IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

STATE FARM FIRE & CASUALTY COMPANY, as subrogee of the Estate of Alkis J. Marland, **Plaintiff,**	**CIVIL ACTION**
v.	**NO. 14-6535**
HARTMAN CONTRACTORS, JOHN GRIMLEY, trading as "JG ASSOCIATES," and ANTHONY ELECTRIC, **Defendants.**	

DuBois, J. **May 17, 2017**

M E M O R A N D U M

I. INTRODUCTION

This case arises out of a fire in a townhouse, owned by the Estate of Alkis J. Marland, and insured by plaintiff State Farm Fire & Casualty Company ("plaintiff" or "State Farm"). Plaintiff, as subrogee of the Marland Estate, asserts claims of negligence, breach of contract, and breach of express and/or implied warranties, against defendants Hartman Contractors, John Grimley, and Anthony Electric. Presently before the Court are the Motion in Limine (*Daubert* Motion) of Defendant John Grimley, t/a and/or d/b/a JG & Associates to Preclude the Testimony of Plaintiff's Proffered Expert Witness Michael Wald (the "*Daubert* Motion") and Defendant John Grimley['s], t/a and/or d/b/a JG Associates[,] Motion for Summary Judgment (the "Motion for Summary Judgment"). For the reasons that follow, Grimley's *Daubert* Motion is granted in part and denied in part. Grimley's Motion for Summary Judgment is denied.

II. BACKGROUND

The relevant facts as set forth in the evidence submitted by the parties are as follows and are undisputed unless otherwise noted. On February 9, 2013, a fire occurred in a townhouse

located in Phoenixville, Pennsylvania ("the townhouse"). *Daubert* Mot. ¶ 1. In 2003, the townhouse was purchased as new construction by Alkis Marland. *Id.* ¶ 2. The basement was unfinished at the time of purchase. *Id.* In February 2005, Mr. Marland contracted with defendant John Grimley to install framing and drywall to finish the basement. *Id.* ¶ 3. Mr. Marland also contracted with defendant Anthony Electric to complete the electrical work in the basement at that time. *Id.*, Ex. C ("Grimley Dep.") 20:18-20. In 2006, Mr. Marland contracted with defendant Hartman Contractors to install a drop ceiling and shelving in the closet under the stairs leading from the basement to the first floor. *Daubert* Mot. ¶ 5. After Mr. Marland's death on March 6, 2012, the townhouse passed to his estate and was unoccupied from Mr. Marland's death through the date of the fire. *Id.* ¶¶ 6-7. At all times relevant to this case, the townhouse was insured by plaintiff State Farm Fire and Casualty Company. *Id.* ¶ 10.

In January 2013, a failed condenser in one of the heating, ventilation, and air conditioning ("HVAC") units caused water damage to the basement of the townhouse. *Id.* ¶ 13. After receiving a water damage claim, plaintiff hired Service Master Assured Cleaning Services ("Service Master")[1] for water remediation services. *Id.* ¶¶ 11, 14. As part of this remediation, drying equipment ran continuously in the basement from February 6, 2013, through the time of the fire. *Id.* ¶ 15. On February 9, 2013, at approximately 5 P.M., a fire was reported at the townhouse, and fire response units were dispatched to the property. *Id.*, Ex. F ("Overholt Report"), at 1.[2] The fire damaged the basement, first floor, and second floor of the townhouse. *Daubert* Mot. ¶ 17.

[1] By Order dated April 6, 2017, by agreement of the parties, third party defendant Service Master Assured Cleaning Services was dismissed from the action with prejudice.
[2] Overholt's report incorrectly reports the date as February 19, 2013. Resp. Opp'n *Daubert* Mot., Ex. B ("Overholt Dep.") 29:10-12.

After the fire was extinguished, Fire Marshal John Overholt conducted a fire cause and origin investigation. *Daubert* Mot. ¶ 18; Overholt Report 2. In relevant part, Overholt concluded that the origin of the fire was near the center of the stairs leading from the basement to the first floor. Overholt Report 8. A section of the 2x4 stud in the origin area, and of the wiring attached to that stud, which lead to a duplex receptacle below,[3] was burned through. *Daubert* Mot. ¶ 21, Ex. G. Overholt concluded that the fire "result[ed] from an electrical short" and "that a series arc (parting arc) as well as a parallel arc (direct short) occurred in the area of the fire's origin quite possibly as a result of mechanical damage to the electrical conductors." Overholt Report.[4] With respect to the mechanical damage, Overholt reported that "debris from the point of origin was sifted and evaluated . . . . to locate possible staples and or nails/screws that may have contributed to the arcing." *Id.* at 4. Overholt found "no signs of arcing" on the recovered screws, nails, or staples. *Id.* Overholt recommended that "a qualified electrical engineer should be consulted for further investigation." *Id.* at 8.

