

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF KENTUCKY
OWENSBORO DIVISION

CIVIL ACTION NO. 4:18-CV-00016-JHM

ADA-ES, INC.

PLAINTIFF(S)

V.

BIG RIVERS ELECTRIC CORPORATION

DEFENDANT(S)

MEMORANDUM OPINION AND ORDER

This matter is before the Court on ADA-ES, Inc.’s *Daubert* Motions to Exclude Expert Testimony of Lew Benson and Jack Hilbert [DN 167, 169] and Big Rivers Electric Corporation’s *Daubert* Motions to Exclude Expert Testimony of Paul Ireland and Eric Klein. [DN 162, 168]. Fully briefed, this matter is ripe for decision. For the following reasons, ADA’s Motion to Exclude Lew Benson is **GRANTED IN PART** and **DENIED AS MOOT IN PART**. ADA’s Motion to Exclude Jack Hilbert is **GRANTED**. Big Rivers’ Motion to Exclude Paul Ireland is **DENIED AS MOOT**. Big Rivers’ Motion to Exclude Eric Klein is **DENIED AS MOOT**.

I. BACKGROUND

Plaintiff ADA-ES, Inc. (“ADA”) contracted with Defendant Big Rivers Electric Corporation (“Big Rivers”) to engineer and deliver a Dry Sorbent Injection (“DSI”) system at Big Rivers’ Wilson Station power plant in Centertown, Kentucky. [DN 20, DN 74]. The purpose of the DSI system was to reduce sulfur trioxide (“SO₃”) emissions. [*Id.*]. When the DSI system allegedly failed to reduce SO₃ emissions to the contractually agreed-upon five parts per million, Big Rivers withheld more than \$580,000 in payments and drew on a \$807,000 letter of credit that ADA had posted as security for the contract. [DN 20]. In response, ADA sued Big Rivers for breach of contract, fraud, and breach of warranty. [*Id.*]. Big Rivers counterclaimed

for breach of contract and breach of warranty. [DN 74]. The primary dispute between the parties is the type of hydrated lime that Big Rivers was required to use for the performance test. ADA claims Big Rivers used the wrong hydrated lime and the DSI system can reduce SO₃ emissions to five parts per million with the correct hydrated lime; Big Rivers claims it used a hydrated lime permitted by the contract.

Discovery in the case recently closed and both parties seek to exclude the opposing party's experts. ADA moves to exclude Big Rivers' two expert witnesses, Lew Benson and Jack Hilbert. [DN 167, DN 169]. Big Rivers moves to exclude ADA's two expert witnesses, Paul Ireland and Eric Klein. [DN 162, 168].

II. STANDARD OF REVIEW

Both parties seek to exclude the opposing party's expert witnesses, arguing that their opinions do not meet the standards of Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

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; (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.” Under Rule 702, the trial judge acts as a gatekeeper to ensure that expert evidence is both reliable and relevant. *Johnson v. Manitowoc Boom Trucks, Inc.*, 484 F.3d 426, 429 (6th Cir. 2007).

Parsing the language of the Rule, it is evident that a proposed expert's opinion is admissible, at the discretion of the trial court, if the opinion satisfies three requirements. First, the witness must be qualified by “knowledge, skill, experience, training, or education.” FED. R. EVID. 702. Second, the testimony

must be relevant, meaning that it “will assist the trier of fact to understand the evidence or to determine a fact in issue.” *Id.* Third, the testimony must be reliable. *Id.*

In re Scrap Metal Antitrust Litig., 527 F.3d 517, 528–29 (6th Cir. 2008). “Rule 702 guides the trial court by providing general standards to assess reliability.” *Id.* at 529.

In determining whether testimony is reliable, the Court’s focus “must be solely on principles and methodology, not on the conclusions that they generate.” *Daubert*, 509 U.S. at 595. The Supreme Court identified a nonexhaustive list of factors that may help the Court in assessing the reliability of a proposed expert’s opinion. These factors include: (1) whether a theory or technique can be or has been tested; (2) whether the theory has been subjected to peer review and publication; (3) whether the technique has a known or potential rate of error; and (4) whether the theory or technique enjoys “general acceptance” within a “relevant scientific community.” *Id.* at 592–94. This gatekeeping role is not limited to expert testimony based on scientific knowledge, but instead extends to “all ‘scientific,’ ‘technical,’ or ‘other specialized’ matters” within the scope of Rule 702. *Kumho Tire*, 526 U.S. at 147. Whether the Court applies these factors to assess the reliability of an expert’s testimony “depend[s] on the nature of the issue, the expert’s particular expertise, and the subject of his testimony.” *Id.* at 150 (quotation omitted). Any weakness in the underlying factual basis bears on the weight, as opposed to admissibility, of the evidence. *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 530; *see also Brooks v. Caterpillar Glob. Mining Am., LLC*, No. 4:14-cv-22-JHM, 2017 WL 5633216, at *1–2 (W.D. Ky. Nov. 22, 2017).

