

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

AUTO-OWNERS INSURANCE
COMPANY,

Plaintiff,

OPINION AND ORDER

and

T-BUCK PROPERTIES, LLC,

Involuntary Plaintiff,

v.

20-cv-220-wmc

MAKITA USA, INC.,

Defendant.

This lawsuit arises out of a fire at a residence owned by involuntary plaintiff T-Buck Properties, LLC. As the insurer of that residence, plaintiff Auto-Owners Insurance Company subsequently brought this lawsuit claiming negligence, strict liability and breach of warranty against defendant Makita USA, Inc., on the grounds that the cause of the fire was the battery management system for a Makita drill. Largely based on its motion to exclude the testimony and opinions of plaintiff's causation expert, Michael Eskra, as unreliable (dkt. #36), defendant Makita USA now seeks summary judgment on plaintiff's negligence and strict liability claims. In a separate motion, defendant also seeks to exclude additional Eskra opinions as untimely, having only been disclosed in his declaration submitted in opposition to defendant's motion for summary judgment. (Dkt. ##34, 59.) Finally, defendant also seeks summary judgment on plaintiff's breach of warranty claims based on its failure to provide proper notice under Wisconsin law. For the reasons that

follow, the court will deny all of these motions.

UNDISPUTED FACTS¹

A. The Fire

On June 22, 2017, a fire occurred inside the garage of a multi-family residence located at 501 4th Street, N., #503, Hudson, Wisconsin, owned by involuntary plaintiff T-Buck Properties. The specific garage at issue was rented by plaintiff Auto-Owners' insureds, Renee and Christopher Richmond, who lived at the attached residence with their teenage son Ethan. Fortunately, the fire itself was isolated to the top of the workbench in the garage, as the fire department was able to quickly extinguish it, and no one was injured.

At the time of the fire, there were several items besides the subject Makita drill and its battery pack designed, manufactured and sold by defendant Makita USA, located on the workbench, including: four or five remote control ("RC") battery chargers, four lithium polymer ("Li-Po") batteries, at least two nickel metal hydride ("Ni-MH") batteries, a battery-powered Dremel tool and its charger, flammable solvents, spray paint cans, an automotive battery charger, a four-plug reel extension cord, and other extension cords. In addition, close to the workbench on the wall was a duplex receptacle that had at least two items plugged in. Finally, stereo equipment and an electric air compressor were next to the workbench.

¹ Unless otherwise noted, the court finds the following facts material and undisputed, viewed in the light most favorable to plaintiff as the non-moving party.

The fire damaged all of the items on top of the wooden workbench as depicted in the following photograph.



(Def.'s Reply in Support of Def.'s PFOFs (dkt. #71) ¶ 7.)

B. Post-Fire Investigation

On June 26, 2017, Rico Perez, an engineer with EFI Global Inc., who was retained by Auto-Owners, conducted a fire scene examination at the subject property. Perez examined several items on the workbench that could be the cause of the fire.

On June 28, 2017, Auto-Owners sent a notice to defendant notifying it that a Makita drill was involved in a fire. On July 12, 2017, a subsequent, "joint examination" was conducted. Makita and the manufacturers of the RC car batteries were notified of the examination and invited to attend, although as defendant points out, not all of the manufacturers of the batteries on the workbench were invited to attend. Regardless,

Makita declined. (Ayers Aff., Ex. 2 (dkt. #53-2).)² During the examination, participants inspected and photographed the garage, the RC vehicles and contents of the workbench and selected items to capture.

C. Defendant's Evidence Regarding the Remote Control Car Charger Battery as Cause of Fire

On the day of the fire, the insureds' son, Ethan, and his friend Sam Reiger were home unsupervised and playing with several battery-powered, remote-control cars outside in the rain. Ethan and Sam used the RC cars until one or more of the Li-PO and/or Ni-MH batteries used to power the vehicles ran out of charge. Ethan's general practice was to operate the RC cars until the batteries were depleted, at which point he would remove the batteries from the vehicles and place them in various chargers. Ethan testified at his deposition that on the day of the fire, after the batteries were depleted, he brought the remote-control cars into the garage, removed the batteries and placed them in the chargers.³

² In response to this and other proposed findings, defendant disputes that plaintiff's counsel Attorney Bradley Ayers' affidavit provides support, but curiously fails to acknowledge the exhibits attached to the affidavit to which plaintiff cited. While Ayers submitted two declarations around the same time -- one in opposition to the motion to strike Eskra's testimony (dkt. #53) and the other in opposition to summary judgment (dkt. #57) -- simple review of the materials would identify which affidavit plaintiff was citing to, even if plaintiff initially identified the affidavit submitted in opposition to summary judgment. The court normally would not point this out, but defense counsel's seemingly deliberate, feigned or obdurate ignorance appears something of a pattern in light of their similar failure to acknowledge straight-forward deposition testimony elicited from Eskra, detailing his design defect opinion as discussed below. Certainly, plaintiff's counsel needs to be more diligent in *both* following the court's procedures *and* in getting details right more generally, but defense counsel's apparent attempts to pull the wool over the court's eyes are equally disturbing. The court expects better from both sides going forward.