As part of the fire insurance claim process, plaintiff retained fire investigator Robert Buckley, who concluded that "the fire originated inside the wall on the side of the stairs from the basement to the 1st floor . . . ." *Daubert* Mot. ¶ 22, Ex. H ("Buckley Report"), at 5. Based on his inspection, Buckley concluded that "the ignition source for the fire was an electrical breakdown in the Romex wiring from mechanical damage resulting from a nail, screw or staple." Buckley Report 6. Plaintiff also retained electrical engineer Michael Wald "to assist in determining the cause of the fire" and "to determine why th[e] wiring failed and ignited the fire." *Daubert* Mot., Ex. I ("Wald Report"), at 1. In his report, Wald opines that the wire was damaged by a 2-inch

[3] A "duplex receptacle" is an electrical outlet with two ports. *Daubert* Mot., Ex. J ("Wald Dep.") 53:23–54:3; 93:24–94:4.

[4] Arcing is a "luminous discharge in the air between two conductive surfaces" that "is evidence that the conductor has severely overheated . . . ." Wald Dep. 63:22-23, 64:12-24.

drywall screw used by defendant Grimley to install the drywall in 2005, which allowed the wire to overheat and cause the fire during the water damage remediation in 2013. *Id.* at 3.

Plaintiff filed its Complaint on November 13, 2016. Grimley filed his *Daubert* Motion to preclude Michael Wald's testimony and a related Motion for Summary Judgment on January 13, 2017. Plaintiff filed its Responses to the Motions on February 10, 2017. The Motions are thus ripe for review.

III. *DAUBERT* MOTION

The Court begins by addressing Grimley's *Daubert* Motion. Plaintiff offers Wald's opinions as an expert in electrical engineering and home construction. Resp. Opp'n *Daubert* Mot. 10, Ex. E ("Wald Curriculum Vitae"), at 1. For the reasons explained below, Grimley's *Daubert* Motion is granted in part and denied in part.

A. Applicable Law

Federal Rule of Evidence 702 provides that:

> 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.

"Faced with a proffer of expert scientific testimony . . . the trial judge must determine . . . whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue." *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 592 (1993). This gatekeeping function extends beyond scientific testimony to testimony based on "technical" and "other specialized" knowledge. *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999).

Rule 702 has "a liberal policy of admissibility." *Pineda v. Ford Motor Co.*, 520 F.3d 237, 243 (3d Cir. 2008) (quoting *Kannankeril v. Terminix Int'l, Inc.*, 128 F.3d 802, 806 (3d Cir. 1997)). As such, the "rejection of expert testimony is the exception and not the rule." Fed. R. Evid. 702, advisory committee's note. "Rule 702 embodies three distinct substantive restrictions on the admission of expert testimony: qualifications, reliability, and fit." *Elcock v. Kmart Corp.*, 233 F.3d 734, 741 (3d Cir. 2000) (citing *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 741 (3d Cir. 1994)); *see also Daubert*, 509 U.S. at 590 ("the requirement that an expert's testimony pertain to 'scientific knowledge' establishes a standard of evidentiary reliability"). The party offering the expert opinion must prove each of these requirements by a preponderance of the evidence. *In re TMI Litig.*, 193 F.3d 613, 663 (3d Cir. 1999).

Only the qualifications and reliability requirements are at issue in this case. With respect to qualifications, "Rule 702 requires the witness to have 'specialized knowledge' regarding the area of testimony." *Betterbox Commc'ns Ltd. v. BB Techs., Inc.*, 300 F.3d 325, 335 (3d Cir. 2002) (quoting *Waldorf v. Shuta*, 142 F.3d 601, 625 (3d Cir. 1998)). The qualifications requirement should be interpreted "liberally," *see Waldorf*, 142 F.3d at 625, and "various kinds of 'knowledge, skill, experience, training or education,' [may] qualify an expert as such," *In re Paoli*, 35 F.3d at 855 (quoting Fed. R. Evid. 702).

