

**IN THE UNITED STATES DISTRICT COURT  
FOR THE CENTRAL DISTRICT OF ILLINOIS, SPRINGFIELD DIVISION**

WESTFIELD INSURANCE )  
COMPANY, an Ohio corporation, )  
as Subrogee of Onken’s Inc., )

Plaintiff, )

v. )

No. 15-cv-3055

RICHARDSON ELECTRIC, INC., )  
Defendant. )

**OPINION**

TOM SCHANZLE-HASKINS, U.S. MAGISTRATE JUDGE:

This matter comes before the Court on Defendant Richardson Electric, Inc.’s (Richardson) Thirteenth Motion in Limine to Exclude the Expert Testimony of Robert Markiewicz (Markiewicz) under Daubert (d/e 133) (Motion). The parties consented to proceed before this Court. Consent to the Exercise of Jurisdiction by a United States Magistrate Judge and Reference Order entered October 13, 2017 (d/e 129). For the reasons set forth below, the Court DENIES the Motion.

**BACKGROUND**

In 2004, Westfield’s subrogee, Onken’s, Inc. (Onken’s) had a metal warehouse building (Building) constructed. In December 2004, Richardson performed electrical work in the Building. At that time, two electrical

infrared heaters (Heaters) were being installed in the northwest portion of the Building. The Heaters hung from the ceiling. Westfield claims that Onken's personnel hung the Heaters from the ceiling and ran electrical lines from the Heaters to the electrical panels in the Building, but did not connect the Heaters to the electrical panels. Westfield states that Defendant Richardson's personnel connected the Heaters to the electrical panel. Richardson denies that its personnel connected the Heaters to the electrical panels. Richardson claims that the Heaters were already connected and operating when its personnel performed other electrical work at the Building. See Order entered May 30, 1017 (d/e 111) (Order Denying Summary Judgment), at 3-5.

On February 9, 2011, a fire (Fire) broke out in the Building, causing significant damage. Westfield claims that a defective heating element in one of the Heaters caused the fire. See Order Denying Summary Judgment, at 5-6. Westfield brings a claim in this action against Richardson for negligent installation of the Heaters. See Complaint (d/e 1), at 48-51. Richardson denies liability. Westfield disclosed Markiewicz as one of its expert witnesses. Markiewicz is an electrical engineer with expertise in ascertaining the cause of fires, particularly electrical fires. Richardson does not dispute Markiewicz' qualifications as an expert.

On August 11, 2015, Markiewicz issued his Report. Defendant's Memorandum of Law in Support of its Thirteenth Motion in Limine to Exclude the Expert Testimony of Robert Markiewicz (d/e 134) (Richardson Memorandum), Exhibit 1, Markiewicz Expert Report (Report). Markiewicz relied on the determination of Westfield's other expert, Dan Tankersley, that the Fire originated in the northwest portion of the Building where the Heaters were located. The northwest portion of the Building was called the assembly area in the Building. Markiewicz stated in his report that the assembly area contained a shrink wrap machine, workbench, parts boxes, stacked cardboard boxes, three electrical panel boards, a transformer, battery charger, a 220-volt extension cord (Extension Cord), and the two Heaters. Markiewicz determined that at the time of the fire, the Extension Cord was plugged into a 220-volt receptacle, but nothing was plugged into the other end of the Extension Cord. At the time of Markiewicz' inspection of the Building, the circuit breaker for the Heaters was tripped, or in the open position. See Report, at 2-3 of 5.

Markiewicz determined that the Heaters and the Extension Cord were the only devices in the assembly area connected to electrical power at the time of the Fire. Markiewicz took the Heaters and Extension Cord to his laboratory for testing and examination. Markiewicz determined that the

Extension Cord did not start the fire because the insulation on the Extension Cord was damaged by the fire rather than by the Extension Cord's internal failure. Evidence of electrical arc damage occurred after the Fire damaged the insulation and did not cause the Fire. Report, at 3 of 5.

Markiewicz examined and tested the components of the Heaters, including the heating elements. Each Heater had three heating elements. Markiewicz determined that one of the elements in one of the Heaters failed because it had reached the end of its useful life. Two of the elements tested had resistances of 46.9 and 45.7 ohms, respectively, which was within normal ranges. The faulty element had a resistance of 92.6 ohms, outside of normal ranges, indicating that the element failed. The element showed damage caused by an electrical arc. The metal sheath surrounding the faulty heating element had melted in spots. Markiewicz opined that the element failed at the end of its useful life and caused a short circuit. The short circuit caused a power surge, which caused sparks and melted portions of the metal sheath surrounding the faulty heating element. Markiewicz opined that some of the sparks and molten metal fell on the cardboard boxes, causing them to ignite. Markiewicz opined that the power surge also caused the circuit breaker to trip and shut off the flow of

electricity to the Heaters. Markiewicz opined that the failure of this heating element caused the fire. See Report, at 4-5 of 5.