³ Plaintiff cannot dispute this deposition testimony, although it points out that Ethan's testimony contradicts what he told Auto-Owners' fire investigators. Moreover, Sam similarly testified at his deposition that he plugged his RC car battery into a charging device.

Once the batteries were placed in the chargers on the workbench, the two boys went inside to play video games. Approximately a half hour before the fire was discovered, Ethan further testified that he checked on the status of the charging RC batteries and found that each was approximately 50% charged and had another half hour of charging before they would be fully charged. Approximately thirty minutes later, the boys heard knocking on the front door and were alerted to a fire in the garage.

Brian Schmidt, the fire inspector for the City of St. Paul, conducted an investigation into the cause of the fire, and he ultimately determined that “[t]he most likely cause was a short in the R/C car charger that ignited other combustibles on the table.” (Def.’s Am. PFOFs, Ex. 25 (dkt. #48-1) 3.) Schmidt elaborated at his deposition that he made this finding because the R/C car charger was “where the most damage was done,” and explained, “[t]hat would be why I would put that as a possible ignition source or cause of the fire.” (Schmidt Dep. (dkt. #44) 29-30.) As defendant further points out, the manufacturers of the RC charging devices and batteries also warn against charging batteries while wet, unattended, on flammable surfaces and not in a fireproof container. Still, as plaintiff points out, Schmidt acknowledged that the *actual* cause of the fire “would be a better question asked [of] an electrical engineer or electrician.” (*Id.* at 28.)

D. Additional Evidence Regarding the Makita Drill, Charger and Battery Packs

Insured Christopher Richmond purchased the Makita drill kit approximately six months before the fire, and the drill was last used a few days before the fire. Christopher never had any problems with the drill, its battery pack or the charging device. Moreover, the Makita battery found on the bench was not being charged or discharged at the time of

the fire. Christopher's practice was also to use the drill until the batteries ran out of charge, and estimated that he had charged the batteries about three times during the six months he owned it.

While Ethan also testified at his deposition that he did not handle the drill on the day of the fire, Auto Owners' fire investigator Perez interviewed Ethan shortly after the fire, at which time he acknowledges having "moved the Makita cordless drill box off the workbench and the cordless drill fell out of the box and dropped to the floor." (Pl.'s Resp. to Def.'s PFOFs (dkt. #63) ¶ 34 (quoting Ayers Aff., Ex. 1 (dkt. #53-1) 9).)

E. Facts Relevant to Warranty Claims

Makita provided a limited, one-year warranty to be free of defects from workmanship and materials. (Ayers Aff., Ex. 2 (dkt. #57-2) 9.) That warranty included express disclaimers of merchantability and fitness for a particular purpose but only after expiration of the one-year term of this warranty. (*Id.*)

OPINION

I. Defendant's Motions to Strike Expert Testimony

As noted previously, defendant ultimately filed two motions to strike plaintiff's expert Michel Eskra's opinions. In the first motion, defendant contends in conjunction with its motion for summary judgment that Eskra's opinions are unreliable. (Dkt. #34.) The admissibility of expert testimony in federal courts is governed principally by Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Rule 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

(b) the testimony is based on sufficient facts or data;

(c) the testimony is the product of reliable principles and methods; and

(d) the expert has reliably applied the principles and methods to the facts of the case.

As a “gatekeeper” regarding expert testimony under Rule 702, therefore, this court must determine whether a party's proffered expert testimony is relevant and reliable. *Daubert*, 509 U.S. at 589; *see also United States v. Johnsted*, 30 F. Supp. 3d 814, 816 (W.D. Wis. 2013) (the expert testimony must be “not only relevant, but reliable”). In particular, although expert testimony is “liberally admissible under the Federal Rules of Evidence,” *Lyman v. St. Jude Med. S.C., Inc.*, 580 F. Supp. 2d 719, 723 (E.D. Wis. 2008), that testimony must nevertheless satisfy the following three-part test:

(1) the witness must be qualified “as an expert by knowledge, skill, experience, training, or education,” Fed. R. Evid. 702;

(2) the expert's reasoning or methodology underlying the testimony must be scientifically reliable, *Daubert*, 509 U.S. at 592-93; and

(3) the testimony must assist the trier of fact to understand the evidence or to determine a fact in issue, Fed. R. Evid. 702.

