IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF NORTH CAROLINA
CHARLOTTE DIVISION
3:21-cv-00171-RJC-WCM

ELECTROLYSIS PREVENTION SOLUTIONS LLC, Plaintiff, v. DAIMLER TRUCK NORTH AMERICA LLC, Defendant.	)	ORDER

This matter is before the Court on Defendant Daimler Truck North America LLC's Motion to Exclude Testimony and Evidence about Resistivity and Benchtop Testing (the "Motion to Exclude," Doc. 163) and Defendant Daimler Truck North America LLC's Motion to Strike Untimely Expert Opinions (the "Motion to Strike," Doc. 186), which have been referred to the undersigned.

I. Relevant Background

On April 19, 2021, Electrolysis Prevention Solutions, LLC ("EPS") filed its Complaint for Patent Infringement, alleging infringement by Daimler Trucks North America LLC ("DTNA") of U.S. Patent No. RE47,494 (the "'494

Patent"), which was issued on July 9, 2019. Doc. 1.[1] EPS alleged that the inventions claimed in the '494 Patent related "generally to improved radiators with an electrolysis prevention device in the form of a sacrificial anode" and that DTNA, by "making, using, offering for sale, selling and/or importing radiators," had infringed, and continued to infringe, on one or more claims of the '494 Patent. Doc. 1 at 4.

On April 12, 2022, the presiding District Judge conducted a hearing to consider the scope of the claims set out in the '494 Patent. See Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996); Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). Following that hearing, the Court issued an Order (the "Markman Order," Doc. 41). The Markman Order explained that the '494 Patent was "directed to a solution for preventing corrosion in the cooling systems of motor vehicles caused by electrolysis." See Doc. 41 at 2. Specifically, although prior art had previously used "sacrificial anodes" to attract electric current away from other metals, the '494 Patent proposed to locate the sacrificial anode in a more optimal position. Id. at 3. The Markman Order further noted that the parties had reached an agreed construction of the term "sacrificial anode" to mean a "piece of metal

[1] In October of 2022, the docket was amended to reflect that DTNA's name had been changed to "Daimler Truck North America LLC." See Docs. 65, 67, and text-only order entered on October 26, 2022.

used to protect another piece of metal by preferentially corroding." Id. at 8.

On July 24, 2023, DTNA was granted leave to amend its invalidity contentions to assert the "Paccar Mod8" (the "Mod8") and "Martin Accessory" as prior art. Doc. 146. The parties were also granted leave to conduct additional court-enforceable discovery related to the Mod8 and the Martin Accessory through and including August 18, 2023. Id. Expert discovery was extended through August 18, 2023. Id.

On August 18, 2023, the following motions were filed:

1. EPS's Motion to Strike and Exclude Evidence and Expert Opinions Regarding Alleged Noninfringing Alternatives as Untimely and Pursuant to Daubert (Doc. 159);

2. DTNA's Omnibus Notice of Motions and Motions for Summary Judgment (Doc. 162);

3. DTNA's Motion to Exclude (Doc. 163);

4. DTNA's Motion to Exclude Certain Opinions of Mr. Stephen Holzen (Doc. 164); and

5. EPS's Motion for Partial Summary Judgment of Validity (Doc. 165).

On September 1, 2023, DTNA filed the Motion to Strike (Doc. 186).

On October 27, 2023, the remaining pretrial deadlines were stayed and the January 2, 2024 trial setting was canceled, to be reset at a later time. Doc. 225.

II. The Motion to Exclude (Doc. 163)

A. Legal Standard

Rule 702 of the Federal Rules of Evidence states 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:
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> (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;
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> (b) the testimony is based on sufficient facts or data;
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> (c) the testimony is the product of reliable principles and methods; and
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> (d) the expert has reliably applied the principles and methods to the facts of the case.

Admissible expert testimony must be both relevant and reliable. See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Where a party seeks to exclude expert testimony as unreliable, the following factors may be considered:

> (1) whether a theory or technique can be or has been tested; (2) whether it has been subjected to peer review and publication; (3) whether a technique has a high known or potential rate of error and whether there are standards controlling its operation; and (4) whether the theory or technique enjoys general acceptance within a relevant scientific community.
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> Hickerson v. Yamaha Motor Corp., 882 F.3d 476, 480-481 (4th Cir. 2018) (quoting Cooper v. Smith & Nephew, Inc., 259 F.3d 194, 199 (4th Cir. 2001) (citing

Daubert, 509 U.S. at 592–94)).