With respect to reliability, "the expert's opinion must be based on the 'methods and procedures of science' rather than on 'subjective belief or unsupported speculation'; [and] the expert must have 'good grounds' for his or her belief." *In re Paoli*, 35 F.3d at 742 (quoting *Daubert*, 509 U.S. at 590). The test of reliability is "flexible" and "the law grants a district court the same broad latitude when it decides *how* to determine reliability as it enjoys in respect to its

ultimate reliability determination." *Kumho Tire*, 526 U.S. at 141-42. In determining whether the reliability requirement is met, courts examine following non-exclusive list of factors:

> (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

United States v. Mitchell, 365 F.3d 215, 235 (3d Cir. 2004) (citing *In re Paoli*, 35 F.3d at 742 n.8). These factors are neither exhaustive nor applicable in every case. *Kannankeril*, 128 F.3d at 806-07.

The reliability requirement does not require parties "to demonstrate to the judge by a preponderance of the evidence that the assessments of their experts are *correct*, they only have to demonstrate by a preponderance of evidence that their opinions are reliable." *In re Paoli*, 35 F.3d at 744. "The evidentiary requirement of reliability is lower than the merits standard of correctness." *Id.* "As long as an expert's scientific testimony rests upon good grounds, based on what is known, it should be tested by the adversary process—competing expert testimony and active cross-examination—rather than excluded from jurors' scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies." *Mitchell*, 365 F.3d at 244 (citations and quotations omitted).

The Court first addresses Grimley's *Daubert* Motion. It then turns to Grimley's Motion for Summary Judgment.

B. Discussion

In his *Daubert* Motion, Grimley primarily challenges Wald's testimony on the ground that it is unreliable under Rule 702 and *Daubert*. In addition, Grimley argues that Wald is not

qualified to offer an opinion on the origin of the fire. The Court will address Wald's qualifications first.

1. Wald's qualifications

Grimley challenges only Wald's qualifications with respect to determining the origin area of the fire and does not challenge Wald's qualifications with respect electrical engineering or home construction. However, the Court notes the following with respect to Wald's training and experience: Wald holds a Bachelor of Science degree from Cornell University in Pre-med and Electrical Engineering and a Master of Science in Electrical Engineering from George Washington University. Wald Curriculum Vitae 1. Since 1999, Wald has been president of IEI Consulting, Inc., a "forensic engineering consulting company," which involves conducting investigations into electrical malfunctioning as well as management responsibilities. *Id.* Wald has 27 years of experience in investigating electrical equipment malfunctions and failures and, *inter alia*, fires caused by these failures. *Id.* He also has 13 years of experience in home construction, including "electrical, mechanical and plumbing system installation . . . . " *Id.*

Grimley argues that Wald is not a certified fire investigator and thus is not qualified to offer an opinion on the origin of the fire. Mem. Supp. *Daubert* Mot. 16. Wald does not purport to be an expert in determining the origin area of fires: he testified that he is not a certified fire investigator or "an origin and cause expert . . . in regard to fire investigation." Wald Dep. 11:23–12:5. Rather, Wald explained that he "investigates incidents involving electrical equipment to determine the cause" and that he was retained as an electrical engineer "to assist in determining the cause of the fire" and "determine why th[e] wiring failed and ignited the fire." *Id.* at 10:20 11:3; Wald Report 1. However, to the extent that Wald's report offers his own opinion on the

origin area of the fire and does not rely on the opinions of Overholt and Buckley,[5] the Court agrees that Wald is not qualified to offer an expert opinion on this issue and may not offer an opinion on the origin area of the fire. While Wald need not have "a certain kind of degree or background," *Waldorf*, 142 F.3d at 625, plaintiff presents no evidence that Wald is qualified to offer an opinion on the origin of the fire. This ruling has no effect on Wald's ability offer an expert opinion with respect to causation based on his experience and training in electrical engineering and/or home construction.

2. Wald's Opinion

In his report, Wald concluded that the fire was caused by the failure of the branch circuit conductor[6] in the wall under the basement steps due to mechanical damage to that wire. Wald Report 2; Wald Dep. 53:11-15. Wald further concluded that the damage to the wire was caused by a 2-inch drywall screw improperly used by Grimley when installing the drywall in 2005. Wald Report 2-3; Wald Dep. 54:10-21.