Ervin v. Johnson & Johnson, Inc., 492 F.3d 901, 904 (7th Cir. 2007).

Here, Michael Eskra has a Bachelor of Science degree in Chemical Process Engineering and has completed credits towards a Masters in Engineering Management.

(Eskra Rept. (dkt. #25-3) 5.) He has developed batteries and battery-powered tools, and he has five patents related to materials, batteries and manufacturing. (*Id.* at 1-2.) He is also a certified Fire Explosion Investigator. (*Id.* at 5.) Finally, over the course of his career, Eskra has taken apart tens of thousands of abused battery cells and regularly offers opinions on the cause of battery-related fires. (*Id.* at 11-13; Eskra Dep. (dkt. #39) 300.)

As for his method for determining the cause of a fire, Eskra uses what he characterizes as a “screening test,” which requires inspection of any physical evidence, x-rays of batteries and CT scans. More specifically, Eskra’s analysis is premised on an understanding that “[b]attery cells and packs react and look differently when they are attacked by fire rather than being causal to the fire.” (Eskra Rept. (dkt. #25-3) 15.) After describing how lithium batteries work and possible reasons for their failures, Eskra examined x-rays and CT scans of the Makita Li-ion battery cells and other information he received from the fire investigation conducted by Rico Perez. Based on this evidence, including the CT scans of the Makita battery cells, Eskra opined that just one of the cells “has damage radiating from the inside out while the other cells have damage radiating from the inside in,” which Eskra interprets to mean that “the incident started in the center of [that individual cell’s] jelly roll and worked its way outward.” (*Id.* at 22-23.) Based on this information, Eskra concluded that

The probable cause of this fire was the failure of the Makita Battery pack and subsequent thermal runaway. After the first cell shorted[,] the heat generated caused the other cells to go into thermal runaway and feed the fire making the electrolyte from the other cells and the battery housing the secondary fuels.

(*Id.* at 24.)

Defendant's original motion to strike Eskra's expert testimony focuses on what Eskra did *not* do in forming his opinion that one of the lithium batteries for the Makita drill caused the fire at issue in this lawsuit. In particular, defendant points out that Eskra did not physically examine the drill at issue in this case, any of its batteries, or the other batteries or chargers that were present on the workbench.

While Eskra did not physically examine the fire site or the items implicated in the fire, Eskra relied on another expert's photographs and descriptions of these items, as well as x-rays and CT scans of the actual Makita batteries involved in the fire. *See Daubert*, 509 U.S. at 592 ("Unlike an ordinary witness, see Rule 701, an expert is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge."). Moreover, Eskra is not representing that his opinion is based on him personally, physically examining the fire site and the items on the workbench. Instead, he relied on x-rays and CT scans of the items to reach his conclusions. Critically, defendant fails to direct the court to any scientific studies or caselaw requiring a physical examination or testing of the actual, damaged items for an expert's testimony to be rendered reliable. Certainly, Eskra's opinions are based on a narrow examination, but this is not in and of itself problematic. Rather, defendant is free to point out what Eskra did not do in reaching his conclusions, but this does not render inadmissible Eskra's opinion about the differences in damage to battery cells and packs when attacked by fire versus being the cause of the fire, nor his opinion that those differences were present here after examination of the x-rays and CT scans of the Makita battery cells involved in the subject fire. *See Daubert*, 509 U.S. at 596 ("Vigorous cross-examination, presentation of contrary evidence, and careful instruction

on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”).

More to the point, defendant contends that Eskra’s opinions based on CT scans is unreliable because it is not based on a scientific, peer-reviewed, tested or recognized methodology. As plaintiff points out in its opposition, and as Eskra himself pointed out in his report, his methodology is based on “A Scientific Methodology for Investigation of Lithium Ion Battery Failure,” which was prepared by Exponent Failure Analysis Associates (“EFAA”), which was published in Institute of Electrical and Electronics Engineers (“IEEE”) conference proceedings in 2007, and has since been cited by a handful of other IEEE publications. (Eskra Decl., Ex. 2 (dkt. #52-2).) Moreover, Eskra’s expert report describes a “systematic approach to lithium-ion battery failure investigations,” which plaintiff maintains he completed in reaching his conclusions in conjunction with plaintiff’s other experts, including Tarbox and Perez. While defendant contends that the methodology described by EFAA report does not address whether an Ion battery *caused* a fire, that methodology endorses examination of cell CT scans following a fire like that performed by Eskra. (*Id.* at 4 (“CT scanning is an excellent tool for determining the point(s) or region of faulting within an initiating cell.”).)⁴

