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

USAA CASUALTY INSURANCE COMPANY, a/s/o JOAN SONNEN,	:	**CIVIL ACTION NO. 1:12-CV-1178**
	:	**(Chief Judge Conner)**
Plaintiff,	:	
v.	:	
METROPOLITAN EDISON COMPANY,	:	
Defendant/Third Party Plaintiff,	:	
v.	:	
SCHNEIDER ELECTRIC USA, INC. f/k/a SQUARE D COMPANY,	:	
Third Party Defendant.	:	

MEMORANDUM

Plaintiff USAA Casualty Insurance Company ("USAA"), as subrogee of Joan Sonnen, filed the above-captioned action against defendant Metropolitan Edison Company ("Met-Ed"), alleging negligence and willful and/or wanton misconduct arising from an electrical fire in Ms. Sonnen's home. (Doc. 1). Met-Ed subsequently impleaded Schneider Electric USA, Inc. ("Schneider"), formerly known as Square D Company, as a third-party defendant pursuant to Federal Rule of Civil Procedure 14. (Doc. 48). Presently before the court is Met-Ed's motion for summary judgment (Doc. 58) against USAA, relying on a motion *in limine* to exclude the testimony of USAA's expert witness, Ronald J. Panunto, P.E., C.F.E.I.,

C.F.C. (Doc. 56). For the reasons that follow, the court will deny Met-Ed's motion *in limine* as well as the motion for summary judgment.

I. Factual Background & Procedural History

A. Factual Background

On November 17, 2010, a fire occurred at the home of Joan Sonnen in Manchester, Pennsylvania as a result of an electrical malfunction. (Doc. 59 ¶ 5; Doc. 71 ¶ 5). Ms. Sonnen has a property insurance policy with plaintiff USAA, a Texas corporation licensed to do business in Pennsylvania. (Doc. 10 ¶¶ 1, 6).

Defendant Met-Ed is a Pennsylvania corporation that provides electricity to Ms. Sonnen's home via its 720 distribution line. (Id. ¶ 2; Doc. 59 ¶ 7; Doc. 71 ¶ 7). On November 17, 2010, the breaker at the Zionsview substation for the 720 distribution line opened at 12:57 p.m. and reclosed seven seconds later. (Doc. 59 ¶ 8; Doc. 71 ¶ 8). Thereafter, an electrical fire ignited at the main circuit breaker in the electrical panel in Ms. Sonnen's basement. (Doc. 59 ¶ 9; Doc. 71 ¶ 9). This fire was initially reported to the Union Fire Department at approximately 5:40 p.m. (Doc. 59 ¶ 6; Doc. 71 ¶ 6).

B. Procedural History

On June 20, 2012, USAA, as subrogee of Joan Sonnen, filed a complaint (Doc. 1) against Met-Ed and thereafter filed an amended complaint (Doc. 10) on August 1, 2012, alleging claims for negligence and willful and/or wanton misconduct related to the electrical fire. (Doc. 59 ¶¶ 1-2; Doc. 71 ¶¶ 1-2). Met-Ed filed a motion to dismiss (Doc. 14) pursuant to Federal Rule of Civil Procedure 12(b)(1) and 12(b)(6). (Doc. 59

¶ 3; Doc. 71 ¶ 3). On January 10, 2013, the court adopted the Report and Recommendation of Magistrate Judge Methvin (Doc. 23) and denied the motion to dismiss. (Doc. 30; Doc. 59 ¶ 4; Doc. 71 ¶ 4).

On May 5, 2013, Met-Ed filed a third-party complaint against Schneider, alleging strict liability for a defective main circuit breaker and contribution or indemnification for negligence. (Doc. 48). Schneider filed an answer on June 11, 2013 and included a cross-claim against Met-Ed for contribution or indemnification. (Doc. 51).

C. Expert Testimony

USAA proffers the expert report and testimony of Ronald J. Panunto, P.E., C.F.E.I., C.F.C. in support of its claims. (See Doc. 59-1, Ex. 1; Doc. 71-1, Ex. 1). Mr. Panunto earned a Bachelor of Science degree in electrical engineering from Drexel University and is a registered professional engineer in Pennsylvania, New York, New Jersey, North Carolina, Delaware, and Connecticut. (See Doc. 71-4, Ex. 4). He is a senior member of the Institute of Electrical and Electronic Engineers and a Certified Fire and Explosion Investigator with the National Association of Fire Investigators. (Id.) Mr. Panunto has previously held positions as a Field Engineering and Substation Design Branch Manager at PECO Energy and as a Project Manager at Gannett Fleming, Inc. (Id.) Currently, Mr. Panunto is the President of Dawson Engineering, an electrical design and forensic engineering company. (Id.; Doc. 59-2, Ex. 2, Panunto Dep. 5:22-7:6, Dec. 19, 2013; Doc. 71-3, Ex. 3, Panunto Dep. 5:22-7:6, Dec. 19, 2013). As a forensic engineer, Mr. Panunto has

investigated or provided testimony in approximately 226 cases during the past five years. (Panunto Dep. 12:2-14:2). Significantly, Mr. Panunto has over 40 years of experience in the field of electrical utility and power system engineering. (See Doc. 71-4, Ex. 4).

In his expert report, Mr. Panunto opines that Met-Ed did not adequately maintain trees and tree branches along the 720 distribution line as required by Rule 218 of the National Electric Safety Code ("NESC") and the Pennsylvania Public Utility Commission ("PPUC"). (Doc. 59 ¶ 11; Doc. 71 ¶ 11; see also Doc. 59-1, Ex. 1 at 4; Doc. 71-1, Ex. 1 at 4). As a result of inadequate vegetation management, Met-Ed's customers, including Ms. Sonnen, suffered many power outages prior to the electrical fire at issue. (Doc. 59 ¶ 11; Doc. 71 ¶ 11; see also Doc. 59-1, Ex. 1 at 4; Doc. 71-1, Ex. 1 at 4). These repeated power outages caused repeated high-voltage transients, which in turn caused accelerated wear and eventual failure of the main circuit breaker in Ms. Sonnen's electrical panel. (Doc. 59 ¶ 11; Doc. 71 ¶ 11; see also Doc. 59-1, Ex. 1 at 5; Doc. 71-1, Ex. 1 at 5). Despite Met-Ed's awareness of customer complaints and repeated power outages on the 720 distribution line, Met-Ed did not perform necessary vegetation management to troubleshoot the problem. (Doc. 59 ¶ 11; Doc. 71 ¶ 11; see also Doc. 59-1, Ex. 1 at 5; Doc. 71-1, Ex. 1 at 5).

Mr. Panunto concludes that, on November 17, 2010, a power outage and resultant high-voltage transients (due to vegetation contact) caused the electrical failure at the main circuit breaker in Ms. Sonnen's electrical panel. (Doc. 59 ¶ 11; Doc. 71 ¶ 11; see also Doc. 59-1, Ex. 1 at 5; Doc. 71-1, Ex. 1 at 5). Specifically, the

high-voltage transients caused the main circuit breaker to flash over and electric arcing ignited the insulation on the electrical panel's wiring. (Doc. 59 ¶ 11; Doc. 71 ¶ 11; see also Doc. 59-1, Ex. 1 at 5; Doc. 71-1, Ex. 1 at 5).

Met-Ed and Schneider filed motions for summary judgment on January 13, 2014. (Docs. 58, 61). As part and parcel of its motion for summary judgment, Met-Ed moves *in limine* to exclude the expert testimony of Mr. Panunto.[1] (Doc. 56). Met-Ed argues that USAA cannot meet its burden of proof as to the negligence claim because Mr. Panunto's expert opinions are not sufficiently reliable under Federal Rule of Evidence 702 to constitute admissible evidence. (Doc. 60 at 4-9). Thus, as a threshold issue, the court must determine whether Mr. Panunto's testimony and report are admissible. Thereafter, the court will address Met-Ed's motion for summary judgment.

II. Legal Standard

Under Federal Rule of Civil Procedure 56, summary judgment is appropriate only when "there is no genuine dispute as to any material fact," and the moving party is entitled to judgment as a matter of law. FED. R. CIV. P. 56(a). A factual dispute is material if it might affect the outcome of the action under applicable law, and it is genuine only if there is a sufficient evidentiary basis that would allow a

[1] On January 27, 2013, USAA filed a motion to strike the motion *in limine* and related portions of the motion for summary judgment as untimely. (Doc. 65). The court denied the motion to strike for the reasons set forth in the court's order dated February 4, 2014 (Doc. 73) and, accordingly, the court will not revisit USAA's arguments here. (See Doc. 71 ¶ 13).

reasonable factfinder to return a verdict for the non-moving party. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248-49 (1986).

The burden of proof is upon the non-moving party to come forth with "affirmative evidence, beyond the allegations of the pleadings," in support of its right to relief. Pappas v. City of Lebanon, 331 F. Supp. 2d 311, 315 (M.D. Pa. 2004); see also Celotex Corp. v. Catrett, 477 U.S. 317, 322-23 (1986). "Such affirmative evidence—regardless of whether it is direct or circumstantial—must amount to more than a scintilla, but may amount to less (in the evaluation of the court) than a preponderance." Saldana v. Kmart Corp., 260 F.3d 228, 231-32 (3d Cir. 2001) (quoting Williams v. Borough of West Chester, 891 F.2d 458, 460-61 (3d Cir. 1989)). This evidence must be adequate, as a matter of law, to sustain a judgment in favor of the non-moving party on the claims. See Anderson, 477 U.S. at 250-57; Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587-89 (1986); see also FED. R. CIV. P. 56(c), (e). Only if this threshold is met may the cause of action proceed. Pappas, 331 F. Supp. 2d at 315.

"A party may object that the material cited to support or dispute a fact cannot be presented in a form that would be admissible in evidence." FED. R. CIV. P. 56(c)(2). When there is a proper challenge to the admissibility of evidence, such as a motion *in limine* to exclude expert testimony, the party offering the expert bears the burden of establishing the admissibility of such expert's testimony and report by a preponderance of the evidence. See Burke v. TransAm Trucking, Inc., 617 F. Supp. 2d 327, 331 (M.D. Pa. 2009); see also *In re* Paoli R.R. Yard PCB Litig.

("Paoli II"), 35 F.3d 717, 744-46 (3d Cir. 1994).

Admissibility of expert testimony is a question of law governed by Federal Rule of Evidence 702. See Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 588-89 (1993). Trial courts must act as gatekeepers to "ensure that any and all scientific testimony or evidence admitted is . . . reliable." Id. at 589. Rule 702 provides that:

> 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; © 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. The Third Circuit has explained that Rule 702 sets forth three separate restrictions on the admission of expert testimony: qualification, reliability, and fit. Schneider *ex rel.* Estate of Schneider v. Fried, 320 F.3d 396, 404 (3d Cir. 2003). Rule 702 embraces a "liberal policy of admissibility," pursuant to which it is preferable to admit any evidence that may assist the trier of fact. 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)).

III. Discussion

In the instant motions, Met-Ed raises four main issues for the court's consideration. First, Met-Ed requests that the court strike Mr. Panunto's supporting affidavit and deposition errata sheet under the sham affidavit doctrine. (Doc. 74 at 3-7). Second, Met-Ed argues that USAA may not rely on Mr. Panunto's

expert opinion testimony because he is not qualified to give such opinions and his opinions are neither reliable nor relevant. (See Doc. 57). Third, Met-Ed contends that, even if Mr. Panunto's opinions are admissible, Rule 24 of Met-Ed's Electric Service Tariff[2] (the "Tariff") limits MetEd's liability for claims arising from a customer's electrical equipment and therefore bars the negligence claim. (Id. at 10-11). Finally, Met-Ed asserts that USAA lacks adequate evidence to sustain the willful or wanton misconduct claim, thereby limiting Met-Ed's liability to $500 under Rule 24 of the Tariff and depriving the court of subject-matter jurisdiction.[3] (Id. at 11-13). The court will address each issue *seriatim*.

A. Sham Affidavit Doctrine

Met-Ed moves to strike Mr. Panunto's affidavit and errata sheet, which USAA submitted in opposition to the motion *in limine* and motion for summary judgment, under the sham affidavit doctrine. (Doc. 74 at 3-7; see Doc. 64-4, Ex. C; Doc. 64-5, Ex. D; Doc. 71-2, Ex. 2). "A sham affidavit is a contradictory affidavit that indicates only that the affiant cannot maintain a consistent story or is willing to offer a statement solely for the purpose of defeating summary judgment. A sham

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[2] A tariff is a set of operating rules imposed by the Commonwealth that a public utility must follow in order to provide services to customers. PPL Elec. Utilities Corp. v. Pa. Pub. Util. Comm'n, 912 A.2d 386, 402 (Pa. Commw. Ct. 2006). Public utility tariffs have the force and effect of law, and tariffs are binding on both the utility and customer. Id.

[3] In its opposition to the instant motion, USAA concedes its willful misconduct claim and pursues only a claim for wanton misconduct. (Doc. 72 at 10; see also Doc. 75 at 6).

affidavit cannot raise a genuine issue of fact because it is merely a variance from earlier deposition testimony, and therefore no reasonable jury could rely on it to find for the nonmovant." Jiminez v. All Am. Rathskeller, Inc., 503 F.3d 247, 253 (3d Cir. 2007). When it is clear that an affidavit is offered solely for the purpose of defeating summary judgment, the court may disregard the contradictory affidavit. Id.; Baer v. Chase, 392 F.3d 609, 624 (3d Cir. 2004); see also EBC, Inc. v. Clark Bldg. Sys., Inc., 618 F.3d 253, 267-71 (3d Cir. 2010) (applying sham affidavit doctrine to deposition errata sheet).

However, if the proponent offers a satisfactory explanation for contradictory statements or independent evidence in the record to corroborate the affidavit, courts generally refuse to disregard the affidavit. See Jiminez, 503 F.3d at 254; Rossi v. All Holding Co., Inc., No. 3:CV-11-1641, 2014 WL 346934, at *6-7 (M.D. Pa. Jan. 30, 2014). Disregarding statements in an affidavit or errata sheet is appropriate only on "clear and extreme facts;" that is, when the affidavit is "flatly contradictory" to the prior testimony. Coleman v. Cerski, No. 3:04-CV-1423, 2007 WL 2908266, at *5 (M.D. Pa. Oct. 4, 2007) (citing Videon Chevrolet, Inc. v. Gen. Motors Corp., 992 F.2d 482, 488 (3d Cir. 1993)).

In the case *sub judice*, Mr. Panunto's statements do not flatly contradict his deposition testimony. Rather, his declarations are better characterized as elaborating upon his deposition testimony. In paragraph 8 of the affidavit, Mr. Panunto attests that "[m]ultiple voltage transients were occurring on the electrical lines sufficient to cause the breakdown of the main circuit breaker." (Doc. 64-4, Ex.

C at 2; Ex. 71-2, Ex. 2 at 2). In his deposition, Mr. Panunto testified that "under most cases the transients that the electric company produces are not sufficiently powerful or sufficiently high voltage to cause the breakdown of the breakers." (Panunto Dep. 65:17-20). However, circuit breakers are designed to handle transients "only up to a certain extent." (Panunto Dep. 62:24-66:3). Mr. Panunto further stated that 24 breaker trips in the two years prior to the fire was "terrible power quality" and caused "sustained trauma" on Ms. Sonnen's electrical equipment. (Panunto Dep. 72:5-11). Viewed in this context, Mr. Panunto's affidavit is consistent with his cumulative deposition testimony.

In paragraph 6 of his affidavit, Mr. Panunto reiterates his opinion that Met-Ed failed to keep its 720 distribution line free from tree contact despite its awareness of a long history of outages related to tree contact. (Doc. 64-4, Ex. C at 2; Ex. 71-2, Ex. 2 at 2). Met-Ed narrowly focuses on a single statement in Panunto's deposition, in which he stated "we don't know why the breaker tripped." (Doc. 74 at 5 (citing Panunto Dep. 75:4-5)). In context, Mr. Panunto acknowledged that there is no direct evidence as to the cause of the breaker tripping; however, he testified that, based on his personal experience, industry knowledge and Met-Ed's internal records, the most likely cause of the breaker tripping and power outage was vegetation contact. (Panunto Dep. 85:22-87:14; see also Doc. 64-5, Ex. D).

Mr. Panunto further attests that "the area around Ms. Sonnen's home and the 720 distribution line is a tree-filled area with above-ground electrical lines." (Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3). Met-Ed cites a contradiction with Mr.

Panunto's testimony that he did not drive along the distribution line to evaluate vegetation management. (Panunto Dep. 81:19-83:12, 95:11-14). Upon review of the affidavit, it is clear that this statement merely establishes the parameters of Mr. Panunto's personal observations and photographic record from his investigation of Ms. Sonnen's home. (See Doc. 64-4, Ex. C at 2-3; Doc. 71-2, Ex. 2 at 2-3).

Lastly, Met-Ed asserts that Mr. Panunto raises the phenomenon of arc-tracking for the first time in his affidavit in order to explain the gap between the reclosing of the circuit breaker and the initial report of the fire. (Doc. 74 at 6). However, Mr. Panunto opined that arc-tracking ultimately caused the electrical fire in both his report and deposition. (Doc. 59-1, Ex. 1 at 4-5; Doc. 71-1, Ex. 1 at 4-5; Panunto Dep. 72:19-21). He was simply never asked to explain or given an opportunity to explain his opinion during the course of his deposition.

The court finds no indication that USAA submitted the affidavit or completed the errata sheet in bad faith.[4] In the errata sheet, Mr. Panunto maintains that he is not an expert in vegetation management, but clarifies that his line management experience included assessments of vegetation management.

[4] Met-Ed avers that the timing of the affidavit and errata sheet are suspect because both documents were filed in response to the motion *in limine*. (Doc. 74 at 4, 6-7). This argument is unavailing. It is well-established that a party may use a supporting affidavit to elaborate upon, explain, or clarify prior testimony elicited by opposing counsel in deposition. See, e.g., Grosso v. UPMC, 857 F. Supp. 2d 517, 523 n.5 (W.D. Pa. 2012); Lytle v. Capital Area Intermediate Unit, No. 1:05-CV-0133, 2009 WL 82483, at *2 (M.D. Pa. Jan. 9, 2009). Moreover, Med-Ed took the deposition of Mr. Panunto on December 19, 2013. (Doc. 59 ¶ 12; Doc. 71 ¶ 12). Assuming USAA received the deposition transcript on the same day, USAA completed the errata sheet within 30 days on January 16, 2014. (See Doc. 64-5, Ex. D).

(Doc. 64-5, Ex. D). Consistent with his expert report and deposition testimony, Mr. Panunto also elaborated upon the basis for his opinion that vegetation contact caused the power outage on November 17, 2010. (Id.; Doc. 59-1, Ex. 1 at 1-3; Doc. 71-1, Ex. 1 at 1-3; Panunto Dep. 23:14-25). Because no statement is "flatly contradictory" to prior deposition testimony, the court declines to strike Mr. Panunto's affidavit and errata sheet.

B. Motion *in limine*

In its motion *in limine*, Met-Ed challenges Mr. Panunto's expert testimony on the basis of his qualifications, as well as the reliability and, therefore, the relevance of his opinions. (See Doc. 57). Hence, the court will address each Rule 702 requirement.[5]

i. Qualifications

To qualify as an expert, "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,

[5] The court will not hold a Daubert hearing on the motion *in limine* to exclude the testimony of Mr. Panunto. The decision "to hold [a Daubert hearing] rests in the sound discretion of the district court" and, as noted by the Third Circuit, a Daubert hearing is not always required. Padillas v. Stork–Gamco, Inc., 186 F.3d 412, 418 (3d Cir. 1999). There is a full record before the court on the issue of admissibility, including Mr. Panunto's expert report, deposition, and affidavit. Nothing more is required for a court to determine the admissibility of an expert witness. See Oddi v. Ford Motor Co., 234 F.3d 136, 154 (3d Cir. 2000) (upholding district court's decision to deny a Daubert hearing where the court "already had before it the depositions and affidavits of the plaintiff's experts"); States v. Fernwood Hotel & Resort, No. 12-0906, 2014 WL 198568, at *1 (M.D. Pa. Jan. 15, 2014).

625 (3d Cir. 1998)). The Third Circuit has instructed courts to interpret the qualification requirement "liberally" and not to insist on a particular degree or background when evaluating the qualifications of an expert. Waldorf, 142 F.3d at 625. "The language of Rule 702 and the accompanying advisory committee notes make clear that various kinds of 'knowledge, skill, experience, training, or education,' qualify an expert as such." *In re* Paoli R.R. Yard PCB Litig. ("Paoli I"), 916 F.2d 829, 855 (3d Cir. 1990) (quoting FED. R. EVID. 702).

"This liberal policy of admissibility extends to the substantive as well as the formal qualifications of experts." Pineda, 520 F.3d at 244. Thus, the court has "eschewed imposing overly rigorous requirements of expertise and [has] been satisfied with more generalized qualifications." *In re* Paoli II, 35 F.3d at 741. "It is an abuse of discretion to exclude testimony simply because the trial court does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate." Pineda, 520 F.3d at 244 (quoting Holbrook v. Lykes Bros. S.S. Co., 80 F.3d 777, 782 (3d Cir. 1996)).

In the instant motion *in limine*, Met-Ed argues that Mr. Panunto's opinions regarding the breach of a duty of care are necessarily based on expertise in vegetation management. (Doc. 57 at 5-7). However, Mr. Panunto is not qualified to offer such opinions because he admitted in his deposition that he has no special training or specific expertise in vegetation management. (Id. at 6). The court finds this argument unpersuasive.

In its expert disclosures, USAA designated Mr. Panunto as an electrical engineering, electric utility, and forensic fire causation expert to opine on the standards of care for electric utilities and breach thereof, as well as the cause of the electrical fire. (Doc. 64-1 at 5; Doc. 64-2, Ex. A; Doc. 71-6, Ex. 6). USAA relied principally upon Mr. Panunto's over 40 years of experience in line management, and most assuredly did not retain Mr. Panunto solely to evaluate vegetation management. (Doc. 64-1 at 5-6; Doc. 64-3, Ex. B; Doc. 71-4, Ex. 4). In his capacity as a forensic engineer, Mr. Panunto has investigated and testified in numerous cases involving inadequate tree trimming resulting in outages, electric shock to persons, and death. (Doc. 64-1 at 6; Doc. 64-4, Ex. C at 2; Doc. 71-2, Ex. 2 at 2). As a result, Mr. Panunto has become familiar with both state and national guidelines for vegetation management related to distribution and transmission lines. (Doc. 64-1 at 6; Doc. 64-4, Ex. C at 2; Doc. 71-2, Ex. 2 at 2).

Accordingly, the court finds that Mr. Panunto need not be a substantive expert in vegetation management; his expertise in the electric utility industry is more than sufficient to opine on the breach of a duty of care and likely cause of the electrical fire in Ms. Sonnen's home. Any further deficiencies in Mr. Panunto's qualifications, such as the lack of specialized training in vegetation management, goes to the weight of his testimony rather than its admissibility. Therefore, Mr. Panunto satisfies Rule 702's liberal qualification requirement.

ii. Reliability

Met-Ed also contests the reliability of Mr. Panunto's proposed testimony. (Doc. 57 at 8-13). Expert testimony is "reliable" when it is based upon sound methodology and technique. *In re* Paoli II, 35 F.3d at 742. The touchstone is whether the expert's methodology is "sufficiently reliable so that it will aid the jury in reaching accurate results." Id. at 744 (internal quotation omitted). Notably, "[t]he 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." United States v. Mitchell, 365 F.3d 215, 244 (3d Cir. 2004) (quoting Ruiz-Troche v. Pepsi Cola of P.R. Bottling Co., 161 F.3d 77, 85 (1st Cir. 1998)); Kannankeril, 128 F.3d at 806 ("Admissibility decisions focus on the expert's methods and reasoning; credibility decisions arise after admissibility has been determined").

The Third Circuit has enumerated several factors to guide the court's reliability inquiry:

> (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.

Pineda, 520 F.3d at 248 (citing *In re* Paoli II, 35 F.3d at 742 n.8). This list of factors is a "convenient starting point," but is "neither exhaustive nor applicable in every case." Kannankeril, 128 F.3d at 806-07. In some cases, the relevant reliability concerns "may focus upon personal knowledge or experience," rather than "scientific foundations." Kumho Tire Co. v. Carmichael, 526 U.S. 137, 150 (1999); see also States, 2014 WL 198568, at *3 (holding that expert's practical and specialized experience rendered his opinions sufficiently reliable despite a lack of a scientific hypothesis or testable theory). Accordingly, the Rule 702 reliability inquiry is a flexible one, and the factors considered must be tied to the facts of the case. Kumho Tire Co., 526 U.S. at 141.

On January 11, 2011, Mr. Panunto conducted an independent fire investigation at the scene of the electrical fire in accordance with National Fire Protection Association 921 *Guide for Fire and Explosion Investigations*.[6] (Doc. 59-1, Ex. 1 at 1; Doc. 71-1, Ex. 1 at 1; Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3). Mr. Panunto began with an external inspection and made a contemporaneous photographic record of the electric service entering Ms. Sonnen's basement.

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[6] Numerous courts have recognized NFPA 921 as reliable for purposes of Rule 702. See, e.g., Hoang v. Funai Corp., Inc., 652 F. Supp. 2d 564 (M.D. Pa. 2009); Booth v. Black & Decker, Inc., 166 F. Supp. 2d 215, 220 (E.D. Pa. 2001); United States v. Zhou, Crim. A. No. 06-286, 2008 WL 4067103, *5 (D.N.J. Aug. 25, 2008) (citing Fireman's Fund Ins. Co. v. Canon U.S.A., Inc., 394 F.3d 1054, 1057-58 (8th Cir. 2005).

(Panunto Dep. 20:10-24; Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3). He then received a briefing from the fire marshal, who stated that the fire started inside the distribution panel at the main circuit breaker right below the kitchen and burned up through the kitchen floor. (Panunto Dep. 22:11-23:4; see also Doc. 59-1, Ex. 1 at 2; Doc. 71-1, Ex. 1 at 2). The fire marshal also indicated that there were strong, gusty winds on the day of the fire and that lights had been blinking on and off in the neighborhood, suggesting that a power surge impacted the circuit breaker. (Panunto Dep. 23:18-25; see also Doc. 59-1, Ex. 1 at 1-2; Doc. 71-1, Ex. 1 at 1-2).

Mr. Panunto continued his inspection from the outside to the inside of the house, and from the least damaged to most damaged areas of the house in order to identify the source of the fire. (Panunto Dep. 29:8-11, 30:3-31:21; Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3). Mr. Panunto inspected all other electrical devices to eliminate them as the cause of the fire. (Panunto Dep. 28:12-31-2; Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3). After identifying the distribution panel in the basement as the origin of the fire, Mr. Panunto proceeded to examine all of the electrical work around the distribution panel. (Panunto Dep. 35:2-39:11; Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3). Upon agreement of the parties, Mr. Panunto retained the electric service cable and distribution panel for further investigation. (Panunto Dep. 39:6-41:10).

On November 8, 2012, Mr. Panunto and the other relevant parties dissected and examined the retained evidence in Mr. Panunto's laboratory. (Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3). During the investigation, Mr. Panunto did not find any

indication that there was a defect in the main circuit breaker or that any water damage or dirt accumulation caused a deterioration of the panel. (Panunto Dep. 58:20-62:9; 88:13-90:24; Doc. 64-4, Ex. C at 2, 4; Doc. 71-2, Ex. 2 at 2, 4). Mr. Panunto used the police and fire department reports, witness statements, and Met-Ed's internal records to deduce that vegetation contacted the distribution line on November 17, 2010 as a result of high winds and inadequate tree trimming. (Panunto Dep. 67:13-68:4; Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3; Doc. 59-1, Ex. 1 at 3; Doc. 71-1, Ex. 1 at 3). This vegetation contact caused the tripping of the Zionsview substation breaker. (Doc. 59-1, Ex. 1 at 3; Doc. 71-1, Ex. 1 at 3). As a result of a seven-second power outage, high-voltage transients initiated arc-tracking at the main circuit breaker in Ms. Sonnen's home and caused the electrical fire. (Panunto Dep. 71:17-72:21; 95:5-99:21; Doc. 59-1, Ex. 1 at 5; Doc. 71-1, Ex. 1 at 5; Doc. 64-4, Ex. C at 3; Doc. 71-2, Ex. 2 at 3).

The court notes that Met-Ed does not challenge the method by which Mr. Panunto conducted his investigation. (Doc. 74 at 9). Rather, Met-Ed argues that Mr. Panunto's opinions do not reliably flow from the known facts. (Doc. 57 at 9-13; Doc. 74 at 9). In particular, Met-Ed challenges Mr. Panunto's conclusion that vegetation contact caused the tripping of the Zionsview substation breaker despite the absence of any direct evidence of vegetation contact, and the occurrence of electrical transients sufficient to cause a breakdown of electrical equipment. (Doc. 74 at 9). Even if vegetation contact occurred, Mr. Panunto merely offers subjective opinions on the adequacy of Met-Ed's vegetation management. (Id.)

Met-Ed primarily relies upon Buzzerd v. Flagship Carwash of Port St. Lucis, Inc., 669 F. Supp. 2d 514 (M.D. Pa. 2009), aff'd, 397 F. App'x 797 (3d Cir. 2010). In that case, the court found that the first expert did not possess proper qualifications or offer any methodology for his opinions on the relevant issue in the case, and the second expert ignored his own scientific data to reach his conclusions. Id. at 522-30. Both experts' opinions were thus "based on speculation, and [were] not the product of a reliable methodology." Id. at 524. Buzzerd is distinguishable from this case.

Unlike Buzzerd, Mr. Panunto is not offering a mere theory on the issues of breach of duty and causation. Mr. Panunto conducted a thorough and methodical investigation to eliminate other potential causes of the electrical fire, such as equipment defect and environmental factors. He used circumstantial record evidence showing a high likelihood of vegetation contact with the 720 distribution line to conclude that such contact initiated a power outage and high-voltage transients, which caused the fire in Ms. Sonnen's electrical equipment.

On December 19, 2013, Met-Ed deposed Mr. Panunto, in which Mr. Panunto elaborated upon his opinions regarding breach of a duty of care and causation. Mr. Panunto noted that, in the two years preceding the fire, the circuit breaker at the Zionsview substation tripped 24 times. (Panunto Dep. 96:14-17). Met-Ed's internal records indicate that many of those outages were caused by windy conditions, leading to an inference of vegetation contact. (Panunto Dep. 67:22-68:12, 87:10-23; see also Doc. 64-5, Ex. D). Mr. Panunto also relied upon his own experience and industry peer-reviewed materials to conclude that vegetation contact with the 720

distribution line most likely caused the seven-second power outage. (Panunto Dep. 85:22-87:4). Mr. Panunto explained that it is well-established in the electric utility industry that "probably 90 percent of all distribution line outages are caused by vegetation." (Panunto Dep. 86:9-11; 95:5-22). "[I]f we've had this many outages over the past few years[,] . . . there has to be a problem with the vegetation management." (Panunto Dep. 99:19-21).

Mr. Panunto next opined that the repeated power outages triggered repeated high-voltage transients, thus causing accelerated wear and eventual failure of the main circuit breaker. (Panunto Dep. 96:23-97:2). In his report, Mr. Panunto cited to peer-reviewed materials regarding the negative effects of breaker trips and high-voltage transients on electrical equipment. (Doc. 59-1, Ex. 1 at 3-4; Doc. 71-1, Ex. 1 at 3-4). Mr. Panunto acknowledges that Met-Ed did not maintain any instrumentation on the 720 distribution line to measure the precise levels of the transients from each breaker trip. (Panunto Dep. 97:3-13). Nevertheless, Mr. Panunto testified that the electrical system was not designed to handle high-voltage transients on such a frequent basis. (Panunto Dep. 72:4-11).

Upon a review of the record, the court finds that "there is not such a great gap between the data and the conclusion reached to render [the expert's] opinion unreliable." Hoang, 652 F. Supp. 2d at 574. The court will not exclude Mr. Panunto's opinions simply because there is no direct evidence of vegetation contact or concrete measurements of the voltage transients on the 720 distribution line. Mr. Panunto's opinions are consistent with his personal and practical experience, the

reasonable inferences from Met-Ed's internal records of power outages, and peer-reviewed material on the impact of such outages. Thus, Mr. Panunto meets the reliability standard under Rule 702.

iii. Fit

The third prong of the Rule 702 inquiry requires that the expert testimony "fit" by assisting the trier of fact. Oddi, 234 F.3d at 145. Admissibility under the fit standard depends in part on the proffered connection between the expert's investigation results and the factual disputes in the case. See *In re* Paoli II, 35 F.3d at 843. The instant case turns on whether Met-Ed breached a duty of care to supply safe and reliable electrical service and thereby caused the electrical fire. Mr. Panunto's opinions that inadequate vegetation management caused a pattern of power outages and high-voltage transients that eventually started the fire in Ms. Sonnen's home are clearly relevant to the issue of negligence. Therefore, the court concludes that Mr. Panunto's expert report and testimony will assist the jury in deciding the case and the court will deny the motion *in limine*.

