UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

AFFINITY MUTUAL INSURANCE,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 3:16-CV-279 JD
	)	
THACKER AIR CONDITIONING-REFRIGERATION-HEATING, INC.,	)	
	)	
Defendant.	)	

OPINION AND ORDER

Affinity Mutual Insurance asserts in this action that a roof collapsed as a result of a contractor's installation of heating units in trusses supporting the building's roof. To prove that the collapse occurred because of the installation of those units—as opposed to the heavy snowstorm and the pre-existing defects in the roof or other factors—it relies on an expert opinion from a structural engineer, Daniel Honig. Prior to trial, defendant Thacker Heating and Air moved to strike that opinion, arguing that it does not satisfy Rule 702's standard for admissibility. The Court discussed that motion with the parties at the final pretrial conference, after which it directed the parties to respond to specific concerns about the reliability of that opinion. [DE 102]. The parties have each responded.

For the following reasons, the Court grants the motion to exclude this opinion. Mr. Honig does not offer a sufficient explanation or analysis in support of his conclusion to show that he reliably applied an appropriate methodology. And in defense of that opinion, Affinity relies primarily on attorney argument and analysis not present in Mr. Honig's report. The Court thus cannot find that the opinion satisfies Rule 702.

I. FACTUAL BACKGROUND

At summary judgment, the Court described the pertinent facts as follows:

Dutch Village Market was an auction barn and event center in Nappanee, Indiana. The central, open area of the building was about 200 feet long and 60 feet wide, with a ceiling that was supported by wooden trusses spanning the width of the building. Various additions to the building had also been made over time. In particular, an addition had been built along the southern edge of the building. A new outer wall was built beyond the existing wall, and a new roof was built extending from the new wall to about ten feet from the top of the existing roof. The area between the old and new roofs was filled with blown-in insulation, so the structural support for the new overbuilt roof was not visible. As it turns out, however, the overbuilt roof was built such that its weight rested on top of the existing roof at the point where they met, about ten feet from the top of that roof. That manner of construction added a substantial amount of additional weight on the trusses supporting the main roof, which created "significant structural loading capacity deficiencies within th[e] preexisting roof framing system." [DE 70-1 p. 6].

In 2014, the owners of Dutch Village Market began a series of renovations to the building, which included upgrading its lighting, insulation, and heating, among other work. The general contractor for the project was Freeman Bontrager, who was also the president of the entity responsible for operations at Dutch Village Market. Thacker Heating and Air was brought in as a subcontractor to work on the heating system. Jon Thacker, its owner, proposed installing six gas furnaces, spaced about 35 feet apart along the length of the building. Mr. Bontrager and Mr. Thacker discussed where to place the units, and decided to install them overhead on the bottom chord of the trusses that supported the roof. Mr. Bontrager and his employees built wooden platforms on the trusses on which to place the furnaces.

Mr. Thacker then installed the furnaces on top of the platforms. He also ran gas lines to the units, and installed ductwork and drip pans and other associated equipment. Mr. Thacker estimated that the total weight of each assembly was about 280 pounds, though Affinity Mutual's expert estimated the weight to be 450 pounds. Prior to installing the units, Mr. Thacker and one of his employees stood on the platforms and judged them to be stable, so they had no concern that the platforms or the trusses would be unable to bear the weight of the furnaces. Mr. Bontrager did not express any concern either, and none of them were aware of the fact that the existing truss system was also bearing the weight of the roof overbuild. However, they did not consult with a structural engineer or otherwise attempt to determine the capacity of the trusses.

In early February 2015, a heavy snowstorm resulted in about 14 to 15 inches of heavy, wet snow falling in the area. That snow accumulated on the roof of the Dutch Village Market building, which significantly increased the load on the trusses. When someone began hearing cracking noises in the roof, Mr. Bontrager and

> several of his employees got on the roof to attempt to shovel the snow off. Shortly thereafter, a truss broke and a large portion of the roof collapsed.

[DE 74 p. 1–3]. After the collapse, Dutch Village Market submitted a claim to its insurer, Affinity Mutual Insurance, which paid about $1 million under the policy. Affinity then sued Thacker, asserting claims for negligence and breach of warranty, arguing that Thacker was at fault for the collapse.

In order to prove that the roof collapsed as a result of Thacker's installation of the heating units (and related components), Affinity retained Daniel Honig, a structural engineer. Mr. Honig visited the site twice, reviewed various materials, and then issued a report in which he opined that the roof collapsed as a result of Thacker's placement of the heating units. His report began by discussing the construction of the building and the trusses that supported its roof. Of particular note, he observed that the previous addition to the roof "would have significantly increased and doubled the roof deadload throughout the overbuild area." (Report p. 2). As a result of the overbuild, he noted, "the snowdrift zones affecting this roof would have been significantly altered and an unbalanced snow live load pattern would have occurred." (Report p. 3). He also opined that "there were significant structural loading capacity deficiencies within this preexisting roof system." (Report p. 5).