Markiewicz also reviewed an installation instruction manual for the Heaters originally dated 1999 with a September 2005 revision date (2005 Manual) provided to him. The 2005 Manual stated that:

All metal sheathed heating elements MUST be protected by ground fault circuit interrupting breakers and/or fast acting fuses (see below) sized as close as possible to the amps shown on the data plate. Failure to comply could result in electrocution, building fire or equipment damage.

Report, at 4 of 5 (emphasis in the original). Markiewicz determined that neither ground fault circuit interrupting (GFCI) breakers nor fast acting fuses were used in the installation of the Heaters in the Building.

Markiewicz determined that GFCI breakers could not have been used in this installation due to the configuration of the wiring, but fast acting fuses could have been used. See Report, at 8; Richardson Memorandum, Exhibit 2, Markiewicz Deposition, at 109-14.

Markiewicz stated that he did not have data available for review to determine if the use of fast acting fuses would have prevented the damage to the heating element. Markiewicz stated, "Therefore, it was possible that even had the subject heater been protected by fuses the subject heating

element may still have failed in a similar fashion and resulted in this fire.”

Report, at 5 of 5.

Markiewicz set forth four conclusions in his Report:

- The electrical arc damage on the extension cord was a result of fire impinging on the cord, which allowed the conductors to come into contact with each other and/or the metal workbench.
- An electrical failure of the assembly area heater's heating element 1 occurred and was the failure mode that resulted in sparks dropping onto and igniting combustible materials below the heater. This fire was the direct result of the electrical failure of heating element 1 in the assembly area heater.
- Richardson Electric did not electrically connect the assembly area heater in accordance with the 2005 revised manufacturer's instructions.
- It was possible that had fuses been installed to protect the assembly area heater, the electrical failure of the heating element still may have occurred and resulted in this fire.

Markiewicz Report, at 5.

On August 31, 2006, Richardson’s attorneys took Markiewicz’ deposition. Markiewicz testified that fast acting fuses called for in the 2005 Manual were designed to cut off the flow of electricity more quickly than the circuit breaker during a power surge. Markiewicz said that fast acting fuses are designed to be installed in a disconnect box placed in the electrical line between the electrical device, such as one of the Heaters, and the electrical panel. In this case, three electrical lines carrying current ran from

the panel to each Heater. Each line supplied one heating element. If fast acting fuses were installed, each electrical line would run from the panel to the disconnect box designed to hold the fuses, and then out from the disconnect box to the Heater. Electrical current would run from the power source through the fuses to the Heater. If a power surge happened, the metal in the fast acting fuse would melt and create an opening in the electrical circuit, which would shut off power to the faulty heating element. Shutting off the power would limit the sparks and the melting of the metal sheath. See Markiewicz Deposition, at 131-37.

Markiewicz testified that both the fast acting fuses and the circuit breaker would cut off power in less than a second after the short circuit started, but fast acting fuses were designed to cut power more quickly than the circuit breaker in the panel. Markiewicz testified that no disconnect boxes and no fast acting fuses were included in the installation of the Heaters. See Markiewicz Deposition, at 116-17, 123-24.

Markiewicz also testified that the short circuit could have caused sparks and melting of the metal sheath before a fast acting fuse could have cut off the power. Markiewicz stated that a fast acting fuse was designed to reduce the amount of damage by cutting off the power more quickly than a circuit breaker in the panel. See Markiewicz Deposition, at 136-37.

Markiewicz stated that earlier versions of the 2005 Manual were not available. He stated in his report, “The installation instructions associated with the 2004 manufacturing date should be reviewed, once provided, in order to determine the manufacturer's guidance on proper electrical connections that would have been included with the subject heater.” Report, at 4 of 5. According to counsel for Westfield, a version of the instruction manual with a revision date of 2002 was produced in discovery (2002 Manual) after Markiewicz’ deposition occurred. The 2002 Manual contains the same language quoted above that either ground fault circuit interrupting breakers and/or fast acting fuses “MUST” be installed for each metal sheath element. See Plaintiff, Westfield Insurance Company’s, Response in Opposition to Defendant, Richardson Electric, Inc.,’s Motion in Limine to Exclude Expert Testimony (d/e 135) (Response), at 5-6, and Exhibit C, 2002 Manual.

### ANALYSIS

Richardson moves in limine to exclude Markiewicz’ opinions at trial. Richardson argues that his opinions fail to meet the standards for admissibility for expert testimony. Federal Rule of Evidence 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.

Fed. R. Evid. 702. This Court must perform a gate-keeping function to determine that expert testimony is reliable and relevant under the principles codified in Rule 702. See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 597 (1993). In performing this function, the Court must determine the reliability and the relevance of the evidence. Ammons v. Aramark Uniform Services, Inc., 368 F.3d 809, 816 (7<sup>th</sup> Cir. 2004).

First, Markiewicz is qualified to render expert opinions on the issue of the cause of the Fire. He has extensive training and experience in this field. Richardson agrees that Markiewicz is qualified.