C. Motion for Summary Judgment

i. Negligence Claim

Met-Ed's motion for summary judgment centers upon the argument that USAA lacks adequate evidence to establish the breach of duty and causation elements of a negligence claim without Mr. Panunto's expert testimony. (Doc. 60 at 4-9). Given the court's conclusion that Mr. Panunto's expert testimony is

admissible, the court must assess whether there is adequate evidence as a matter of law to preclude summary judgment on the negligence claim.

Under Pennsylvania law, a plaintiff must demonstrate each of the following factors for a negligence claim: (1) a duty or obligation recognized by the law, requiring the actor to conform to a certain standard of conduct; (2) a failure to conform to the standard required; (3) a causal connection between the conduct and the resulting injury; and (4) actual loss or damage resulting to the interests of another. Thomas ex rel. Thomas v. Staples, Inc., No. 09-3771, __ F. Supp. 2d __, 2014 WL 882671, at *9 (E.D. Pa. Mar. 6, 2014) (citing Morena v. South Hills Health Sys., 462 A.2d 680, 684 n.5 (Pa. 1983)); R.W. v. Manzek, 888 A.2d 740, 746 (Pa. 2005).

The parties do not dispute that Met-Ed faces a legally cognizable duty to provide safe and reliable electric service. (See Doc. 71-7, Ex. 7 at 10). The NESC establishes the relevant standard of care for electrical utilities and is incorporated into Met-Ed's Tariff. (Doc. 71-13, Salver Dep. 27:4-31:14, Apr. 12, 2013; Doc. 59-3, Ex. 3; Doc. 72 at 4). In particular, Rule 218 of the NESC provides that "[v]egetation that may damage ungrounded supply conductors should be pruned or removed." (Doc. 71-2, Ex. 2 at 2; Doc. 72 at 4). Met-Ed recognizes its duty on its website and informs its customers that, "[t]o provide safe and reliable electric service for our customers, trees must be properly maintained and kept clear of electric power lines." (Doc. 71-7, Ex. 7 at 14).

USAA relies on Mr. Panunto's expert report and testimony to establish Met-Ed's breach of the duty of care. (Doc. 72 at 5-6). In his expert report, Mr. Panunto

opined that Met-Ed breached its duty of care when it failed to properly manage vegetation contact with the 720 distribution line. (Doc. 59-1, Ex. 1 at 5; Doc. 71-1, Ex. 1 at 5). As previously discussed, the evidence of such breach stems from a history of power outages in the two years preceding the electrical fire in Ms. Sonnen's home. (See Doc. 71-2, Ex. 2 at 2-3). Based upon his experience and industry knowledge, Mr. Panunto concluded that the explanation for such frequent power outages and the outage at issue is vegetation contact. (Id.) Met-Ed's own records indicate that many of the power outages occurred in stormy or windy conditions. (See Salver Dep., Ex. 1). In fact, on November 17, 2010, Met-Ed recorded windy conditions in excess of 45 mph next to the entry for the 12:57 p.m. power outage. (Id.) The fire marshal also informed Mr. Panunto that there were strong, gusty winds, causing the lights in the area to flicker. (Panunto Dep. 23:18-25; Doc. 59-1, Ex. 1 at 1-2; Doc. 71-1, Ex. 1 at 1-2). Lastly, Ms. Sonnen's neighbor, Jessica Ballew, estimated up to 60 power interruptions in approximately 11 years and testified that Ms. Sonnen's brother, Edwin Clemens, often helped manage vegetation contact on her electric lines. (Doc. 59-1, Ex. 1 at 4; Doc. 71-1, Ex. 1 at 4; Doc. 11-11, Ex. 9, Ballew Dep. 7:20-25, 19:19-20:23, 27:3-14, May 8, 2013).

In response, Met-Ed argues that USAA must establish not only vegetation contact, but that the vegetation contact was the result of inadequate vegetation management. (Doc. 75 at 2). Met-Ed notes that Mr. Panunto found Met-Ed's vegetation management plan to be approved by the PPUC and in compliance with the NESC. (Doc. 60 at 6-7; Doc. 75 at 4). This argument is inapposite. The

existence of the vegetation management plan does not negate evidence of non-compliance with the plan. The court finds that summary judgment is inappropriate because sufficient evidence exists to support a judgment in favor of USAA on the issue of breach of the duty of care.

With respect to causation, Mr. Panunto provided a detailed explanation of his investigation and peer-reviewed materials to support his conclusion that frequent power outages from vegetation contact triggered electrical transients that caused accelerated wear and eventual failure of Ms. Sonnen's electrical equipment. (Doc. 59-1, Ex. 1 at 4-5; Doc. 71-1, Ex. 1 at 4-5). Based upon the expert opinion and the record evidence, a reasonable jury could conclude that the power outage on November 17, 2010 was the straw that broke the camel's back. The electrical transients caused the main circuit breaker to flash over and initiate electric arcing, thus igniting the electrical panel.

The information on Met-Ed's website also supports Mr. Panunto's opinions regarding the impact of electrical transients on electrical equipment. Met-Ed warns its customers that "the effect of power disturbances may range from instant breakdown to more gradual deterioration over time." (Doc. 71-7, Ex. 7 at 17). Based upon this evidence, the court will deny Met-Ed's motion for summary judgment on the issue of causation.

ii. Rule 24 of the Tariff Bars Negligence Claim

Met-Ed also seeks summary judgment on USAA's negligence claim on grounds that Rule 24 of the Tariff limits Met-Ed's liability for claims arising from

defects with electrical wiring and equipment installed by its customers. (Doc. 60 at 10-11). Rule 24 provides, in relevant part, that:

> The Customer, by accepting service from the Company, assumes responsibility for the safety and adequacy of the wiring and equipment installed by the Customer. The Customer agrees to indemnify and save harmless the Company from any liability which may arise as a result of the presence or use of the Company's electric service or property, defects in wiring or devices on the Customer's premises, or the Customer's failure to comply with the National Electrical Code.

(Doc. 59-3, Ex. 3).

Met-Ed refers to Mr. Panunto's report to establish that the cause of the electrical fire was "accelerated wear and catastrophic deterioration of the main circuit breaker in the Sonnen's distribution panel." (Doc. 60 at 10-11 (quoting Doc. 59-1, Ex. 1 at 5)). The report also stated that the main circuit breaker was a pre-existing weak point on the electric system, which can prematurely age or immediately flash over as a result of electric transients. (Doc. 75 at 5-6 (citing Doc. 59-1, Ex. 1 at 3)). Because Ms. Sonnen bears responsibility for the installation and maintenance of her electrical equipment, Rule 24 bars the negligence claim. (Doc. 60 at 10; Doc. 75 at 5; see also Panunto Dep. 66:7-17, 91:9-92:10).

The court finds, however, that a genuine issue of material fact exists as to the cause of the electrical fire. Even though the main circuit breaker was the ultimate cause of the fire, Mr. Panunto opined that Met-Ed's inadequate vegetation management caused accelerated wear and deterioration of the electrical equipment in the first instance. (Doc. 72 at 7). Specifically, Mr. Panunto explained that the circuit breakers serve to protect the electrical panel in the home up to a certain

point. (Panunto Dep. 62:24-66:3). Ostensibly, Met-Ed should have installed overcurrent fuses, which are weak links that isolate the source of an overcurrent, on their distribution lines. (Panunto Dep. 93:24-94:15). Without such fuses, the frequency of the power outages and electrical transients inflicted "sustained trauma" on Ms. Sonnen's electrical equipment. (Panunto Dep. 72:5-11). Mr. Panunto further eliminated equipment defect and environmental factors, such as dirt accumulation or water damage, as potential causes of the electrical fire. (Panunto Dep. 58:20-62:9, 88:4-90:24; Doc. 71-2, Ex. 2 at 2, 4). Given the factual dispute on the issue of causation, the court must submit the negligence claim to the jury and deny the motion for summary judgment.[7]

iii. Wanton Misconduct

Lastly, Met-Ed moves for summary judgment on the claim for wanton misconduct and asserts that the grant of summary judgment would deprive the court of subject-matter jurisdiction. (Doc. 60 at 11-13). Without a willful or wanton

[7] USAA asserts that Rule 24 of the Tariff does not require Ms. Sonnen or her subrogee to indemnify Met-Ed under certain contract principles. (Doc. 72 at 7-8). Because the court concludes that Rule 24 of the Tariff does not bar USAA's claims, the court need not consider this argument.

misconduct claim, Rule 24 of the Tariff limits Met-Ed's liability to $500,[8] precluding an amount in controversy in excess of $75,000 for diversity jurisdiction. (Id. at 13).

In the amended complaint, USAA claims that Met-Ed's failure to adequately manage vegetation along the 720 distribution line with knowledge of unsafe conditions constitutes wanton misconduct. (Doc. 10 ¶¶ 19-20; see also Doc. 72 at 2). The Tariff, however, does not define a claim for wanton misconduct. Under Pennsylvania law, wanton misconduct means that the defendant has "intentionally done an act of an unreasonable character, in disregard of a risk known to him or so obvious that he must be taken to have been aware of it, and so great as to make it highly probable that harm would follow. It usually is accompanied by a conscious indifference to the consequences." Evans v. Phila. Transp. Co., 212 A.2d 440, 443 (Pa. 1965) (citing PROSSER ON TORTS § 33 at 151 (2d ed. 1955)). "*[A]ctual* prior knowledge of the injured person's peril need not be affirmatively established to constitute wanton misconduct." Id. at 443-44 (emphasis in original). "If the [defendant] realizes *or* at least has knowledge of sufficient facts to cause a

---

[8] Paragraph 3 of Rule 24 provides that:

> [U]nless caused by willful and or wanton misconduct of the Company, the liability of the Company to Customers or third parties for all injuries and damages . . . caused by various interruptions in electrical supply, high or low voltage, spikes, surges, single phasing, phase failure or reversal, stray voltage, neutral to earth voltage, equipment failure or malfunction, response time to electrical outages and emergencies . . . shall be limited to Five Hundred Dollars ($500) for residential customers. . . .

(Doc. 60 at 11; Doc. 59-3, Ex. 3).

reasonable man to realize the existing peril for a sufficient period of time beforehand to give him a reasonable opportunity to take means to avoid the accident, then he is guilty of wanton misconduct if the [defendant] recklessly disregards the existing danger." Id. at 444 (emphasis in original).

Pennsylvania courts have adopted the definition of reckless set forth in Section 500 of the Restatement (Second) of Torts. Stubbs v. Frazer, 454 A.2d 119, 120 (Pa. Super. Ct. 1982). A defendant is reckless when he "intentionally does an act or fails to do ant act which it is his duty to the other to do, knowing or having reason to know of facts which would lead a reasonable man to realize that the [defendant's] conduct not only creates an unreasonable risk of bodily harm to the other but also involves a high degree of probability that substantial harm will result to him." Evans, 212 A.2d at 444; see also Stubbs, 454 A.2d at 120-21 (citing Restatement (Second) of the Law of Torts § 500 (1965)). "If the conduct involves a high degree of chance that serious harm will result, the fact that the [defendant] knows or has reason to know that another person is within the range of its effect is conclusive of his or her recklessness." Evans, 212 A.2d at 444 (quoting Restatement (Second) of the Law of Torts § 500 cmt. d (1965)).

Wanton misconduct is different from both negligence and willful misconduct. Negligence consists of "mere inadvertence, incompetence, unskillfulness, or a failure to take precautions," whereas recklessness or wanton misconduct requires a "conscious choice of a course of action, either with knowledge of the serious danger to others involved in it or with knowledge of facts which would disclose this danger

to any reasonable man." Stubbs, 454 A.2d at 120-21 (quoting Restatement (Second) of the Law of Torts § 500 cmt. g (1965)). Willful misconduct goes a step beyond wanton misconduct and exists when a defendant desires to bring about the result or he is aware that it was substantially certain to ensue. Saaybe v. Penn. Cent. Transp. Co., 438 F. Supp. 65, 69 n.6 (E.D. Pa. 1977) (citing Evans, 212 A.2d at 443). The crucial issue in determining liability under any of the three categories is whether or not the defendant had reason to know of the risk of harm created by his conduct. Id. As a general rule, it is the role of the jury to determine the extent of a defendant's knowledge under the circumstances. Id.; Evans, 212 A.2d at 445; Stubbs, 454 A.2d at 121.

In the instant action, USAA relies upon Mr. Panunto's expert opinions and Met-Ed's documentary evidence to establish a claim for wanton misconduct. (Doc. 72 at 12). On its website, Met-Ed reaffirms its duty to provide safe and reliable electric service to its customers by conducting vegetation management. "Keeping our transmission and distribution rights-of-way free of incompatible trees and other vegetation is key to ensuring reliable and safe electric service. Trees are a leading cause of electrical power outages. In fact when trees and power lines touch it is a very dangerous situation and may even be deadly to anyone in close proximity." (Doc. 71-7, Ex. 7 at 12, 14). Met-Ed also recognizes the effect of electrical disturbances on electrical equipment within the home by stating that "the effect of power disturbances may range from instant breakdown to more gradual deterioration over time." (Id. at 17).

A reasonable jury could find that Met-Ed recklessly ignored its duty to provide safe and reliable electric service as well as the high risk of electrical disturbances damaging its customers' electrical equipment. Met-Ed had sufficient facts to investigate the issue of vegetation contact; indeed, it is undisputed that Met-Ed recorded 24 power outages in just two years on a single distribution line. (See Salver Dep., Ex. 1). Met-Ed was aware of probable vegetation contact from both customer complaints and its own records of power outages on windy or stormy days. (Id.; Doc. 71-2, Ex. 2 at 3; Panunto Dep. 67:19-68:4; Doc. 64-5, Ex. D). Despite Met-Ed's knowledge of the numerous power outages, Met-Ed did not perform necessary vegetation management. (Doc. 59-1, Ex. 1 at 5; Doc. 71-1, Ex. 1 at 5).

Met-Ed counters that, in accordance with its vegetation management plan, Met-Ed performed vegetation management on the 720 distribution line just one year before the fire. (Doc. 75 at 7). Moreover, Ms. Ballew's complaints did not relate to the 720 distribution line and are therefore irrelevant to Met-Ed's knowledge. (Doc. 60 at 12-13). The court notes that neither argument contravenes the evidence of Met-Ed's failure to address numerous power outages on the 720 distribution line. Therefore, the court finds that USAA proffers sufficient evidence of Met-Ed's knowledge of repeated vegetation contact and failure to act to survive summary judgment.

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

USAA CASUALTY INSURANCE COMPANY a/s/o JOAN SONNEN,	:	**NO. 1:12-CV-1178-CCC**
Plaintiff	:	**CIVIL ACTION – LAW**
v.	:	
	:	**Honorable Christopher C. Conner**
METROPOLITAN EDISON COMPANY,	:	
Defendant/Third-party Plaintiff	:	
	:	**Electronically Filed**
v.	:	
SQUARE D COMPANY and SCHNEIDER ELECTRIC USA, INC.,	:	
Additional Defendants/ Third-party Defendants	:	**JURY TRIAL DEMANDED**

MOTION IN LIMINE TO EXCLUDE
EXPERT TESTIMONY OF RONALD J. PANUNTO, P.E., C.F.E.I., C.F.C.
FILED BY DEFENDANT, METROPOLITAN EDISON COMPANY

NOW COMES, Defendant, Metropolitan Edison Company, by and through its attorneys, Peters & Wasilefski, and moves this Court to exclude the proposed expert testimony of Ronald J. Panunto, P.E., C.F.E.I., C.F.C., for the following reasons:

1. On June 20, 2012, Plaintiff, USAA Casualty Insurance Company as subrogee of Joan Sonnen ("USAA") filed a four-count Complaint against Defendant, Metropolitan Edison Company ("Met-Ed").

2. A First Amended Complaint was filed on August 1, 2012 asserting a cause of action alleging negligence and in a separate count alleging willful and wanton conduct. (Doc. 10).

3. Plaintiff alleges that the fire originated as a result of an electrical defect, malfunction, or fault or series thereof to electrical equipment and was caused by power surges and voltage imbalances. (Doc. 10 at ¶¶ 9-10).

4. In support of its claim, Plaintiff provided the expert report of Ronald J. Panunto, P.E., C.F.E.I., C.F.C. A true and correct copy of Mr. Panunto's report is attached hereto as Exhibit "1".

5. Mr. Panunto reaches the following conclusions:

> It is my opinion based on a reasonable degree of engineering and scientific certainty and industry standards that:
>
> 1. Metropolitan Edison (First Energy) did not adequately maintain trees/tree branches along the route of the 720 distribution line as required by Rule 218 of the National Electrical Safety Code and the Pennsylvania Public Utility Commission.
>
> 2. Inadequate vegetation management by Metropolitan Edison led to many power outage for customers fed from this line, including Ms. Sonnen, prior to the fire at issue.
>
> 3. Repeated power outages caused repeated high-voltage transients causing accelerated wear and catastrophic failure of the main circuit breaker in the Sonnen's distribution panel.
>
> 4. Metropolitan Edison (First Energy) was aware of the repeated power outages on the 720 Distribution line, and of complaints regarding vegetation management, and despite this knowledge failed to properly respond and perform necessary vegetation management to avoid the known problem of accelerated wear of the electrical equipment of its customers on that line.
>
> 5. The power outages and resultant high-voltage transients from tree contact on November 17, 2010 caused the electrical failure at the main circuit breaker in the Square D distribution panel.
>
> 6. The fire occurred as a direct result of the outage-caused, high-voltage transients that caused the main circuit breaker to flash over and the resulting electric arc to ignite the insulation on the panel's wiring.

Exh. "1" at p. 5.

6. On December 19, 2013 Met-Ed took the deposition of Mr. Panunto. The deposition transcript of Ronald J. Panunto (omitting the voluminous exhibits) is attached hereto as Exhibit "2".

7. Met-Ed files this Motion in Limine to exclude the proposed expert testimony of Mr. Panunto because his testimony does not meet any of the requirements of Federal Rule of Evidence 702.

8. "Where, as here, a party challenges the admissibility of a proffered expert opinion, the trial court must inquire into: (1) the qualifications of the expert, (2) the reliability of the process or technique the expert used in formulating the opinion, and (3) the "fit" between the opinion and the facts in dispute." **Buzzerd v. Flagship Carwash of Port St. Lucie, Inc.**, 669 F.Supp.2d 514, 519 (M.D. Pa. 2009).

QUALIFICATIONS

9. "…[T]he expert's credentials must be assessed in the context of the issue on which the proponent of the expert testimony carries the burden of proof." **Id**. at 522.

10. Mr. Panunto's opinions with regard to the breach of the standard of care are all based upon a necessary knowledge of and experience with vegetation management standards. To wit, he opines that Met-Ed: 1. "did not adequately maintain trees/tree branches along the route of the power line"; 2. had "inadequate vegetation management"; and 4. "failed to properly respond and perform necessary vegetation management." Exh. "1" at p. 5. 11. At his deposition Mr. Panunto admitted that he has no expertise in vegetation management and was not even tasked with evaluating the vegetation management on this line:

Q. Okay. Well, let me ask you a little bit about that because I looked through your CV and you're not an arborist, are you?

A. No.

Q. And you're not a forester?

A. No.

Q. In fact, you have no training with regard to vegetation. Am I correct?

A. That's correct.

Q. And, in fact, I looked at your CV and even when you worked for an electric utility you were never assigned to a department that was responsible for vegetation maintenance. Am I correct?

A. You're correct.

Q. You do belong to an arboration, Arborators—

A. Utilities Arboration (sic) Association.

Q. Yea. And that's just an association I can join, correct?

A. Yes, sir.

Q. All I have to do is pay my fee?

A. Yes, sir.

Q. It doesn't make you an expert in vegetation maintenance, does it?

A. Not at all.

Q. And, in fact, you're not an expert in vegetation maintenance, are you?

A. I am not.

Q. And it's not—am I correct in this it's not your function to evaluate the vegetation maintenance that was done on this line? Am I correct?

Mr. Kirker: Objection.

The Deponent: I have evaluated vegetation management.

By Mr. Wasilefski:

Q. I didn't ask that. **I asked was it your function to evaluate the vegetation management on this line?**

A. Not specifically.

Q. And, in fact, you didn't, did you?

Mr. Kirker: Objection.

The Deponent: No.

By Mr. Wasilefski:

Q. No, you didn't?

A. I did not.

Panunto Dep. at p. 84, ln. 2 to p. 85, ln. 21 [emphasis added].

12. As in **Buzzerd**, Mr. Panunto's opinions and testimony as to an alleged breach of the standard of care by Met-Ed are not admissible because he is not qualified to render any expert opinions regarding vegetation management.

RELIABILITY

13. "Our Court of Appeals has identified the following non-exclusive list of eight factors pertaining to reliability, which may or may not be relevant depending upon the case: (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." **Buzzerd**, 669 F. Supp.2d at 523.

14. "It is one thing to draw logical inferences from facts, but quite another to make giant leaps to reach a conclusion that fits one's theory, especially where known facts make the leap improbable." **Id**. at 526.

15. Mr. Panunto does not identify any methodology upon which he bases his opinion.

16. His opinions, like the opinions of the experts in **Buzzerd**, do not reliably flow from the known facts and are, in fact, contrary to the known facts.

17. He admits that the breaker at the substation opened at 12:57 p.m. for seven seconds and then reclosed. **Id**. at p. 77, ln. 7-14. He testified that despite not having any evidence of a tree contacting the line on November 17, 2010 at 12:57 p.m. it is his opinion that a tree did contact the line causing the breaker to operate because that is most likely what happened. **Id**. at p. 85, ln. 22 to p. 87, ln. 4. Yet he admitted "…we don't know why the breaker tripped." **Id**. at p. 75, ln. 4-5.

18. Mr. Panunto's testimony is no different than the experts in **Buzzerd** who, despite having no evidence of dangerous levels of carbon monoxide in the passenger compartment of the truck, still opined that such dangerous levels were present.

19. When pressed as to why he believed that a fallen tree branch was most likely the cause of the operation of the breaker on November 17, 2010, he testified that

there was approximately one power outage per month in the two years preceding the fire and "if we've had this many outages over the past few years that there has to be a problem with the vegetation management." **Id** at p. 99, ln. 19-21.

20. He admitted that he has no evidence that any of the power outages in the two years leading up to the fire were caused by vegetation contacting the line. **Id**. at p. 76, ln. 2-7; p. 96, ln. 1-5.

21. Mr. Panunto stated his personal belief that anytime a branch contacts a power line it is because of deficient vegetation maintenance. **Id**. at p. 83, ln. 13 to p. 84, ln. 1.

22. Mr. Panunto testified that he reviewed Met-Ed's vegetation management plan and that it complied with the National Electrical Safety Code, was approved by the Pennsylvania Public Utility Commission, and that he did not find anything deficient with the plan. **Id**. at p. 82, ln. 4-22.

23. He further acknowledged that the particular line servicing Plaintiff's insured's home had vegetation management performed approximately one year before the fire. **Id**. at p. 82, ln. 23 to p. 83, ln. 1.

24. He admitted that he never visually inspected the length of the line for deficiencies in vegetation management. **Id**. at p. 95, ln. 11-14.

25. Like the experts in **Buzzerd**, Mr. Panunto is rendering opinions which directly contradict facts he does not dispute.

26. With regard to his opinions on causation, they are invalid from the outset because they are based upon his completely unsupported belief that vegetation played a role in the events of November 17, 2010. **Id**. at p. 87, ln. 24 to p. 88, ln. 3.

27. He opines that repeated power outages caused repeated high voltage transients which caused excessive wear and catastrophic failure at the main breaker. Exh. "1" at p. 5 (opinions 3, 5, and 6).

28. His opinion, however, is nothing more than a theory. He states:

> Whenever a circuit breaker operates to de-energize or energize a distribution line it creates a voltage transient that travels along the line. When these transients hit a weak point on the electric system then it **can** cause that weak point to prematurely age or to immediately flash over. The transients **can** reach high magnitudes and depending on rise time, peak value, wave shape and frequency of occurrence the impact on power system components and customer equipment **can** be severe.

Exh. "1" at p. 3 [emphasis added].

29. The question upon which Plaintiff carries the burden of proof is not whether deficient vegetation management can cause outages which can cause transients which can cause a weak point in the electric system to prematurely age or immediately flash over. Instead, the question is whether it is probable that vegetation did contact the line because of deficient vegetation management and whether the outage did cause a transient which did cause a weak point in the electric system to prematurely age or immediately flash over. **Buzzerd**, *supra*. Mr. Panunto's testimony demonstrates that he does not and cannot answer this question.

30. Mr. Panunto acknowledged that the opening and reclosing of a breaker is a normal operation of an electrical system when a fault occurs on the line. **Id**. at p. 73, ln. 14 to p. 74, ln. 8.

31. He admitted that he has no evidence that a transient occurred at approximately 12:57 p.m. on November 17, 2010 when the breaker at the substation reclosed or the voltage of that transient if one did occur because there is no

instrumentation to record such an event. **Id**. at p. 68, ln. 20-23; p. 71, ln. 20 to p. 72, ln. 9; p. 97, ln. 24 to p. 98, ln. 16. He has no testable hypothesis that can be validated.

32. The lack of a testable hypothesis is especially crucial due to Mr. Panunto's admissions regarding the known facts. He testified that the main circuit breaker at Plaintiff's insured's house was designed to handle up to 600 volts and that normal voltage is 120V/240V with a plus or minus 10-percent variation in voltage. **Id**. at p. 63, ln. 7-20.

33. Mr. Panunto admitted that "…under most cases the transients that the electric company produces are not sufficiently powerful or sufficiently high voltage to cause the breakdown of the breakers." **Id**. at p. 65, ln. 17-20.

34. He further admitted that he has no evidence of the voltage of the transients occurring in the two years prior to the fire. **Id**. at p. 97, ln. 8-13.

35. He further admitted that factors other than transients, such as accumulation of dirt and moisture, can cause a home's electrical equipment to prematurely age. **Id**. at p. 88, ln. 4-16.

36. He further admitted that he did not interview any of the customers served by the same 720 distribution line as Plaintiff's insured to determine if their electrical equipment sustained accelerated wear. **Id**. a p. 78, ln. 6 to p. 79, ln. 6.

37. His conclusion that the main breaker in Plaintiff's insured's distribution panel deteriorated from repeated voltage transients does not reliably follow from his admission that the transients produced by an electric company are generally not sufficiently powerful or of sufficiently high voltage to cause breakdown of the breakers and that the breakers can deteriorate from other factors and he has no evidence of any

other customers served by the distribution line experiencing accelerated wear of their equipment as he alleges occurred in the subject home.

38. Mr. Panunto has no explanation for the five-hour gap between when he asserts a transient occurred causing the main breaker in Plaintiff's insured's home to immediately flash over and the report of the fire.

39. As in **Buzzerd**, Mr. Panunto's opinions must be excluded for the additional reason that they do not reliably follow from the facts.

FIT

40. "The 'fit' requirement of Rule 702 mandates that expert testimony 'assist the trier of fact to understand the evidence or determine a fact in issue. This condition goes primarily to relevance'." **Buzzerd**, 669. F. Supp. 2d at 529.

41. "An opinion that something is possible, even to a degree of scientific probability, is a far cry from an opinion that the theorized happening probably occurred during the incident in question." **Id**. at 524.

42. Mr. Panunto merely sets forth a theory of what "can" happen when a transient occurs. However, the relevant question is whether it is probable that his theory occurred on November 17, 2010. His opinion as to what is possible is not relevant and not helpful to the trier of fact.

43. His theory is that deficient vegetation maintenance can cause a power outage which can cause a transient which can cause a weak point in an electrical system to immediately flash over. Yet he plainly admits that the transients produced by electric companies are generally not sufficiently powerful or of sufficiently high voltage to cause

breakdown of a home's breakers and that other factors can cause deterioration of a home's breakers.

44. He has no evidence that vegetation played any role whatsoever in the events of November 17, 2010 or in the two years preceding the fire and no evidence of any deficient vegetation management by Met-Ed at any time in any respect.

45. He likewise has no evidence that a transient occurred on that day or an explanation for the five-hour gap between when he alleges the main breaker in the home flashed over and the report of the fire.

46. Mr. Panunto's testimony does not set forth any information that will help the trier of fact. Instead, he merely sets forth his personal beliefs that anytime there is a power outage on a line it is caused by deficient vegetation management and that electric companies should be required to do more to protect their customers' equipment. Such musings are entirely irrelevant and, therefore, inadmissible.

WHEREFORE, Defendant, Metropolitan Edison Company respectfully requests entry of an order excluding the opinions and testimony of Ronald J. Panunto, P.E., C.F.E.I., C.F.C.

PETERS & WASILEFSKI

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Date: January 13, 2014

CERTIFICATE OF SERVICE

The undersigned counsel hereby certifies that on the 13th day of January, 2014, a true and correct copy of the Motion in Limine to Exclude Expert Testimony of Ronald J. Panunto, P.E., C.F.E.I., C.F.C. filed by Defendant, Metropolitan Edison Company, was served electronically and by first class mail, postage prepaid addressed as follows:

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s/ *Alex M. Hvizda*
Alex M. Hvizda

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

USAA CASUALTY INSURANCE COMPANY as subrogee of Joan Sonnen	:	CIVIL ACTION NO.: 1:12-cv-1178 (CCC)
Plaintiff	:	*"ELECTRONICALLY FILED"*
v.	:	
METROPOLITAN EDISON COMPANY	:	**JURY TRIAL DEMANDED**
Defendant/ Third-Party Plaintiff	:	
v.	:	
SQUARE D COMPANY AND SCHNEIDER ELECTRIC USA, INC.	:	
Third-Party Defendants	:	

PLAINTIFF'S RESPONSE
TO DEFENDANT'S MOTION IN LIMINE TO EXCLUDE EXPERT TESTIMONY OF
RONALD J. PANUNTO, P.E., C.F.E.I., C.F.C.

Plaintiff, USAA Casualty Insurance Company, as subrogee of Joan Sonnen, by and through its undersigned counsel, respectfully responds to oppose the Motion in Limine to Exclude Expert Testimony of Ronald J. Panunto, P.E., C.F.E.I, C.F.C. filed by Defendant Metropolitan Edison Company ("Motion in Limine"). Defendant's Motion in Limine is untimely as it was filed and served after the Court's deadline. Concurrent with this Response, Plaintiff filed a Motion to Strike the Motion in Limine, and the parts of Defendant's Motion for Summary Judgment related thereto, because it was filed after the Court's deadline to do so. In addition to being untimely, Defendant's Motion in Limine is premature as a Daubert hearing is necessary so the Court has all the necessary information upon which to decide such a motion. Putting aside the untimeliness, and the lack of a Daubert hearing, the Motion in Limine does not support the preclusion of Mr. Panunto's expert testimony, and therefore Defendant's Motion should be denied. At best, all of the Defendant's arguments go to the weight of the expert

opinions of Mr. Panunto, not their admissibility. Plaintiff responds specifically to the Defendant's averments as follows:

1 - 2. Admitted.

3. Admitted in part; Denied as stated. The Plaintiff's allegations are found in the Amended Complaint, not in the Defendant's restatement of them.

4. Admitted. Plaintiff presented timely its expert disclosures which include the disclosure of Mr. Ronald Panunto, P.E., C.F.E.I, C.F.C. as an expert witness along with his expert report, curriculum vitae and prior deposition and trial testimony. A true and correct copy of Plaintiff's Expert Disclosures is attached hereto as Exhibit "A", and a true and correct copy of Mr. Panunto's curriculum vitae is attached hereto as Exhibit "B". In addition, Plaintiff hereby attaches an Affidavit of Mr. Ron Panunto, P.E., C.F.E.I., C.F.C. as Exhibit "C" to respond directly to the Defendant's Motion in Limine.

5. Admitted in part; Denied as stated. Mr. Panunto's opinions are found in the entirety of his report, not just the sections selected for citation by the Defendant.

6. Admitted. Mr. Panunto's deposition was originally scheduled for November 22, 2013, but the Defendant unilaterally requested to have it rescheduled to December 19, 2013. The deponent reserved the right to read and sign his deposition, and an errata sheet was timely presented. Mr. Panunto's errata sheet is attached hereto as Exhibit "D".

7. Denied. Mr. Panunto's expert opinions meet the requirements of F.R.E. 702. In fact, this Court has already found Mr. Panunto to be a qualified expert who utilizes reliable methodologies. Hoang v. Funai Corporation, 652 F. Supp. 2d 564 (M.D. Pa 2009)(finding Mr. Panunto qualified and utilizing reliable methodologies in a fire case).

8 - 9. Admitted as quoted. However, the facts and expert opinions in Buzzerd v. Flagship Carwash of Port St. Lucie, Inc., 669 F. Supp. 2d 514 (M.D. Pa. 2009) are very different than the present case, and the Buzzerd decision does not support finding Mr. Panunto's testimony inadmissible. See Plaintiff's Brief in Opposition.