As part of his investigation, Wald visited the townhouse on March 13, 2013, examined the fire damage, fire origin area, and the electrical equipment; measured the nails and screws recovered from below the origin area by Overholt; and "traced the electrical supply circuit for [the area at issue] back to the subpanel and removed the circuit breaker that was supplying that panel." Wald Report 1; Wald Dep. 31:16–33:8, 34:22–35:14, 47:5-14. In addition to his own investigation, Wald reviewed the depositions of Overholt, Grimley, Alex Anthony of Anthony

[5] The parts of Wald's report with respect to the origin area of the fire are in the "Investigation" section of the report. Wald Report 1. However, when asked whether he determined the origin area or relied on someone else's determination, Wald stated that he "was told that the fire investigator had determined an origin area, but [he] confirmed it with his own inspection." Wald Dep. 35:18–36:1.

[6] The "branch circuit conductor" is the wiring which connects the attached outlet receptacles to the basement subpanel. Wald Dep. 53:20–54:9.

Electric, and Carlos Bell of Service Master, including Bell's testimony with respect to the use of drying equipment during the remediation process. Wald Report 1; Wald Dep. 45:15-22, 47:5-14.

Wald testified that he used "industry standards such as [National Fire Protection Association] 921" to reach his conclusions. Wald Dep. 82:1-10. He further testified that his reference "to a reasonable degree of engineering certainty" in his report meant that he "followed the scientific method and applicable standards for this area of practice." *Id.* at 82:11–83:15. Wald stated that his conclusions are supported by "accepted science," including "the science that goes behind the National Electric Code, the science that goes behind the rating of the current carrying capacity for conductors" and "50 years" of "voluminous evaluations and testing of the issues here at hand." *Id.* at 85:11-86:4.

In support of his conclusion that the failure in the wiring caused the fire, Wald explained that there was evidence of abnormal electrical activity in origin area—copper beading on the ends of severed wiring and arcing—and that there were "[n]o other potential sources of ignition . . . in this area." Wald Report 1. Wald explained that the copper beading was "evidence of electrical arcing failure that is capable of igniting a fire," and that "arcing is evidence that the conductor ha[d] severely overheated to the point where it melted the metal of the conductor," and this the overheating cause[d] the fire. *Id.* at 1; Wald Dep. 63:22-23, 64:6-24.

In support of his conclusion that the wiring overheated as a result of mechanical damage as opposed to merely overloading, Wald explained that "the circuit breaker protecting the circuit was of the correct size and would have tripped to remove any damaging levels of current," Wald Report 2, "if the wire were in its originally manufactured undamaged condition . . ." Wald Dep. 110:22–111:4. Furthermore, Wald testified that his investigation showed no signs of an overloaded, undamaged wire:

> If you are overloading an undamaged wire, the damage that occurs would be uniform over the whole wire . . . . So, in looking at a wire to see if it has been overloaded, you look at other areas other than where the failure occurred to see if there are signs of overheating. And there were no signs here.

Wald Dep. 112:6–113:9.

Wald also contends that "[t]he timing of the failure also strongly supports" the conclusion that the failure of the wire was caused by mechanical damage. Wald Report 2. He explained that mechanical damage in 2005 could result in a fire in 2013 because the mechanical impact would reduce the size of the wire, and thus "the load carrying capacity of the wire." Wald Report 2.

> In that case the wire can still carry short term loads without consequence. As long as the duration of the load current is relatively brief the damaged area never reaches sufficient temperature to ignite a fire. However, when the damaged area is exposed to constant current draw over a long period of time then the heat at the damaged area can reach levels sufficient to cause a fire. . . . The damaged wiring did not result in a fire until there was a prolonged draw of current through this wire by the operation of the remediation equipment.

Id.

Wald could not specify the electrical load on the circuit when it failed or the number of dryers plugged into the circuit at that time. However, Wald explained his conclusion that there was a "prolonged draw of current" over the circuit at issue: sixteen pieces of air drying equipment were in use in the basement, photographs taken by Overholt showed at least four pieces of drying equipment in the room where the fire began, and "it is electrical practice to make all of the receptacles in the room on the same circuit; typically it's all the receptacles on a floor, depending on" the size of the house. Wald Dep. 92:10-19; 93:17-23, 94:5–95:2, 98:20–99:1. Wald also stated that "this particular equipment, because it has compressors and motors in it, will draw very high amounts of current when they first turn on. Each time it cycles you get very high levels of current." *Id.* at 96:13-23.