III. DISCUSSION

A. Opinions About Usage of Trade and Contract Interpretation

Many of the challenged expert opinions involve the trade meaning of “enhanced” or “high reactivity” hydrated lime. In the accompanying summary judgment order, however, the Court determined the contract documents are unambiguous solely based on negotiations between the parties. [DN 214]. Usage of trade was not necessary to resolve the words’ meaning. *See* Restatement (Second) of Contracts § 203 cmt. d (stating that a reviewing court should consider negotiations and course of performance before considering usage of trade because “parties to agreements . . . may depart from a usage of trade”). Resultingly, expert opinions on this issue are moot.

B. ADA’s Motion to Exclude Lew Benson

Big Rivers’ first expert is Lew Benson, a chemical engineer with thirty-five years of experience in air pollutant emission controls. He has extensive experience with hydrated lime as a sorbent to reduce SO₃ emissions in power plants. [DN 169-1 at 2–3]. Benson’s expert report addresses five separate issues: (1) DSI industry terminology for hydrated lime, (2) ADA’s methods for determining its performance calculations, (3) ADA’s DSI system design, (4) Big Rivers’ performance test compliance, and (5) the amount of hydrated lime the DSI system at Wilson Station requires to reduce SO₃ emissions to five parts per million.

Four of Benson’s five opinions involve issues resolved by the Court, without the assistance of expert testimony, in the summary judgment order. Those opinions are moot. Only Benson’s third opinion remains. Benson’s third opinion concludes that (1) ADA used a “tapered splitter” piping design instead of the industry-accepted “symmetrical” piping design¹ at Wilson

¹ The “symmetrical” and “tapered splitter” piping designs are two methods of dispersing hydrated lime into a DSI system. The “symmetrical” design of hydrated lime dispersion looks like a series of (symmetrical) forks in the

Station and (2) ADA’s design is susceptible to “roping” issues.² [DN 169-1 at 32–34]. In Benson’s opinion, these two design problems render the DSI system “fundamentally flawed” because it probably does not evenly distribute hydrated lime, and a high-performing DSI system requires even hydrated lime distribution. Benson states that the only way to fix the system is “to remove and replace essentially all of the piping and splitters.” [*Id.* at 34]. ADA moves to exclude this testimony for lack of qualifications and reliability.

1. Qualified

A witness can be qualified as an expert by “knowledge, skill, experience, training, or education.” FED. R. EVID. 702. “[T]o be qualified as an expert witness under Rule 702, an expert need not be a ‘blue-ribbon practitioner with optimal qualifications’” *Jackson v. E-Z-GO Div. of Textron, Inc.*, 326 F. Supp. 3d 375, 387–88 (W.D. Ky. 2018) (quoting *Ashland Hosp. Corp. v. Affiliated FM Ins. Co.*, No. 11-16, 2013 WL 3213051, at *2 (E.D. Ky. June 24, 2013)) (cleaned up). “In other words, experts need not even have direct experience with the precise subject matter or product at issue.” *Id.* at 388.

The Court finds that Benson is qualified to offer opinions about the DSI industry and DSI system design. While he is not a mechanical engineer, he has extensive experience with DSI system design and performance calculations. In particular, his thirty-five years of experience provide sufficient knowledge of air pollutants to opine on potential issues with the DSI system.

road. The hydrated lime starts in one main line, then splits into two lines, then splits into four lines before it enters the DSI system. The most important part is that the design is symmetrical on all sides. Comparatively, the “tapered splitter” design looks like a subway train line. The hydrated lime flows down one main line and there are a series of “stops” along the line where hydrated lime exits into the DSI system. Benson claims the symmetrical design is superior because it results in even distribution of hydrated lime into the DSI system, which is important for efficient SO₃ capture. ADA used the tapered splitter design.

² “Roping” occurs when small particles travel through a long elbow-shaped curve in a pipe. The small particles clump in the corner of the elbow-shaped curve. When they are dislodged from this clump, the particles travel in a narrow line. This narrow line of particles looks like a rope (giving rise to the “roping” terminology). Roping is problematic because it results in uneven hydrated lime flow into the DSI system. Benson claims ADA’s system was highly susceptible to roping.

