accident in the manner he determined. A “mental re-enactment” in this particular case is not enough. There is no evidence that such a method is accepted in the accident reconstruction field, that the error rate for such a method is acceptable or that such a method has been peer reviewed.

When Johnson finally performed the re-enactment in December 2007, he did it not for the purpose of verifying his opinion but simply to illustrate it. This does not comport with the objective scientific method. While his opinion that it was conceivable that Stallings was cutting a piece of OSB in the manner he suggests appears to be scientifically valid in that it fits with the objective measurements, his determination that his scenario was the *only* possibility, or even the most likely possibility, is not based on any reliable method. In fact, he testified he did not test alternative scenarios – say, that Stallings tripped while using the saw – because they did not fit in

with his predetermined conclusion that kickback caused the accident.

Even if Stallings had been cutting the OSB in the manner Johnson believes, his opinion that the saw kicked back and cut Stallings's throat is not based on any reliable principle or method. While he calculated the speed of the saw blade at full throttle (which may not have been the case), he did not do any scientific calculation or experimentation regarding the direction or the magnitude of the saw motor's force (considering all the other forces such as gravity and inertia that might be at work as well) that would propel the saw (the whole saw, not just the blade) if kickback occurred. He estimates without any testing or calculation that it was fast enough that the saw would contact Stallings's throat in "milliseconds" – before the blade guard had time to close completely – and speculates that it would be in a direction such that Stallings's wrist and arm would turn in a certain manner to bring the saw to his throat. However, without any reliable facts or data to support those conclusions, Johnson's opinion is simply not reliable enough to present to a jury.

Finally, there is no reliable basis for Johnson's opinion that a riving knife would have prevented the specific kickback he opines occurred in this case. He testified that a riving knife reduces the possibility of kickback but does not completely eliminate the possibility. He states without any supporting facts, data or reliable reasoning that the riving knife would have prevented kickback in this case.

In sum, Johnson's opinions regarding causation are unreliable and unhelpful to the trier of fact.

For the reasons discussed above, the Court will exclude Johnson's testimony as to the presence of a design defect and as to causation of the injury by that defect. In the absence of Johnson's testimony, there is no evidence from which a reasonable jury could find a design

defect or that such a defect proximately caused Stallings's death, and Black & Decker is entitled to judgment as a matter of law.

V. Conclusion

For the foregoing reasons, the Court:

- **DENIES as moot** Black & Decker's motion for a hearing (Doc. 76);
- **GRANTS** Black & Decker's motion to strike (Doc. 83);
- **GRANTS** Black & Decker's motion to exclude Johnson's testimony (Doc. 75);
- **GRANTS** Black & Decker's motion for summary judgment (Doc. 73); and
- **DIRECTS** the Clerk of Court to enter judgment accordingly.

IT IS SO ORDERED.

DATED: October 7, 2008

s/ J. Phil Gilbert
J. PHIL GILBERT
DISTRICT JUDGE