10. Denied. Despite the Plaintiff's disclosures, and the clear expression of Mr. Panunto's opinions in his report, Defendant MetEd has sought to exclude the Mr. Panunto because he is not qualified as an expert in "vegetation management". Although creative, the Defendant's attempt to express Mr. Panunto's opinion as one requiring expertise in acts of vegetation management is misplaced. The Defendant in this case is an electric utility company, not a vegetation management company, arborist, tree surgeon or otherwise. The Defendant's Motion is Limine is based upon its attempt to re-cast and re-frame Mr. Panunto's opinions to suit its argument. However, this case is about the reckless and improper supply of electricity by an electrical utility company which, in this situation, relates to its shoddy maintenance, care and protection of its electrical utility lines. This case is not about how best to trim a tree, or whether an oak grows faster than a spruce. The issue is the maintenance and care of electrical lines, not the trees. Mr. Panunto has extensive education, training and experience in the area of electricity distribution and the maintenance, care and protection of electrical utility lines. The Defendant's Motion in Limine regarding Mr. Panunto's qualifications is without merit.

11. Denied. Please see Exhibit D hereto, and note the objections made by Plaintiff during the deposition. Further, the issue of an expertise in "vegetation management" is a red herring. The issue in this case revolves around the maintenance and care of electrical lines, not the trees.

12. Denied. Mr. Panunto is qualified under FRE 702 to present the expert opinions expressed in his report. And, with no Daubert hearing, it would be premature for the Court to grant the Defendant's Motion.

13 - 14. Admitted as quoted. However, the facts and expert opinions in Buzzerd v. Flagship Carwash of Port St. Lucie, Inc., 669 F. Supp. 2d 514 (M.D. Pa. 2009) are very different than the present case, and the Buzzerd decision does not support finding Mr. Panunto's testimony inadmissible. See Plaintiff's Brief in Opposition.

15. Denied. Mr. Panunto clearly stated he relied upon the National Fire Protection Association's Guide for Fire and Explosions Investigations, commonly referred to as NFPA 921, when he performed his investigation. NFPA 921 is cited in his report. Mr. Panunto also expressed his methodology generally in his report. At his deposition, Mr. Panunto was never asked by the defense to describe his investigation methodology or about NFPA 921. The methodology set forth in NFPA 921 has been found by several Courts to be a valid methodology that meets F.R.E. 702 and Daubert. See Plaintiff's Brief in Opposition.

16. Denied. Mr. Panunto's opinions reliably flow from the facts known in this case.

17. Denied. First, Mr. Panunto is not a party and therefore makes no "admissions". Mr. Panunto's deposition testimony is properly stated in his deposition and corresponding errata sheet.

18. Denied. Even accepting the analogy between a personal injury case involving carbon monoxide poisoning, and a property damage case involving an electrical fault at a main circuit breaker, Mr. Panunto's opinions are not like the opinions expressed by the expert witnesses in Buzzerd. Mr. Panunto identified that inappropriate transient surges caused by power outages from tree contact were the cause of the main circuit breaker failure and fire. The

existence of the transient surges was established by Defendant's records and eyewitness information. The existence of tree contact was established by Defendant's records, peer-reviewed materials, and eyewitness information. The effect of inappropriate transient surges on the electrical equipment in the home was supported by peer-reviewed findings and Mr. Panunto's own observation and experience. Unlike in Buzzerd, in this case there is a direct electrical connection between the circuit breaker at Zion's View Substation and the Sonnen main circuit breaker panel. Whatever happens at the substation is directly transmitted to the Sonnen household. The impact of the inappropriate transient surges was evident on the arced main circuit breaker, and were evident in the prior history of power outage events described by an eyewitness. For example, in Buzzerd, the Plaintiffs medical information did not have any objective evidence of carbon monoxide poisoning, but in this case, there is clear objective evidence of breakdown of the main circuit breaker. So, there is evidence of the impact of the transient surges, unlike the lack of evidence of the impact of any alleged carbon monoxide in the people involved.

19-24. Denied. First, Mr. Panunto is not a party and therefore makes no "admissions". Mr. Panunto's deposition testimony is properly stated in his deposition and corresponding errata sheet. The Defendant's records showing outages tied to "high winds", and eyewitness testimony of actual tree contact on the relevant electric lines coupled with power outage, and peer-reviewed materials identifying the relationship between wind, tree contact, power outages and transient surges all support Mr. Panunto's opinions. Further, even if the Defendant's plan to keep the trees away from the electric lines was proper, that does not mean that the plan was effectuated properly. Hence, the problem in this case. The Defendant made promises and assurances to the Public Utility Commission that underlie its tariff, but they failed to live up to those promises

despite information that the lines were not being properly maintained. There is eyewitness testimony of Ms. Jessica Ballew that trees along the relevant electrical distribution line were contacting the lines.

25 - 26. Denied. See Reponses to 18-24 which are incorporated herein.

27. Admitted in part; Denied as stated. Mr. Panunto's opinions are found in the entirety of his report, not just the sections selected for citation by the Defendant.

28. Denied. Mr. Panunto's expert opinions meet the requirements of F.R.E. 702. Mr. Panunto's opinions are found in the entirety of his report, not just the sections selected for citation by the Defendant.

29. Denied. The relevant question at issue is whether the reckless and improper supply of electricity by an electrical utility company was caused by the wantonly shoddy maintenance and care of its electrical utility lines. There is eyewitness evidence from Ms. Sonnen's neighbor, Ms. Jessica Ballew, that trees would contact the electric lines prior to the fire at issue. See Exhibit "E" attached hereto which are true and correct portions of Ms. Ballew's deposition. The Defendant had obligations under the National Electric Safety Code and good practice to keep the lines clear of the trees. See Exhibit "F" hereto which are true and correct copies of portions of the deposition of Mr. James Sarver, a corporate designee of the Defendant. An excessive 24 instances of outages in 2 years occurred, including numerous outages occurring in "high winds" which blow the trees against the electrical lines, and an outage on the day of the fire, which was reported to be a windy day. All of this information is also paired with peer reviewed findings presented by Mr. Panunto on the prevalence of windy day outages being the result of tree contact. The Defendant was not maintaining its electrical lines to be free from tree contact despite its obligation to do so, and despite being aware of the long history of outages

clearly identifiable as being tree-related. Mr. Panunto has more than ample support for the opinions he has reached in this case.

30. Denied. See Mr. Panunto's deposition testimony. Moreover, the operation of the breaker is normal, but the problem is that it had to operate so many times, and under windy conditions, because the Defendant was not properly maintaining and caring for its electrical lines that supply electricity into its customer's homes. The Defendant was aware of these problems, as it maintained cumulative records, for the reckless amount of outages on windy days.

31 - 36. Denied. First, Mr. Panunto is not a party and therefore makes no "admissions". Mr. Panunto's deposition testimony is properly stated in his deposition and corresponding errata sheet. Mr. Panunto presented clearly in his report and deposition that multiple voltage transients were occurring on the electrical lines sufficient to cause the breakdown of the main circuit breaker. Mr. Panunto found based on his physical examination of the building and the electrical panel that there was no evidence to support a finding that age, dirt or moisture caused the level of main circuit breaker. Mr. Panunto did not need to interview other customers as several customers were deposed, and Defendant's records were reviewed.

37. Denied. Mr. Panunto did not testify or report that transient voltages in outage situations would be of an insufficient magnitude to damage the electrical equipment at issue. In fact, he has reported to the contrary. He has presented peer-reviewed literature identifying this event, and the impact that such transient voltages can have on electrical equipment including early and catastrophic breakdown.

38. Denied. The Defendant never asked for Mr. Panunto's explanation. Mr. Panunto does have an explanation. Among many other reasons, this is crucial to why a Daubert hearing would be necessary in this case before the motion to exclude his testimony could be granted.

The last outage event recorded that caused a transient surge before the event was at 1:04pm caused by an automatic reclose of the relevant circuit breaker as the Zionsview substation. See Response Exhibit C. The fire was first observed at roughly 5:40pm due to arc-tracking once the insulation of the main breaker was pierced and the carbonization process was started. Id. Arc-tracking under these conditions and circumstances is well-established in peer-reviewed literature including *Kirk's Fire Investigation* where the timing between initiating trigger and fire is detailed. Id.

39. Denied. Mr. Panunto's opinions reliably follow from the facts in this case.

40 - 41. Admitted as quoted. However, the facts and expert opinions in Buzzerd v. Flagship Carwash of Port St. Lucie, Inc., 669 F. Supp. 2d 514 (M.D. Pa. 2009) are very different than the present case, and the Buzzerd decision does not support finding Mr. Panunto's testimony inadmissible. See Plaintiff's Brief in Opposition.

42 - 45. Denied. See Mr. Panunto's report and testimony and Plaintiff's Brief in Opposition.

46. Denied. Mr. Panunto's opinions will assist the trier of fact. His opinions are based on a proper methodology, and follow from the facts in this case. Mr. Panunto's opinions are admissible, and support the Plaintiff's claims in this case. Attached as Exhibit "G" are the report and relevant sections of the deposition of Pennsylvania State Trooper Patrick McKenna, Jr. Attached as Exhibit "H" is the expert report of Mr. Michael J. Moyer, C.F.I., C.F.E.I., C.V.F.I., P.I. who investigated the cause of this fire. The opinions of Trooper McKenna, Mr. Moyer and Mr. Panunto work in concert to assist the jury to understand where the fire started, how the fire started, and that the Defendant was responsible for causing the fire.

WHEREFORE, Plaintiff respectfully submits Defendant's Motion in Limine to Exclude Expert Testimony of Ronald J. Panunto, P.E., C.F.E.I., C.F.C. should be denied.

Dated: January 27, 2014

Respectfully Submitted,

COZEN O'CONNOR

BY: /s/ Erick J Kirker

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

USAA CASUALTY INSURANCE COMPANY as subrogee of Joan Sonnen	:	CIVIL ACTION NO.: 1:12-cv-1178 (CCC)
Plaintiff	:	*"ELECTRONICALLY FILED"*
v.	:	
METROPOLITAN EDISON COMPANY	:	**JURY TRIAL DEMANDED**
Defendant/ Third-Party Plaintiff	:	
v.	:	
SQUARE D COMPANY AND SCHNEIDER ELECTRIC USA, INC.	:	
Third-Party Defendants	:	

PLAINTIFF'S BRIEF IN OPPOSITION
TO DEFENDANT'S MOTION IN LIMINE TO EXCLUDE EXPERT TESTIMONY OF RONALD J. PANUNTO, P.E., C.F.E.I., C.F.C.

I. INTRODUCTION

A fire occurred at the Sonnen residence on November 17, 2010 (the "Fire"). Plaintiff is the subrogated insurer for the damages caused by the Fire. Pennsylvania State Trooper Patrick McKenna, Jr. performed the official investigation into the cause of the Fire at the request of Assistant Fire Chief Trevor Rentzel. Trooper McKenna determined that the Fire originated inside the main electrical distribution panel in the basement of the Sonnen residence. See Response at Exhibits A, G. Trooper McKenna left the exact electrical cause to other investigators with electrical expertise. Id. Plaintiff hired an independent fire origin and cause expert, Mr. Michael J. Moyer, C.F.I., C.F.E.I., C.V.F.I., P.I. who investigated the cause of this fire. See Response at Exhibits A, H. Mr. Moyer determined as well that the Fire originated at the main breaker inside the main electrical distribution panel. Id. Mr. Ron Panunto, P.E., C.F.E.I., C.F.C. is an engineering, electric utility and forensic fire causation expert with Dawson

Engineering. The Plaintiff presented Mr. Panunto's expert opinions "regarding the cause of the fire that is the subject of at issue in this matter and standards of care for electric utilities and breach thereof as it relates to this matter". See Response at Exhibit A. Apparently, the Defendant takes no issue with the admissibility of the findings of Trooper McKenna, Assistant Fire Chief Rentzel or Mr. Moyer, and has focused solely on Mr. Panunto. However, Mr. Panunto is well-qualified to present the opinions proffered, which are based on a well-established, Court-approved methodology and fit the facts of this case.

II. STANDARD OF REVIEW AND APPLICABLE LAW

The Supreme Court has held that the trial court has "a special obligation" to ensure that any and all expert testimony is not only relevant but reliable. Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 147, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999) (quoting Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 589, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993)). This special obligation has been likened to a "gatekeeping role" for the trial judge. Daubert, 509 U.S. at 597, 113 S.Ct. 2786. Accordingly, the admission of scientific, technical, or other specialized knowledge is within the discretion of the district court. General Elec. Co. v. Joiner, 522 U.S. 136, 146-47, 118 S.Ct. 512, 139 L.Ed.2d 508 (1997).

This inquiry is controlled by Rule 702 of the Federal Rules of Evidence, which provides:

> 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.
>
> F.R.E. 702.

As the Third Circuit has explained, these requirements represent the "trilogy of restrictions on expert testimony: qualification, 2 reliability and fit." Calhoun v. Yamaha Motor Corp. U.S.A., 350 F.3d 316, 321 (3d Cir.2003) (citing Schneider v. Fried, 320 F.3d 396, 405 (3d Cir.2003)).

Before an expert witness may offer an opinion pursuant to F.R.E. 702, he must first be qualified by virtue of specialized expertise. See id. at 741. In Waldorf v. Shuta, 142 F.3d 601 (3d Cir.1998), we articulated the standard for qualifying an expert:

> Rule 702 requires the witness to have "specialized knowledge" regarding the area of testimony. The basis of this specialized knowledge "can be practical experience as well as academic training and credentials." We have interpreted the specialized requirement liberally, and have stated that this policy of liberal admissibility of expert testimony "extends to the substantive as well as the formal qualification of experts." However, "at a minimum, a proffered expert witness ... must possess skill or knowledge greater than the average layman...."

Id. at 625 (citations omitted).

The Third Circuit has had, for some time, a generally liberal standard of qualifying experts. See, e.g., Paoli II, 35 F.3d at 741; Hammond v. Int'l Harvester Co., 691 F.2d 646, 652–53 (3d Cir.1982); Knight v. Otis Elevator Co., 596 F.2d 84, 87–88 (3d Cir.1979).

When considering the reliability requirement, the Supreme Court has held that the gatekeeping function requires the trial court to "make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Kumho Tire, 526 U.S at 152, 119 S.Ct. 1167. To meet this requirement, "a litigant has to make more than a prima facie showing that his expert's methodology is reliable ... [but] the evidentiary requirement of reliability is lower than the merits standard of correctness." Pineda v. Ford Motor Co., 520 F.3d 237, 244 (3d Cir.2008). When evaluating the reliability of a witness's

methodology, a court is guided by several familiar factors drawn from Daubert: (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 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. Calhoun, 350 F.3d at 321 (citing Paoli, 35 F.3d at 742 n. 8). These factors "may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony." Kumho Tire, 526 U.S. at 150, 119 S.Ct. 1167. Accordingly, the Rule 702 inquiry is a flexible one, and the court should also take into account any other relevant factors. Calhoun, 350 F.3d at 321.

The final requirement is fit, which means "the expert's testimony must be relevant for the purposes of the case and must assist the trier of fact." Id. (quoting Schneider, 320 F.3d at 405). "Rule 702's helpfulness standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility." Daubert, 509 U.S. at 591-92, 113 S.Ct. 2786. This inquiry goes primarily to relevance because expert opinion which does not relate to a disputed issue is not relevant and cannot assist the trier of fact as required by Rule 702. Id. Like the typical relevance inquiry, the standard for analyzing the fit of an expert's analysis to the case at hand is "not that high." United States v. Ford, 481 F.3d 215, 219-20 (3d Cir.2007) (quoting Paoli, 35 F.3d at 745).

In fact, this Court has already found Mr. Panunto to be a qualified expert who utilizes reliable methodologies. Hoang v. Funai Corporation, 652 F. Supp. 2d 564 (M.D. Pa 2009)(finding Mr. Panunto qualified and utilizing reliable methodologies in a fire case).

III. MR. PANUNTO IS QUALIFIED TO PROVIDE THE OPINIONS EXPRESSED IN HIS REPORT.

Mr. Ron Panunto, P.E., C.F.E.I., C.F.C. is an engineering, electric utility and fire causation expert with Dawson Engineering. The Plaintiff presented Mr. Panunto's expert opinions "regarding the cause of the fire that is the subject of at issue in this matter and standards of care for electric utilities and breach thereof as it relates to this matter". See Response at Exhibit A. A report and curriculum vitae from Mr. Panunto was timely and properly disclosed by the Plaintiff. See Response at Exhibit B; Exhibit C. Mr. Panunto holds a Bachelor of Science degree in electrical engineering from Drexel University, and is a registered professional engineer in Pennsylvania, New York, New Jersey, North Carolina, Delaware and Connecticut. Id. He is a senior member of the Institute of Electrical and Electronic Engineers. Id. Mr. Panunto is a Certified Fire and Explosion Investigator from the National Association of Fire Investigators. Id. Mr. Panunto has over 40 years of experience in the electrical utility and power system engineering, testing and construction having been the Field Engineering and Substation Design Branch Manager at PECO Energy, and Project Manager at Gannett Fleming, Inc. Id. Mr. Panunto has ample qualifications to provide the expert opinions proffered in this case.

Despite the Plaintiff's disclosures, and the clear expression of Mr. Panunto's opinions in his report, Defendant MetEd has sought to exclude the Mr. Panunto because he is not qualified as an expert in "vegetation management". The Defendant's argument is a red herring. The Defendant's attempt to express Mr. Panunto's opinion as one requiring expertise in vegetation management is misplaced. The Defendant in this case is an electric utility company, not a vegetation management company, arborist, tree surgeon, landscaper or otherwise. The Defendant tried to re-cast and re-frame Mr. Panunto's opinions to suit its argument. However, this case is about the reckless and improper supply of electricity by an electrical utility company

which, in this situation, relates to its wantonly shoddy maintenance and care of its electrical utility lines. This case is not about how best to trim a tree, or whether an oak grows faster than a spruce, or anything else that would require expertise in how to maintain vegetation. The issue is the maintenance and care of the electrical lines at issue, not the trees.

The integrity of the distribution line is paramount, and is the reason why vegetation management is necessary at all. See Response at Exhibit C. Vegetation management is nothing more than trimming trees in the area of the distribution line to prevent outages from tree-branch contact with the wires. Id. The National Electrical Safety Code (NESC) requires that all utilities adhere to Rule 218, which provides that "[v]egetation that may damage ungrounded supply conductors should be pruned or removed." Id.

With respect to Rule 218, Mr. Panunto has researched and testified in Court in dozens of cases where inadequate tree trimming by utilities has caused outages, electric shock to persons, and death. Id. To this extent, Mr. Panunto is familiar with both State and Federal guidelines for vegetation management related to distribution and transmission lines. And, Mr. Panunto has already been qualified by Court's to testify regarding the need to protect electric power lines from trees and the industry standards requiring it. It is doubtful that the text and real life implications of Rule 218 of the National Electric Safety Code is within the ken of an average juror, but they are clearly within the ken of Mr. Panunto, a registered professional engineer with over 40 years of experience in the electrical utility industry.

Mr. Panunto has extensive education, training and experience in the area of electricity distribution and the maintenance, care and protection of electrical utility lines. The Defendant's Motion in Limine regarding Mr. Panunto's qualifications is without merit. The Defendant does not challenge Mr. Panunto's qualifications regarding engineering, fire causation, or electrical utility industry line maintenance and care standards generally, just apparently a misguided attack

regarding his expertise in actually trimming trees. Likely, the focus of this attack is because it is abundantly clear that Mr. Panunto is well-qualified to testify to the matters presented by the Plaintiff in its expert disclosures, which are the matters upon which Plaintiff must prove its case as against the Defendant.

The Defendant's arguments regarding qualifications are simply a red herring. There are concerns of vegetation management covered by the requirements of ANSI A300 and ANSI Z133.1. See Response at Exhibit C. These national standards instruct the tree trimmer how to trim tree branches without killing the tree. Id. Expertise in the act of tree trimming requires certification that the Defendant appears to be focused upon. However, this certification on how not to kill a tree when pruning back branches has absolutely nothing to do with whether or not the tree trimmers have in fact trimmed the branches back to a point that will not interfere with electric operation of the line as required by Rule 218. Id. In fact, the NESC does not even refer to the ANSI standards regarding the methods for trimming trees to avoid killing them. Id.

Bottom line, and especially with the Third Circuit's generally liberal standards for qualifications, Mr. Panunto is abundantly qualified to present the expert opinions in his report and for which he has been proffered by the Plaintiff.

IV. MR. PANUNTO'S OPINIONS ARE BASED UPON RELIABLE METHODOLOGY.

Mr. Panunto used a reliable methodology in forming his opinions, which are found in his report of October 24, 2013. See Motion at Exhibit A, B; Response at Exhibits A, C, and D. With respect to fire causation, Mr. Panunto's finding is that the fire was caused by an electrical arcing event at the main breaker in the electrical distribution panel at the Sonnen property. Id. Mr. Panunto's opinion as to the root cause of that electrical arcing event is that the main breaker

failed due to the history of multiple outage-caused, high voltage transients in the electric supply.[1] Id. Mr. Panunto determined that electric service to the Sonnen house was of poor quality due to the history of excessive outages due to a failure to protect the electric lines from vegetation (aka tree) contact as required by the National Electric Safety Code.[2] Id.

With respect to Mr. Panunto's opinions, he followed the methodology outlined in National Fire Protection Association 921 *Guide for Fire and Explosion Investigations*, which is a Court-recognized methodology for fire causation investigations. In assessing the admissibility of expert testimony concerning the origin and cause of a fire, federal courts rely on NFPA 921 as a generally accepted standard for the methodology to use when determining the cause and responsibility for fire. Federal courts, including the Middle District of Pennsylvania, have held that NFPA 921 "is a recognized guide for assessing the reliability of expert testimony in fire investigations." Hoang v. Funai Corporation, 652 F. Supp. 2d 564 (M.D. Pa 2009); Booth v. Black & Decker, Inc., 166 F.Supp. 2d 215, 220 (E.D.Pa. 2001). Indeed, NFPA 921 is promulgated by "the largest fire protection organization in the world and is widely accepted as the standard guide in the field of fire investigations." United States v. Hebshie, 754 F.Supp.2d 89, 109 n.39 (D. Mass. 2010).

The methodology prescribed by NFPA 921 for investigating the origin and cause of a fire is "the well-known 'scientific method' of generating and testing hypotheses." Aman, 748 F.Supp.2d at 535. Mr. Panunto specifically cited to NFPA 921 in his report, and followed the methodology espoused by it. See Response at Exhibit C. Pursuant to NFPA 921, Mr. Panunto identified the problem, defined the problem, collected data, analyzed the data collected,

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[1]Even Mr. Robert Simpson, the expert opinion witness presented the Defendant, opines that the fire was caused by an electrical event at the main breaker. The distinction comes with respect to the root cause of the electrical arcing event. Mr. Panunto determined it was due to high-voltage transients in the electrical supply, where Mr. Simpson determined that the root cause was either damp conditions in the basement or a product defect depending on which report of his you happen to read.

[2] Tree contact causing outages is well-known to MetEd and well documented in the peer-reviewed literature involving electric utilities.

developed a hypothesis via inductive reasoning, tested the hypothesis via deductive reasoning and reached his final opinions based upon that methodology. Id.

Mr. Panunto identified the problem as determining the cause of the fire, including the responsibility for the fire per NFPA 921. See NFPA 3.3.22[3] ; 3.3.140[4]. Mr. Panunto collected and examined a vast amount of data in this case. See Motion at Exhibit A; Response at Exhibits A, C and D. Mr. Panunto visited and examined the fire scene itself. Id. While at the scene, he used a methodical approach from outside to inside; from most fire damaged to least fire damaged. Id. Mr. Panunto examined, photographed and evaluated artifacts at the scene. Id. Mr. Panunto obtained witness information, fire firefighter information and information from other investigators to confirm the area of fire origin and to identify potential ignition sources. Id. Mr. Panunto also examined the electrical system at the property. Id. Because the area of fire origin in this case is indisputably the main electrical panel[5], the main electrical panel was examined, and forensic evidence of electrical activity was found at the main circuit breaker. Id. The main electrical panel was then dissected and main breaker examined in a controlled environment upon agreement of all the relevant parties per an agree protocol. Id. Mr. Panunto also reviewed documentation from the Defendant regarding the electric service, and witness information regarding the electric service in the relevant area prior to the Fire. Id.

Based on his physical examination of the scene, information from witnesses, and examination of the artifacts from the fire scene, utilizing the scientific approach espoused by NFPA 921, Mr. Panunto found that that the fire was most likely caused by an electrical arcing event that was the result of multiple transient surges on the power supply that eventually caused

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[3] Cause is defined as "The circumstances, conditions or agencies that brought about or resulted in the fire or explosion incident, damage to property resulting from the fire or explosion incident, or bodily injury or loss of life resulting from the fire or explosion incident."

[4] Responsibility is defined as "The accountability of a person or other entity for the event or sequence of events that caused the fire or explosion, spread of the fire, bodily injuries, loss of life, or property damage.

[5] Both parties concur that the physical location of origin for the fire is the main electrical panel in the basement of the Sonnen home.

the catastrophic failure of the main breaker. See Motion at Exhibit A; Response at Exhibits A, C and D. The electric supply in question was determined to come from the Zionsview substation on the 720-4 line. Id. The two year line history made available by MetEd for the 720-4 line showed a series of 24 circuit breaker trip outages that did cause transient surges on the 720-4 line. Id. This is dismal performance on the part of Met Ed. Nationally gathered statistics indicate that most distribution line outages are caused by inadequate vegetation management, and the facts in this case support that the 720-4 line fall into that same category. Id. The notations by MetEd regarding those outages show that many of them occurred during high wind events, which is the main reason the trees will move to contact the wires resulting in circuit breaker tripping events. Id. Also, the area around the Sonnen property, and the 720-4 line is a tree-filled area with above-ground electrical lines, and the MetEd plan for that line called for vegetation management (aka tree-trimming). Id. There was also witness information from Mrs. Sonnen's neighbor that the electrical supply in that area suffered multiple outages, and that trees impacted the electrical lines. Id.

Unlike in Buzzerd, in this case there is a direct electrical connection between the circuit breaker at Zion's View Substation and the Sonnen main circuit breaker panel. Whatever happens at the substation is directly transmitted to the Sonnen household. Id. Studies done by Francois Martzloff of General Electric Company have shown that US electric utilities routinely generate 1kV transients on the average of 100 per year; 2kV transients 15 times per year; and 6kV transients just less than 1 per year. Id. Each time a customer's electrical equipment is hit with these utility generated transients it prematurely ages the equipment, and eventually one of these transients will cause the equipment to fail. Id. It is similar to repeated concussions to those who practice contact sports, i.e., cumulative damage until failure. Id. Importantly, Met Ed can easily prevent these transients from damaging customer's equipment by installing fuses and

surge arrestors on its equipment to mitigate the deleterious effects of transients on customer's equipment. Id. However, Met Ed chooses not to do this and instead shifts the burden of its poor power quality and dismal electrical line maintenance to the homeowner. Id.

In addition to his own first-hand knowledge from his experience working in the electrical utility industry for over 40 years, Mr. Panunto examined and relied upon peer-reviewed materials to evaluate his opinion that outages related to tree/vegetation contact, and that those outages result in transient surges that damaged the circuit breaker at issue. These peer-reviewed materials were cited and discussed in his report. Id. They support that outages cause the transients, and that the transients will damage electrical equipment like the circuit breaker at issue. Mr. Panunto found no evidence of a defect in the breaker, which is supported by its long term successful use. Id. Mr. Panunto found no evidence of any abuse or undue wear and tear from environmental concerns that would cause this catastrophic failure. Id. In addition, the last outage event recorded that caused a transient surge before the event was at 1:04pm caused by an automatic reclose of the relevant circuit breaker as the Zionsview substation. See Response Exhibit C. The fire was first observed at roughly 5:40pm due to arc-tracking once the insulation of the main breaker was pierced and the carbonization process was started. Id. Arc-tracking under these conditions and circumstances is well-established in peer-reviewed literature including *Kirk's Fire Investigation* where the timing between initiating trigger and fire is detailed. Id. Using both inductive and deductive reasoning, evaluating the data, and reviewing peer-reviewed information, Mr. Panunto reached a well-formed opinion using a property, standardized and Court-approved methodology.

As for the standards of care, Mr. Panunto cited to specific Rules in the relevant code, the National Electric Safety Code, with respect to protection of electrical lines from tree contact. Id. As described above, Mr. Panunto also has over 40 years of work experience in this industry and

the standards involved in electrical line care and maintenance. Further, the Defendant's own designee witness testified that the National Electric Safety Code is the relevant code for work performed by it. See Response at Exhibit F.

It is abundantly clear that Mr. Panunto followed a reliable, Court-approved methodology in reaching his opinions in this case.

V. MR. PANUNTO'S OPINIONS ARE FIT TO PRESENT TO A JURY.

Mr. Panunto's opinions will most certainly assist the trier of facts in this case. Unlike in Buzzerd, Mr. Panunto's opinions are not about mere possibilities. In fact, the word "possibility" does not appear in his report, and the only mention of that word at his deposition was when Mr. Panunto was relaying that the Fire Marshal informed him verbally that there was the "possibility" that a surge from the electrical utility occurred the day of the fire.[6]

Mr. Panunto clearly opined that "[r]epeated power outages caused repeated high-voltage transients causing accelerated wear and catastrophic failure of the main circuit breaker in the Sonnen's distribution panel." Moreover, Mr. Panunto stated that "[t]he fire occurred as a direct result of the outage-caused, high-voltage transients that caused the main circuit breaker to flash over and the resulting arc to ignite the insulation on the panel's wiring". The source of the transient surges is the incoming electric service, which was physically connected directly to the main circuit breaker in the electrical panel at the Sonnen house. See Motion at Exhibit A; Response at Exhibit C. The main circuit breaker at the Sonnen property was undoubtedly subjected to transient surges on at least the 24 occasions presented by the Defendant. Id. Mr. Panunto identified, as supported by his examinations of the scene and physical evidence, peer-reviewed materials and witness information, that transient surges can, and did, cause the

[6] The transient surge event on the day of the fire was confirmed by MetEd records of a substation circuit breaker trip, along with eyewitness testimony.

breakdown of the breaker that resulted in the Fire in this case. Id. As discussed in detail hereinabove, Mr. Panunto supported his opinions with peer-reviewed determinations of the same phenomana, and the extent and scope of the transients. Id. And, upon evaluating all of the data in this case, Mr. Panunto reached the opinion that the breakdown of the main panel circuit breaker and arcing event was the "direct result" of transient surges due to tree-contact related outages. Id. It is these exact types of outages that result in high voltage transients, and the documentation of 24 outages in 2 years[7] coupled with witness observation and peer-reviewed statistical data all corroborating and supporting Mr. Panunto's opinions. The volume and type of surges, and witness information of outage events in high winds and with tree contact, clearly support Mr. Panunto's opinions and provide the fit between the facts and his opinions in this case.

Expert opinion is never simply a statement of empirical, forensic facts for a jury; if it were, we would not call it opinion. Rather, expert opinion is more akin to a bridge for the jury to cross a river of unknowns. Along the way, the bridge has supports that stand on solid rocks which are the facts and reliable information used by experts to support their opinions. An expert opinion bridge has a gate. The Court's gatekeeper function is to make certain the bridge is well-constructed with sufficient supports to allow the jury to cross safely without beguile or *ipse dixit*. The Court's gatekeeper function is not to stop the jury from crossing the bridge until the river of unknowns has dried-up and no bridge is necessary. Rather, it is to provide a stable bridge in the face of ever-existing unknowns. Mr. Panunto is a fire causation, electrical engineer and electrical utility industry standard of care expert whose opinions in this case are well-supported, and fit the facts, thereby creating a bridge to assist the jury to understand the issues presented in this case (What caused the Fire? Why is the Defendant responsible for causing the Fire?). At

[7] The breaker was in place for over 15 years, so extrapolating that figure would mean that the main breaker saw roughly 180 transient surges due to reckless maintenance. See Motion at Exhibit A, B and Response at Exhibit C.

best, the Defendant's arguments are to the weight of Mr. Panunto's testimony, not its admissibility. As such, the Defendant's Motion in Limine should be denied.

VI. CONCLUSION

Based upon all the foregoing reasons, Plaintiff respectfully requests that the Court deny Defendant's Motion in Limine to Exclude Expert Testimony of Ronald J. Panunto, P.E., C.F.E.I., C.F.C.

Respectfully Submitted,

COZEN O'CONNOR

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Dated: January 27, 2014

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

USAA CASUALTY INSURANCE COMPANY as subrogee of Joan Sonnen	:	CIVIL ACTION NO.: 1:12-cv-1178 (CCC)
Plaintiff	:	JURY TRIAL DEMANDED
v.	:	
METROPOLITAN EDISON COMPANY	:	
Defendant/Third Party Plaintiff	:	
v.	:	
SCHNEIDER ELECTRIC USA, INC. f/k/a SQUARE D COMPANY	:	
Additional Defendant	:	

PLAINTIFF USAA CASUALTY INSURANCE COMPANY'S EXPERT DISCLOSURES PURSUANT TO FED.R.CIV.P.26(a)(2)

Plaintiff, USAA Casualty Insurance Company ("USAA"), by and through its undersigned counsel, submit this Expert Disclosure pursuant to Order of Court and Federal Rule of Civil Procedure 26(a)(2) identifying retained experts, exclusive of impeachment and rebuttal witnesses, who may be called to testify in this matter. Plaintiff reserves the right to call the following expert witnesses to testify on its behalf at the time of trial concerning the subject matter and pertinent facts, findings, opinions and conclusions set forth in their reports, subject to supplementation hereinafter by written additional disclosures, deposition testimony and/or the exchange of further discovery between the parties. All opinions offered by each such expert witness identified in the within disclosure is held to a reasonable degree of scientific and/or professional certainty.