In his discussion, Mr. Honig noted that the heating units were installed about a week or two before the snowstorm occurred and the roof collapsed. Mr. Honig also described the condition of the building after the collapse. He noted that the units on the eastern and western ends of the building did not fall, as those areas were supported by additional vertical supports. The remaining units along the length of the building lacked those vertical supports, and the trusses along the middle of the building failed. *Id.* Mr. Honig further noted that the amount of snow that fell shortly prior to the collapse would have added only about half the amount of

weight that the building code requires a roof to sustain. *Id.* Since the weight of the snow was within the "snow loading requirements" under the code, he opined that the snow should not have caused the roof to collapse. (Report p. 4). Finally, he concluded: "Given the chronological timing of this roof collapse incident, in combination with the limited collapse location, it is clear that these structural factors were directly related to [Thacker's] HVAC installation work."[1] (Report p. 5).

Thacker moves to strike that opinion.

II. STANDARD OF REVIEW

Rule 702 governs the admission of testimony by expert witnesses. Under that rule, a witness "who is qualified as an expert by knowledge, skill, experience, training, or education" may offer an opinion if the following criteria are met:

> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
>
> (b) the testimony is based on sufficient facts or data;
>
> (c) the testimony is the product of reliable principles and methods; and
>
> (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. A court has a gatekeeping role to ensure that expert testimony meets these criteria. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993); *C.W. ex rel. Wood v. Textron, Inc.*, 807 F.3d 827, 834–35 (7th Cir. 2015). The proponent of the expert testimony bears the burden of demonstrating that the testimony meets each of those elements. *Varlen Corp. v.*

[1] Mr. Honig also opined that Thacker was negligent for failing to ensure the structural stability of the trusses before installing the heating units. Thacker moved to strike that opinion as well, but the Court does not reach that opinion in light of the exclusion of the causation opinion.

Liberty Mut. Ins. Co., No. 17-3212, 2019 WL 2135551, at *2 (7th Cir. May 16, 2019); *Lewis v. CITGO Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009).

As the Seventh Circuit has emphasized, a court does not assess "'the ultimate correctness of the expert's conclusions.'" *Textron*, 807 F.3d at 834 (quoting *Schultz v. Akzo Nobel Paints, LLC*, 721 F.3d 426, 431 (7th Cir. 2013)). Rather, a court must focus "solely on principles and methodology, not on the conclusions they generate." *Schultz*, 721 F.3d at 432 (quoting *Daubert*, 509 U.S. at 595). "So long as the principles and methodology reflect reliable scientific practice, 'vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.'" *Id.* (quoting *Daubert*, 509 U.S. at 596).

III. DISCUSSION

As discussed in the Court's previous order, the Court cannot discern any logical explanation or methodology in Mr. Honig's report for how he reached his opinion that the heating units caused the collapse. Mr. Honig notes that the roof shouldn't have collapsed because the building code required roofs to sustain about twice the amount of weight as the snowstorm here would have added. He doesn't tie that into his opinion that the heating units caused the collapse, though. He did not opine that the building complied with the code prior to the installation of the heating units, such that fault for the collapse could be attributed to those units. To the contrary, he opined that "there were significant structural loading capacity deficiencies within this preexisting roof framing system." (Report p. 5). An admission that the structure was defective even before the heating units were installed would seem to call for an analysis of that structure's capacity and whether it would have been able to withstand the snow even without the addition of the heating units. But Mr. Honig offered no analysis as to how much weight the

existing roof could have sustained. Affinity even notes that the trusses were homemade and not amenable to load-bearing calculations.

In fact, the entire analysis in Mr. Honig's report for why the heating units contributed to the roof's collapse is the following: "Given the chronological timing of this roof collapse incident, in combination with the limited collapse location, it is clear that these structural factors were directly related to [Thacker's] HVAC installation work." (Report p. 5). The report fails to provide an adequate explanation to support that conclusory assertion. First, it does not explain what Mr. Honig is referring to by the "chronological timing" of the roof collapse. The only chronology reflected in the report is that the roof collapsed during a winter storm on February 4, and the heating units were installed on January 21 and 28. "*Post hoc ergo propter hoc* is not a good way to establish causation," though. *Shafer v. Kal Kan Foods, Inc.*, 417 F.3d 663, 664 (7th Cir. 2005).