Defendant further faults Eskra for relying on another expert’s statement that the RC batteries were not charged at the time of the fire. As described above, however, the underlying facts as to the level of the charge in the RC batteries at the time of the fire

⁴ Again, defendant is free to challenge whether Eskra’s methodology is sound based on another scientific paper, which concludes that signs of damage to a cell from being the cause of fire and being the victim of fire are the same. (Def.’s Reply (dkt. #54) 10; dkt. #78.)

appears to be a matter of dispute. *See Walker v. Soo Line R.R. Co.*, 208 F.3d 581, 590 (7th Cir. 2000) (when addressing whether expert testimony is reliable, the district court should not consider the “factual underpinnings” of the testimony but should determine whether “[i]t was appropriate for [the expert] to rely on the test that he administered and upon the sources of information which he employed”). Regardless, defendant can cross-examine Eskra as to whether his exclusion of the RC batteries was both factually and scientifically sound, and, of course, defendant can offer its own expert’s opinion testimony that the cause of the fire was the RC chargers.

Defendant also relies on the fact that plaintiff’s other experts, Keith Tarbox and Rico Perez, could not determine the cause of the fire. However, the fact that these individuals lacked the expertise to determine a cause of the fire does not undercut Eskra’s opinion. Critically, neither testified that Eskra’s methodology was flawed nor that his opinions were otherwise unreliable. Rejecting defendant’s various bases for striking Eskra’s testimony, therefore, the court must deny defendant’s first motion.

As for defendant’s second motion to strike, it contends that Eskra’s later declaration, which was only submitted in support of plaintiff’s opposition to defendant’s motion for summary judgment, should be barred as untimely. The court is more sympathetic to this argument. As detailed in the court’s pretrial conference order, as the party with the burden to prove the cause of the fire, plaintiff was required to disclose its experts and opinions under Rule 26(a)(2) by September 1, 2020. Moreover, consistent with that requirement and deadline, plaintiff submitted Eskra’s report, as detailed above, opining that the probable cause of the fire was the failure of the Makita battery pack. However, that report

stopped short of describing the underlying basis for that opinion. Instead, he simply explained in the report that “cell failures can occur either through external sources such as overheating through operation, fire, or can also occur through manufacturing defect or failure due to degradation of materials due to cycling or other aging factors.” (Eskra Rept. (dkt. #25-3) 19.) Critically, however, Eskra did *not* opine at that time as to the reason for the battery cell failure at issue in this case.

Nevertheless, in his subsequent deposition, Eskra provided extensive testimony about the basis for his opinion as to the cause of the Makita battery cell failure, identifying a design defect, based on testing completed by his colleague, David Fieder, in December 2020, in consultation with Eskra as to the test’s design. (Eskra Dep. (dkt. #39) 103.) Moreover, the report Fieder prepared was provided by plaintiff to defendant in advance of Eskra’s deposition and marked at the deposition as Exhibit 204. Specifically, Fieder tested three BL1815N battery packs, which was the same model in the battery pack for the Makita drill at issue in this case. As he described in his deposition testimony, Fieder and Eskra charged and discharged each battery pack, using a drill. Based on this testing, Eskra concluded that “[t]he lower cut-off voltage on discharge is low, lower than it should be for a safe battery operation longevity.” (Eskra Dep. (dkt. #39) 107.) Accordingly, Eskra concluded that the design of the battery pack management system -- allowing cells to drop below 3 volts on discharge -- was defective. (*Id.* at 114-15.) At his deposition, Eskra further opined that the cell that experienced thermal runaway was caused by “it experiencing under-voltage at some point in time in its life.” (*Id.* at 304.) Consistent with this deposition testimony, Eskra’s declaration in opposition to defendant’s summary judgment

motion states that the “defectively designed Makita Li-ion battery pack’s battery management system is the likely cause of the fire.” (Eskra Decl. (dkt. #58) ¶ 15.)

Despite this deposition testimony, which was elicited by defendant’s counsel, defendant now takes the position that Eskra did not disclose a design defect opinion until his declaration, which was only submitted in opposition to defendant’s motion for summary judgment. In making this argument, defendant directs the court repeatedly to the following excerpt from Eskra’s deposition:

Q. Did any of the Makita cells suffer from any defect in your opinion?

A. No.

(Eskra Dep. (dkt. #39) 221.) However, defense counsel leaves out critical context for that question and answer, which treated Makita “cells” as distinct from its battery management system. This is illustrated by the following exchange between Eskra and defendant’s counsel:

Q. Do you have any knowledge of information as to whether or not the cells suffered from any design defect?

A. No.

Q. Other than what you said on the battery management system.

A. No.

(*Id.* at 182; *see also id.* at 164-65 (“Q. Am I correct that the sole defect opinion you have is related to the battery management system for the battery packs . . . that was plugged into Mr. Richmond’s drill? A. Yes.”).)