The Court must then determine whether the expert testimony is reliable and relevant and whether his opinions will assist the trier of fact in determining a fact in issue. See Ammons, 368 F.3d at 816. The Court must evaluate the reliability of the expert's methodology. Manpower Inc. v. Ins. Co. of Penn., 732 F.3d 796, 806 (7<sup>th</sup> Cir. 2013). The Court, however, does

not evaluate the quality of the underlying data or the quality of the expert's conclusions. "The soundness of the factual underpinnings of the expert's analysis and the correctness of the expert's conclusions based on that analysis are factual matters to be determined by the trier of fact, or, where appropriate, on summary judgment." Smith v. Ford Motor Co., 215 F.3d 713, 718 (7<sup>th</sup> Cir. 2000). The Court must also evaluate whether the expert's opinions are relevant and fit the issue to which the expert is testifying. See Deimer v. Cincinnati Sub-Zero Products, Inc., 58 F.3d 341, 344 (7<sup>th</sup> Cir. 1995).

The Court finds that Markiewicz' first two conclusions (1) that the Extension Cord did not cause the Fire, and (2) that the faulty heating element in one of the Heaters caused the fire, are both reliable and relevant and will assist the trier of fact in determining a fact in issue. The Report and Markiewicz' deposition testimony shows that he used reliable methods to reach his conclusion and his conclusions are relevant to the facts at issue.

The Court further finds that Markiewicz' third conclusion that the Heaters were not installed in compliance with the 2005 Manual is reliable and relevant and will assist the trier of fact in determining a fact in issue. Plaintiff represents that the 2002 Manual contains the same instructions to

include GFCI breakers and/or fast acting fuses in the installation of the Heaters. Markiewicz' conclusion that the Heaters were not installed in compliance with this requirement, therefore, is relevant. Markiewicz inspected the assembly area after the fire, and so, personally determined that fast acting fuses were not included in the installation. He is qualified to make that determination by a personal inspection under the facts of this case. His opinion is helpful to the fact finder since a layperson may not be familiar with fast acting fuses or their method of installation. The opinion is also relevant because a failure to follow installation instructions is relevant to Richardson's duty to perform the installation in an appropriate manner and whether it breached that duty.

The Court further finds that Markiewicz' fourth conclusion that, "It was possible that had fuses been installed to protect the assembly area heater, the electrical failure of the heating element still may have occurred and resulted in this fire," is reliable and relevant and will assist the trier of fact in determining a fact in issue. The 2005 Manual states that failure to install GFCI breakers and/or fast acting fuses could result in a fire. The statement in the 2005 Manual may provide evidence to support an inference that the lack of fast acting fuses may have contributed to or caused the Fire. Markiewicz, however, states in his final conclusion that the Fire might have

happened anyway, even if the fuses were installed. Markiewicz explained in his deposition how fast acting fuses work and how they were designed to reduce the amount of sparks and molten metal sheathing around the heating elements, but were not designed to prevent all sparks or melting of sheathing in the event of a short circuit. The opinion is helpful to the jury to understand that these fuses may not have provided complete protection against catastrophic events like the Fire. The conclusion clearly states the Fire might have happened even with the fuses.

Markiewicz relied on his experience and training to provide this explanation of the design and function of fast acting fuses. Markiewicz has the training and experience as an electrical engineer and expert in electrical fires to know how fast acting fuses work and what they are designed to do. His experience is a sufficient basis to give these opinions. See Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 152-57 (1999) (expert opinions may be based properly on expert's experience and training).

Richardson complains that Markiewicz fails to follow a reliable methodology because he did not conduct testing to determine exactly how fast acting fuses would have worked in this circumstance. Richardson argues that without such testing, Markiewicz' methodology is unreliable and

his opinions are inadmissible. The Court disagrees. Markiewicz is only opining on the use and function of fast acting fuses as applied to this context. He is qualified to provide that explanation. His explanation would be helpful to the jury to understand why the 2005 Manual required their use, and to understand that the fuses may not have provided complete protection against the Fire that occurred here.

Richardson argues that Markiewicz also opines that the use of fast acting fuses would have prevented the Fire in this case. The Court has carefully reviewed Markiewicz' report and deposition and finds no instance in which Markiewicz expressed such an opinion. Richardson argues that the third and fourth conclusion in his Report, when read together, effectively constitutes an opinion that fast acting fuses would have prevented the fire. The Court disagrees. The two conclusions only indicate that the Heaters were not properly installed because of the omission of fast acting fuses, and it is possible that the Fire could have occurred even if fast acting fuses were included in the installation. Those opinions, together, do not state that fuses would have prevented the Fire. Markiewicz gives no indication that he intends to opine that fuses would have prevented the Fire, and so, no need exists to bar such testimony in limine.

THEREFORE, IT IS ORDERED that Defendant Richardson Electric, Inc.'s (Richardson) Thirteenth Motion in Limine to Exclude the Expert Testimony of Robert Markiewicz under Daubert (d/e 133) is DENIED.

ENTER: August 2, 2018

*sl Tom Schanzle-Haskins*

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TOM SCHANZLE-HASKINS

UNITED STATES MAGISTRATE JUDGE