The Fourth Circuit has further explained that the "Rule 702 inquiry is 'a flexible one,' and the *Daubert* factors are 'helpful, not definitive.' When applying these standards, courts 'should be conscious of two guiding, and sometimes competing, principles[:] Rule 702 was intended to liberalize the introduction of relevant expert evidence [and] expert witnesses have the potential to be both powerful and quite misleading.'" Hickerson, 882 F.3d at 481 (citations omitted). "Furthermore, post-Daubert decisions have shown 'that the rejection of expert testimony is the exception rather than the rule.' 'Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof' remain 'traditional and appropriate means' of attacking expert testimony that has been admitted by the trial judge." Herrera v. Sherrill, Inc., No. TDC-16-1753, 2023 WL 2245250, at *3 (D. Md. Feb. 27, 2023) (quoting Fed R. Evid. 702 advisory committee's note to 2000 amendment; Daubert, 509 U.S. at 596).

B. Discussion

By this Motion, DTNA seeks to exclude "resistivity" and "benchtop" testing conducted for EPS by Bradley Krantz, the Vice President of Corrosion Testing Labs,[2] as well as the opinions of Mr. Krantz and Dr. David Rockstraw

[2] A full copy of Mr. Krantz's report appears in the record. Doc. 165-28.

that are based on that testing.

1. Resistivity Testing

a. Methodology

The parties appear to agree that "resistivity" is a property of metal that represents how resistant or conductive the metal is. See Doc. 169-12 at 6. Further, DTNA acknowledges that the "B193-20 standard is certainly a scientifically-acceptable way to reliably measure resistivity." Doc. 169-12 at 11.[3] DTNA argues, though, that Mr. Krantz's testing departed from that standard in numerous, significant ways. Doc. 169-12 at 6.

However, the undersigned is not persuaded that Mr. Krantz's alleged departures from ASTM B193-20 in this case are so significant that the testing should be excluded at this time. Cf. Rembrandt Vision Technologies, L.P. v. Johnson & Johnson Vision Care, Inc., 282 F.R.D. 655, 666 (M.D. Fl. 2012) (finding an expert's methodology to be unreliable where the expert's testing protocol – which was revised significantly by the expert through cross examination at trial – "contained serious deviations from the applicable scientific standards" and where the expert "failure to keep proper records and documentation of his procedures" rendered the testing "not reproducible….").

Although DTNA argues that Mr. Krantz failed to follow very specific

[3] A copy of ASTM B193-20 was submitted in conjunction with DTNA's reply. Doc. 196-1.

requirements with respect to the testing equipment and the length and shape of the sample materials, Doc. 169-12 at 11-12, EPS asserts that Mr. Krantz prepared the tube metal samples "to have the same cross-sectional area as the tube inserts," "cleaned the samples using a standard technique," and used a "commercially available milli-ohmmeter." Doc. 175 at 10.[4]

Further, DTNA contends that these departures resulted in its own expert, Dr. Wendy Sanders, being unable to reproduce Mr. Krantz's testing results. However, EPS argues that Dr. Sanders was able to repeat the resistivity testing,[5] and that, in any event, even if "known" resistivity values were used (instead of the values determined by Mr. Krantz), those known values would also support EPS's experts' conclusions. See Doc. 175 at 12.[6]

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[4] Mr. Krantz represented during his deposition that he requested longer sample material but was told obtaining such lengths was not practical. 163-3 (46:14-22); see also 163-3 (53:24-25 ("The anodes, you only had so much material available. Same with the tubes")); Doc. 175 at 19 (EPS's assertion that because the tube inserts are substantially smaller than the length required by ASTM B193-20, it would not have been possible to meet this length requirement). Although DTNA asserts in its reply brief that "the tubes are several feet long," it does not address the length of the tube inserts themselves.

[5] Dr. Sanders indicated in her report that the "test method" employed was "fairly repeatable," although she asserted the test results themselves were "highly unreliable as to all resistivity values." Doc. 169-13 at 42 (sealed).

[6] DTNA also asserts that Mr. Krantz failed to follow other "procedural steps," included ensuring that the standard temperature requirement was met. With respect to temperature requirements, Mr. Krantz testified that, although he did not record the temperature in the room at the time he took his measurements, he believed the temperature was "approximately 20 degrees C" based on the thermostat's setting.

b. Relevancy

DTNA further argues that neither resistance nor resistivity are relevant to determining a corrosion rate. Doc. 169-12 at 15. DTNA also appears to argue that even if resistance is relevant to the question of corrosion, EPS's experts improperly conflate resistivity with resistance.