1. Ronald J. Panunto, PE, CFEI, CFC
Dawson Engineering, Inc.
804 Harrison Avenue
Langhorne, PA 19047-5367

Mr. Panunto is an engineering, electric utility and forensic fire causation expert with Dawson Engineering, Inc. who will render expert opinions regarding the cause of the fire that is the subject of at issue in this matter and standards of care for electric utilities and breach thereof as it relates to this matter. Plaintiff anticipates this witness will testify consistent with Dawson Engineering's written report, a copy of which is attached hereto as Exhibit "A", along with any supplements necessary as additional discovery is performed. Mr. Panunto's curriculum vitae is attached hereto as Exhibit "B". Mr. Panunto's listing of deposition and trial testimony information is attached hereto as Exhibit "C." Mr. Panunto's fee schedule is attached hereto as Exhibit "D".

2. Michael J. Moyer, C.F.I., C.F.E.I., C.V.F.I., P.I.
National Forensic Consultants
8500 Remington Avenue, Suite D
Pennsauken, NJ 08110

Mr. Moyer is a fire origin and cause investigation expert with National Forensic Consultants who will render expert opinions regarding the origin and cause of the fire at issue in this matter. Plaintiff anticipates this witness will testify consistent with the National Forensic Consultants written report, a copy of which is attached hereto as Exhibit "E", along with any supplements necessary as additional discovery is performed. National Forensic Consultants fee schedule is attached as Exhibit "F". Mr. Moyer's curriculum vitae is attached as Exhibit "G". Mr. Moyer's deposition and trial testimony information as well as his publications are attached hereto as Exhibit "H.".

Plaintiff also expects to call the following witnesses to provide opinion testimony who have not been retained nor are specially employed to provide expert testimony, nor whose duties regularly involve giving expert testimony:

3. Joan Sonnen
314 Overlook Lane
Gulph Mills, PA 19428

Plaintiff reserves the right to elicit opinion testimony from Joan Sonnen concerning property value and the amount and extent of the damages sustained as a result of the fire, smoke, soot, odor, etc. related to the fire. Ms. Sonnen is qualified, as the owner of the property damaged and/or destroyed, to offer opinion testimony concerning these issues. Plaintiff anticipates that Ms. Sonnen will testify consistent with the damage documentation and reporting that has previously been produced by Plaintiff in this case.

4. Dennis McLaughlin
Joseph Cola
Adjusters
USAA
P.O. Box 33490
San Antonio, TX 78265

Mr. Dennis McLaughlin and Mr. Joseph Cola are property adjusters who are expected to testify and render opinions as to the adjustment of the loss and the amount and reasonableness of the loss amount paid and damages and repairs to the property in this case. Mr. McLaughlin will provide testimony to a reasonable degree of professional certainty regarding the fair and reasonable amount of the building damages sustained by Sonnen as a result of the fire, and Mr. Cola will testify to a reasonable degree of professional certainty regarding the fair and reasonable amount of the personal property / contents damages sustained by Sonnen as a result of the fire that occurred at the Property. The amounts of damages they will opine about are itemized generally as follows:

Building-	$149,984.39
Personal Property-	$89,575.16
TOTAL DAMAGES	**$239,559.55**

Plaintiff anticipates that these witnesses will testify consistent with the damage documentation and reporting that has previously been produced by Plaintiff in this case and which sets forth their opinions on the damages sustained as a result of the subject fire, smoke, soot, odor and related damages, all of which is incorporated herein by reference.

5. Ken Zimmerman
Mellon Certified Restoration
5005 Devonshire Road
Harrisburg, PA 17109

Mr. Ken Zimmerman is an emergency response and remediation contractor who is expected to testify and render opinions as the amount and reasonableness of the loss amount paid and damages and repairs to the property in this case. Plaintiff anticipates that Mr. Zimmerman will testify consistent with the damage documentation and reporting that has previously been produced by Plaintiff in this case and which sets forth their opinions on the damages sustained as a result of the subject fire, smoke, soot, odor and related damages, all of which is incorporated herein by reference.

6. CRDN
130 W. State St.
Geneva, IL 60134

CRDN is a national contractor who is expected to testify and render opinions as to the amount and reasonableness of the loss amount paid and damages and repairs to the property in this case. Plaintiff anticipates that CRDN will testify consistent with the damage documentation and reporting that has previously been produced by Plaintiff in this case and which sets forth their opinions on the damages sustained as a result of the subject fire, smoke, soot, odor and related damages, all of which is incorporated herein by reference.

7. Hartmann Fine Art Conservation Services, Inc.
321 West Old York Road
Carlisle, PA

Hartmann Fine Art Conservation Services is expected to testify and render opinions as to the amount and reasonableness of the loss amount paid and damages and repairs to the property in this case. Plaintiff anticipates that Hartmann Fine Art Conservation Services will testify consistent with the damage documentation and reporting that has previously been produced by Plaintiff in this case and which sets forth their opinions on the damages sustained as a result of the subject fire, smoke, soot, odor and related damages, all of which is incorporated herein by reference.

8. Patrick K. McKenna, Jr.
Pennsylvania State Trooper Fire Marshal (Retired)
6100 Huntingdon Street
Harrisburg, PA 17111

Trooper McKenna was the lead investigator of the subject fire for the Pennsylvania State Police. Trooper McKenna is expected to testify with respect to the origin, cause and spread of the fire, and the extent of the damages. It is expected that Trooper McKenna will testify consistent with the Pennsylvania State Police Fire Investigation Report/Worksheet and Photographic Documentation disclosed during discovery, as well as his deposition testimony of September 5, 2013, all of which is incorporated herein by reference.

9. Trevor A. Rentzel
Assistant Chief Union Fire Department
5400 Board Road
Mount Wolf, PA

Assistant Chief Rentzel was the lead investigator of the subject fire for the Union Fire Department, Manchester, PA. Assistant Chief Rentzel is expected to testify with respect to the origin, cause and spread of the fire, and the extent of the damages. It is expected that Assistant Chief Rentzel will testify consistent with the Union Fire Department Report and Photographic Documentation disclosed during discovery, as well as his deposition testimony of September 5, 2013, all of which is incorporated herein by reference.

Plaintiff reserves the right to elicit opinion testimony from all individuals identified in the damage documentation previously produced by Plaintiff during the course of discovery in this

matter who provided appraisals for services and estimates of the damages caused by the fire and ensuing smoke, soot, odor, etc. Plaintiff reserves the right to call the contractors and vendors that are disclosed in the documentation previously produced to testify regarding the reasonable cost of the property damage, and the repair and replacement cost of same, and the associated expenses incurred. Plaintiff may also elicit opinion testimony from all government officials and investigators that responded to this loss, or participated in the post-loss investigation. Finally, Plaintiff reserves the right to call expert rebuttal witnesses necessary at the time of trial.

PLAINTIFF
BY ITS ATTORNEYS

BY: 

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Cozen O'Connor
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Philadelphia, PA 19103
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CERTIFICATE OF SERVICE

I, Erick J. Kirker, do hereby certify that a copy of Plaintiff, USAA Casualty Insurance Company's Expert Disclosures Pursuant to Fed. R. Civ. P. 26(a)(2) have been served this 1st day of November 2013, via US First Class Mail, postage pre-paid, addressed as follows:

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

USAA CASUALTY INSURANCE COMPANY as subrogee of Joan Sonnen (CCC)	:	CIVIL ACTION NO.: 1:12-cv-1178
Plaintiff	:	*"ELECTRONICALLY FILED"*
v.	:	
METROPOLITAN EDISON COMPANY	:	**JURY TRIAL DEMANDED**
Defendant/ Third-Party Plaintiff	:	
v.	:	
SQUARE D COMPANY AND SCHNEIDER ELECTRIC USA, INC.	:	
Third-Party Defendants	:	

AFFIDAVIT OF RONALD J. PANUNTO, P.E., C.F.E.I., C.F.C.

I, Ronald J. Panunto, P.E., C.F.E.I., C.F.C., do hereby attest and affirm under the pains and penalties of perjury that the following information is true and correct to the best of my knowledge, information and belief:

1. I am the Senior Electrical Engineer and President of Dawson Engineering, which is an engineering firm that does, among other engineering work, the design of large electrical utility substations, design of railroad power distribution systems, investigations of building fires, and other forensic investigations.

2. I hold a Bachelor of Science degree in electrical engineering from Drexel University, and I am a registered professional engineer in Pennsylvania, New York, New Jersey, North Carolina, Delaware and Connecticut. I am a senior member of the Institute of Electrical and Electronic Engineers, and I am a Certified Fire and Explosion Investigator from the National Association of Fire Investigators. I have over 40 years of experience in the electrical utility and power system engineering industry having been the Field Engineering and Substation Design Branch Manager at PECO Energy, and Project Manager at Gannett Fleming, Inc.

3. I investigated the fire at the Sonnen residence that occurred on November 17, 2010 and prepared a report dated October 24, 2013 of my investigation and findings regarding the cause of the fire that is at issue in this matter and standards of care for electric utilities and breach thereof as it relates to this matter.

4. The integrity of electrical lines is paramount, and is the reason why vegetation management is necessary at all in the electrical utility industry. Vegetation management is nothing more than trimming trees in the area of the distribution line to prevent outages from tree-branch contact with the wires. The National Electrical Safety Code (NESC) requires that all utilities adhere to Rule 218, which provides that "[v]egetation that may damage ungrounded supply conductors should be pruned or removed."

5. With respect to NESC Rule 218, I have researched and testified in Court in dozens of cases where inadequate tree trimming by utilities has caused outages, electric shock to persons, and death. To this extent, I am familiar with both State and Federal guidelines for vegetation management related to distribution and transmission lines.

6. The Defendant had obligations under the NESC and good practice to keep the lines clear of the trees. 24 instances of outages in 2 years, including numerous outages occurring in "high winds" which blow the trees against the electrical lines, is excessive. An outage on the day of the fire was reported, and heavy wind was noted that day. Pictures of the area and witness testimony show and describe trees all around the relevant electrical line. All of this information is also paired with peer reviewed findings on the prevalence of windy day outages being the result of tree contact. The Defendant was not maintaining its electrical lines to be free from tree contact despite its obligation to do so, and despite being aware of the long history of outages clearly identifiable as being tree-related.

7. There are concerns of vegetation management covered by the requirements of ANSI A300 and ANSI Z133.1. These national standards instruct the tree trimmer how to trim tree branches without killing the tree. Expertise in the act of tree trimming requires certification that the Defendant appears to be focused upon. However, this certification on how not to kill a tree when pruning back branches has absolutely nothing to do with whether or not the tree trimmers have in fact trimmed the branches back to a point that will not interfere with electric operation of the line as required by Rule 218. In fact, the NESC does not even refer to the ANSI standards regarding the methods for trimming trees to avoid killing them.

8. Multiple voltage transients were occurring on the electrical lines sufficient to cause the breakdown of the main circuit breaker. I base this on my physical examination of the building, the electrical panel and the main breaker. The electrical damage to the main breaker was consistent with voltage transient breakdown, the electrical line at issue is above ground and in a treed area, witness information indicates numerous prior contacts between trees and the electrical line at issue. Peer reviewed materials cited and discussed in my report support that transient voltages occur and cause similar breakdown and damage. Further, I found no physical evidence to support a finding that age, dirt or moisture caused the damage of main circuit breaker.

9. I did not testify or report that transient voltages in outage situations would be of an insufficient magnitude to damage the electrical equipment at issue. In fact, I reported to the contrary. I described and presented peer-reviewed literature identifying this type of failure, and the impact that such transient voltages can have on electrical equipment including early and catastrophic breakdown.

10. With respect my investigation into the cause of the electrical fire in this case, I followed the methodology outlined in National Fire Protection Association 921 *Guide for Fire and Explosion Investigations*, which is a Court-recognized methodology for fire causation investigations. I specifically cited to NFPA 921 in my report. Pursuant to NFPA 921, I identified the problem, defined the problem, collected data, analyzed the data collected, developed a hypothesis via inductive reasoning, tested the hypothesis via deductive reasoning and reached his final opinions based upon that methodology.

I identified the problem as determining the cause of the fire, including the responsibility for the fire per NFPA 921. I collected and examined a vast amount of data in this case. I visited and examined the fire scene itself. While at the scene, I used a methodical approach from outside to inside; from least fire damaged to most fire damaged. I examined, photographed and evaluated artifacts and fire patterns at the scene. I obtained witness information, fire firefighter information and information from other investigators to confirm the area of fire origin and to identify potential ignition sources which were examined as well. I examined the electrical system at the property. Because the area of fire origin in this case is indisputably the main electrical panel[1], the main electrical panel was examined, and forensic evidence of electrical activity was found at the main circuit breaker. The main electrical panel was then dissected and main breaker examined in a controlled environment upon agreement of all the relevant parties per an agreed upon protocol. Based on this physical examination of the scene, information from witnesses, and examination of the artifacts from the fire scene, utilizing the scientific approach espoused by NFPA 921, I found that that the fire was most likely caused by an electrical arcing event that was the result of multiple transient surges on the power supply that eventually caused the catastrophic failure of the main breaker.

11. The electric supply in question was determined to come from the Zionsview substation of MetEd on the 720-4 line. The two year line history made available by MetEd for the 720-4 line showed a series of 24 circuit breaker trip outages that did cause transient surges on the 720-4 line. This is dismal performance on the part of Met Ed, and an excessive amount of outages. Nationally gathered statistics indicate that most distribution line outages are caused by inadequate vegetation management, and the facts in this case support that the 720-4 line falls into that same category. The notations by MetEd regarding those outages show that many of them occurred on windy days, which is the main reason the trees will move to contact the wires resulting in circuit breaker tripping events. Also, the area around the Sonnen property, and the 720-4 line is a tree-filled area with above-ground electrical lines, and the MetEd plan for that line called for vegetation management (aka tree-trimming). There was also witness information from Mrs. Sonnen's neighbor that the electrical supply in that area suffered multiple outages, and that trees impacted the electrical lines.

12. Whatever happens at the substation is directly transmitted to the Sonnen household. Studies done by Francois Martzloff of General Electric Company have shown that US electric utilities routinely generate 1kV transients on the average of 100 per year; 2kV transients 15 times per year; and 6kV transients just less than 1 per year. Each time a customer's electrical equipment is hit with these utility generated transients it prematurely ages the equipment, and eventually one of these transients will cause the equipment to fail. It is similar to repeated concussions to those who practice contact sports, i.e., cumulative damage until failure. Importantly, Met Ed can easily prevent these transients from damaging customer's equipment by installing fuses and surge arrestors on its equipment to mitigate the deleterious effects of transients on customer's equipment. However, Met Ed chooses not to do this and instead shifts the burden of its poor power quality and dismal electrical line maintenance to the homeowner.

13. In addition to my own first-hand knowledge working in the electrical utility industry for over 40 years, I have examined and relied upon peer-reviewed materials regarding outages related to tree/vegetation contact, and that those outages result in transient surges. These peer-reviewed materials were cited and discussed in my report for this case. They support that outages cause the transients, and that the transients will damage electrical equipment like the circuit breaker at issue. I found no evidence of a defect in the breaker, which is supported by its long term successful use. I found no evidence of any abuse or undue wear and tear from environmental concerns that would cause this catastrophic failure. Using both inductive and deductive reasoning from NFPA 921, evaluating the data, and reviewing peer-reviewed information, I reached a well-formed opinion using a proper, standardized and Court-approved methodology. As for the standards of care, I cited to specific Rules in the relevant code, the NESC, with respect to protection of electrical lines from tree contact. The Defendant's own designee witness testified that the NESC is the relevant code for work performed by it.

14. The lag between the last outage transient at 1:04pm (caused by the automatic reclose of 720-12 circuit breaker at Zions View Substation) and the fire that was first observed at approximately 5:40pm was caused by a phenomenon known as arc-tracking. On page 397 of his peer-reviewed book "Kirk's Fire Investigation," 6th Edition, Dr. John D. DeHaan describes it this way:

"With the exception of glass, ceramic, mica, and asbestos insulators, most electrical insulation materials are organic compounds containing carbon. Therefore, degradation of such insulators by applying heat produces carbon char, which is an electrical semiconductor. When this pyrolysis occurs over a large area it is called carbonization. Breakdown can be more subtle because it applies whenever the insulation has lost its insulating capacity, completely or in part, thereby allowing the current to follow an unintended path. A circuit must be energized for overheating to occur from insulation breakdown; however, the equipment does not need to be operating. It can offer an unintended path for current to flow from hot (energized) to either ground or neutral by three routes: (1) through the insulating materials, (2) across the surface of the insulating materials, or (3) through the air. When it occurs in a limited area between conductors, it is often called *arc tracking, arcing through char, or carbon tracking.* The result of this is

that something that is supposed to be an insulator becomes a semiconductor. **This often occurs over an extended time and at such a slow rate that it is not readily detectable until the conductive path it creates can conduct so much current that massive heating can occur**. Once enough carbon is formed between the conductors, more current can flow along the carbon path, providing localized heating and further degradation. As the process continues, the current progressively increases as more and more carbon is formed. Finally, unless a circuit breaker or fuse functions, an arc may be struck and the carbonized insulation ignited, resulting in a possible fire.

In the instant case, the high-voltage transient that occurred at 1:04pm pierced the insulation of the main circuit breaker and started the carbonization process. In this particular case it took about 4 ½ hours for enough leakage current to flow across the circuit breaker's insulation to produce enough heat to ignite nearby combustibles. It should also be noted that since it happened at the service entrance to the distribution panel, there was no overcurrent protective device to interrupt the process.

Ronald J. Panunto, P.E., C.F.E.I., C.F.C.

STATE OF PA)
) ss.:
COUNTY OF Bucks)

On 27 Jan 2014, before me personally came Randall Brown Jr. (Print Name), and known to me to be the individual described in and who executed the foregoing AFFIDAVIT, and duly acknowledged to me that he/she executed same.

Notary Public

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
VANESSA A. GULICK, Notary Public
Penndel Boro., Bucks County
My Commission Expires January 8, 2017

Printed or Typewritten Name
My Commission Expires: _____

READING AND SIGNING OF DEPOSITION TRANSCRIPT

This errata sheet is to be attached to the deposition transcript of **Ronald J. Panunto, P.E., CFEI, CVFI, CFC** taken on December 19th, 2013 in the matter of **USAA Casualty Insurance Company a/s/o/ Joan Sonnen v. Metropolitan Edison Company, et al.** before Amy R. Fritz, Court Reporter.

INSTRUCTIONS TO DEPONENT: In accordance with the Rules of Civil Procedure, we are submitting and making available to you this transcript of your testimony for your review. Please list the page number, line number, change or correction and the reason for the change. At the bottom, please sign this form and date it.

RETURN THIS FORM to Central Pennsylvania Court Reporting Services to the address below within 30 days, and the appropriate copies will be distributed to counsel.

PAGE	LINE	CHANGE/CORRECTION and REASON
See Exhibit A attached hereto		

I hereby certify that I have read my deposition transcript and that it is, to the best of my knowledge, true and accurate, with the exception of the changes noted above.

1-16-14
Date

Signature of Deponent

File # 09365A

Central Pennsylvania Court Reporting Services
P.O. Box 508, Carlisle, PA 17013
Courtreporters4u@aol.com

EXHIBIT A to Errata Sheet of Ronald J. Panunto

Page	Line	Change/Correction and Reason
52	19	"miles" not "feet" -- to clarify the testimony.
69	11	Insert "don't" after the last "I" on that line -- to correct the transcription.
83	23	Add "It is deficient line maintenance with respect to protection from vegetation." -- to clarify the testimony.
85	4	Insert "However, I do have expertise regarding line management with respect to vegetation." After "not." -- to clarify the testimony.
85	10	Insert "as it related to line management" after "management" – to clarify the testimony.
85	15	Insert "I evaluated the line management which requires vegetation to be kept away from the lines." After "specifically." -- to clarify the testimony.
85	18	Insert "I evaluated the line management which requires vegetation to be kept away from the lines." After "No." -- to clarify the testimony.
87	8	Insert " and the MetEd records for the trips prior to and on the day of the fire" after "experience" and before the period. -- to clarify the testimony.
87	14	Insert "I found no tree limb, but there is evidence that there was high wind, the major reason for tree contact with lines, reported by MetEd related specifically to the tripped breaker on the day of the fire" after "Correct." -- to clarify the testimony.

IV. Conclusion

For the reasons stated above, the court will deny Met-Ed's motion *in limine* (Doc. 56) and motion for summary judgment (Doc. 58).

An appropriate order will issue.

/S/ CHRISTOPHER C. CONNER
Christopher C. Conner, Chief Judge
United States District Court
Middle District of Pennsylvania

Dated: July 16, 2014

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REPORT

DATE:	October 24, 2013
SUBJECT:	Sonnen v. Metropolitan Edison & Square D
DATE OF LOSS:	November 17, 2010
TYPE OF LOSS:	Fire
FILE NUMBER:	F100430SONN
PREPARED FOR:	Erick J. Kirker, Esquire Cozen O'Connor 1900 Market Street Philadelphia, PA 19103
PREPARED BY:	Ronald J. Panunto, PE, CFEI, CFC Dawson Engineering, Inc. 804 Harrison Avenue Langhorne, PA 19047-5367

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SECTION	
Report	Pages 1 through 5
Appendices:	I – DEI List II – Exhibits 1 through 5 III –CV IV – Trial and Deposition Testimony V – Testimony Rate

BACKGROUND

As requested by Erick J. Kirker, Esquire, of Cozen O'Connor, on December 29, 2010, the circumstances of the fire at the home of Joan Sonnen, 430 Maple Street, Manchester, PA on November 17, 2010 were investigated.

The following case documents were reviewed:

1. All case documents listed on DEI List (Appendix I).

The following references were consulted:

1. ANSI C2: National Electrical Safety Code, 2007 Edition.
2. NFPA 70: National Electrical Code, 2008 Edition.
3. NFPA 921: Guide for Fire and Explosion Investigations, 2011 Edition.
4. "Electrical Fire Analysis" by Yereance & Kerkhoff, 3rd Edition.
5. "Electrical Fires and Their Causes" by Rudy A. Medina.
6. "Kirk's Fire Investigation" by Dr. John DeHaan, 6th Edition.
7. "Ignition Handbook" by Dr. Vytenis Babrauskas.
8. "Scientific Protocols for Fire Investigation" by John Lentini.
9. "Forensic Engineering" by Kenneth Carper, 2nd Edition.
10. "Electrical Transients in Power Systems" by Dr. A. Greenwood, 2nd Edition.
11. "Power System Transients" by Dr. Juan A. Martinez-Velasco.
12. "Transients in Power Systems" by Dr. Lou van der Sluis.
13. "Analysis of Voltage Transients in a Medium Voltage System" by Tjader & Bollen.

INVESTIGATION

On Wednesday, November 17, 2010 at approximately 5:40pm a fire erupted in the home of Joan Sonnen, 430 Maple Street, Manchester, PA. Assistant Chief Trever A. Rentzel of the Union Fire Department responded and reported that:

> "A neighbor approached and reported popping and a flash from a basement window on side B. Basement crew reported fire in the electrical panel and needed the electric terminated immediately. I pulled the meter myself due to the situation. Myself and Chief Buffington entered to investigate and quickly focused to origin being in the electrical panel. After removing the cover to the panel housing the main breaker it was evident there was heavy fire inside the panel. The main breaker shows damage of failure which would have started the fire. A neighbor reported that about 1:30pm the lights went out and back on in the area, we had high winds through the day and this event could have caused a surge."

The fire was subsequently investigated by Trooper Patrick McKenna of the Pennsylvania State Police. Trooper McKenna determined that the fire started in an electrical distribution panel in the basement and then burned up through the kitchen floor just above it. In his report he stated:

> "In the basement I observed that the fire damage was contained to the northwest corner of the basement around the electrical panel box. The panel box and wires above the box were severely damaged by the fire. On the inside of the panel box I observed an area of arcing on the metal panel which would be adjacent to the main circuit breaker within the box. The main circuit breaker was severely damaged by fire with the breaker partially consumed. The bus bar behind the main breaker was also consumed by fire. The drop service into the main breaker was also consumed by fire. I observed deep charring into the wall in the area that the main service travelled from the outside into the main panel box. The floor was burned through above the panel box. I examined the other breakers which were intact and not damaged by fire."

Trooper McKenna interviewed Assistant Chief Trever Rentzel and reported that:

> "They located a small fire in the basement in the area of the electrical panel. He related that during the day prior to the fire the electrical service was going on and off in the borough due to high winds and inclement weather."

Trooper McKenna then interviewed Edwin Clemens and reported that:

> "He is the brother of the property owner and lives directly east of the residence. He was in the house on November 17, 2010 from 11:30am to 12:15pm paying bills. He stated that everything was OK at that time. He secured the house when he left. He went to dinner around 4:00pm and returned to see fire trucks at his sister's house. He related that his power was going off and on all day."

Trooper McKenna concluded that:

> "Based on the scene examination and information to date it is my opinion that this fire is accidental in nature. I feel this fire started due to an electrical malfunction with the main breaker in the electrical panel box on the west wall of the basement."

I inspected the scene of the house fire on January 11, 2011 and I concur with Messrs. Rentzel and McKenna that the fire originated in the electrical distribution panel at the location of the main circuit breaker. I retained the electrical service cable and distribution panel as evidence.

The retained evidence was examined at Dawson Engineering's laboratory at 1430-B Manning Blvd., Levittown, PA on November 8, 2012.

ANALYSIS

Examination showed that the damaged electrical panel was manufactured by Square D (now owned by Schneider Electric) and was rated 120/240V, 100A and was installed either in 1994 when the house was renovated or in 2003 when the electrical system was upgraded. Electric service was provided by Metropolitan Edison, a First Energy Company.

Exhibit 1 shows the location of the distribution panel in the basement of the home.

Exhibit 2 shows the inside of the distribution panel. The photograph shows that none of the branch circuit breakers were damaged from arcing.

Exhibits 3, 4 and 5 show the complete destruction of the main 100A circuit breaker by electrical arcing.

The circuit that fed the Sonnen residence and the subject distribution panel originated from Met Ed's Zions View Substation (720 Line) at 13,200V via circuit breaker 720-12 and was stepped down to 240/120V by Met Ed's 50KVA overhead distribution transformer mounted on Pole No. 29008-26713 B. Met Ed's records show that the circuit breaker feeding this line tripped at about 12:57pm from "45mph winds" and then reclosed 7 seconds later.

Tripping and reclosing of circuit breakers that feed overhead distribution circuits in rural and suburban areas on windy days is almost always due to trees and/or branches contacting the line conductors, and in my opinion, this is what caused the 720-12 circuit breaker at Zions View Substation to operate on the day of the fire. Tree branches falling across distribution lines are the result of inadequate vegetation management by electric utilities. Rule 218 of the National Electrical Safety Code (NESC) requires all electric utilities to prune or remove vegetation that may come in contact with distribution lines.

Whenever a circuit breaker operates to de-energize or energize a distribution line it creates a voltage transient that travels along the line. When these transients hit a weak point on the electric system then it can cause that weak point to prematurely age or to immediately flash over. The transients can reach high magnitudes and depending on rise time, peak value, wave shape and frequency of occurrence the impact on power system components and customer equipment can be severe.

In his peer-reviewed book, "Electrical Transients in Power Systems," Dr. Alan Greenwood says:

> "An electrical transient is the outward manifestation of a sudden change in circuit conditions, as when a switch [or circuit breaker] opens or closes or a fault occurs on a system. The transient period is usually very short. The fraction of their operating time that most circuits spend in the transient condition is insignificant compared with the time spent in the steady [normal] state. Yet these transient periods are extremely important, for it is at such times that the circuit components are subjected to the greatest stresses from excessive currents or voltages."

In Dr. Lou van der Sluis' peer-reviewed book "Transients in Power Systems" he says:

> "The time that electrical transients are present in the system is short, but during a transient period, the components in the system are subjected to high current and voltage peaks that can cause considerable damage. The majority of power systems transients are the result of switching actions. Fuses and circuit breakers interrupt higher currents and clear short-circuit currents flowing in faulted parts of the system. The time period when transient voltage and current oscillations occur is in the range of microseconds to milliseconds."

Jessica Ballew is a neighbor of Ms. Sonnen and she testified in her deposition that there were up to 60 power interruptions on her street since she has lived there. Records provided by Met Ed show that 720-12 circuit breaker that fed the Sonnen residence tripped and reclosed 24 times from 2008 to the day of the fire. Every time there is a power interruption a transient is generated. These transients, or over-voltages, cause accelerated aging of customer's electrical equipment. The line terminals of the main circuit breaker in one's house is directly connected to the utility's system and is not protected with overcurrent fuses, so if this circuit breaker fails from a surge or transient then it can arc and easily start a fire. Electrical arcs can reach temperatures in the area of 35,000 to 50,000 degrees F – hotter than the surface of the sun.

CONCLUSIONS

It is my opinion, based on a reasonable degree of engineering and scientific certainty and industry standards that:

1. Metropolitan Edison (First Energy) did not adequately maintain trees/tree branches along the route of the 720 distribution line as required by Rule 218 of the National Electrical Safety Code and the Pennsylvania Public Utility Commisssion.

2. Inadequate vegetation management by Metropolitan Edison led to many power outages for customers fed from this line, including Ms. Sonnen, prior to the fire at issue.

3. Repeated power outages caused repeated high-voltage transients causing accelerated wear and catastrophic failure of the main circuit breaker in the Sonnen's distribution panel.

4. Metropolitan Edison (First Energy) was aware of the repeated power outages on the 720 Distribution line, and of complaints regarding vegetation management, and despite this knowledge failed to properly respond and perform necessary vegetation management to avoid the known problem of accelerated wear of the electrical equipment of its customers on that line.

5. The power outages and resultant high-voltage transients from tree contact on November 17, 2010 caused the electrical failure at the main circuit breaker in the Square D distribution panel.

6. The fire occurred as a direct result of the outage-caused, high-voltage transients that caused the main circuit breaker to flash over and the resulting electric arc to ignite the insulation on the panel's wiring.

This report is based upon the information reviewed to date. As additional information becomes available, this report may be supplemented.

Sincerely,

DAWSON ENGINEERING, INC.