2. Reliable

A proposed expert's testimony must be "the product of reliable principles and methods." FED. R. EVID. 702(c). Rule 702 and Daubert provide the basic reliability factors, but the Sixth Circuit has recognized that the reliability determination is "flexible." *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 528–29. Courts routinely exclude experts for lack of reliability if the expert's opinion is based on a "subjective belief" rather than objective methodology. *Madej v. Maiden*, 951 F.3d 364, 375 (6th Cir. 2020).

Here, the Court finds Benson's conclusions that the DSI system is "fundamentally flawed" and must be replaced do not satisfy *Daubert's* reliability standard, but his conclusions about potential issues with the design are reliable and satisfy Rule 702.

Benson reached his conclusions through the following analytical progression. First, Benson analyzed ADA's calculations to determine how it reached its expected hydrated lime flow rate. Second, he determined ADA's performance calculations were based on even distribution of hydrated lime. Third, he examined ADA's design at Wilson Station. He saw that ADA used the tapered splitter piping design (instead of a symmetrical design), and he saw that long elbow-shaped pipes left the system susceptible to "roping." Fourth, Benson concluded these two design choices meant the DSI system was "unlikely" to have even hydrated lime flow. Fifth, since ADA's performance calculations were based on even hydrated lime flow, Benson determined the system could not reach its performance calculations. Therefore, he reasoned, the system must be removed and replaced with a new system. [DN 169-1 at 4, 6, 32–34; DN 181-1 at 229:22–235:15].

Benson's conclusions about the DSI system's actual performance fail because the fourth step in this analytical progression is speculative and unreliable. Benson's conclusions all rest on

this fourth step—the step where Benson determined that the tapered splitter design and long elbow-shaped pipes cause uneven hydrated lime dispersion into the DSI system. This is a hypothesis. And this hypothesis, coming from an industry expert, appears reasonable on its face. The glaring issue, however, is that Benson *never tested* this hypothesis. [DN 181-1 at 234:8 (“I did not do any testing.”)]. There is no proof that there actually is uneven sorbent dispersion at Wilson Station. And Benson has never tested a tapered splitter design. He had never seen a tapered splitter design before this case. So, he had no way of knowing whether the tapered splitter design *actually* created uneven dispersion. He just assumed it did. Likewise, he never tested his hypothesis that the long elbow-shaped pipes caused “roping.”

Big Rivers concedes this hypothesis could have been tested. It was not. Without any testing, the Court is left with the unmistakable conclusion that Benson’s opinion about the system’s effectiveness is nothing but the subjective belief of an expert that must be excluded. *See Madej*, 951 F.3d at 375; *Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 670 (6th Cir. 2010) (“That is a plausible hypothesis. It may even be right. But it is no more than a hypothesis, and it thus is not . . . the ‘product of reliable principles and methods applied reliably to the facts of the case.’” (quoting FED. R. EVID. 702)); *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996) (Posner, J.) (“[T]he courtroom is not the place for scientific guesswork, even of the inspired sort.”).

Big Rivers raises two claims in hopes of salvaging Benson’s testimony about the system’s effectiveness. Neither is persuasive. First, Big Rivers claims on-site testing was not required because Benson has tested and studied many different DSI systems over the years. But Benson admitted he had never seen nor tested a DSI system with a tapered splitter design. So,

while he is qualified to say “I have not seen this design and I am skeptical it will work,” he cannot say “this design does not work.”

Second, Big Rivers suggests Benson’s opinion is not entirely devoid of factual support—it points to an ADA internal presentation, produced in discovery, identifying issues with a different DSI system that ADA designed for a different power plant. [See DN 181-3]. But the presentation does not provide factual support for Benson’s opinion—the presentation was about an entirely different power plant. There is no evidence ADA used a tapered splitter design at the other power plant, no evidence of a roping problem at that power plant, and no evidence that uneven sorbent dispersion caused the alleged problems at that power plant. This presentation does not provide a reliable basis for Benson’s opinion that the DSI system is “fundamentally flawed” and must be replaced.

Therefore, ADA’s motion to exclude Benson’s third expert opinion is **GRANTED** as to Benson’s opinion about uneven dispersion at Wilson Station. ADA’s motion to exclude Benson’s first, second, fourth, and fifth expert opinions is **DENIED AS MOOT**.

C. ADA’s Motion to Exclude Jack Hilbert

Big Rivers also retained Jack Hilbert to give an opinion on ADA’s DSI system design at Wilson Station. Hilbert has forty-five years of industry experience as a design engineer and recently owned his own consulting firm that designed DSI systems for coal-fired power plants. Hilbert’s report covers much of the same ground as Benson’s third opinion. He opines that (1) symmetrical piping design is superior to the tapered splitter design because the tapered splitter design risks uneven sorbent distribution and “plugging” issues, (2) ADA’s tapered splitter design and elbow-shaped pipe curves created a risk of uneven sorbent distribution and plugging, and (3) the piping must be “substantially rerouted” to fix the issues.