Perhaps, as Thacker suspects, Mr. Honig is assuming that if the roof had not collapsed before the heating units were installed, during which time it may have experienced similar storms, the roof would not have collapsed here without the units either. If so, the report contains no explanation to support that assumption. The report does not address how long the roof overbuild had been in place before the heating units were installed. Nor does it consider whether other previous combinations of snow and wind would have placed similar stresses on the roof.[2] And even if the roof had weathered similar storms, the report does not consider whether the roof was still in the same condition at the time of the collapse as it would have been during any previous storms—whether time, previous storms, or other wear had taken a toll on the roof, or if

[2] The amount of snow here (14 to 15 inches), though substantial, is not unheard of, but the snow here was described as "wet," "heavy" snow. [*E.g.*, DE 66-1 p. 15–16].

other modifications may have affected its load-bearing capacity.[3] Thus, the passing reference to the timing of the roof collapse does not provide support for Mr. Honig's opinion.

The report likewise makes passing reference to the "limited collapse location," but again offers no explanation for how Mr. Honig connects that factor to his opinion. Earlier in the report, where Mr. Honig notes the location of the collapse, he relates that factor to the presence of "redundant vertical supports": heating units in areas with vertical supports did not fall, while units in other areas without those supports did. (Report p. 3). Mr. Honig offers no explanation for why the trusses' failures were due to the presence of the heating units instead of the absence of vertical supports in the areas that collapsed. And to the extent he relies on the location of the collapse, he does not consider whether the weight was otherwise distributed evenly across the roof. In fact, Mr. Bontrager testified that the center area of the roof had the most snow. [DE 66-1 p. 17]. Mr. Bontrager also testified that he and other workers had shoveled snow from the west end of the roof before the collapse. *Id.* And it was primarily the center area of the roof that experienced the collapse. The report, however, offers nothing more than a conclusory reference to the "limited collapse location," failing to show that Mr. Honig reliably evaluated that factor and that his analysis of that factor supports his opinion.

This lack of analysis and explanation is fatal to Mr. Honig's opinion. There is no dispute that Mr. Honig is a qualified structural engineer. "But even the most 'supremely qualified expert cannot waltz into the courtroom and render opinions unless those opinions are based upon some recognized scientific method and are reliable and relevant . . . .'" *Am. Honda Motor Co., Inc. v. Allen*, 600 F.3d 813, 817 (7th Cir. 2010) (quoting *Clark v. Takata Corp.*, 192 F.3d 750, 759 n.5

[3] For example, additional polyurethane insulation had recently been added along the inside of the roof. [DE 66-1 p. 19].

(7th Cir. 1999). The proponent of the testimony has to show that the expert in fact based the opinions on a reliable methodology.

The Seventh Circuit addressed a similar expert opinion in its recent decision in *Varlen*, 2019 WL 2135551. There, an expert was retained to opine on the cause of a chemical spill. He claimed to base his opinion "on his experience . . . , his site visits, and his knowledge of the sites' operations." *Id.* at *2. The court noted that this type of opinion "is not necessarily unreliable," but that the expert "still needed to show how his experience or expertise led to his conclusions." *Id.* But while the expert purported to draw inferences from certain data about the spill, he "failed to explain why this data mattered or why his inferences were justified," "he didn't explain why [a certain factor] was significant," and otherwise "offered no methodology to explain how he drew those conclusions." *Id.* at *3. The court thus affirmed the exclusion of this testimony. It explained, "To satisfy *Daubert*, [the expert] needed to provide an explanation of how the evidence led to his conclusions. He had to articulate a justification for his inference . . . beyond a simple say-so." *Id.* Without such an explanation, the proponent failed to establish that the testimony satisfied Rule 702, so the testimony was not admissible.

Mr. Honig's opinions suffer from the same shortcomings. As Affinity argues, Mr. Honig is a qualified structural engineer, and he conducted two site visits. But while his report refers in passing to certain factors as the basis for his opinion, it fails to offer any explanation for why those factors are significant or why his inferences were justified. Nor does it show that Mr. Honig reliably evaluated those factors to allow him to draw a reliable opinion as to the cause of the collapse. Without a showing that Mr. Honig grounded his opinions in a reliable methodology, his opinions cannot be admitted.

In its response to the Court's order, Affinity attempted to address some of these concerns, but its arguments fall short. Affinity's defense of Mr. Honig's opinion is built largely on attorney argument, with counsel mining the pictures attached to Mr. Honig's report and other materials Mr. Honig claims to have reviewed in order to construct an explanation in support of Mr. Honig's opinions. Mr. Honig did not offer that explanation or purport to rely on that analysis, though, and it would be plainly prejudicial for Mr. Honig to offer those new justifications for the first time at this stage. For example, Affinity argues that the roof addition had been built in 1986, and that the roof had never collapsed "despite the widest variety of snow and weather loads experienced through those 30+ years."[4] [DE 105]. Mr. Honig's report does not reflect any awareness of when the roof overbuild was added, though, nor does it note any other weather conditions that had ever occurred in the area prior to the storm that precipitated the collapse. The report does not suggest that Mr. Honig considered either of those factors, and it provides no explanation for how he evaluated them if he did.[5]