Ronald J. Panunto, PE, CFEI, CVFI, CFC

RJP/fap

DAWSON ENGINEERING INC.
12/3/10
Rev. 3/26/13 Rev. 10/9/13
Rev. 10/1/13 Rev. 10/15/13

SONNEN V MET ED
DEI FILE NO.: F100430SONN
DEI DOCUMENT LIST

Item #1	Fire Marshall's report
Item #2	Police Report
Item #3	MetEd Discovey
Item #4	Asst. Fire Chief Rentel's depo
Item #5	State Trooper McKenna's depo
Item #6	Third Party Defendant Schnieder Electric, USA, f/k/a Square D Co. Responses to Defendant Metropolitan Edison Company's Interrogaroties and Associated Requests for Production of Documents
Item #7	Fly Safe Engineering, Ins. Photographs
Item #8	Douglas Haines depo
Item #9	James Sarver's depo
Item #10	Jessica Ballew's depo
Item #11	Steve Ward's depo
Item #12	Plaintiff USAA Casualty Insurance Company's First Set of Interrogatories Directed to Defendant Metropolitan Edison Company
Item #13	Plaintiff's First Request for Production of Documents to Defendant Metropolitan Edison Company
Item #14	Third Party Complaint of Defendant, Metropolitan Edison Company
Item #15	Doug Kinyo's depo
Item #16	Michelle Brandt's depo

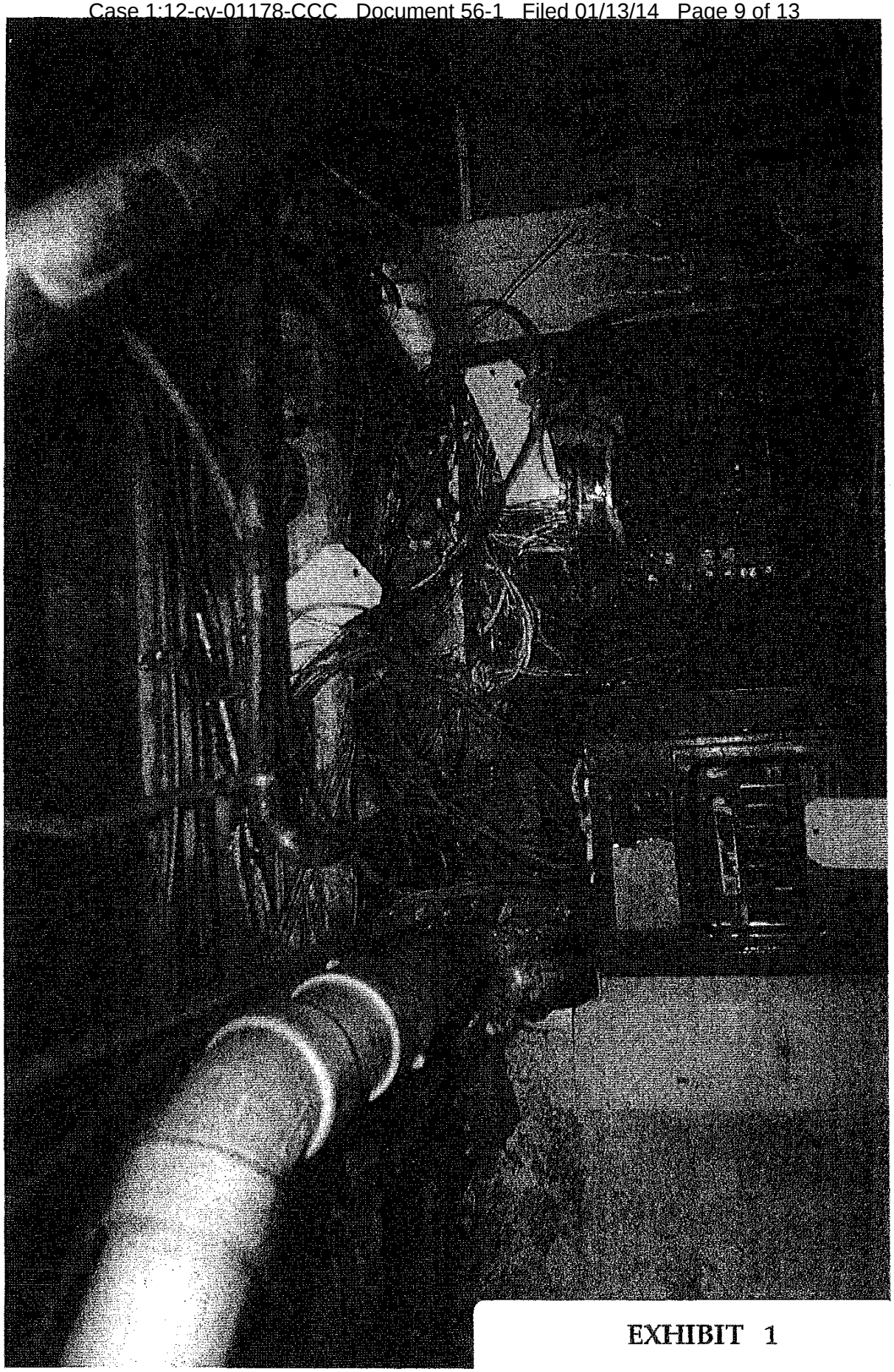
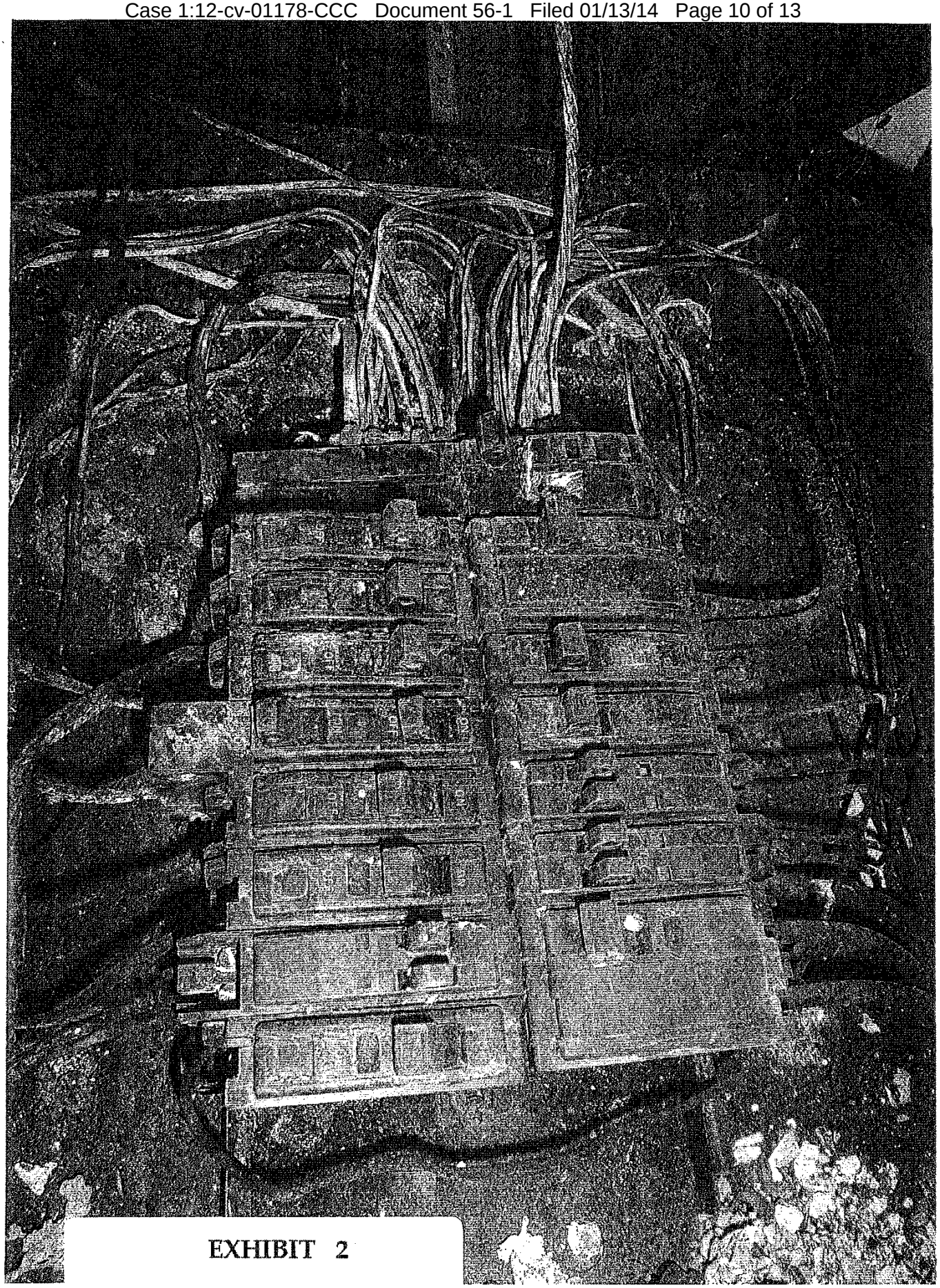


EXHIBIT 1



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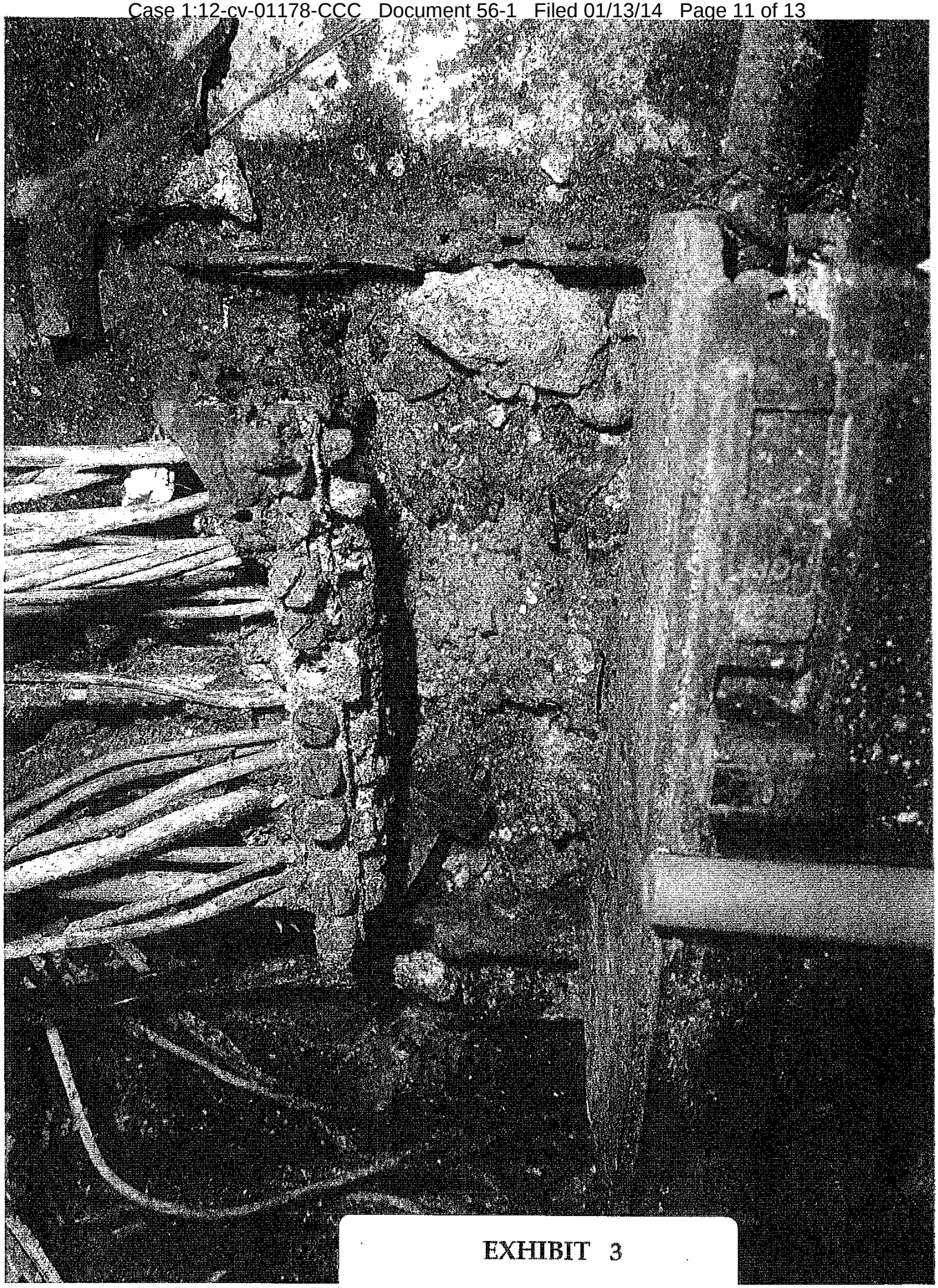

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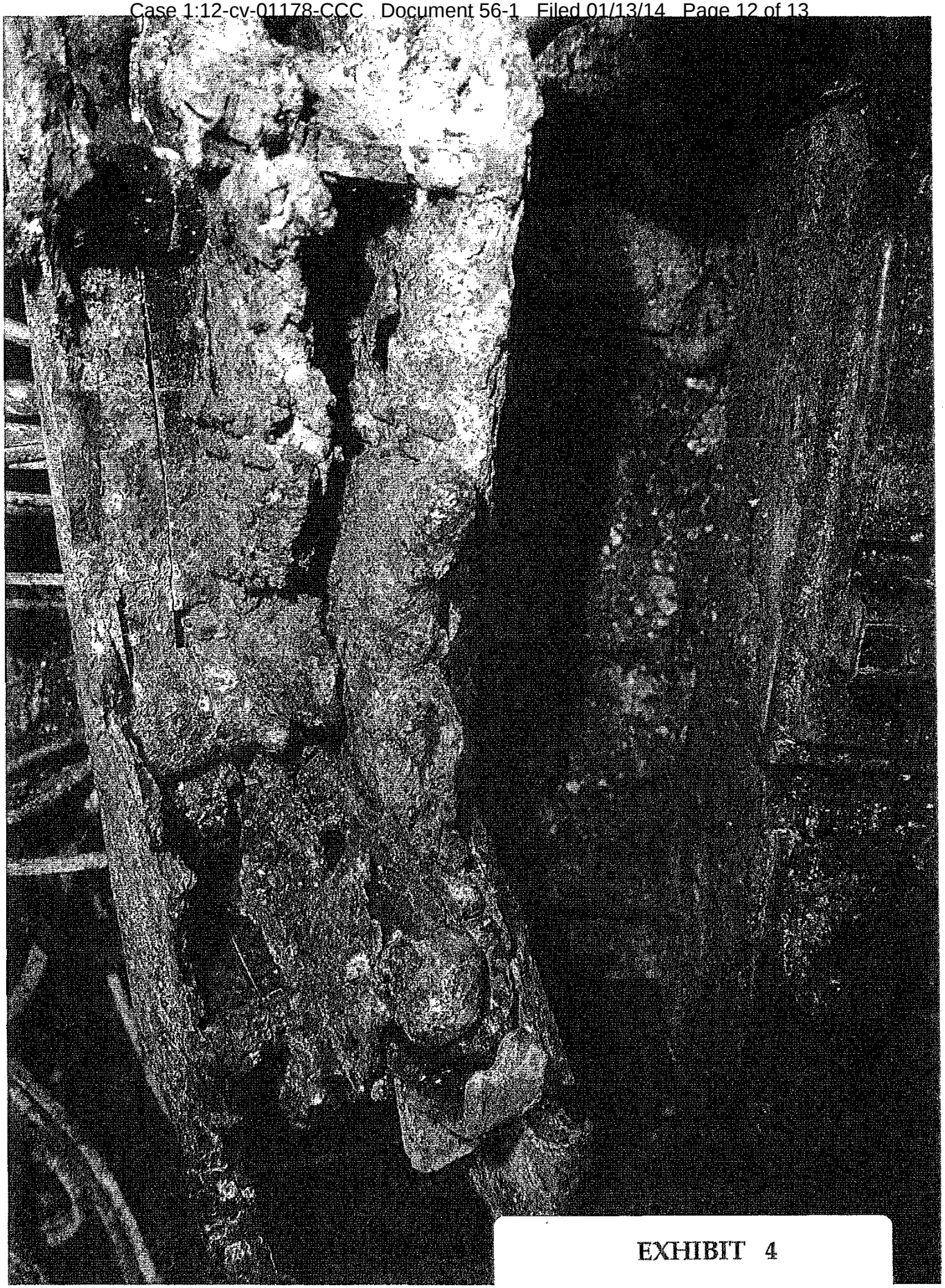

EXHIBIT 4

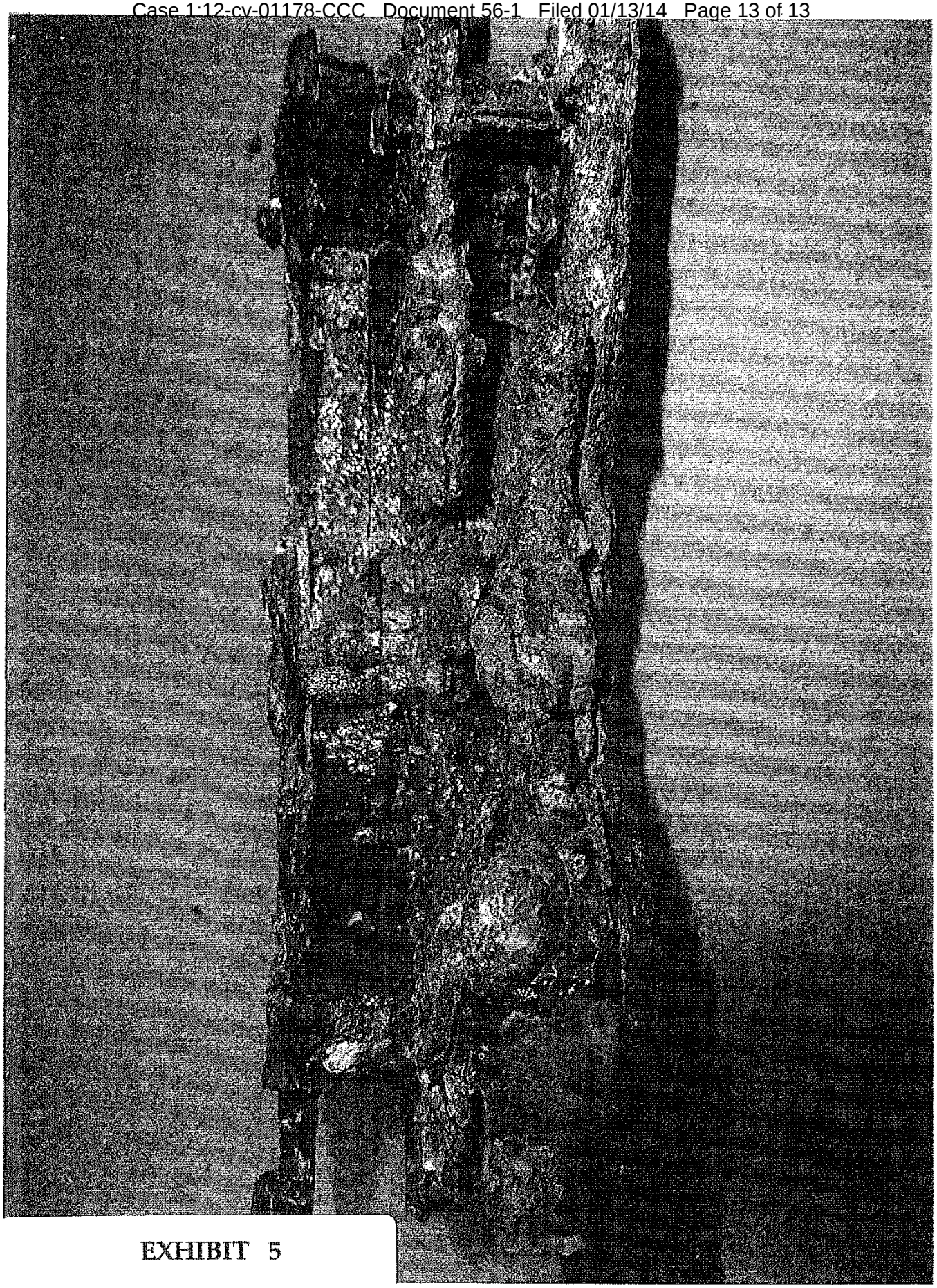

EXHIBIT 5

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

USAA CASUALTY INSURANCE COMPANY a/s/o JOAN SONNEN : 1:12-CV-1178-CCC

Plaintiff : CIVIL ACTION - LAW

v. :

: Honorable Christopher C. Conner

METROPOLITAN EDISON COMPANY, :
Defendant/Third-party Plaintiff :

v. :

JOAN SONNEN, :
Additional Defendant/ Third-party Defendant :

v. :

SQUARE D COMPANY and SCHNEIDER ELECTRIC USA, INC., :
Additional Defendant/ Third-party Defendants. : JURY TRIAL DEMANDED

VIDEOTAPED
DEPOSITION OF: RONALD J. PANUNTO, P.E., CFEI, CVFI, CFC

TAKEN BY: Metropolitan Edison Company

BEFORE: Amy R. Fritz, Court Reporter
Notary Public

DATE: December 19, 2013, 10:41 a.m.

PLACE: Peters & Wasilefski
2931 North Front Street
Harrisburg, Pennsylvania

APPEARANCES:

COZEN O'CONNOR
BY: ERICK J. KIRKER, ESQUIRE
FOR - PLAINTIFF

PETERS & WASILEFSKI
BY: CHARLES E. WASILEFSKI, ESQUIRE
FOR - DEFENDANT METROPOLITAN EDISON COMPANY

KELLEY JASONS McGOWAN SPINELLI HANNA & REBER
BY: STEPHEN M. CAPRIOTTI, JR., ESQUIRE
FOR - DEFENDANTS SQUARE D and SCHNEIDER USA

ALSO PRESENT:

Mid-Penn Digital
Kenneth Haase, Videographer

Charles W. Glantz

INDEX TO TESTIMONY

DEPONENT	EXAMINATION	PAGE
Ronald J. Panunto	By Mr. Wasilefski	5
	By Mr. Capriotti	100

INDEX TO EXHIBITS

NO.	DESCRIPTION	PAGE
1	Compilation of documents tabbed A-H	4
2	Forensic cases listing	11

(Panunto Exhibit No. 1 was marked.)

THE VIDEOGRAPHER: Time on the video monitor is 10:41 a.m. My name is Ken Haase of Mid-Penn Digital.

This begins the videotaped deposition of Robert J. Panunto testifying in the matter of USAA Casualty Insurance Company a/s/o Joan Sonnen, Plaintiff, versus Metropolitan Edison Company, Defendant/Third-party Plaintiff; Joan Sonnen, Additional Defendant/Third-party Defendant, in the United States District Court for the Middle District of Pennsylvania, case number 1:12-CV-1178-CCC taken at Peters & Wasilefski; 2931 North Front Street, Harrisburg, Pennsylvania.

Today's date is December 19th, 2013. Will counsel please identify yourselves and state who you represent.

MR. KIRKER: Erick Kirker on behalf of Plaintiff USAA.

MR. CAPRIOTTI: Stephen Capriotti on behalf of Schneider Electric USA, Inc.

MR. WASILEFSKI: Charles Wasilefski on behalf of Metropolitan Edison Company.

THE VIDEOGRAPHER: Will the Court Reporter please identify herself and swear in or affirm the

witness.

THE COURT REPORTER: Amy Fritz from Central Pennsylvania Court Reporting Services.

ROBERT J. PANUNTO, P.E., CFEI, CVFI, CFC, called as a witness, being duly sworn, was examined and testified as follows:

THE VIDEOGRAPHER: Please begin.

THE DEPONENT: May I make a correction for the record? My name is Ronald, not Robert.

THE VIDEOGRAPHER: Oh, I am so sorry.

THE DEPONENT: There was also Richard on there too. So you can call me Dick or Bob or Ronald.

MR. WASILEFSKI: Just not late for dinner, right?

EXAMINATION

BY MR. WASILEFSKI:

Q. Could you state your full name for us, sir.

A. Ronald James Panunto.

Q. And by whom are you employed?

A. Dawson Engineering.

Q. And what is your position with Dawson Engineering?

A. I'm the president of the corporation.

Q. And where is Dawson Engineering located?

A. 804 Harrison Avenue, Langhorn, Pennsylvania.

Q. What is your residence address?

A. Same address.

Q. As far as Dawson Engineering is concerned, other than yourself, are there any other employees with Dawson Engineering?

A. Just my wife, who is the bookkeeper and secretary, and we also have a part-time electrical designer.

Q. And am I correct that Dawson Engineering primarily is a forensic engineering company?

A. We do both design, electrical design and forensic engineering.

Q. But the majority of your work is forensic engineering. Is that correct?

A. At this point in time with the bad economy, yes. There isn't really much design work out there, so I would say that that is a correct statement.

Q. Okay. And when I'm talking about forensic engineering, what do you mean by that?

A. Analysis of failed electrical equipment. Sometimes the failed electrical equipment would start at fires so we would analyze a cause and origin of the fire. And in other cases individuals will receive electric shocks or become electrocuted, death through electricity, so we investigate the causes for those types of accidents or fires or damage to electrical equipment.

Q. And the forensic portion of that you're investigating primarily for lawsuits. Is that correct?

A. Pardon me. For?

Q. For lawsuits.

A. Yes. That's correct, yes.

Q. Legal matters?

A. Yes, sir.

Q. Okay. Whether there's a lawsuit or not there's a legal matter that's precipitating the request for you to come in and investigate. Is that correct?

A. That's correct.

Q. In this particular case, you were retained by USAA Casualty Insurance Company to do an electrical investigation and analysis. Is that correct?

A. Yes, sir.

Q. And we're not going to use this yet, but let me just have you identify it and primarily look at Tabs A, B, C, D, C and D. And can you identify what that is? It's Panunto Number 1 I'm handing you.

A. (Perusing document.)

Q. I'll represent to you the first part is a legal document --

A. Yes. The first one is the Complaint.

Q. It's actually a submission by USAA Casualty setting forth all the experts and testimony that's going to be provided in the case. So that's a legal document that you wouldn't have been involved in.

A. Right. I have not seen this before.

Q. Okay. But if you go to Tabs A, B, C and D, I think it is --

A. Yes. B is my report. C is my CV. D is my trial, past trial testimony. E is my fee for court testimony.

Q. Okay. I'd like you to look at -- is that Tab E now that you're going to turn to?

A. Yes.

Q. Have you seen that document before? I believe it's the report from Mr. Moyer, Michael Moyer.

A. I don't believe so.

Q. Do you know Michael -- go ahead.

A. I'm sorry. No, I -- just wait; let me check on that. (Perusing documents.)

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Q. Are you looking at the list of documents that --
A. Yes, I am, to see whether or not I reviewed that in my report. (Perusing documents.)
Q. I think it's under Attachment A to your report or the last page of your report.
A. Yes. (Perusing document.) No, it's not listed so I did not review it.
Q. Okay. And so when you say you didn't review it, you also did not rely on it for purposes of your opinions. Is that correct?
A. That's correct.
Q. Okay. And the documents that you would have relied upon are listed in your report, correct?
A. Yes.
Q. Do you know Mr. Moyer?
A. I don't believe so.
Q. Do you ever recall being at the scene of a fire where Mr. Moyer was also at the scene of the fire?
A. I was at the inspection of the fire scene that we made.
Q. And you're talking about in this case. Is that correct?
A. Yes.

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Q. Do you recall Mr. Moyer being present at the fire scene when you were there?
A. He may have been. I simply don't recall.
Q. Now, you were retained by USAA Casualty Insurance Company to do an investigation. Is that correct?
A. That is correct.
Q. Do you recall when you first received a call or a request to go out to the scene or, I'm sorry, to investigate the incident?
A. Okay. I was retained on December the 29th of 2010.
Q. And do you remember who retained you?
A. Mr. Kirker.
Q. So you were retained to assist USAA Casualty Insurance Company but retained by Mr. Kirker, the attorney for the company. Is that correct?
A. That's correct.
Q. Prior to being retained by Mr. Kirker for USAA Casualty Insurance Company, had you ever worked for Mr. Kirker before or been retained by him before?
A. I've worked for quite a number of attorneys at Cozen O'Connor. I'm not quite sure whether I've worked with Erick prior to this case.
Q. Do you know how many cases that you have

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with Cozen & O'Connor?
A. If you give me a few minutes, I can count them up.
Q. Sure.
A. (Perusing document.)
Q. And what are you referring to, sir?
A. My list of forensic cases.
Q. And is that the list that's attached to Exhibit 1 as Exhibit C? Is that the same list, or is that a different list because this seems to be --
A. No. That's just trial testimony.
Q. Okay. Can I make a copy of that so that we can refer to it, so counsel and I can refer to it?
A. Sure.
MR. WASILEFSKI: Let me do that. Can we go off the record?
THE VIDEOGRAPHER: Off record. Time is 10:50:49.
(A brief recess was taken.)
(Panunto Exhibit No. 2 was marked.)
THE VIDEOGRAPHER: On camera. Time is 10:56:11.
BY MR. WASILEFSKI:
Q. Mr. Panunto, let me show you what's been marked as Panunto Exhibit Number 2. Can you identify

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what that is?
A. Yes, sir. It's a listing of my forensic cases for the past, probably for the past five years or so.
Q. And as far as the case list is concerned, is it set forth in any order? Is it chronological?
A. It's mostly chronological.
Q. And you say it's the past five years?
A. About that, yes.
Q. And how many cases are on here?
A. I have not counted them. I could go through that if you'd like.
Q. Why don't you do that.
A. Okay. (Perusing document.) 226.
Q. Is it 226?
A. Yes.
Q. 226 cases in the last five years. Is that correct?
A. That's about right, yes.
Q. And as you were counting those, I was going through and I came up with about 50 to 60 cases that were for defendants. Okay?
A. Yes, sir.
Q. So it's about a third for defendant, or less than a third for defendant. About 25 percent of

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your cases are for defendants. Is that correct?
A. Yes, sir.
Q. And 75 percent for plaintiffs?
A. That's a good estimate.
Q. And with regard to the majority of your cases, you've been retained by insurance companies for subrogation matters on the plaintiff's side?
A. Not always subrogation, not always subrogation matters. As I say, if it's a case of, like, bodily injury where someone was electrocuted or someone received an electric shock, then that would not be a subrogation case, as far as I understand the law.
Q. And the cases that you were involved in, some involved equipment that would be owned by electric utilities?
A. Yes, sir.
Q. Some involved equipment that would be owned by a property owner?
A. Yes, sir.
Q. And some involved appliances. Am I correct?
A. Yes, sir.
Q. But all of the cases involved some aspect of your analyzing a problem or a defect in electrical

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equipment. Is that correct?
A. Pretty much so, yes.
Q. Now, you received this call from Mr. Kirker, I believe you said, on November 17th -- I'm sorry -- December 29th, 2010. Is that correct?
A. Yes, sir.
Q. And it was to investigate a fire that occurred on November 17th, 2010. Is that correct?
A. That's correct.
Q. During your conversation with Mr. Kirker, what were you told about the fire?
A. I don't recall that he told me all that much. He gave me the, some facts concerning the case; in other words, when the fire occurred, who owned the residence. And he requested me to go down and take a look at the fire and to report back to him.
Q. Okay. And prior to going out and investigating, going out to the fire scene, were you provided with any documents, for example, the fire report, the State Fire Marshal's report, anything of that nature?
A. No. They all came at a later date.
Q. Okay. So when you went out to investigate the fire, are you telling me you had no documents and

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no other information other than some basic information provided to you from Mr. Kirker?
A. That's correct.
Q. Okay. What arrangements were made for you to go out and inspect the area where the fire occurred?
A. I just jumped in my car and drove out there. As far as I know, there were going to be some other people there also investigating the fire.
Q. Well, that's not -- my question, I guess, be a little more specific is, was there specific arrangements made for you to go out to the fire at the same time that other people were also going to be investigating the fire?
A. I was told to be out there on a specific date.
Q. Okay. And do you remember what date that was?
A. That was on January the 11th of 2011.
Q. So it was almost two months after the fire. Is that correct?
A. Yes.
Q. Do you know prior to your going out there had anyone else been in the fire area and disturbed the area in any way other than the firemen attempting

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to extinguish the fire?
A. As far as I know, no. Origin and cause may have been out there prior to my going out.
Q. Okay. And we certainly know that the assistant fire chief and the fire marshal was out there shortly after the fire. Am I correct?
A. Yes.
Q. Now, during -- do you know if during their investigation did they disturb anything?
A. Not to my knowledge except for whatever they do to put the fire out.
Q. But as far as the investigation is concerned by either the assistant fire chief or the fire marshal, as far as you know they did not disturb anything or take anything out of the fire area?
A. As far as I know, that's correct.
Q. Okay. Prior to going out there, did you have any discussions with either the assistant fire chief or anyone from the fire department or the fire marshal?
A. No, sir.
Q. When you went out there, was either the assistant fire chief or anyone from the fire department or the fire marshal out there when you were out there for your investigation?

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A. I believe that someone from the, either the state police or the fire department was out there.
Q. Do you remember who that was?
A. I do not.
Q. Did you interview them?
A. I did not.
Q. Did you speak to them at all?
A. Typically what they do is to gather everyone together and to give a description of what they found when they came out to the fire, when they got there if anyone was there; in other words, any information that they had, they would brief everyone in the room.
Q. Okay. Now, do you remember what time this investigation, or this inspection took place?
A. It was probably about 10:00 in the morning. That's usually the typical time for these types of inspections.
Q. Did you go out there with anyone? Did anyone go out in your vehicle with you?
A. No. I drove myself.
Q. Was anyone from USAA Casualty Insurance Company out there at the time that you arrived?
A. I don't recall.
Q. Was Mr. Kirker there?

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A. I don't believe so.
Q. Was anyone from Cozen O'Connor there?
A. I don't believe so.
Q. When you arrived at the scene, who do you remember being there?
A. I don't recall anyone specifically.
Q. Now, normally when a fire investigation is taking place and a number of different parties come out there, there's a list that's provided to all the participants.
A. A sign-in sheet.
Q. Right. Did you receive a sign-in sheet?
A. I did, but I did not bring it with me.
Q. Did you look at that prior to coming to this deposition?
A. No.
Q. Do you remember anybody from any specific company that were out there other than yourself?
A. I believe there was a representative from Square D Schneider.
Q. And do you remember who that was?
A. I do not.
Q. Did you speak with the representative from Square D?
A. Well, during the investigation, there was

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discussions with everyone that was there except, like, the fire department or state police.
Q. Okay. Did you -- starting from the time you received the call from Mr. Kirker to the time that you went out to your investigation, did you keep a log of your activities?
A. No, sir.
Q. Did you keep any notes of your conversation with Mr. Kirker?
A. No, sir.
Q. When you went out to the scene and the, whether it was the fire marshal or someone from the fire department that was briefing the people who were there, did you take any notes during that briefing?
A. Yes.
Q. And where are those notes?
A. I don't have the notes. I destroyed them.
Q. Is that your routine?
A. Yes.
Q. What do you use those notes for?
A. To write the report.
Q. Now, I note in here that if you look at your report and you look at the documentation which is contained on the last page prior to the photographs in the report which is under Tab A on Exhibit Number 1,

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there's no indication in here that you used notes in order to compile your report. Is that correct?
A. That's correct.
Q. Is there a reason why you didn't include that on here?
A. It's just not my policy to do that.
Q. And it's your policy to take notes and then destroy them?
A. Yes. After the report is written, yes.
Q. Now, when you arrived at the scene, what was the first thing that you did?
A. To walk around the outside of the building and take photographs of all around the outside of the building. The next thing that I did was to take a look at the service coming from the distribution pole, the Met-Ed distribution pole, and how that service was run to the house, on what side of the house it was run, and then to take a look at the service cable going into the meter box and then look at the cable going from the meter box down through the basement wall.
So that was the very first thing I did; in other words, an external, an external investigation and photographic record of it.
Q. Okay. Did you have this conversation or

this briefing with either the fire marshal or the person from the fire department prior to actually doing your walk-around?