In concluding that a 2-inch drywall screw damaged the wire, Wald examined and measured the fasteners—nails, staples, 2-inch drywall screws, and 1¼-inch drywall screws—recovered from below the origin area by Overholt. *Id.* 71:9-15. He observed that the remaining wiring in the origin area was marked with a date code of January 23, 2005, and was installed according to the National Electric Code—"right down the center of the stud." Wald Report 2. Wald explained that "[t]he National Electric Code requires branch circuit wiring to be held 1½ inches back from the face of the stud"; thus, because a 2x4 stud "is actually 3 ½ inches wide" and the wire itself is about half-an-inch wide, it is standard practice to install wiring down the center of the stud so that the wire is 1½ inches from the face of the stud and unable to be damaged by 1¼-inch screws used to install drywall. *Id.* at 2-3.

Wald concluded that, of the fasteners found in the debris, the "only fastener that could hit that wire would be 2-inch drywall screw." Wald Dep. 108:19–109:6. Wald eliminated staples as the source of the damage because, while he did not know "with certainty" that a staple was not in the origin area because that portion of the stud had burned away, a staple did not cause the damage for two reasons:

> [T]here's a staple just below there that's there. You only put staples over certain intervals. There would be no reason to have another staple that close to an existing staple, for one. Two, it is very difficult for a staple to cause a fire. And when it does, it typically bridges two conductors [wires] just because of the way staples are put in. You can overdrive a staple and potentially create a bridge between two conductors. In this incident, we know only conductor [wire] was damaged.

Id. at 104:21–105:2-20, 107:10-12. He eliminated the nails as the source of the damage because "there would be no reason to even consider a nail being in that area," and the 1¼-inch drywall screws because they could not reach the properly installed wiring. *Id.* at 65:12–66:9, 107:13-20. Wald determined that the 2-inch drywall screws came from the origin area and not the steps

above the origin area on the ground that "Overholt collected them from right below the origin area . . . ." *Id.* at 81:9-21.

Wald determined that Grimley had installed the 2-inch drywall screws despite Grimley's testimony that he had only used 1¼ inch screws in installing the drywall. *Id.* at 67:19–68:6. In so concluding, Wald relied on the fact that the screws were drywall screws, they were installed after the wiring was in place, and Grimley had installed the drywall. Wald Report 1–2; Wald Dep. 68:7–70:17. He concluded that drywall was installed after the wiring at issue because the wiring was stapled to the stud and thus the wall would have been "open" when the wiring was installed. Wald Report 1. He also concluded that the screws were not installed by Hartman Contractors because Hartman Contractors did not install shelving on the wall where the fire originated. Wald Dep. 72:23–75:12. On this issue, Wald also opined that Grimley used the 2-inch drywall screws instead of the 1¼-inch dry wall screws because he made "a mistake. He happened to have 2-inch screws mixed in with his 1 and ¼-inch screws in his pouch on his belt." *Id.* at 68:16-22. Wald went on to state that "[i]t's actually a pretty common occurrence for people to mistakenly use the wrong size hardware . . . . Whatever hardware the installer happens to have handy, they use, and often they use the wrong hardware." *Id.* at 68:23-69:16.

3. Reliability Analysis

Grimley raises numerous challenges to the reliability of Wald's opinion that the mechanical damage to the conductor which resulted in the fire was caused by a 2-inch drywall screw improperly used by Grimley. Specifically, he argues that (1) Wald did not follow the scientific method because he listed no specific standards and did not interview witnesses or conduct tests, Mem. Supp. *Daubert* Mot. 17; (2) Wald's opinion lacks evidentiary support because he cannot identify which 2-inch drywall screw recovered from the debris damaged the

wire, he cannot specify the electrical load on the damaged wire at the time of the fire, and there is no evidence that staples or nails did not damage the wire, *id.* at 17-18; (3) Wald speculates that Grimley mistakenly used 2-inch drywall screws, *id.* at 17; (4) Wald's opinions are based on his "training and years of experience as an engineer," *id.* at 18; and (5) Wald uses "negative corpus" methodology to conclude that a 2-inch drywall screw caused the damage to the wire, *id.* at 18-19. The Court will address each argument in turn.