ADA moves to exclude Hilbert because his report lacks reliability—like Benson, he conducted no validation testing, did not consider alternatives, and based his opinions on anecdotal evidence.

Certain elements of Hilbert’s report are more reliable than Benson’s. Hilbert has experience designing DSI systems and experience with the tapered splitter pipe design. But Hilbert’s opinion suffers from the same fatal defect as Benson’s: Big Rivers has no evidence that there actually is an uneven sorbent distribution problem in the first instance. Therefore, any opinion about potential solutions is inherently unreliable because there is no factual basis that the problem exists at all. *See* FED. R. EVID. 702(c). It is a solution to a problem that may not exist.

Big Rivers argues the failed performance test is evidence of the dispersion problem. But this is merely Big Rivers’ hypothesis. Comparatively, ADA’s hypothesis is that there are no performance or design issues—Big Rivers simply used the wrong sorbent and did not calibrate the feeders correctly. Big Rivers’ hypothesis has not been tested and discovery is closed. It is necessarily unreliable and must be excluded under Rule 702. *Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 670 (6th Cir. 2010); *Pride v. BIC Corp.*, 218 F.3d 566, 578 (6th Cir. 2000) (affirming a district court’s exclusion of expert testimony when the experts failed to test or validate their hypothesis).

ADA’s motion to exclude Hilbert’s testimony is **GRANTED**.

D. Big Rivers’ Motion to Exclude Paul Ireland

ADA’s first expert is Paul Ireland. [DN 168-3]. Ireland opines on several topics in his expert report, but many of them are no longer relevant in light of the Court’s summary judgment order. Ireland’s remaining relevant opinion involves Big Rivers’ Breach of Express Warranties counterclaim—he states that the DSI system met industry standards and discusses design features

that render it “state of the art.” [DN 168-3 at 61–63]. However, Big Rivers’ motion does not challenge this opinion.³ [See DN 168 at 10–25; DN 199]. Therefore, Big Rivers’ motion to exclude Paul Ireland’s expert opinions is **DENIED AS MOOT**.

E. Big Rivers’ Motion to Exclude Eric Klein

ADA’s final proposed expert is Eric Klein, a chemical engineer with nineteen years of experience in the air quality control sector. [DN 162-3 at 54–56]. His expert opinion covers three main issues: (1) grade of hydrated lime required by the contract documents, (2) meaning of “enhanced” and “high reactivity” hydrated lime in the DSI industry, and (3) whether the DSI system could reach the 5 ppm emissions guarantee with HR Hydrated Lime. [*Id.* at 25–41].

The Court does not believe that any of these issues remain in dispute after the summary judgment order. The first two opinions fall solely within the issue of contractually required hydrated lime quality, which the Court resolved on summary judgment without needing to consider usage of trade. The third opinion, which states that the DSI system would satisfy the 5 ppm emissions guarantee with HR Hydrated Lime, also does not appear to relate to any remaining causes of action—Big Rivers’ counterclaim for Breach of Express Warranties is the only remaining cause of action that involves DSI system performance at all. But the evidence supporting that counterclaim solely relates to ADA’s DSI system *design*, while Klein’s opinion considers DSI system *performance*. [See *id.* at 31–41]. Therefore, Big Rivers’ motion to exclude Eric Klein’s expert opinions is **DENIED AS MOOT**.

IV. CONCLUSION

For the reasons set forth above, **IT IS HEREBY ORDERED** that ADA’s *Daubert* Motion to Exclude Lew Benson [DN 169] is **GRANTED IN PART** and **DENIED AS MOOT**

³ Big Rivers lodges a vague qualifications challenge at Ireland’s testimony. [DN 168 at 21–25]. This challenge does not appear to cover Ireland’s opinion on industry standards, but to the extent that it does, the Court finds that Ireland is qualified to give this testimony.

IN PART. ADA's *Daubert* Motion to Exclude Jack Hilbert [DN 167] is **GRANTED**. Big Rivers' *Daubert* Motion to Exclude Paul Ireland [DN 168] is **DENIED AS MOOT**. Big Rivers' *Daubert* Motion to Exclude Eric Klein [DN 162] is **DENIED AS MOOT**.



Joseph H. McKinley Jr., Senior Judge
United States District Court

November 23, 2020

cc: Counsel of Record