A. No. That was -- I did the walk-around prior to that. And then after I did that -- I probably got there, you know, a half hour before other people got there.

And when everyone had assembled and signed in on the sign-in sheet, then we went, we were granted access to the inside of the house. And then that's when the fire marshal or state police would give his, tell us about what he thought happened.

Q. Okay. So before you went inside the house, you were aware that the fire marshal had determined that the origin of the fire occurred within the panel box, or the electrical panel box in the basement. Is that correct?

MR. CAPRIOTTI: Object to form.

BY MR. WASILEFSKI:

Q. Did he tell you that he concluded that?

MR. CAPRIOTTI: Same objection.

THE DEPONENT: Not -- when we went inside the house, he did.

BY MR. WASILEFSKI:

Q. Well, what did he tell you during the

briefing?

A. Well, that's what I mean; the briefing was inside the house.

Q. Oh, okay. Do you remember where in the house the briefing took place?

A. It was on the -- it was on the first floor in the kitchen area.

Q. Now, the kitchen area sustained damage, did it not?

A. Yes, it did.

Q. What do you remember the fire marshal telling you as to his conclusions with regard to the origin of the fire?

MR. CAPRIOTTI: Object to form.

MR. KIRKER: Join the objection.

THE DEPONENT: That the fire started inside the distribution panel that was right below the kitchen area and that it burned up through the kitchen.

BY MR. WASILEFSKI:

Q. Did he indicate where in the panel that he believed the origin occurred?

MR. CAPRIOTTI: Object to form.

MR. KIRKER: Objection.

THE DEPONENT: Yes.

BY MR. WASILEFSKI:

Q. And where was it?

MR. CAPRIOTTI: Same objection.

THE DEPONENT: At the main circuit breaker.

BY MR. WASILEFSKI:

Q. So before you actually went to the basement, you were aware that the fire marshal had already concluded that the origin of the fire occurred in the electric panel box and at the main circuit breaker. Is that correct?

A. That's correct.

MR. CAPRIOTTI: Object to form.

BY MR. WASILEFSKI:

Q. Did he make a determination as to why or what would cause the circuit breaker to be the origin?

MR. KIRKER: Objection.

MR. CAPRIOTTI: Object to form.

THE DEPONENT: All he said was that there, they had a couple windy days, I believe; the day of the fire and the day before there was a lot of gusty winds in the area and that there had been some blinking of lights going off and on in the neighborhood and that there was the possibility that a surge from, a surge from the utility could have impacted the circuit breaker.

BY MR. WASILEFSKI:

Q. Okay. Other than his speculation that that occurred, did he provide you during the briefing with any additional evidence that such a thing occurred?

MR. KIRKER: Objection.

THE DEPONENT: No, sir.

BY MR. WASILEFSKI:

Q. After the briefing -- okay. First of all, you took your photographs around the house. Did you see anything as you did your walk-around on the outside of the house, did you see anything in particular that was important to you as an investigator that you saw on the outside of the house? And I'm talking about the structure, itself. I'm going to get to the service cable and so forth.

A. No.

Q. Now, you also indicated that you looked at the service cable coming in. Is that correct?

A. That's correct.

Q. Could you describe what that service cable was? How would you describe it?

A. It's a -- it's known in the industry as a triplox cable where there are two insulated conductors that are, I guess you might say, interwoven or twisted with a bare aluminum neutral which also serves as the

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service messenger cable.
Q. So you have two covered wires which are the energized wires. Is that correct?
A. Correct.
Q. And a neutral which is not covered. Is that right?
A. That's correct.
Q. And it's twisted or intertwined together and then it's covered with a coating, is it not?
A. No, it's not covered, it's not covered with a coating from the -- from the Met-Ed distribution pole to the weatherhead on the side of the house, there's not an overall covering on that.
Q. Okay. But the wires, the energized wires are, in fact, insulated, are they not?
A. Yes, sir.
Q. And as you looked at that line, that service line coming in, am I correct you found nothing wrong with that line?
A. That is correct.
Q. And you looked at the area where it was connected to the weatherhead?
A. Yes, sir.
Q. And did you see any problems up in that area?

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A. No, sir.
Q. And then you followed it -- now, and as I understand it -- and you correct me if I'm wrong on this -- but up to the point of connection at the weatherhead, the service line coming in is the utility's. Is that correct?
A. That's correct.
Q. At the point of connection, everything beyond that is the property owner's. Is that correct?
A. Except for the meter.
Q. Except for the meter, okay. But everything that other than the meter is the property owner's. Is that correct?
A. That's correct.
Q. The utility owns the meter?
A. Yes, sir.
Q. Okay. Now, when you were out there, the meter wasn't there, was it?
A. I don't recall. I don't recall.
Q. You've looked at the meter, though? When I was at your office, we brought the meter in and you looked at it?
A. Yes. If it was brought -- if it was brought -- the meter would have been owned by Met-Ed, so I did not -- as I recall, I did not collect the

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meter as part of the evidence.
Q. That's not my question, though. My question is, did you see the meter at the property when you were out there for your investigation?
A. I don't recall.
Q. Do you recall seeing the meter sometime at your office when I was there, Mr. Simpson was there, Mr. Glantz was there and we brought the meter in for you to look at?
A. I saw it then, yes.
Q. And there was nothing wrong with the meter as you inspected it. Is that correct?
A. Nothing wrong with the meter, that's correct.
Q. Okay. Now, when you looked at the line coming from the connection where the Met-Ed service line is connected to the weatherhead and then down to the meter base, or the meter box, meter base, did you see anything wrong with that line?
A. No, sir.
Q. The meter base, itself, did you note anything in the meter base? Because there still would be electrical equipment within the meter base other than the meter. Did you see anything wrong inside the meter base?

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A. No, sir.
Q. And then you followed the line from the bottom of the meter base, or wherever it came out of the meter base, to wherever it entered the house to the service panel and there was nothing wrong with that line either. Is that correct?
A. That's correct.
Q. So as far as the service entry up to the electrical panel, you found nothing wrong with the electrical system. Is that correct?
A. Well, there was nothing wrong with the service cable where it went down the side of the house and entered into the basement. But as the cable got -- inside the basement as the cable got near the distribution panel, it was burned at that location.
Q. And that service cable that you're talking about that goes inside the house is the property of the homeowner. Is that correct?
A. That's correct.
Q. But as far as anything you saw that was related to Met-Ed equipment on the outside of the house, there was nothing that you observed that there was anything wrong with it. Am I correct?
A. That's correct.
Q. Okay. And after you did that, you had your

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briefing, what was the next thing you did as far as your investigation is concerned?
A. I did my own fire investigation.
Q. Tell me what you did that day. Okay? You had the briefing.
A. Right.
Q. The briefing's complete. What did you do?
A. Well, I started in the kitchen area where there was a considerable amount of damage, and I looked around that whole area to see what energy sources were there that may have caused the fire.
Q. Let me just stop you a second. Your focus of your investigation was to look for, look at the electrical system, is that correct, to see if there was anything wrong with the system that may have caused the fire?
A. Yes.
Q. That was your focus on your investigation?
A. Yes, sir.
Q. Continue. You were looking around the kitchen.
A. Yes. So I looked around the kitchen; and we looked at all the electrical devices in the kitchen like the dishwashers and microwave ovens and toasters that were sitting up on top of the counter, and I was

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able to eliminate all of them as the cause of the fire. And then we went down into the --
Q. Well, let me ask you a question. How do you go about eliminating them? What were you looking for that would give you some suspicion that may have been a cause of a fire?
A. Well, typically you look for the, first of all, all the possible energy sources. And then you look for the area of worst damage because it typically burns the longest at that point so you get the worst damage.
So it's a matter of, as I say, looking at all the possible energy sources. That could be structural, wiring behind the walls that feed receptacles or light switches or lights in the ceiling, toasters or microwave ovens, look at all of those things to see what their degree of damage is and then to just keep drilling down or trying to narrow down the area of worst damage.
And looking down from the kitchen, the floor was burned away in that area so -- and fires typically burn up in a V pattern. So you attempt to find the base of that V which is, as I say, typically where the fire starts, where there's the most damage, where it burns the longest. And the base of that V

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was underneath the kitchen floor at the location of the top of the electrical panel in the basement.
Q. Okay. So basically it was almost pointing down to where the origin was. Is that correct?
A. Yes, sir.
Q. Okay. So you eliminated all electrical, potential electrical causes that would have been in the kitchen and you eliminated -- and because of the burn patterns, you also eliminated any other nonelectrical causes in the kitchen. Is that correct?
A. Yes, sir.
Q. And then you followed the burn pattern, and where did that lead you?
A. To the top of the distribution panel in the basement underneath the kitchen.
Q. So after you inspected the kitchen, was the next place you went down into the basement?
A. Yes, sir.
Q. And that's because that's where the burn pattern led you. Is that right?
A. Yes, sir.
Q. Now, when you went down into the basement, can you describe the basement for me?
A. The -- well, it's just a, I don't know, a typical basement, I guess, that --

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Q. Is it a finished basement?
A. No, it was not a finished basement.
Q. What kind of floor was there?
A. I believe it was a concrete floor.
Q. And what are the walls in the basement?
A. They were also of concrete.
Q. Concrete walls?
A. Yes, sir.
Q. Not block walls?
A. It may have been block wall, covered, covered --
Q. You can look at photographs if you want to to refresh your recollection.
A. Yeah, that's what I'm looking at right now. Exhibit 1, I guess, has -- this is -- so whatever the -- the walls were either concrete or -- they may have been block, you know, covered with plaster. I just don't recall.
Q. Okay. When you say Exhibit 1, you're talking about Exhibit 1 to your report which is Tab A to Exhibit 1 here in this deposition. Is that right?
A. Yes, sir.
Q. Did you note what was stored down in the basement?
A. I did not.

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Q. Did you note any moisture in the basement?
A. I did not.
Q. Did you look for it?
A. Not -- no, I did not.
Q. Okay. Your focus was following that burn pattern and that led you to the panel box. Is that correct?
A. Yes, sir.
Q. When you went down into the basement, was the panel box open?
A. Yes.
Q. And was the contents, all the breakers and everything and wires still in the panel box?
A. Yes, sir.
Q. Was there any wires or breakers or any electrical equipment on the floor or anywhere around the panel box?
A. The only thing that I could recall is the cover to the panel box.
Q. And the cover of the panel box was taken off the panel box?
A. As I recall, yes.
Q. Where did you find that when you went in there?
A. Right underneath the panel box against the

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wall.
Q. Okay. Was there any debris or anything under the panel box?
A. I don't recall anything specifically, although I wouldn't be surprised because the, as I say, there was a big burned area in the kitchen area and I would suspect that something might have fallen down into the basement; and especially with the firefighting effort, I would not be surprised if there was some debris on the floor, but I did not specifically note anything.
Q. Do you know if any investigators moved any of the debris, for example, cleared the floor area to look at the floor to see if there was any balding or anything of that nature?
A. I don't recall.
Q. Okay. You went into the basement. Who went down in the basement with you? Do you remember anybody being with you?
A. Everyone that was there.
Q. And the person from Square D went down with you?
A. I believe so, yes.
Q. When you went into the basement, what did you do? The box was there. The door panel was off,

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the door was off. What did you do?
A. Well, I looked at all the electrical work down in the basement in the area of origin. That included the main distribution panel and a subpanel that was just to the left of the main panel.
And I looked at all the -- I looked at the branch wiring that came from each of the circuit breakers and the main service cable as it came down through the, through the basement wall and into the top of the panel.
Q. Okay. And as you observed the -- let's talk about the auxiliary panel.
A. Yes, sir.
Q. Was there any damage in the auxiliary panel?
A. No, sir.
Q. Were the breakers still in the on position?
A. Some of the breakers were in the on position, some were in the trip position and some appeared to be in the off position; some in the on position, some in the off and some in the trip position.
Q. And this is in the auxiliary panel?
A. I don't recall specifically in the auxiliary panel.

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Q. Okay. Now, the auxiliary panel is connected to the main panel, is it not, some way?
A. Yes, sir.
Q. Through a wire, just connects them from the bottom of the main panel to the, or to the top, but somehow it's connected, though?
A. Through the side. Yes.
Q. Okay. And then you looked at the main panel?
A. Yes, sir.
Q. Other than the main breaker, was there any damage to any of the other breakers below the main breaker?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Well, they were damaged by the fire that happened inside the panel.
BY MR. WASILEFSKI:
Q. All the way down to the bottom?
A. Yes, sir.
Q. What kind of damage did you see?
A. I'm going to refer you to Exhibit Number 2 and -- the type of damage -- as I said, there was a fire in the panel that was mostly up towards the top here.
Q. And let me just stop you. Exhibit Number 2

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you're talking about is Exhibit Number 2 to your report. Is that correct?
A. Yes. All the exhibits that I've been referring to throughout the deposition refer to my exhibits in my report.
Q. Okay. If you're going to be pointing to it and testifying, why don't you put it up to the camera so the camera can see what you're talking about.
You referred to a certain area. Could you tell us what that was?
A. Okay. So most of the damage was -- this is the main circuit breaker across the top here, and then these are all the branch circuit breakers underneath. So most of the damage was up at the top at the main circuit breaker.
And there was fire inside the box and the panel cover was on, so the branch circuit breakers are kind of, I guess you would say, scorched. But there was -- we saw no electrical activity; in other words, arcing or anything of that nature below the main circuit breaker.
Q. It was more heat damage?
A. Yes.
Q. And, in fact, the circuit breakers are plastic?

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A. Yes. They're --
Q. A plastic type of material?
A. Yeah; typically a thermo setting type of plastic.
Q. And you didn't see any melting or anything else in the circuit breakers, not the main breaker but the circuit breakers?
A. That's correct.
Q. All the damage you saw to a breaker was to the main circuit breaker?
A. Yes.
MR. CAPRIOTTI: Object to form.
THE DEPONENT: To the main circuit breaker and to the electrical cables going into the main circuit breaker.
BY MR. WASILEFSKI:
Q. Okay. And that was at the base of this V you were talking about?
A. Yes, sir.
Q. Now, with regard to -- the photograph you've shown us as Exhibit 2 to your report is a photograph of the main panel as you observed it on that day. Is that correct?
A. That's correct.
Q. Now, other than taking the photograph and

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making the observation of the main panel, did you do anything to further investigate the main breaker? In other words, did you pull it out and inspect it? What did you do on that day?
A. Not -- we did nothing to the main panel. We decided to collect it as a piece of evidence and to bring it back to my lab and then get everyone together at the lab at some future point in time to do a destructive analysis of the panel. We did nothing to disturb it at the time that we were doing the on-site fire inspection.
Q. Okay. So the only thing then you knew at the time you did the inspection is that the origin of the fire and the cause was somewhere at the main breaker. Is that correct?
MR. CAPRIOTTI: Object to form.
MR. KIRKER: Objection.
THE DEPONENT: That's correct.
BY MR. WASILEFSKI:
Q. That was your conclusion?
MR. CAPRIOTTI: Same objection.
THE DEPONENT: Yes, sir.
BY MR. WASILEFSKI:
Q. But as far as what happened to the main breaker, at that point in time you had no knowledge,

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is that correct, you just knew that it was damaged and that was your opinion where the fire occurred. Is that correct?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Yes, sir.
BY MR. WASILEFSKI:
Q. Okay. After you took your photographs, did your visual inspection of the electrical equipment in the basement, what was the next thing you did?
A. Well, got together with all of the, all of the people that were there and discussed the best way to gather the evidence and what evidence should, in fact, be gathered.
Q. And what was the conclusion of the group as to, number one, what evidence should be gathered?
A. Okay. Well, the main -- going back to Exhibit 1 in my report --
Q. Hold it up to the camera so that if you're going to point to something the camera can see it.
A. Okay. The main circuit breaker panel and the auxiliary panel were mounted on a plywood backboard. So we decided rather than to try to remove the damaged panel -- we didn't want to disturb anything. So we decided to cut all of the branch wiring coming out of the panel, cut them back about

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maybe a foot or two from the panel and then to take the whole entire backboard with both panels mounted on it. And we took that whole entire backboard back to the lab and --

Q. And it was your lab. Is that correct?

A. Yes. My lab, yes. And we also took the cable coming from the, I believe from the base of the meter, the meter box down into the panel, we took a large section of that up to the point where there was no damage to the cable.

Q. Okay. And how did you remove that equipment? Tell me the process you went through to removing the equipment.

A. Moving it from the wall?

Q. No. How did you remove it? How did you remove it from the --

A. Well, there were screws that had, with lag bolts going into the concrete wall, so we just removed those screws and then pulled the panel off the wall after we cut all of the branch wiring.

Q. Okay. Let me ask you, on the wood panel that it was attached, that the panels were attached, did you notice any type of water deterioration to that wood?

A. I did not.

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Q. Did you look at the back of the panel, or the back of the wood panel?

A. Yes, sir.

Q. Was there any evidence of water deterioration on the back of that panel?

A. Not that I recall.

Q. Do you remember any evidence of water on the studs? Was this mounted on a stud?

A. It was, I believe it was mounted right on the, on the concrete wall.

Q. Okay. Did you notice any evidence of water, old evidence of water on that concrete wall behind the wood panel?

A. I didn't notice anything specifically, no.

Q. Did you look for it?

A. I did not specifically look for water damage, no.

Q. Did you take any photographs of the area behind the wood panel after the wood panel was taken off?

A. I don't recall. I'd have to go back and look at my, look at my photographic file.

Q. Well, the photographs that you include in your report, though, do not include any photographs of what the condition of the wall was behind where that

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wood panel was installed. Is that correct?

A. That is correct.

Q. And as you're sitting here today, you don't recall looking in that area specifically to see if there was any type of water damage behind that wood panel. Is that correct?

A. That's correct. See, the firefighting effort, I mean, they come in there with their high-pressure hoses and --

Q. Oh, I understand.

A. -- so, you know, it would just be meaningless, I think. If there was water damage, it could be from the firefighting efforts, so I don't know of any way to --

Q. Distinguish it?

A. -- separate, distinguish that from past water damage.

Q. Okay. Did you look around the basement to see if there was any water damage on the walls throughout the basement?

A. I did not.

Q. And what about in the, on the concrete floor, did you look at that to see if there was any evidence of previous water damage other than firefighter damage?

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A. No. As I recall, it was dry when we were down there. So, no, I didn't look for anything.

Q. Okay. Did you interview anybody on that day?

A. Not that I recall, no.

Q. Other than -- and let me just back up a second. It sounds to me like what you did, you did your outside inspection first. Is that correct?

A. Correct.

Q. Then you went inside the house into the kitchen and someone gave a briefing, probably the fire marshal gave a briefing as to what they had found. Is that correct?

A. Yes, sir.

Q. And then you inspected the kitchen area and eliminated all potential electric causes for a fire in the kitchen. Is that correct?

A. That's correct.

Q. And then you went down to the basement following the fire pattern and went directly over to the electric panel and that's where your focus was while you were down in the basement. Is that correct?

A. Yes, sir.

Q. Then you removed the panel, and I assume you then put it in your vehicle to take away. Is that

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correct?
A. That's correct.
Q. Other than that, did you do anything else during your investigation on that day?
A. No. I think that pretty much sums it up.
Q. Okay. Did you look -- other than in the kitchen, did you inspect or look at any other part of the electrical system within the house?
MR. KIRKER: Objection.
THE DEPONENT: I did walk through the entire house just to see if there was any significant damage in any of the other rooms besides the kitchen area.
BY MR. WASILEFSKI:
Q. Okay. Did you make any determination as to whether or not the electrical system in the house was grounded?
A. As far as I recall, it was grounded from a driven ground.
Q. And where was the driven ground located?
A. Outside the house.
Q. But where?
A. I believe it was beside the, beside where the electric service comes into the house.
Q. Other than seeing it, did you inspect it?

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A. A visual inspection to see that the ground wire and the clamp were tight along the driven ground rod.
Q. Well, what's the purpose of a ground wire?
A. To provide -- there's a couple different reasons. One is a safety issue. All the electrical equipment that they -- the boxes, the distribution panel and all the electrical equipment outside, any metallic equipment is grounded for safety reasons.
Q. What's the safety reason?
A. Well, if it wasn't grounded and one of the hot wires inadvertently came in contact, say, with the side of the distribution panel, then that distribution panel would be hot at 120 volts to ground; so anyone walking up to it to flip a circuit breaker could expose themselves to electric shock.
So one of the reasons for the ground is what they call, for a safety ground, so that if that happened, if the box was grounded and if one of the hot wires came in contact with the box, it would trip a circuit breaker so that no one would get injured. So that's one of the reasons.
Q. Okay.
A. The second reason is to provide a reference point for the two, for the two phase wires. And

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sometimes what happens -- what causes a lot of fires is what they call, they refer to as a loss of neutral, and that neutral is grounded from the utility system.
So if you lose the neutral, then you lose your ground reference and the voltage then that gets, the voltage that you get on equipment inside the house that's plugged into receptacles, that voltage can float around anywhere from 0 up to 240 volts because you've lost your ground reference and that can cause fires. I don't believe it did in this case. So that's the second reason is to provide the reference for the two phases.
And the third reason is to provide a source of return current so that the branch circuit breakers will trip in an overcurrent or short-circuit situation.
Q. And that's the -- that is a purpose of the ground wire is to operate with the breakers to allow them to trip if you're seeing an overcurrent situation. Is that correct?
A. That's one of the purposes, yes.
Q. Okay. Now, other than seeing the driven ground and the wire, observing the wire on there, did you do any inspection to make sure that the wire was attached to the driven ground appropriately?

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A. Just a visual inspection and to try to move it with my hand.
Q. Okay. Do you know whether or not the electric panel was bonded to that ground?
A. It was.
Q. How do you know that?
A. A visual inspection.
Q. And was there a wire that went from the panel to that ground?
A. Yes.
Q. And what did you do with that wire?
A. It was just collected with the rest of the evidence.
Q. Was it cut?
A. Yeah. There was a section that was cut so that we could remove the panel from the wall.
Q. Okay. Is there anything else you did that day on that inspection? I think we've gone through the various steps that you did to the point where you're now taking the evidence, putting it in your vehicle and departing to your office. Is that correct?
A. That's correct.
Q. Other than the fire marshal giving, or someone giving the briefing, did you speak with the

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owner of the property?
A. I don't recall if Ms. Sonnen was out there or not.
Q. So you don't recall speaking to her?
A. I do not recall speaking to her, no.
Q. Do you recall getting any information from her either on that day or any other day?
A. I had in my notes that there had been some electrical upgrades on the property, and I believe those upgrades were either in 1993 or 1994 and, again, in 2003.
And I'm not sure who gave me that information. It may have been Mrs. Sonnen, if she was there, or it may have been her brother. I believe he was there also. I would have to look at my sign-in sheet to see.
Q. If you interviewed anyone and pertinent information was gathered through that interview, would you not have put it in your report?
A. Yes. I typically don't interview people. Usually they have origin and cause investigators or the state police or the fire department. They typically do the interviewing and record it. I very rarely do that, and I don't believe I did it in this case.

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Q. So with regard to if you would have spoken to Ms. Sonnen or to her brother and any pertinent information was gathered through your interview of them, you would have included that in the report?
A. Yes, and quoted it as an interview that I did, personally did on such and such a date.
Q. And the fact that it's not in your report -- and you can look at the report. The fact that it's not in your report would indicate that you did not interview either one of them. Is that correct?
A. That's probably the case, yes.
Q. Okay. Now, you do make some reference to interviews that Trooper McKenna did.
A. Yes, sir.
Q. So you were relying upon his report and whatever he reported as his interviews to get information. Is that correct?
A. Yes, both him and the origin and cause investigator.
Q. And who was that?
A. I believe it was Mr. Moyer.
Q. I'm getting a little confused here because I think earlier you said you don't recall seeing his report. Do you remember discussing anything with him?

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A. Yes.
Q. Did you make notes in your discussions with him?
A. Well, as I say, I had made some notes as to when electrical work was last done in the building, but I don't recall whether -- I don't recall the source of those notes.
Q. Do you see any of that information contained in your report?
A. Well, as I say --
Q. And look at your report.
A. (Perusing document.) That would be -- yeah, that would be page 3 of 5, the first paragraph under Analysis where it says it's 120, slash, 240 volt 100-amp panel and was installed either in 1994 when the house was renovated or in 2003 when the electrical system was upgraded.
That information would have come either from the fire department or the state police or from the origin and cause investigator or from Mrs. Sonnen or her brother.
Q. But you don't quote that from anyone, so who -- we don't know who it came from then. Is that right?
A. That is correct; we do not.

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Q. Okay. Now, with regard to this, I think earlier you said it was renovated twice, once in 1994 and then in 2003; but, in fact, your report says that it was one or the other. Is that right?
A. Yes.
Q. Okay. And you have no information as to when it was renovated other than what you've put in your report?
A. Just those two dates. I understand there was some electrical work done on both of those dates.
Q. And as far as that information is concerned, you have no knowledge as to where it came from?
A. That's correct.
Q. On the day of your inspection, you drove to the site of the fire; and when you left, did you go right back to your office?
A. I went back to our lab. Our lab is located ten feet from our office, so I went directly to the lab, tagged all the evidence and stored it away for future investigation.
Q. So as far as any investigation in the area of the fire, including the site of the fire, you did nothing further. Is that correct?
A. That's correct.

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Q. You make reference in your report, again, on page 3 of 5 of your report, that the electricity was supplied to this residence from the Met-Ed Zions View substation. Is that correct?
A. Yes, sir.
Q. Where did you get that information?
A. Well, it came out of the process of discovery and it was probably on my list of things that I reviewed, probably number 18, Request for Production of Documents from the Defendant Metropolitan Edison.
Q. Okay. So that came from some written material that you would have looked at. Is that right?
A. Yes.
Q. Did you ever go out to the Zions View substation?
A. No, sir.
Q. Do you know how far the Zions View substation is from the place where this fire took place?
A. I do not.
Q. Did you ever drive that line from the Zions View substation to the place of the fire, site of the fire?

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A. No, I did not. At the time that we did the fire investigation we didn't yet have any discovery information from Met-Ed so I had no idea where that line was fed from and I never went back out to the site again.
Q. That was going to be my next question. Even once you got that information, you never went back out and looked at the substation and then followed the line to the house?
A. I did not.
Q. Okay. And you don't know how far away from the house the substation is. Is that correct?
A. That's correct.
Q. Can you define for me what you believed when you received the assignment, what was your assignment?
A. To determine the cause of the fire.
Q. Okay. As part of determining the cause of the fire -- and you're primarily focused on electrical cause. Is that correct?
A. That's correct.
Q. Because you're not a cause and origin expert. Am I correct in that?
A. That's correct.
Q. There's other people that are trained in

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that field --
A. I'm --
Q. You have some knowledge of it but --
A. I'm certified as a fire and, as an origin and cause investigator, but I do not practice that. It's just something that I use as my own reference.
Q. Okay. And that wasn't your assignment here so you wouldn't have been looking for cause and origin type of materials; you'd be looking for more of a root cause of what caused this fire. Is that correct?
A. That's correct.
Q. And primarily focused on electrical equipment. Is that right?
A. That's correct.
Q. Because that's your background; you're an electrical engineer. Is that correct?
A. Yes, sir.
Q. You recall that Mr. Glantz, myself, Mr. Simpson came out to your lab when, what you, I think you called destructive inspection of the panel box took place. Is that correct?
A. Yes.
Q. From the time that you took the panel box back to your laboratory and tagged it to the time that we came to your laboratory for the inspection, did you

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do anything with regard to further inspection of that panel box?
A. Absolutely not.
Q. Did you do anything with regard to inspecting the breaker?
A. Absolutely not.
Q. And I'm talking about the main breaker.
A. No, sir.
Q. And the first time that you would have looked at the main breaker would have been when we were in your laboratory. Is that correct? I mean looked at it for purposes of doing an inspection of it. Is that correct?
A. That's correct.
Q. Other than the visual inspection you've talked about at the scene.
A. That's correct.
Q. Okay. Now, you'll recall that when that, the inspection at your lab took place, the breaker was actually taken from the panel box and looked at. Is that correct?
A. Yes, sir.
Q. Could you describe for us what you observed when you looked at that main breaker?
A. Well, again, I'm going to refer to some of

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my exhibits. Exhibit Number 4 and 5 of my report show --
Q. Why don't you hold it up to the camera so the camera can see it.
A. This is Exhibit Number 4. It shows the electrical damage to the circuit breaker where there's a lot of arcing, melting of the bus work in back of the breaker.
Q. And that would indicate a substantial and severe damage which leads you to believe that the fire occurred inside that breaker. Is that correct?
A. Yes, sir.
MR. CAPRIOTTI: Object to form.
THE DEPONENT: And then Exhibit 5 in my report is just another shot of the circuit breaker, itself, indicating melting of copper components right here and up in this area.
BY MR. WASILEFSKI:
Q. Okay. Now, as part of your job as a forensic engineer, you look at appliances, electrical equipment and try to determine what was the actual root cause within that device, is it not? Isn't that part of your job?
A. Yes, sir.
Q. And what did you do in this particular case

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to determine what actually happened in that circuit breaker at the time of this fire?
A. Well, as I say, we removed the circuit breaker and examined the circuit breaker and the bus work in back of the circuit breaker. And I was able to make the determination that because of the damage at the circuit breaker that this is where the fire originated.
Q. I understand that. My question goes further. You talk about digging down.
A. Yes, sir.
Q. If I have another appliance, isn't it part of your job to determine why a fire started within that appliance; in other words, if there was a defect or something in there?
A. Yes, sir.
MR. KIRKER: Objection.
MR. CAPRIOTTI: Join.
BY MR. WASILEFSKI:
Q. What did you do with regard to this circuit breaker to determine whether or not there was a defect inside the circuit breaker at the time of this fire?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Well, there was nothing to -- based on my experience, there was nothing that I

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saw inside the circuit breaker that would indicate that there was any type of defect. I mean, the circuit breaker had been in service for, I guess, at least a decade. And typically if there's some sort of a manufacturing defect, it typically shows up fairly early in the service life of the equipment.
In other words, if it's been operating for a decade or 2, maybe 10 or 15 years, it's -- to me, it's unlikely that there's a manufacturing defect.
BY MR. WASILEFSKI:
Q. In your experience, is there a life of a main breaker like this; in other words --
MR. CAPRIOTTI: Object to form.
BY MR. WASILEFSKI:
Q. -- before it has to be replaced?
A. Not really, no. I would say no. I mean, in my own house I installed my circuit breaker panel 35 years ago and it's still operating just fine.
So -- and I don't believe that the manufacturers quote an end of life. For electrical equipment, end life is typically in the 20- to 40-year range; but if it's not subject to physical or electrical trauma, it could last much longer.
Q. With regard to this particular breaker, would I be correct that because of the damage that was

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done from the fire you could not make a determination as to whether or not there was a defect within this breaker?
MR. KIRKER: Objection.
THE DEPONENT: Well, I thought I just described to you the nature of manufacturing defects; they usually show up fairly early.
BY MR. WASILEFSKI:
Q. That's not my question, sir. My question is, based upon your observation and inspection of this breaker, was the destruction, the fire destruction to the breaker, did that make it incapable for you to do an inspection to determine if there was a defect in this prior to the fire?
A. I examined the circuit breaker and saw nothing that would lead me to believe that there was a defect in the breaker.
Q. My question, though, is, because of the destruction to the service, to the circuit breaker, you could not make a full inspection of the circuit breaker because it's destroyed. Am I correct?
MR. KIRKER: Objection. Asked and answered.
BY MR. WASILEFSKI:
Q. It's melted together and everything else.

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If there was a defect in there, you couldn't see it.
MR. KIRKER: Continue the objection.
THE DEPONENT: I have no reason to suspect that there was a defect in the breaker.
BY MR. WASILEFSKI:
Q. I understand that, but that's not my question.
A. Then I can't answer your question. I answered your question to the best of my ability, sir.
Q. Let me ask you this: Is there anything in there that you did to inspect it for purposes of determining whether there was a defect in there prior to the fire?
A. Certainly the visual inspection is...
Q. And visual inspection shows melted metal. Is that correct?
A. Yes.
Q. And as far as the components or what made it up prior to the fire, you can't even discern them from what you see there, can you?
A. Through my experience, I think I can.
Q. My question is, you can't discern them from what you see there. Am I correct?
MR. KIRKER: Objection.
THE DEPONENT: No, you're not correct.