First, the Court rejects Grimley's argument that Wald did not apply the scientific method. *See* National Fire Protection Association, *NFPA 921, Guide for Fire & Explosion Investigations* ("NFPA") § 4.3 (2014) (describing the scientific method as identifying and defining the problem, collecting and analyzing data, developing a hypothesis through inductive reasoning and testing the hypothesis through deductive reasoning, and selecting the final hypothesis).[7] Wald conducted his own investigation by visiting the scene of the fire and observing and collecting evidence, and reviewed the deposition testimony of Overholt, Grimley, and representatives of the other defendants. *See* NFPA § 4.4.3.2 (describing fire investigation tasks and data collection). He analyzed the evidence based on his knowledge of electrical engineering and home construction and accepted electrical engineering standards. *See* NFPA § 4.3.4 ("Analysis of the data is based on the knowledge, training, experience, and expertise of the individual doing the analysis.").

Wald concluded based on the evidence that mechanical damage caused the wire to fail. *See* NFPA § 4.3.5 ("Based on the data analysis, the investigator produces a hypothesis, or hypotheses to explain the phenomenon . . . ."). He then eliminated other potential sources of the mechanical damage to conclude that one of the 2-inch drywall screws caused the mechanical

[7] The parties agree that the method of fire investigation detailed in NFPA 921 is reliable methodology. Mem. Supp. *Daubert* Mot. 7-8; Resp. Opp'n Daubert Mot. 6-7.

damage. *See* NFPA § 4.3.6 ("A hypothesis can be tested physically by conducting experiments, analytically by applying accepted scientific principles, or by referring to scientific research."). Moreover, Grimley cites no authority for the proposition that the scientific method requires witness interviews, and his argument with respect to testing ignores the fact that NFPA standards do not require physical experimentation. *See* NFPA § 4.3.6. For the foregoing reasons, the Court concludes that Wald's opinion is supported by accepted methodology.

Second, the Court rejects Grimley's argument that Wald's opinion lacks evidentiary support. Wald explained the grounds for his conclusion that the wire that caused the fire was damaged by a 2-inch drywall screw. He concluded that the 2-inch drywall screws were in the area of the origin of the fire because they were in the debris from the origin area. Wald Dep. 71:9-15, 81:9-21. He further concluded that the 2-inch drywall screws found in the debris were installed by Grimley: the wiring was installed before the drywall, and Grimley installed the drywall and was the only party that would have used drywall screws in the origin area. Wald Report 1, 3; Wald Dep. 69:17–70:17, 72:23–73:8, 74:11–75:12. As described *supra*, Wald eliminated as causes of the fire the other fasteners found in the debris. Wald Dep. 108:19–109:6. While Wald could not specific the exact load current or number of dryers on the circuit at issue at the time of the fire, Wald explained that the "prolonged use" of at least four dryers drew a high level of current over the damaged wire, which resulted in the wiring overheating to the point of igniting the fire. Wald Report 2; Wald Dep. 91:16–92:1, 94:5-2.

Furthermore, any deficiencies in the evidence supporting Wald's conclusions and the correctness of those conclusions are relevant to the weight that his opinion should be given, not to its admissibility. Moreover, any insufficiency in the evidence supporting Wald's conclusions or errors in those conclusions can be covered in cross-examination at trial. *See Mitchell*, 365

F.3d at 244 ("As long as an expert's scientific testimony rests upon good grounds, based on what is known, it should be tested by the adversary process—competing expert testimony and active cross–examination. . . ." (quotation marks omitted)).

Third, the Court agrees with Grimley that Wald's opinion that Grimley mistakenly used 2-inch drywall screws because he happened to have them in the pouch on his belt is speculation and not based on the facts of this case. Wald supports his opinion by stating that "[i]t's actually a pretty common occurrence for people to mistakenly use the wrong size hardware," Wald Dep. 68:16–69:2, and that he "had ten to 15 cases, litigation type cases, where that has occurred . . . ." *Id.* at 69:3-16. Plaintiff offers no evidence from this case, and the Court finds none, in support of this conclusion. Furthermore, a conclusion based on the errors of ten to fifteen people in similar professions is not the result of scientific method or reasoning. To the extent that Wald offers an opinion as to *why* Grimley used 2-inch screws, the Court concludes that this portion of Wald's testimony does not satisfy the reliability requirement for expert testimony under Rule 702 and *Daubert* and Wald may not offer testimony on this issue at trial.