To be sure, plaintiff had an obligation to include all of Eskra’s relevant opinions about a design defect in his original report or by formal supplementation to that report under Rule 26(e). Plaintiff’s failure to do either is problematic, but defense counsel’s

manipulation of deposition testimony is similarly troubling, as is their failure to object during or promptly after the deposition to Eskra's supplemental opinions as to a specific design defect. Rather, defendant and its counsel sat on this objection for seven months, only to complain about Eskra's declaration that simply summarizes his long-known deposition testimony. The court agrees that the declaration was unnecessary, since plaintiff could have directed the court to Eskra's testimony. Indeed, the court could view defendant's motion narrowly and strike the declaration, since that motion does not seek to strike Eskra's deposition testimony. For all these reasons, however, the court declines to strike Eskra's declaration submitted in response to defendant's motion for summary judgment. Still, to ameliorate any arguable prejudice to defendant by supplement deposition testimony, defendant may promptly file a supplement to its own expert's rebuttal report responding specifically to Eskra's design defect opinion, to the extent it has not already done so.

II. Defendant's Motion for Summary Judgment

The court's disposition on defendant's motions to strike Eskra's opinion testimony largely dooms defendant's motion for summary judgment. Specifically, as described above, plaintiff pursues three causes of action for negligence, strict liability, and breach of warranty. Defendant seeks summary judgment in its favor on the negligence and strict liability claims based on a lack of expert opinion testimony to support a finding that the fire was caused by a battery cell in the Makita drill or a design defect in its battery management system. Having rejected defendant's attempt to strike Eskra's opinions, the court concludes that his testimony forms a sufficient basis to support a jury finding on

causation in plaintiff's favor. The court recognizes that defendant's expert has a different theory on the cause of the fire, positing instead that it was caused by the remote control battery chargers, and that there are a number of holes in Eskra's opinion as to a Makita battery cell being the likely cause of this fire, which defendant's counsel may exploit at trial, but unless accepted by a jury, neither foreclose a finding in plaintiff's favor. Instead, this case represents a classic battle of the experts that the jury will have to resolve.

Finally, defendant seeks summary judgment on plaintiff's breach of warranty claim on the basis that the buyer of the Makita drill, plaintiff's insureds, the Richmonds, failed to provide notice as required under Wis. Stat. § 402.706(3)(a). However, there is no dispute that Auto-Owners, representing its insureds, provided notice to Makita of its drill being involved in a fire on June 28, 2017. In fact, Auto-Owners' notice to defendant informing it that a Makita drill was involved in the fire was sent just six days after the June 22, 2017, fire.

While defendant persists in an argument that § 402.706(3)(a) requires the *buyer* of the drill to provide notice, it stops short of providing any support that Auto-Owners, as the agent of the buyer, could not provide such notice.⁵ Indeed, defendant itself acknowledges the Wisconsin Legislature's two goals in requiring notice -- "opening a path to settlement talks and giving the seller an opportunity to protect him or herself" (Def.'s

⁵ In fairness, defense counsel cites to *Wilson v. Tuxen*, 2008 WI App 94, ¶ 44, 312 Wis. 2d 705, 754 N.W.2d 220, in support, but that case simply stands for the proposition that notice must be timely. That court did not hold, or even address, whether notice submitted by the agent of a buyer satisfies the requirement.

Reply (dkt. #60) 12 (citing *Wilson*, 312 Wis. 2d at 732-33)) -- both of which are served by Auto-Owners' submitting notice on behalf of its insureds.

As such, the court rejects defendant's arguments for summary judgment in its favor.

ORDER

IT IS ORDERED that:

- 1) Defendant Makita USA, Inc.'s motion to strike opinions and testimony of Michael Eskra (dkt. #34) is DENIED.
- 2) Defendant's motion to strike Eskra declaration (dkt. #59) is DENIED.
- 3) Defendant's motion for summary judgment (dkt. #36) is DENIED.
- 4) Defendant's motion for hearing (dkt. #66) is DENIED AS UNNECESSARY.

Entered this 30th day of December, 2021.

BY THE COURT:

/s/

WILLIAM M. CONLEY
District Judge