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BY MR. WASILEFSKI:
Q. Okay. Tell me what you see there other than melted metal that would lead you to believe that there was no defect in there.
A. I didn't --
Q. Other -- from what you observed.
A. From what I observed, I saw no reason to suspect that there was a manufacturing defect of that circuit breaker.
Q. Okay. And this would have been in there, you said, for about a decade. Is that correct?
A. Yeah.
Q. And judging from your previous testimony, you indicated that these things should last 30, 40 years. Is that correct?
MR. KIRKER: Objection.
THE DEPONENT: That's correct.
BY MR. WASILEFSKI:
Q. Now, with regard to the, this breaker then, it was relatively in mid life. Is that correct?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Yes.
BY MR. WASILEFSKI:
Q. Now, when a breaker is designed, am I correct that it is designed to operate within the

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electrical system where the electricity is provided by electric utility. Is that correct?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Not necessarily.
BY MR. WASILEFSKI:
Q. It's not designed that way?
A. It's designed to operate within the, I guess you would say, the electric utility tariff. In other words, electric utility says we will provide you with 120, slash, 240 volt power with a plus or minus 10-percent variation in voltage, and the breakers are designed to operate under those characteristics.
If something else comes from the utility line that is outside of those tariff characteristics; in other words, the plus or minus 10 percent, then the breakers are not necessarily designed to handle those overvoltages.
Q. Aren't they designed from an industry standard to handle up to 600 volts?
A. Yes.
MR. CAPRIOTTI: Object to form.
BY MR. WASILEFSKI:
Q. And does that fit within that criteria?
A. Would you -- I'm not sure --
MR. KIRKER: Object to form.

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BY MR. WASILEFSKI:
Q. Does that fit within the criteria that you're talking about, the 10 percent above or below?
A. Yes.
Q. So it's designed to operate up to 600 volts?
A. Yes.
Q. Operate appropriately?
A. It's not -- this is a breaker that was designed for 120-, 240-volt circuit. Now, if the voltage was, say, 480 volts; in other words, if it was, say, a commercial operation or industrial operation that it has a higher normal voltage, say 480 volts, you could not use this breaker. Even though it's designed to withstand an overvoltage up to 600 volts, it can't be used on that system; you would have to get a 480-volt breaker.
Q. Because it can't be used with 480 volts consistently going through there?
A. Continuously, yes.
Q. Right. Okay.
A. Yes.
Q. Now, with regard to a utility's electrical system, you're aware that the normal operation of a utility electrical system has breakers, has switching,

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has other things that I think you referred to in your report that would cause a transient. Is that correct?

A. That's correct.

Q. And under normal operation, a breaker should be designed for purposes of accepting those normal transients from switching and breaking and that type of thing. Am I correct?

MR. CAPRIOTTI: Object to form.

THE DEPONENT: No, sir.

BY MR. WASILEFSKI:

Q. It's not intended to do that?

A. No, sir.

Q. Well, how do you protect the breaker then with regard to what is a normal operation of electrical system?

MR. KIRKER: Objection. You can answer.

THE DEPONENT: Well, it's just that under most cases the transients that the electric company produces are not sufficiently powerful or sufficiently high voltage to cause the breakdown of the breakers.

BY MR. WASILEFSKI:

Q. I understand that, and that's my question, is that the breaker is designed to operate under those normal circumstances where you're going to have transients through normal operation of the breakers

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and switching within the utility electrical system, are they not?

A. Only up to a certain extent.

Q. I understand that. But they are designed to do that. Am I correct?

A. Yes, sir.

Q. Now, you will agree with me, I think, that as far as the electric panel and this main breaker, that was the property of the homeowner. Is that correct?

A. Yes, sir.

Q. And the installation and the maintenance of the electric panel and these breakers is the responsibility of the homeowner. Am I correct?

A. Yes, sir.

Q. It's not the responsibility of the utility?

A. No, sir.

Q. I'm going to go to your report now and go over a couple of things with you just to see what information you actually have. I think you indicated that in your report that you, on page 1, that you looked at Assistant Chief Trever A. Rentzel's report. Is that correct?

A. Yes, sir.

Q. And, in fact, you quote something from

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there. Is that correct?

A. Yes.

Q. And in this section that you quote, you speak about the, or you talk about a neighbor reported that about 1:30 the lights went out and back on in the area. Is that correct?

A. Yes, sir.

Q. Who was that neighbor?

A. I don't know who the neighbor was.

Q. Okay. Did you make any inquiry as to who that neighbor was?

A. No.

Q. So you didn't even try to contact that neighbor to determine what they observed at that point in time other than the facts that are contained in Assistant Chief Trever Rentzel's report. Is that right?

A. No. I relied on the, from Mr. Rentzel.

Q. Okay. Did you do any investigation as to what was the cause of the lights to go out at 1:30 on that day?

A. I reviewed documentation provided by Met-Ed through the discovery process. I reviewed all the trips on the circuit breaker that fed the distribution line that fed the Sonnen residence. And the entry for

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the tripping of the circuit breaker on that day at that time was high winds. There was a trip and reclose; and Met-Ed, the reason for that, they put high winds.

Q. Okay. Other than the description of high winds, do you have any other explanation as to why that breaker tripped?

A. Typically --

Q. No, not typically. Do you have any specific information as to why that breaker tripped other than the description of high winds?

A. No.

Q. Do you have any evidence as to the length of time the lights were out?

A. I believe it was 7 seconds when that breaker, on that breaker trip and reclose on that particular date.

Q. And that came from the Met-Ed records?

A. Yes.

Q. Okay. When it reclosed, according to your report, there would normally be a transient. Is that correct?

A. Yes.

Q. Do you know the differential between the normal operation and what that transient produced as

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far as electrical current?
A. No. I had asked Met-Ed whether they had any recording equipment on that line, and their answer was no. So there's no way to determine the level of the transient.
Q. So if this was a normal operation, I think you've already testified that normally those transients are minimal?
MR. KIRKER: Objection.
MR. CAPRIOTTI: Join.
THE DEPONENT: No, I didn't say that. I think I said it was minimal.
BY MR. WASILEFSKI:
Q. What was the term you used then?
A. I don't recall.
Q. Well, you said that they were not, they were not great, they were short-lived and --
A. Well, they can --
MR. KIRKER: Objection.
BY MR. WASILEFSKI:
Q. They can be, but you don't know what it was at that time. Am I correct?
A. That's correct, I do not at that time.
Q. Now, on page 2 you make reference to Trooper McKenna's report. Is that correct?

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A. Yes, sir.
Q. Do you remember if it was Trooper McKenna that was present that gave you the briefing at the site?
A. I do not. I would have to look at the sign-in sheet.
Q. Do you know, or do you remember if you interviewed Trooper McKenna at that time --
MR. KIRKER: Objection.
BY MR. WASILEFSKI:
Q. -- or just took the information that was provided to you at the briefing?
A. Right. I just listened to what he was saying. I did not interview him.
Q. Did you have any discussions with him after the briefing?
A. No.
Q. Do you know if he went downstairs when you were going to remove the evidence?
A. Probably not. I don't specifically recall, but usually they just give the briefing and they say anybody have any questions and, if not, then they move on to their other job. They typically do not stick around. They could care less, actually. As long as it's not arson, let the insurance companies handle it.

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Q. Right. Okay. Now, according to Trooper McKenna's report, he found that the malfunction was a failure of the main breaker. Is that correct?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Yes.
BY MR. WASILEFSKI:
Q. And you agree with that conclusion, do you not?
MR. CAPRIOTTI: Same objection.
THE DEPONENT: Yes.
BY MR. WASILEFSKI:
Q. And am I correct that you cannot tell us what that malfunction was; in other words, what caused that malfunction?
MR. KIRKER: Objection.
MR. CAPRIOTTI: Join.
THE DEPONENT: Well, I believe that it was caused by a transient produced on the Met-Ed system.
BY MR. WASILEFSKI:
Q. Okay. And what evidence do you have -- other than your opinion about that, do you have any evidence that there was a transient that would have caused a malfunction to that breaker?
MR. KIRKER: Objection.
THE DEPONENT: My observation that there

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was no sign of a manufacturing defect in the circuit breaker, there was no sign that anyone was doing any switching on that circuit breaker at the time of the fire so -- and I was not able to eliminate a transient from the, from Met-Ed, especially since there had been a breaker tripping that day and sustained trauma over the past two years where there were, I believe I counted, 24 circuit breaker trippings over the past two years.
That's, like, one a month. That's really terrible power quality. So that's why I --
BY MR. WASILEFSKI:
Q. Well, let me ask you with regard to why that circuit -- what was the -- what occurred with that circuit breaker when this transient that you're talking about came? Were you able to determine what occurred that caused it to malfunction?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Well, I made the determination that it was arcing of the circuit breaker from a high-voltage transient.
BY MR. WASILEFSKI:
Q. Okay. Now, with regard to the evidence that you've reviewed, on the day of this incident did you determine that there was any unusual operation of

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the Met-Ed electrical system on that day? And I think you'll agree that an operation of a breaker is normal operation, is it not?
MR. KIRKER: Objection.
MR. CAPRIOTTI: Join.
THE DEPONENT: I wouldn't, no. I wouldn't think it's normal operation, no.
BY MR. WASILEFSKI:
Q. It's not normal operation for a breaker to occur as part of the system to protect the system?
A. Well, the wind event that caused the breaker tripping, I would not say that that's normal. Breakers don't normally trip.
Q. But I'm talking about the operation of the system. If there's something that occurs on the system, it is normal for a breaker to trip.
A. Yes.
Q. To protect the system.
A. If there's a fault on the system, that's correct.
Q. Okay. So that's normal operation of the system. I'm not talking about the high winds or what caused the fault; I'm saying when a system detects a fault, normally it operates with the breaker tripping.
A. Yes.

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Q. And in most cases it recloses. Is that correct? And if the fault's cleared, there's no further problems?
A. If the fault clears, the breaker recloses, that's correct.
Q. And that is normal operation of a public utility electrical system, is it not?
A. Yes, for a non-normal event.
Q. Okay. But something has to be non-normal for the breaker to occur. Nothing in the system caused the breaker to occur; it was something external causing a fault. Is that correct?
MR. KIRKER: Objection.
MR. CAPRIOTTI: Join.
THE DEPONENT: Could you repeat that, please.
BY MR. WASILEFSKI:
Q. There was nothing in the system that caused that breaker to occur, nothing that you found in the system that caused that breaker to occur. And I'm talking about the electrical system, itself.
MR. KIRKER: Objection.
MR. CAPRIOTTI: Objection.
BY MR. WASILEFSKI:
Q. The wires, the equipment, anything of that

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nature.
MR. KIRKER: Objection.
MR. CAPRIOTTI: Same objection.
THE DEPONENT: Well, we don't know why the breaker tripped.
BY MR. WASILEFSKI:
Q. Exactly. But the fact --
A. It may have --
Q. -- that it may have detected a fault, it's normal operation for the breaker to trip?
A. Yes.
MR. CAPRIOTTI: Object to form.
BY MR. WASILEFSKI:
Q. Let me just, so I understand, are you saying that the event that took place at 1 or 1:30 that afternoon and whatever transient took place, because you don't have anything to measure that transient, that that is what caused this breaker to malfunction?
A. Yes, sir.
Q. Now, you indicated that there were, I think, 24 breaker activities that you were able to find from the records?
A. In the past two years from 2/08 to the time of the fire, yes, sir, I believe 24 breaker trippings

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at the substation.
Q. Okay. And with regard to those breaker trippings, you have no information as to what caused those breakers to trip. Is that correct?
A. Yeah, unless they're --
Q. You have no information?
A. That's pretty much correct, yes.
Q. So with regard to the breakers tripping, it could have been an animal, for all you know, that got electrocuted and then cleared. Is that right?
A. Yes.
Q. It could have been a lightning strike during a storm?
A. Yes.
Q. It could have been an accident where a pole was knocked down?
A. Yes.
Q. So there are a lot of reasons why the breaker may trip?
A. That's correct.
Q. And you have no evidence with regard to any of those, any of the trips, including the one on this day, what caused these trips. Is that correct?
MR. KIRKER: Objection.
THE DEPONENT: That's correct.

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BY MR. WASILEFSKI:
Q. Okay. Now, just so I'm clear, that the records you reviewed showed only one interruption of electricity on that day. Is that correct?
A. Yes, sir.
Q. And that was -- and I think if you look at the records, I think there was some reference in your report that one of the witnesses said it was about 1:30. But if you look at the records, it was actually at 12:57 p.m. Is that correct?
A. That's correct.
Q. And it reclosed in 7 seconds. Is that correct?
A. Yes, sir.
Q. And you're saying when it reclosed, that transient is what caused this fire?
A. Yes, sir.
Q. Do you know what time the fire was discovered?
A. I believe this was in the area of 4:30, 5:00. Let me see if I can find it. I've got it at 5:40 p.m.
Q. So if this trip took place at 1:00, it's approximately almost six hours after the incident that a fire was discovered, is that correct, after the

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trip?
A. About 5 hours, yeah.
Q. Well, actually 5 hours and 40 minutes. Okay?
A. Okay.
Q. Were you able to determine any evidence other than the fact that the breaker tripped -- and I'm talking about the Met-Ed breaker tripped and 7 seconds later reclosed -- as to any other problems along that line with any other residents or user of that electricity?
A. No.
Q. There was no other fire other than just in this house. Is that correct?
A. That's correct.
Q. There was no other damage to electrical equipment in any other houses or facilities along that line. Am I correct?
A. I have no idea whatsoever.
Q. And you didn't investigate that either, did you?
A. I did not.
Q. As far as you know, the only problem or damage that occurred occurred at this house. Is that correct?

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MR. CAPRIOTTI: Object to form.
THE DEPONENT: This was the only house I was asked to investigate. I don't know. There may be a thousand houses fed by that distribution line, and I did not go and interview a thousand people asking if they had any issues.
BY MR. WASILEFSKI:
Q. Okay. Now, you looked at discovery that was provided by Met-Ed. Is that correct?
A. Yes, sir.
Q. Do you recall in the discovery that that question was asked as to whether or not there were any other claims or problems along that line at that same time and the answer was no?
A. That's probably true, yes.
Q. So you do have information that there was no other problems along that line other than at this house?
MR. KIRKER: Objection.
THE DEPONENT: No. I just can't --
BY MR. WASILEFSKI:
Q. Well, what information do you have?
A. I can't say that. In other words, let's say that a thousand houses fed from that same distribution line, okay, and maybe when you have the

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breaker trippings, maybe somebody blows a light bulb or maybe it trips one of their power supplies to their computer --
Q. Sir, I understand that --
A. -- the chances are they're not going to turn that into the electric company because they know damn well they're not going to get compensated for it.
Q. Sir, I understand that.
A. I can't tell -- I'd have no idea whatsoever if there were any other issues on the line. I was only asked to look at the Sennen residence.
Q. And my question to you simply is, do you have any evidence, because I'd like to have it if you have it, any other evidence that there were any other problems with any other users along that line on that day other than the 7-second time where the energy was discontinued?
A. I do not.
Q. Okay. Now, the breaker we're talking about is at the substation. Is that correct?
A. Yes, sir.
Q. Is it important for you to know the distance from the substation to the location of the fire?
A. No.

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Q. It's not?
A. No.
Q. Okay. These transients, am I correct -- and you correct me if I'm wrong on this. But as you go out on the line away from the source, which would have been the breaker, that the transient gets lower?
A. Not always, no. In fact, sometimes they double when they hit an impedance.
Q. Do you have any evidence that indicated that any transient that occurred at 1:00 on this day doubled by the time it got to the, this home?
A. No.
Q. Now, part of your conclusions and report is that Met-Ed's vegetation maintenance program was deficient along this line. Is that correct?
A. Yes, sir.
Q. Did you ever -- and I think you've already answered this question. You did not ride that line or take your car and ride out along the line to determine what the vegetation condition is along that line. Am I correct?
MR. KIRKER: Objection.
THE DEPONENT: That's correct.
BY MR. WASILEFSKI:

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Q. Do you know how many trees are along that line?
A. I do not.
Q. Do you know what the program is that Met-Ed has with regard to vegetation maintenance for that line?
A. Yes. I did review the -- I believe there was a -- the vegetation management people were deposed.
Q. Did you review the plan?
A. Yes, sir.
Q. And did you find anything deficient with regard to the plan?
A. No.
Q. So the plan that they had as far as -- well, let me ask you this: The plan, as you reviewed it, was in accordance with the National Electric Safety Code and the PUC. Am I correct?
A. Yes, sir.
Q. And, in fact, the PUC approved that plan. Is that correct?
A. Yes, sir.
Q. Do you know the last time that this line had vegetation maintenance done to it prior to the fire?

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A. I think it was about a year before.
Q. Now, can you point to anything along that line as to where the vegetation maintenance was deficient? And I'm talking about visual, looking at it and you saying that's deficient.
A. Well, you would have to do that on the day of the fire, and I was not out there on the day of the fire.
Q. Did you do it two months later?
A. Then it would be meaningless because if it was a branch that fell from a tree, then that branch would no longer be there.
Q. Well, let me ask you this: During the storm, are you saying that if a branch falls from a tree, you would conclude that that's deficient maintenance?
A. Yes, sir.
Q. And no matter how, where the tree's located, no matter how it's been pruned, you would indicate that that is deficient maintenance because a branch fell from a tree during a storm?
MR. KIRKER: Objection.
THE DEPONENT: Yes, sir.
BY MR. WASILEFSKI:
Q. That's your conclusion?

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A. Yes, sir.
Q. Okay. Well, let me ask you a little bit about that because I looked through your CV, and you're not an arborist, are you?
A. No.
Q. And you're not a forester?
A. No.
Q. In fact, you have no training with regard to vegetation. Am I correct?
A. That's correct.
Q. And, in fact, I looked at your CV and even when you worked for an electric utility you were never assigned to a department that was responsible for vegetation maintenance. Am I correct?
A. You're correct.
Q. You do belong to an arboration, Arborators --
A. Utilities Arboration (sic) Association.
Q. Yeah. And that's just an association I can join, correct?
A. Yes, sir.
Q. All I have to do is pay my fee?
A. Yes, sir.
Q. It doesn't make you an expert in vegetation maintenance, does it?

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A. Not at all.
Q. And, in fact, you're not an expert in vegetation maintenance, are you?
A. I am not.
Q. And it's not -- am I correct in this it's not your function to evaluate the vegetation maintenance that was done on this line? Am I correct?
MR. KIRKER: Objection.
THE DEPONENT: I have evaluated vegetation management.
BY MR. WASILEFSKI:
Q. I didn't ask that. I asked was it your function to evaluate the vegetation management on this line?
A. Not specifically.
Q. And, in fact, you didn't, did you?
MR. KIRKER: Objection.
THE DEPONENT: No.
BY MR. WASILEFSKI:
Q. No, you didn't?
A. I did not.
Q. As far as the interruption that occurred at 1:00 on the day of this fire, you have no evidence as to what caused that interruption. Am I correct?
MR. KIRKER: Objection.

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THE DEPONENT: That's correct.
BY MR. WASILEFSKI:
Q. You don't know what caused it?
A. No.
Q. And anything that you would say that caused it is pure speculation. Am I correct?
MR. KIRKER: Objection.
THE DEPONENT: I wouldn't say it was speculation. I mean, it's known in the industry that probably 90 percent of all distribution line outages are caused by vegetation.
BY MR. WASILEFSKI:
Q. But you have no evidence that this one was because we went through a number of different things that could have occurred that caused this short outage. Is that correct?
A. That's correct.
Q. And just so I understand, your opinion on this is that because you assume that a branch fell from a tree that caused this outage, that's why you're saying that there was improper vegetation maintenance of this line. Is that correct?
A. Yes, sir.
Q. Okay. And that's without having any evidence that a tree branch, in fact, fell across this

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line at that time. Is that correct?
MR. KIRKER: Objection.
THE DEPONENT: It's just most likely what happened.
BY MR. WASILEFSKI:
Q. It's your assumption?
MR. KIRKER: Objection.
THE DEPONENT: Based on past experience.
BY MR. WASILEFSKI:
Q. But you have no actual evidence that a tree limb fell across this line at 1:00 on the date of the fire?
MR. KIRKER: Objection.
THE DEPONENT: Correct.
BY MR. WASILEFSKI:
Q. And I think I had asked you this but let me just clarify it. Are you saying that other than with good vegetation maintenance -- let me ask it this way. Strike that.
If there was good vegetation maintenance, you're saying that a branch during a storm would not fall across a line. Is that correct?
A. Yes.
Q. In your report I think you concluded that there was premature aging of this breaker. Is that

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correct? And I think you associate it with the tree maintenance. Is that correct?
A. Yes, sir.
Q. Are there other conditions that could cause early aging of a breaker; for example, climatic conditions, moisture?
A. A couple things. If there were, say, a lot of overcurrent trips on the breaker, short circuits or whatever that would cause the breaker to trip frequently, that could age the breaker.
Q. Which is your conclusion?
A. Yes.
Q. Now, but are there other things other than that?
A. Possibly contamination of dirt, certainly if it got wet.
Q. Okay. Did you do any investigation -- and we've talked about what you saw when you did your investigation, the site investigation. You said, well, when we're looking for moisture, it would be worthless because you had firefighting going on. Is that right?
A. Yes.
Q. Did you do any investigation, for example, discuss with the brother as to what the condition of

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that basement was?
A. No.
Q. In fact, I look at the list of items that you have and you didn't even read his deposition, did you?
A. All I reviewed was provided to me by Mr. Kirker, which is the list here. If there's something on here that -- if there was a deposition that I did not receive, then obviously I did not review it.
Q. Is her brother's name Edwin Clemens?
A. I believe it is, yes.
Q. And Edwin Clemens' deposition is not included on your list, is it?
A. No.
Q. So you didn't even have the benefit of what he testified to as the condition of the basement prior to the fire for a number of years, you don't have the benefit of that. Is that correct?
A. That's correct.
Q. So you cannot exclude the conditions of that basement as being a cause of a deterioration of this breaker. Is that correct?
MR. KIRKER: Objection.
THE DEPONENT: Well, I was down in the

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basement, and it appeared to be a --
BY MR. WASILEFSKI:
Q. Sir, that's -- my question to you is, you cannot exclude the fact that there were conditions in that basement that may have caused early aging of that breaker. Am I correct?
MR. KIRKER: Objection. He was attempting to answer your question. Allow him to complete his answers before you begin your next question, please.
BY MR. WASILEFSKI:
Q. Am I correct?
MR. KIRKER: Continue the objection.
THE DEPONENT: I was down in the basement, and I did not see any evidence of water down in the basement that could have, that would have deteriorated or overly aged that breaker.
BY MR. WASILEFSKI:
Q. But you did no investigation with regard to the history of that basement and what those conditions were that could have caused deterioration of that breaker, am I correct, you did no investigation about that?
A. I had no reason to suspect that there was something in that basement that aged that panel.
Q. So a simple answer, sir, is you didn't do

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an investigation with regard to it. Am I correct?
A. I did not.
Q. And you didn't interview Mr. Clemens, you didn't interview Ms. Sonnen, and you didn't look at the depositions of either Mr. Clemens or Ms. Sonnen. Am I correct?
A. That's correct. If it's not listed, I didn't review the deposition.
Q. Would you agree with me that it is the homeowner's responsibility to provide protection for their own equipment?
MR. KIRKER: Objection.
THE DEPONENT: My personal thoughts on that is that the utilities do not do everything that they could --
BY MR. WASILEFSKI:
Q. That's not my question.
A. -- or should to provide high-quality power. So, therefore -- they push that off onto the customers.
Q. My question is, it's the responsibility of the homeowner or the property owner to protect their own equipment; no matter what the circumstances are, it's their responsibility, is it not?
MR. KIRKER: Objection.

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THE DEPONENT: It should be the responsibility of the utilities.
BY MR. WASILEFSKI:
Q. Maybe it should be, but --
A. In conjunction with the user of the equipment.
Q. Okay. The user of the equipment has a responsibility to maintain their own equipment. Is that correct?
A. To maintain it, that's correct, yes, sir.
Q. And part of the maintenance may be to provide protection to the equipment. Is that correct?
MR. KIRKER: Objection.
THE DEPONENT: No, that's not part of maintenance, not at all.
BY MR. WASILEFSKI:
Q. Well, it's part of assuring that your system is not going to be damaged. Is that correct?
MR. KIRKER: Objection.
THE DEPONENT: It should be the utility's responsibility.
BY MR. WASILEFSKI:
Q. But it's not, is it --
MR. KIRKER: Objection.
BY MR. WASILEFSKI:

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Q. -- it's the responsibility of the homeowner?
MR. KIRKER: Sorry. Objection.
THE DEPONENT: I can't answer that question.
BY MR. WASILEFSKI:
Q. Do you know who Jessica Ballew is?
A. I believe that's one of the neighbors.
Q. Did you interview her?
A. I did not.
Q. You did review her deposition, though. Is that correct?
A. If it's listed, I did.
Q. Did Ms. Ballew have any damage to her property on that day?
A. Not that I'm aware of.
Q. Are you aware of any damage to Ms. Ballew's electric panel or breakers?
A. Not that I'm aware of.
Q. If you go to page -- do you know what a -- let me ask you this first: Do you know what an overcurrent fuse is?
A. Certainly.
Q. What is an overcurrent fuse?
A. It's a weak link that is purposefully put

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into an electrical system so that if an overcurrent passes through that weak link, it will purposefully melt to isolate the source from the load.
Q. And is that generally placed on the load side -- I'm sorry -- on the source side of the panel box?
A. It would depend whether you're talking about -- fusing of circuits in the utility system -- in other words, the Met-Ed system has fuses, and on the load side we have the circuit breakers in a panel. I did not notice any fuses on the load side.
Q. But they could be installed to protect the panel, could they not, as part of the system?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: Yes.
THE VIDEOGRAPHER: This concludes tape number 1 in today's deposition of Ronald Panunto. Time on the monitor is 12:39:33.
(A brief recess was taken.)
THE VIDEOGRAPHER: This begins tape number 2 in today's deposition of Ronald Panunto. The date today is December 19th, 2013 and the time is 12:48:06 p.m.
BY MR. WASILEFSKI:
Q. Mr. Panunto, we're almost finished, okay?

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And I just want to go over your conclusions with you just to ask you what facts you have to support it. Okay?
A. Sure.
Q. If you go to page 4 of 5 of your letter which is, I think, under Tab A of Exhibit Number 1, your first conclusion was that Met-Ed did not adequately maintain trees, tree branches along the route of the 720 distribution line. Is that correct?
A. Yes.
Q. You've already indicated that you did not go out there and look at that line all the way through to see what's there. Is that correct?
A. That's correct.
Q. What evidence do you have or facts do you have that they did not adequately maintain trees or tree branches along that route?
A. Because my assumption was based on past experience and industry experience that the majority of outages or aerial distribution lines during wind storms are caused by tree branches falling on the line.
Q. It's your assumption based upon your experience and --
A. Yes, sir.

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Q. Okay. But you have no specific fact that indicated that tree branches were involved in any of those incidents where the breaker tripped. Is that correct?
A. That's correct.
MR. KIRKER: Objection.
BY MR. WASILEFSKI:
Q. And, similarly, with regard to conclusion number 2 where you say, inadequate vegetation management by Met-Ed led to many power outages, you have no facts, specific facts that would indicate that it was inadequate vegetation management that caused those trips. Is that correct?
A. Well, here again, 24 trips in two years and the fact that the majority of outages are caused by tree branches, that's where I came up with that conclusion.
Q. Okay. But you have no specific evidence as to any tree branches or any inadequate vegetation management that allowed the tree branches to come into the lines. Is that correct?
A. That's correct.
Q. Okay. Now, your third conclusion is that repeated power outages caused repeated high-voltage transients causing accelerated wear and catastrophic

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failure to the main circuit breaker. Is that correct?
A. Yes, sir.
Q. Now, with regard to the power outages, you've indicated that in those two years there were 24. And we're talking about where a breaker would trip. Is that correct?
A. That's correct.
Q. And you make the term, high-voltage transient. You don't know the level of the transients that occurred on each one of these trips. Is that correct?
A. That's correct. There's no instrumentation on the line that would record that.
Q. Okay. So you have no facts to support that there was high-voltage transients. We know there was transients because when it would come back into service, that there would be some sort of a transient. Is that correct?
A. By definition, transients are high voltage.
Q. But they could be -- well, let's back up a second. When I'm talking about high voltage, what levels are you talking about?
A. Anywhere from 2 to 4 per unit.
Q. Okay. And in this particular case you have no evidence as to what that transient would be. Is

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that correct?
MR. KIRKER: Objection.
THE DEPONENT: Yes.
BY MR. WASILEFSKI:
Q. Because you've already indicated that there was just no evidence of it, is that right, there was nothing to record it?
A. There was nothing to record it, that's correct.
Q. So we don't know what level that would have been?
A. Correct.
Q. And certainly it would have been instantaneous, is it not?
A. No. Nothing is instantaneous. It's very fast, but nothing is instantaneous.
Q. Okay. Semantics?
A. I'm an engineer.
Q. Okay. Number 4, you talk in number 4 about complaints regarding vegetation management. What complaints are you referring to?
A. I believe that one -- I believe that one or more of the neighbors had complained about Met-Ed not coming out to trim some trees.
Q. Did you read Ms. Brandt's deposition?

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A. Pardon me?
Q. Did you read Ms. Brandt's deposition?
listed on there.
A. Then I did, yes.
Q. Do you remember what she said about the tree that was complained about?
A. Well, there was one specific tree that I think she said that was underneath the transmission line and --
Q. But had nothing to do with this line?
A. Not that particular one, no.
Q. Okay. Do you have any evidence that any other trees caused complaints to Met-Ed?
A. No.
Q. And when you say that they failed to properly respond and perform necessary vegetation management, are you referring to that tree that Ms. Brandt testified to?
A. Not -- just generally that if we've had this many outages over the past few years that there has to be a problem with the vegetation management.
Q. But you have no facts that would indicate that Met-Ed failed to properly respond and perform vegetation management. Is that correct?
A. That's correct.

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MR. WASILEFSKI: That's all I have, sir. Thank you.
THE DEPONENT: Okay. Thank you.
MR. CAPRIOTTI: I just have two questions, sir.

EXAMINATION

BY MR. CAPRIOTTI:
Q. Mr. Panunto, my name is Steve Capriotti. We met earlier.
A. Yes, Steve.
Q. I just have a quick follow-up. I know that you were asked questions about renovations that were done at the home --
A. Yes.
Q. -- in 1993 or 1994 and then again, I think, around 2003?
A. Yes.
Q. Am I correct there's nothing in the record or any evidence that established what exact renovations were performed?
A. That's correct.
Q. So as it stands now, nobody knows when this load center, or panel box as it's been referred to, was actually installed?
A. That is correct; we do not know.

MR. CAPRIOTTI: Okay. That's all I have. Thanks.

MR. KIRKER: I don't have any questions for the witness.

THE VIDEOGRAPHER: This concludes tape number 2 and today's deposition of Ronald Panunto. Time on the monitor is 12:55:57.

(The deposition concluded at 12:55 p.m.)

COMMONWEALTH OF PENNSYLVANIA)
) SS.
COUNTY OF CUMBERLAND)

I, AMY R. FRITZ, a Court Reporter-Notary Public authorized to administer oaths and take depositions in the trial of causes, and having an office in Carlisle, Pennsylvania, do hereby certify that the foregoing is the testimony of RONALD J. PANUNTO, P.E., CFEI, CVFI, CFC.

I further certify that before the taking of said deposition the witness was duly sworn; that the questions and answers were taken down stenotype by the said Reporter-Notary, approved and agreed to, and afterwards reduced to computer printout under the direction of said Reporter.

I further certify that the proceedings and evidence are contained fully and accurately in the notes taken by me on the within deposition, and that this copy is a correct transcript of the same.

In testimony whereof, I have hereunto inscribed my hand this 6th day of January, 2014.

_____
Notary Public

TextMap Annotation Digest Report

Case Name: 278604.000
Transcript: McKenna Patrick K, Jr.

Pg: 1 Ln: 1 - 23

Annotation:

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

USAA CASUALTY INSURANCE COMPANY a/s/o JOAN SONNEN, Plaintiff	:	NO. 1:12-CV-1178-CCC
v.	:	CIVIL ACTION - LAW
METROPOLITAN EDISON COMPANY, Defendant/Third-party Plaintiff	:	Honorable Christopher C. Conner
v.	:	
JOAN SONNEN, Additional Defendant/ Third-party Defendant	:	
v.	:	
SQUARE D COMPANY and SCHNEIDER ELECTRIC USA, INC., Additional Defendant/ Third-party Defendants.	:	JURY TRIAL DEMANDED

DEPOSITION OF: PATRICK K. McKENNA, JR.
TAKEN BY: Metropolitan Edison Company
BEFORE: Amy R. Fritz, Court Reporter
Notary Public

DATE: September 5, 2013, 10:25 a.m.

PLACE: Peters & Wasilefski
2931 North Front Street
Harrisburg, Pennsylvania

Pg: 9 Ln: 22 - Pg: 10 Ln: 9

Annotation:

Q. Okay. And in your role as the State Police Fire Marshal, were you tasked with investigating a fire that occurred on November 17th of 2010 on Maple Street?
A. Yes, I was.
Q. Do you recall when you learned of that incident?
A. I was requested on the 18th of November of 2010 at 9:00 in the morning.