Fourth, the Court rejects Grimley's argument that Wald's opinion as to the cause of the fire must be excluded because his opinions are based on his "training and years of experience as an engineer," and not on testing. Mem. Supp. *Daubert* Mot. 18 (citing *Oddi v. Ford Motor Co.*, 243 F.2d 136 (3d Cir. 2000)). Contrary to Grimley's argument, the fact that Wald testified that his opinion was based on his experience as electrical engineer supports the admissibility of his testimony. "Nothing [in Rule 702] is intended to suggest that experience alone—or experience in conjunction with other knowledge, skill, training or education—may not provide a sufficient foundation for expert testimony. To the contrary, the text of Rule 702 expressly contemplates that an expert may be qualified on the basis of experience." Fed. R. Evid. 702, advisory

committee's note; *see also Kumho Tire*, 526 U.S. at 156 ("[N]o one denies that an expert might draw a conclusion from a set of observations based on extensive and specialized experience.").

Finally, the Court rejects Grimley's argument that Wald improperly used "negative corpus" to determine the cause of the mechanical damage to wire. Mem. Supp. *Daubert* Mot. 18-19. Negative corpus is the "process of determining the ignition source for a fire, by eliminating all ignition sources found, known, or believed to have been present in the area of origin, and then claiming such methodology is proof of an ignition source for which there is no supporting evidence . . . ." NFPA § 19.6.5. While negative corpus is "not consistent with the scientific method," NFPA § 19.6.5, it was not used in this case. Rather, Wald concluded that a 2-inch drywall screw damaged the wire based on the evidence in this case: the presence of 2-inch drywall screws in the debris under the origin area. To arrive at his conclusion that the other fasteners found in the debris did not cause the damage, Wald permissibly used the process of elimination. *See* NFPA 921 § 19.6.5 ("The process of elimination is an integral part of the scientific method.").

Therefore, excepting only his conclusion that Grimley mistakenly used 2-inch drywall screws because he happened to have them in the pouch on his belt, the Court concludes that plaintiff has shown by a preponderance of the evidence that Wald's opinion is reliable. Wald applied the scientific method, as well as his experience and training in electrical engineering and home construction, to the evidence in this case. Wald's qualifications—his training and experience in electrical and forensic engineering, and home construction—provide further assurance that his opinion is reliable. *Elcock*, 233 F.3d at 749 ("[A]n expert's level of expertise may affect the reliability of the expert's opinion." (quotation marks and citation omitted)).

For the foregoing reasons, Grimley's *Daubert* Motion is granted in part and denied in part. The *Daubert* Motion is granted with respect to Wald's opinion as to the origin of the fire and why Grimley used 2-inch drywall screws. The Motion is denied in all other respects.

IV. MOTION FOR SUMMARY JUDGMENT

Grimley's Motion for Summary Judgment argues that if Wald is precluded from testifying, plaintiff will have no expert testimony on which to base its negligence claims against him. Without Wald's testimony, Grimley argues that plaintiff has no evidence that Grimley's conduct caused the fire, and so summary judgment must be granted in Grimley's favor.

Grimley's Motion for Summary Judgment is contingent on the granting of his *Daubert* Motion with respect to Wald's testimony. The Court has only granted that Motion in part, and has permitted Wald to testify at trial regarding causation, excepting only his opinion as to the origin of the fire and why Grimley used the 2-inch drywall screws. Wald's proposed testimony on causation presents a genuine dispute of material fact with respect to whether Grimley caused the fire. Grimley's Motion for Summary Judgment is therefore denied.

V. CONCLUSION

For the foregoing reasons, the Motion in Limine (*Daubert* Motion) of Defendant John Grimley, t/a and/or d/b/a JG & Associates to Preclude the Testimony of Plaintiff's Proffered Expert Witness Michael Wald is granted in part and denied in part. That Motion is granted as to Wald's opinion on the origin of the fire and why Grimley used 2-inch drywall screws, and denied in all other respects. Defendant John Grimley[‘s], t/a and/or d/b/a JG Associates[,] Motion for Summary Judgment is denied. An appropriate order follows.