Affinity's brief likewise argues that the pictures attached to the end of Mr. Honig's report show that the truss failures were all under or next to the new heating units, which counsel argues shows that the units were responsible for the failures. Again, however, Mr. Honig's report does not reflect that analysis; Mr. Honig never made that observation, offered that explanation, or purported to rely on that factor. The pictures counsel cites in support of this argument do not

[4] Affinity also argues that Mr. Honig reviewed historical weather data, but its citations do not support that assertion. For example, it notes that one document referenced in Mr. Honig's report "contained *links* to historic weather records," [DE 105 p. 4 (emphasis added)], but his report does not suggest he followed those links or reviewed that information. And the document Affinity appears to be referring to does not contain that information. [DE 66-4 (National Weather Service Report for January 31 to February 2, 2015 Snowstorm, dated May 24, 2016)].

[5] Nor, as noted above, did Mr. Honig consider whether the roof was otherwise in the same condition at the time of the collapse as it was during any previous storms.

appear to support this argument, either. Though they show some truss failures under or next to the heating units, they also show other failures that are not close to the units (Report p. 9–10), and some units with no apparent failures in the adjacent trusses (Report p. 11, 13, 14). This explanation does not salvage Mr. Honig's opinion, either.

Affinity also notes that Thacker never took Mr. Honig's deposition, which Affinity implies would have elucidated these opinions, but that is immaterial. Under Rule 26(a)(2)(B), an expert must provide "a complete statement of all opinions the witness will express *and the basis and reasons for them*." Fed. R. Civ. P. 26(a)(2)(B)(i) (emphasis added). "Expert reports must include 'how' and 'why' the expert reached a particular result, not merely the expert's conclusory opinions." *Salgado by Salgado v. Gen'l Motors Corp.*, 150 F.3d 735, 741 n.6 (7th Cir. 1998). The reason for that disclosure requirement is so that "opposing counsel is not forced to depose an expert in order to avoid ambush at trial[.]" *Id.*; *Ciomber v. Cooperative Plus, Inc.*, 527 F.3d 635, 642 (7th Cir. 2008) ("The purpose of Rule 26(a)(2) is to provide notice to opposing counsel—before the deposition—as to what the expert witness will testify[.]"). As the Seventh Circuit noted in *Ciomber*, "this purpose would be completely undermined if parties were allowed to cure deficient reports with later deposition testimony." 527 F.3d at 642. Thacker's decision not to depose Mr. Honig does not excuse Mr. Honig from his obligation to provide a complete explanation for this opinion, nor does it allow Affinity to supply that explanation for the first time at this late stage.

Ultimately, the Court agrees with Thacker that Mr. Honig has not reliably applied his expertise in reaching his opinion. Mr. Honig appears to have assumed, as might a lay individual, that because the roof collapsed shortly after the heating units were installed, the roof collapsed because the heating units were installed. But the Rules of Evidence (and logic) require more. A

lay witness would not be permitted to offer that kind of speculation about the cause of this incident. Fed. R. Evid. 701; *Plyler v. Whirlpool Corp.*, 751 F.3d 509, 514 (7th Cir. 2014) (holding that a lay witness could testify to his observations of a fire, but could not draw inferences about its origin). Nor is that same speculation admissible merely because it is offered through a witness with expert qualifications. *Am. Honda Motor Co.*, 600 F.3d at 817. For the opinion to be admitted, the expert must reliably apply a reliable methodology in reaching that opinion. *Id.* Because Affinity has not shown that Mr. Honig did so, the Court grants the motion to exclude that opinion.

With that testimony excluded, it does not appear that Affinity has evidence to offer from which a jury could conclude that the roof collapse resulted from Thacker's conduct. In fact, Affinity previously stated that its case "is indisputably dependent on expert witness testimony to prove causation as to the roof collapse." [DE 97 p. 8]. That appears correct, as a lay jury would be unable to decide on its own what caused the roof to collapse. Proceeding to trial without this evidence, in which case a Rule 50 motion would be a foregone conclusion, would be wasteful. Instead, the Court will vacate trial and order Affinity to show cause why the Court should not enter summary judgment. Fed. R. Civ. P. 56(f)(3) (authorizing a court to "consider summary judgment on its own after identifying for the parties material facts that may not be genuinely in dispute").

IV. CONCLUSION

For those reasons, the Court GRANTS Thacker's motion to strike [DE 86] as to Mr. Honig's causation opinion. The Court does not reach the opinion on the standard of care.

Accordingly, the Court VACATES the existing trial date and ORDERS Affinity to show cause why the Court should not enter summary judgment for lack of evidence of causation. Affinity's response shall be due by June 3, 2019. Thacker may file a reply by June 17, 2019.

SO ORDERED.

ENTERED: May 20, 2019

/s/ JON E. DEGUILIO
Judge
United States District Court