TextMap Annotation Digest Report

Case Name: 278604.000
Transcript: McKenna Patrick K, Jr.

Pg: 9 Ln: 22 - Pg: 10 Ln: 9 **continued...**

Annotation:

Q. Okay. And the document you just referred to which we marked as McKenna 1, can you identify that for the record?
A. Yes. This is my fire investigation report worksheet.

Pg: 23 Ln: 21 - Pg: 24 Ln: 4

Annotation:

Was it your finding that the fire traveled up from the panel box up the wall?
MR. CAPRIOTTI: Object to form.
THE DEPONENT: All I could say is that the fire started in the area of the panel box. As stated before, I'm not an electrical engineer. In order to determine exactly what portion of the electrical service caused that fire, you would have to have an electrical engineer look at that.

☐ INCIDENT REPORT ☐ NON-TRAFFIC DEATH INVESTIGATION REPORT ☐ HOMICIDE INVESTIGATION REPORT ☐ ACCIDENTAL REPORT PSP JURISDICTION ☒ OTHER AGENCY

SP 5-141 (7-2008) PENNSYLVANIA STATE POLICE
FIRE INVESTIGATION REPORT/WORKSHEET

1. ORI / STATION: PAPSP 9400/York
2. INCIDENT NO.: H07-1986672

3. ORIGIN/CAUSE ONLY FOR: Northeastern Regional Police

INVESTIGATION STATUS — CLEARED: ☐ BY ARREST ☐ EXCEPTIONALLY; NOT CLEARED: ☐ INVESTIGATION CONTINUED ☒ INVESTIGATION TERMINATED

4. CLASSIFICATION: ☐ INCENDIARY ☒ ACCIDENTAL ☐ EXPLOSION ☐ UNDETERMINED

5. STATUTE/SECTION NO./UCR: SC 1501 999
6. LOCATION: 430 Maple Street — ZONE: 99
7. CITY/TWP/BORO: Manchester Borough — CODE: 418
8. COUNTY: York — CODE: 66
9. DATE OCCURRED: 11/17/10 — DAY: WED — TIME: 1740
10. TYPE OF ALARM: 911
11. DATE OF ALARM: 11/17/10 — DAY: WED — TIME: 1748
12. DISCOVERED BY: Jessica BALLEW — ADDRESS: 426 Maple Street Manchester Pa. 17345 — TELEPHONE NO.:
13. RESPONDING FIRE DEPARTMENT: Union Fire Co. (Manchester) — OFFICER IN CHARGE: Asst. Chief Trever RENTZEL — TELEPHONE NO.: 717-266-2226
14. INVESTIGATION REQUESTED BY: Asst. Chief Trever RENTZEL — AGENCY: Union Fire Co. (Manchester) — TELEPHONE NO.: 717-266-2226
16. DATE REQUESTED: 11/18/10 — TIME: 0900
18. DATE INV. NOTIFIED: 11/18/10 — TIME: 0900
17. DATE INV. ARRIVED: 11/18/10 — TIME: 0920

OWNER
18. NAME: Joan Clemens SONNEN — ADDRESS: 314 Overlook Lane Gulph Mills Pa. 19428 — TELEPHONE NO.: 610-331-6451
19. DOB: 05/28/53 — AGE: 57
20. RACE-ETH/SEX: W-N/F
21. EMPLOYER OR SCHOOL: Penn Virginia Corporation
22. INSURANCE CARRIER: USAA — POLICY NO.: 007857517022 — EFFECTIVE DATE: — AMOUNT: $500,000
23. MORTGAGE/LOAN INSTITUTION: NONE — ADDRESS: — AMOUNT:

OCCUPANT
24. NAME (SAME AS OWNER ☒) — ADDRESS: — TELEPHONE NO.:
25. DOB — AGE — 26. RACE-ETH/SEX — 27. EMPLOYER OR SCHOOL:
28. INSURANCE CARRIER — POLICY NO. — EFFECTIVE DATE — AMOUNT:

VEHICLE
29. YEAR — MAKE — MODEL — TYPE — REGISTRATION – STATE — VIN NO.:
30. REPORTED STOLEN ☐ YES ☐ NO — 31. REPORTED TO (AGENCY) — DATE REPORTED — TIME REPORTED:
32. INVESTIGATING OFFICER (IF STOLEN) — 33. INCIDENT NO. — 34. EVIDENCE OF STRIPPING/DAMAGE:

35. POINT OF ORIGIN: electricla panel box
36. IGNITION FACTOR: electrical malfunction
TYPE, MAKE, MODEL (IF APPLICABLE):

37. WEATHER AT TIME OF FIRE — GENERAL CONDITIONS: scattered clouds — TEMPERATURE: 53 — WIND DIRECTION: WNW — WIND SPEED: 13mph

38. PROPERTY VALUE / DAMAGE

	PROPERTY VALUE	DAMAGE
STRUCTURE	$300,000	$50,000
CONTENTS	200,000	25,000
TOTAL	$500,000	$75,000

39. PROPERTY USE: private residence

40. NO. INJURED / NO. KILLED

	INJURED		KILLED
	0	OCCUPANTS	0
	0	FIREFIGHTER	0
	0	OTHER	0

41. TYPE CONSTRUCTION: wood frame
42. NO. OF STORIES: 3 — DIMENSIONS: LENGTH 45' WIDTH 35'
43. TYPE HEAT: natural gas furnace

44. UTILITIES: ☒ ELECTRIC ☐ OIL ☒ GAS ☐ OTHER
45. ELECTRICAL SERVICE: ☐ FUSE ☒ BREAKER 100 AMP — SUPPLIER: Met Ed
46. PHOTOS TAKEN ☒ YES ☐ NO — BY Tpr. MCKENNA — PHOTOS RETAINED AT: PSP-York
47. FIRE MARSHALL ACTIVITY SYSTEM ENTRY ☒ YES ☐ NO
48. EVIDENCE COLLECTED ☐ YES ☒ NO — BY — PROPERTY NO.:
49. SIGNATURE
50. ASSISTED BY
51. PRINT NAME OF INVESTIGATOR: Tpr. Patrick MCKENNA Jr. — BADGE NO.: 6647
52. SUPV. INITIALS & BADGE NO.: WT/748
53. PAGE NO.: 1

DEPARTMENT HEADQUARTERS

11/29/10

EXHIBIT McKenna #1 9/05/13 AF

SP 7-0051 (3-96)

PENNSYLVANIA STATE POLICE

CONTINUATION SHEET ☐

SUPPLEMENTAL INVESTIGATION REPORT ☒

REPORT TYPE
☐ INCIDENT
☒ OTHER Fire Worksheet

DATE(S)/DAY(S) OF INCIDENT: 11/17/10 WED

INCIDENT NO.: H07-1986672

TIME(S) OF INCIDENT: 1715-1740

JUVENILE: ☐

DOMESTIC VIOLENCE: ☐

ATTACHMENTS:
☐ MISSING PERSON CHECKLIST
☐ FELONY CRIMES AGAINST THE PERSON
☐ STATEMENT FORM(S)
☐ VICTIM/WITNESS ASSISTANCE GUIDE RECEIPT
☐ RIGHTS WARNING AND WAIVER
☐ PROPERTY RECORD
☒ OTHER diagram

DISP.: ☐ CLEARED BY ARREST ☐ UNFOUNDED ☐ EXCEPTIONALLY CLEARED- DATE
A ☐ DEATH OF ACTOR
B ☐ PROSECUTION DECLINED
C ☐ EXTRADITION DENIED
D ☐ VICTIM REFUSED TO COOPERATE
E ☐ JUVENILE/NO CUSTODY
N ☐ NOT APPLICABLE
☐ MULTIPLE CLEAR-UP

1. ORI/STATION: PAPSP9400/York

2. DATE OF REPORT: 11/19/10

3. OFFENSE: Accidental Fire

4. VICTIM: Joan Clemens SONNEN

5. NARRATIVE

REASON FOR INVESTIGTAION:

On 11/18/10 at approx. 0900 hours I was contacted by Asst. Chief Trever RENTZEL, Union Fire Company, who requested I examine the scene of a house fire. I responded 11/17/10 and upon arrival at 0920 hours I met with Asst. Chief RENTZEL, Chief Joe STEVENS, and the victim. Prior to my examination I obtained permission from the victim, Joan SONNEN, to enter the property and conduct this investigation.

SCENE DESCRIPTION:

The scene of this fire is 430 Maple Street, Manchester Borough, York County which is a three story white wood frame residence located on the north side of Maple Street, the second house west of Farcht Alley, and it faces south. The residence is located on a concrete foundation with a peaked shingled roof and the electrical service is connected to the west side of the residence.

The basement consisted of two open space areas. The first floor consisted of a living room, dining room, kitchen, bathroom, and family room. The second floor consisted of three bedrooms and a bathroom. The third floor was an open attic space.

SCENE EXAMINATION:

I commenced a scene examination by walking around the exterior of the residence. There was no fire damage observed except from broken windows and smoke damage around the basement windows. I then entered the residence by way of the rear door on the north side of the residence. I walked through the residence and observed that the basement sustained smoke, water, and fire damage. The first floor sustained smoke and fire damage. The second and third floor sustained only smoke damage. I made a closer examination of the first floor fire damage which was contained to the kitchen area.

In the kitchen I observed fire damage to the wall along the west side of the residence. The counter and cabinets in the area around the sink were charred by fire with heavy charring in the wall and a burn through in the floor. The fire patterns indicated that the fire traveled up from the basement in the void of the west wall. I then made a closer examination of the basement area.

In the basement I observed that the fire damage was contained to the northwest corner of the basement around the electrical panel box. The panel box and wires above the box were severely damaged by fire. On the inside of the panel box I observed an area of arching on the metal panel which would be adjacent to the main circuit breaker within the box. The main breaker was severely damaged by fire with the breaker partially consumed. The bus bar behind the main breaker was also consumed by fire. The drop service into the main breaker was also consumed by fire. I observed deep charring into the wall in the area that the main service traveled from the outside into the main panel box. The floor was burned through above the panel box. I examined the other breakers which were intact and not damaged by fire.

CONTINUED

6. OFFICER'S NAME/SIGNATURE	BADGE NO.	7. INVEST. RECM.	8. SUPV. INIT/BADGE NO.	9.	10. PAGE
Tpr. Patrick MCKENNA Jr.	6647	☐ CONT. ☒ TERM.		☐ CONCUR ☐ NONCONCUR	2

DEPARTMENT HEADQUARTERS

SP 7-0051 (3-96)

PENNSYLVANIA STATE POLICE

CONTINUATION SHEET ☐

SUPPLEMENTAL INVESTIGATION REPORT ☒

REPORT TYPE
☐ INCIDENT
☒ OTHER Fire Worksheet

DATE(S)/DAY(S) OF INCIDENT: 11/17/10 WED

INCIDENT NO.: H07-1986672

TIME(S) OF INCIDENT: 1715-1740

JUVENILE: ☐

DOMESTIC VIOLENCE: ☐

ATTACHMENTS:
☐ MISSING PERSON CHECKLIST
☐ FELONY CRIMES AGAINST THE PERSON
☐ STATEMENT FORM(S)
☐ VICTIM/WITNESS ASSISTANCE GUIDE RECEIPT
☐ RIGHTS WARNING AND WAIVER
☐ PROPERTY RECORD
☒ OTHER diagram

DISP.: ☐ CLEARED BY ARREST ☐ UNFOUNDED ☐ EXCEPTIONALLY CLEARED- DATE
A ☐ DEATH OF ACTOR
B ☐ PROSECUTION DECLINED
C ☐ EXTRADITION DENIED
D ☐ VICTIM REFUSED TO COOPERATE
E ☐ JUVENILE/NO CUSTODY
N ☐ NOT APPLICABLE
☐ MULTIPLE CLEAR-UP

1. ORI/STATION: PAPSP9400/York

2. DATE OF REPORT: 11/19/10

3. OFFENSE: Accidental Fire

4. VICTIM: Joan Clemens SONNEN

5. NARRATIVE

INVESTIGATION/DETAILS:

Asst. Chief Trever RENTZEL
Union Fire Company
Manchester, Pa.

He was in command of this fire incident. He was interviewed on scene 11/18/10 at 0920 hours. He related that when he arrived he did not see anything. As he did his walk around he did have an odor of smoke and light smoke coming from a basement window on the west side of the residence. His crew forced entry to the rear door on the north side of the residence. When they made entry they had heavy smoke inside. They located a small fire in the basement in the area of the electrical panel. The second in crew located a fire in the wall of the kitchen. He related that during the day prior to the fire the electrical service was going on and off in the borough due to high winds and inclement weather.

Edwin CLEMENS
438 Maple Street
Manchester, Pa. 17345 717-266-0140

He is the brother of the property owner and lives directly east of the residence. He was interviewed on scene 11/18/10 0940 hours. He stated that he takes care of the house for his sister who lives in Philadelphia. The house has been in his family for decades. He was in the house on 11/17/10 from 1130 to 1215 hours paying bills. He stated that everything was ok at that time. He secured the house when he left. He went to dinner around 4pm and returned to see fire trucks at his sister's house. He stated that there were no problems with the house and no one is mad at them. He related that his power was going off and on all day.

Joan SONNEN
OWNER

She owns the house and visits it on occasion. She was interviewed on 11/18/10 at 1020 hours. She stated that she lives in Philadelphia and comes to the house on weekends. Her brother Ed watches the house for her. She stated that he called her and told her about the fire. She stated that she has not had any problems with the house and no on is mad at her.

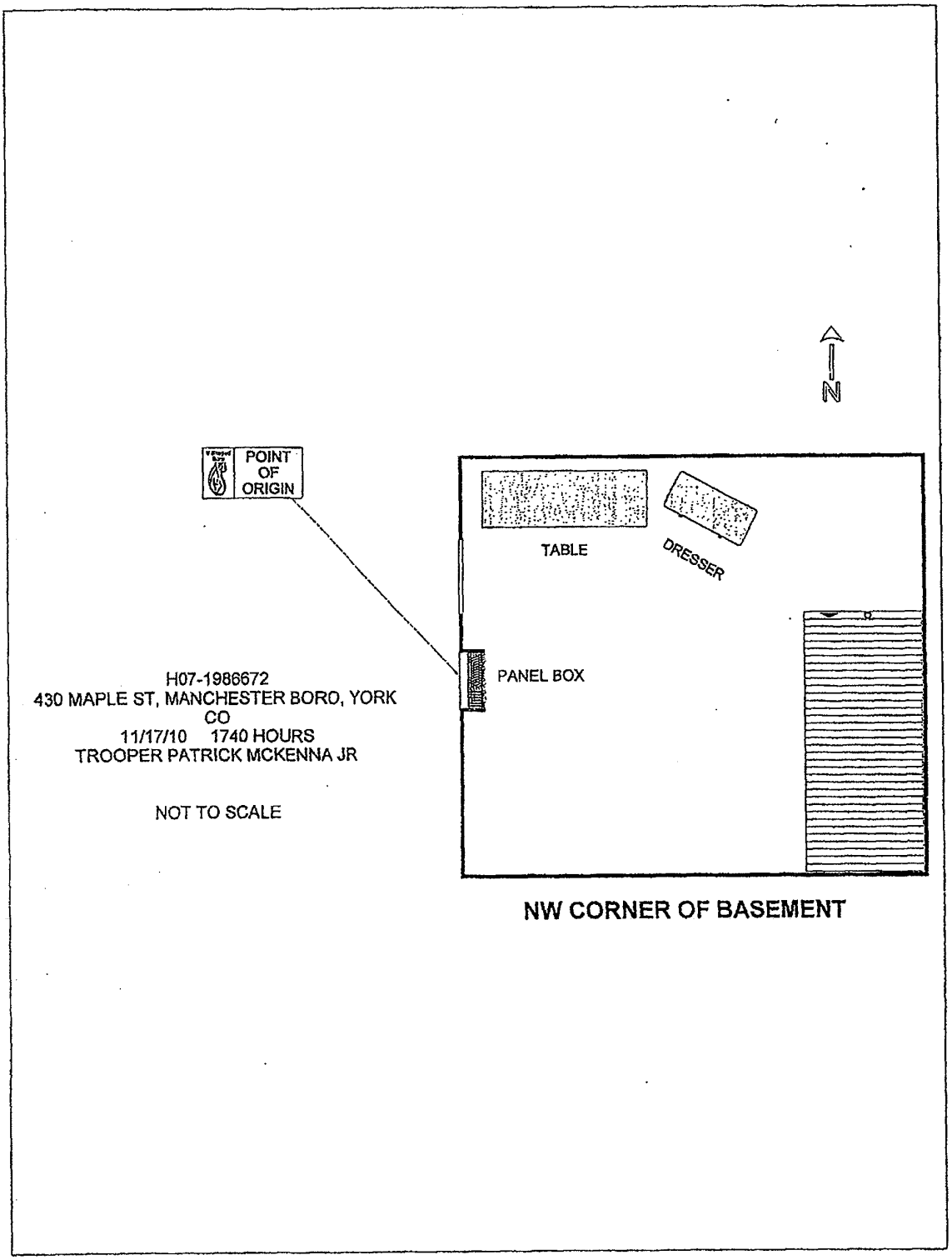
CONCLUSION:

Based on the scene examination and information to date it is my opinion that this fire is ACCIDENTAL in nature. I feel this fire started due to an electrical malfunction with the main breaker in the electrical panel box on the west wall of the basement. The fire got into the void in the west wall and traveled to the first floor igniting combustible materials.

CONTINUED

6. OFFICER'S NAME/SIGNATURE	BADGE NO.	7. INVEST. RECM.	8. SUPV. INIT./BADGE NO.	9.	10. PAGE
Tpr. Patrick MCKENNA Jr.	6647	☐ CONT. ☒ TERM.		☐ CONCUR ☐ NONCONCUR	3

DEPARTMENT HEADQUARTERS


N
POINT OF ORIGIN
TABLE
DRESSER
PANEL BOX
H07-1986672
430 MAPLE ST, MANCHESTER BORO, YORK CO
11/17/10 1740 HOURS
TROOPER PATRICK MCKENNA JR
NOT TO SCALE
NW CORNER OF BASEMENT

NATIONAL FORENSIC CONSULTANTS, INC.™

CORPORATE OFFICE

8500 REMINGTON AVENUE
SUITE D
PENNSAUKEN, NJ 08110
PHONE: (856) 662-6500
FAX: (856) 662-6590

NFC OF NORTH CAROLINA, INC. ™
NFC OF CENTRAL FLORIDA, INC. ™

NATIONAL PHONE NUMBER
800-738-7620
NATIONAL FAX NUMBER
800-391-6275

INTERNET ADDRESS
www.nfcexperts.com

October 18, 2013

Erick J. Kirker, Esquire
Cozen O'Connor
1900 Market Street
Philadelphia, PA 19103

Subject: *Sonnen v. Met-Ed v. Schneider*
D/O/L: 11/17/2010
NFC File: PA-32146-OC

Dear Mr. Kirker:

As requested by you, I am issuing this final report of my investigation at the loss location of 430 Maple Street, Manchester, PA.

Site inspections were held at the loss location on November 19, 2010, and January 11, 2011.

The purpose of my investigation was to make a determination of the origin and cause of the structure fire which occurred at the loss location on November 17, 2010.

My investigation was performed following the scientific method and basic methodology as suggested by NFPA 921. All of my findings are made to a reasonable degree of certainty in the field of fire origin and cause investigation.

Property Description

The loss location is a three-story, single-family dwelling of ordinary construction with siding over wood plank exterior walls, and shingle roofing. Interior walls are plaster over wood lath on wood posts with wood flooring on wood joists supported by a stone foundation. The house is believed to have

been built in the early 1900s and has been in the Sonnen family since 1932, currently owned by Ms. Joan Sonnen

The house is occasionally visited by Ms. Sonnen and is visited regularly by her brother, Edwin Clemens, who lives next door at 438 Maple Street.

Background

According to information received by me and the fire report of the Union Fire Co. of Manchester Borough (Report #10-395), there was a structure fire at the loss location on November 17, 2010, at approximately 17:48 hours.

The fire report and Pennsylvania State Police report (HO7-1986672) indicate that the neighbor at 426 Maple Street, Ms. Jessica Ballew, observed popping and a flash from a basement window on side B of the fire building and called 911.

Scope of Service

As requested by you, I was directed to:

- perform a physical inspection of the loss location,
- determine the area of fire origin,
- determine the cause of the fire and
- prepare and submit a written report of my findings.

Observations

On November 19, 2010, I performed a site inspection of the loss location of 430 Maple Street, Manchester Borough, PA.

Photos #1 through #5 are exterior views of the house, starting from the front/south exterior in a clockwise rotation.

From the exterior there are signs of boarded windows along the south and west walls.

Photos #6 through #9 show the house meter base and house feed from the meter to the street pole #29003-26716. The pole feed extends from a transformer on pole #29008-26713 across and down the street.

Photo #10 shows a pile of fire debris in the west side yard.

Photo #11 shows a building at the north end of the property with no fire damage.

Photos #12 through #14 show the rear, east and front of the building with windows boarded at several locations.

Photo #15 shows the gas meter at the east side of the building.

Photo #16 shows the basement entry and house entry doors at the rear of the main house.

Photos #17 and #18 show the first floor east side living room area, which has smoke and soot damage.

Photo #19 shows the stairs to the second floor of the house.

Photos #20 through #23 show the bedrooms and craft room of the second floor which has soot and smoke damage but no fire damage.

Photos #24 and #25 are of the stairs to the attic and the attic storage area with no fire damage.

Photo #26 is a view of the rear two-story addition and the rear building as seen from the second floor rear of the house.

Photo #27 is the east side entry door into the family room and addition at the rear of the house.

Photos #28 and #29 are views of the first floor family room of the rear addition. There is no fire damage in this room.

Photo #30 shows the second floor bedroom of the addition with no fire damage.

Photo #31 shows the entry door from the family room into the kitchen area on the first floor west side of the main house.

Photos #32 through #35 compose a clockwise view of the first floor kitchen on the west side of the house. There is fire damage at the floor and wall of the west side of the kitchen. The gas stove and refrigerator is not involved in fire.

Photos #36 through #38 are views of the first floor front dining room and laundry room on the west side of the house. There is smoke and soot damage in this area but no fire damage.

Photo #39 shows the stairs to the basement area.

Photo #40 shows the east wall of the basement showing the gas-fired boiler and hot water heater. These heating units are not involved in fire. The gas lines in the building are not involved in the fire.

Photo #41 shows the front storage room of the basement, which has smoke damage.

Photo #42 shows the west side of the basement under the kitchen area.

Photos #43 and #44 show a fire damaged electrical load center at the top of the west wall of the basement.

Photo #45 shows fire damage to the floor joist and flooring of the kitchen above the load center area.

Photo #46 shows some drop-down fire onto chairs and combustibles under the load center area.

My observations of the fire damage in the house show areas of fire damage and intensity at the west wall of the first floor kitchen and basement areas. Other areas of the house show smoke and soot damage extending from the basement and kitchen areas.

Photo #47 shows the area of fire damage along the west wall of the first floor kitchen. The cabinets, counters and appliances had been removed from this area during fire suppression activities.

Photo #48 shows an area of the kitchen floor adjacent to the refrigerator, which shows fire extension up through the floor and into the rear wall. The fire extension has extended up from the basement area.

Photos #49 and #50 show fire damage to the kitchen flooring and floor joists. The floor joists are burned away in some areas as is the wooden flooring. In this area I observed the top of the basement load center and electrical wiring from the load center.

In this area I observed some household receptacle wiring that did not show signs of electrical activity. In this area there was a wall receptacle for the refrigerator, with no fire damage. Going through the fire debris I did not find any ignition source from the first floor kitchen cabinets or counter area.

Photo #51 shows the fire debris in the west side yard. I observed the dishwasher which shows signs of fire attack from the floor area. The remaining kitchen cabinets all show signs of fire damage at the floor level. I found a coffee maker in the debris, but the appliance and power cord are intact with no fire damage.

I did not find any remains of a candle or other source of an open flame and did not find any discarded smoking material in the debris or in the kitchen area.

Photo #52 shows the electrical load center on the west wall of the basement under the kitchen.

The 100-Amp Square D load center has the capacity for 20 breakers. It appears that 16 of the breakers were in use. Some of the breakers are tripped and some are still in the ON position. The main breaker is in the ON position.

Photo #53 is a closer view of the load center which shows signs of severe fire damage at the top left and top of the load center.

Photos #54 and #55 are closer views showing severe fire damage to the top left main breaker of the load center. This is a very intense area of fire damage and appears to be the area of fire origin in the load center.

Photo #56 shows the fire movement pattern which extends up from the load center to involve the wood floor joists and the wood flooring of the kitchen area that was shown in Photos # 47 through #50. The fire then extended into the kitchen wall and involved the wooden cabinets, the counters and their contents.

The fire intensity and movement pattern indicate that the top left area of the load center, where the main breaker is located, is the area of fire origin.

The damage I observed at the load center indicated an electrical failure at the main breaker and top left of the load center as the cause of the fire.

I did not find any indication of an ignition source due to animals or water damage in the area of fire origin.

Photos #57 and #58 are views of the load center panel cover and door which were on the floor below the load center.

Photos #59 and #60 show the load center and kitchen flooring secured as evidence. The load center was left on scene pending any future inspection.

During my site inspection I met with both Ms. Joan Sonnen and her brother, Edwin Clemens.

Ms. Sonnen, a non-smoker, was last in the house on November 7, 2010, and noted no problems. Ms. Sonnen indicated that there were renovations to the heating system and related parts of the electrical system in 2003 but no interior renovations since then.

Ms. Sonnen came to the kitchen area with me and confirmed locations of cabinets, appliances and debris items. Ms. Sonnen noted the coffee maker which she confirmed was on the counter but not plugged in.

Ms. Sonnen confirmed that there were no candles in the kitchen area and no operational problems with the gas stove.

Mr. Edwin Clemens, a smoker, confirmed that he was in the house during the morning of the date of loss and left before noon and noted no problems or odors. Mr. Clemens insisted that he does not smoke in the house and was not in the kitchen area or basement.

During my site inspection I met Mr. Dennis McLaughlin, a property adjuster representing Ms. Sonnen.

Mr. McLaughlin told me he had previously spoken with Ms. Jessica Ballow of 426 Maple Street regarding the fire. Ms. Ballow related to him that she was the 911 caller to report the fire after she and her ex-husband had noted popping and lights flashing in the loss house at the basement window facing her house.

I went to 426 Maple Street; however, no one was home.

Photo #61 shows the basement window on the west side of the basement of the loss location facing 426 Maple Street. This window is adjacent to the basement load center and is the boarded window shown in Photos #43 through #45.

I went to various houses in the neighborhood and spoke with the occupants of 437 Maple Street. The couple told me that on the date of loss, their power had gone off at approximately 13:30 hrs. then came back on. They told me that during the afternoon the power went off twice again and returned, then the lights flickered again around 17:00 hrs. The occupants would not give me their names or contact numbers.

Following my site inspection I contacted the Union Fire Company and sent for a copy of the fire incident report.

On November 24, 2010, I had phone contact with Pennsylvania State Police Fire Marshal Trooper Patrick McKenna. I related my observations and initial findings to Fire Marshal McKenna. Fire Marshal McKenna concurred with my determination as to the area of fire origin and he told me he considered the fire as accidental due to an electrical failure.

Pennsylvania State Police Fire Marshal McKenna told me that he was aware of the account of the neighbor from 426 Maple Street and had also noted that there were power outages and interruptions on the date of loss in the area.

Pennsylvania State Police McKenna told me that he did not observe any ignition sources that would indicate an intentionally set fire or fire from an open flame or discarded smoking material or from damage from animals.

On January 11, 2011, a joint inspection of the loss location was held. The sign-in sheet was handled by Chris Boyle, Esquire of Cozen O'Connor.

I reviewed the incident information I was aware of and distributed the Union Fire Company incident report and related the information I had received from Pennsylvania State Police Fire Marshal McKenna on November 24, 2010.

All parties were given ample time to observe and photograph the scene.

Following the joint examination the load center and related artifacts were collected and secured as evidence by Mr. Ronald Panunto of Dawson Engineering.

Photo #62 shows the load center and wiring secured as evidence prior to removal from the west wall of the basement.

During the joint inspection I again observed the area of fire origin.

Photo #63 shows the west wall of the basement with the load center removed.

Photos #64 and #65 shows the charring of the floor joist above the load center due to fire extension from the load center up into the floor area below the kitchen.

Document Reviews

As part of my investigation I have reviewed the following documents:

- Union Fire Company report # 10-395
- Penna State Police (Pennsylvania State Police) Report HO7-1986672
- Third Party Complaint 1:12-CV-1178-CCC

- Plaintiff request for documents from Defendant Metropolitan Electric Company
- Response of Defendants
- Plaintiff USAA first set of Interrogatories to Defendant
- Answers of Defendants to USAA
- Third Party –Schneider answers to Defendant Inquiry
- Defendants Production of Records of Circuit 720-4
- Dawson Engineering Inc. (DEI) files and photos of File # F100436
- FyrSafe Engineering Photos of 1/11/11
- Doug Haines Deposition and Exhibits of 3/20/13
- Steven Ward Deposition of 3/20/13
- James Sarver Deposition and Exhibits of 4/22/13
- Edwin Clemens Deposition of 5/3/13
- Joan Sonnen Depositions and Exhibits of 5/3/13
- Jessica Ballew Deposition and Exhibits of 5/8/13
- Trevor Rentzel Deposition and Exhibits of 9/5/13
- Patrick McKenna Deposition and Exhibits of 9/5/13

The review of the fire report from the Union Fire Company concurs with the fire patterns I observed.

The report of the Union Fire Company concurs with my determination of the area of fire origin as the main breaker at the electrical load center as well as the cause of the fire as an electrical failure.

The review of the Pennsylvania State Police report concurs with the fire pattern I observed and the area of fire origin as the main breaker of the electrical load center as well as the cause of the fire as an electrical failure. The Pennsylvania State Police report also concurs with the information I received during my verbal contact with Trooper Patrick McKenna on November 24, 2010.
The review of the depositions of Ms. Sonnen and Mr. Clemens indicate no previous problems with the house electrical systems.

The review of the deposition of Ms. Jessica Ballew concurs with information received from Mr. Dennis McLaughlin regarding electrical outages and issues on the date of loss. In addition, Ms. Ballew had previously been cited in the fire report and Pennsylvania State Police report as the

neighbor that reported the fire after observing popping and a flash from the basement window at the loss location.

The review of the deposition of Pennsylvania State Police Trooper Patrick McKenna concurs with the information received by me during our phone contact on November 24, 2010, regarding the area of fire origin as the main breaker of the electrical load center and the cause of the fire as an electrical failure.

My observation of the loss location indicates that the fire originates at the main breaker of the main load center, located on the west wall of the basement.

My observations of the area of origin indicate the cause of the fire was an electrical failure at the breaker panel. Due to the evidence of electrical supply issues on the day of the fire, the root cause of the electrical failure that caused the fire is being reviewed by an electrical engineer, Ron Panunto of Dawson Engineering.

During my inspection I did not see any indication of ignition sources from an open flame or discarded smoking material. There are no indications that the fire was intentionally set or caused by water damage or damage from animals.

During my inspection I did not see any ignition sources from kitchen appliances or household wiring for the receptacles or lighting circuits.

My contacts with persons mentioned in this report concur with my observations and findings.

My review of documents provided concurs with my observations and determinations.

Conclusion

Therefore, based on my observations and facts made known to me, as well as my experience, education and training, it is my opinion, based on a reasonable degree of scientific certainty, that:

1. The fire originated in the basement area along the west wall at the electrical load center. The area of fire origin is at the main breaker on the electrical load center.
2. The cause of the fire was an electrical failure.

This concludes my report based on information made known to me at this time. I reserve the right to alter or amend this conclusion should any new information be made known to me in the future.

Please contact our office at 856-662-6500 with any questions or comments.

Sincerely yours,

Michael J. Moyer, CFI, CFEI, CVFI
Consultant

/meg

NFC File: PA-32146-OC

PHOTOGRAPHS

NFC File: PA-32146-OC

Front exterior south view of 430 Maple St
Photo # 1

Front entry of 430 Maple St
Photo #2

NFC File: PA-32146-OC

West side exterior view of house
Photo # 3

West side of house
Photo # 4

NFC File: PA-32146-OC

West side rear of house
Photo # 5

Meter base of electrical service
Photo # 6

NFC File: PA-32146-OC

First Energy lock-out service tag
Photo # 7

House service to Met-Ed pole
Photo # 8

NFC File: PA-32146-OC

Pole number 29003-26716
Photo # 9

Debris pile in side yard
Photo # 10

NFC File: PA-32146-OC

Rear building with no fire damage
Photo # 11

Rear view of house
Photo # 12

NFC File: PA-32146-OC

Rear and east side of house
Photo # 13

East side of house
Photo # 14

NFC File: PA-32146-OC

Gas meter on east side of house
Photo # 15

Basement entry and rear door to house
Photo # 16