It is not clear, though, from the materials provided, that EPS's experts assert that resistivity is the only factor relevant to corrosion. See e.g., Doc. 169-12 at 15 (quoting Dr. Rockstraw's deposition in which he stated "[r]esistance of a particular piece of metal…depends *not only* on the metal's inherent resistivity, but also the 'geometry and mass of the material.'") (emphasis added); Doc. 169-12 at 15 (quoting Michael Nranian, P.E.'s Opening Report in which Mr. Nranian stated that "lower Volume Resistivity *also* demonstrated that the tube inserts protect the tube metal…") (emphasis added); see also Doc. 169-16 at 5 (244:1-5) (Mr. Nranian's deposition in which he agreed that knowing the resistivity of metals would not be enough to conclude that the accused products contain sacrificial anodes).

Further, DTNA's expert, Dr. Sanders, referenced the two concepts. See Doc. 169-13 at 43, ¶ 107 ("Having half of the leads for the tube piece in contact with the cladding and the other half in contact with the smooth aluminum on the interior of the tube as Mr. Krantz did significantly increases the measured resistance and therefore resistivity of the sample.").

2. Benchtop Testing

Mr. Krantz also conducted what the parties refer to as "benchtop" testing.[7] DTNA contends that this testing was, at most, "inspired" by a separate testing standard and that, in any event, the testing designed by Mr. Krantz is irrelevant. Doc. 169-12 at 7.

The undersigned is likewise not persuaded that Mr. Krantz's benchtop testing, or the expert opinions based on that testimony, should be excluded.

First, DTNA contends that the benchtop testing "is irrelevant because it doesn't even attempt to model what happens in the radiator." Doc. 169-12 at 17 (citing In re: Pella Corp. Architect and Designer Series Windows Marketing, Sales Practices and Products Liability Litigation, 214 F.Supp.3d 478, 485 (D.S.C. 2016) (finding an expert's methodology was not scientifically reliable where expert conducted test using "unrealistic conditions" and in a manner that failed to account for the "actual conditions the product experienced" and was "inconsistent with the general purposes underlying ASTM E2128," which was to "simulate the actual conditions under which [water] leakage has been observed.")).

However, Mr. Krantz testified that the benchtop testing was designed to explore how the introduction of a sacrificial anode could affect stray current.

[7] EPS explains that the benchtop testing measured the "mass loss rate" and corrosion rate of the tube and the tube insert. See Doc. 175 at 9.

Doc. 163-3 at 13 (120:13-16).

Second, DTNA concedes that its own testing conducted by Anodico Corporation ("Anodico") replicated EPS's "setup and test." Doc. 169-12 at 24. That testing, according to EPS, indicated that "in every Anodico test run that included tube insert(s), the mass loss and corrosion rates of the tube insert(s) exceeded those of the tube metal samples (either in the same or different beaker)." Doc. 175 at 27. DTNA does not challenge this statement but rather contends that in any test in which two pieces of metal are placed in parallel in one cell, and one piece of metal is placed separately in another cell, the single piece of metal will corrode at a higher rate (simply because more current is flowing through that piece). See Doc. 169-12 at 24-25 ("As one would expect given the setup of the test, the tube portions in the second beaker corroded less than the tube portion in the first beaker – because they experienced less current. Applying the logic used by EPS's experts, this would mean that the tube material acted as a sacrificial anode for the tube material – a ridiculous assertion.").

In sum, although DTNA raises several concerns regarding Mr. Krantz's resistivity and benchtop testing, and the opinions derived from that testing, the undersigned is not persuaded that these concerns should result in the complete exclusion of the testing, or the expert opinions based thereon, at this stage of the litigation. See Shire Viropharma Inc. v. CSL Behrin LLC, No. 17-

414, 2021 WL 1227097 at (D. Del. March 31, 2021) ("Importantly, the rule does not require the party proffering the expert to demonstrate the 'correctness' of the expert's opinion. Rather, the party need only demonstrate 'by a preponderance of the evidence' that the expert's opinion bears adequate indicia of reliability.") (internal citations omitted) (quoting In re Paoli R.R. Yard PCB Litigation, 35 F.3d 717, 744 (3d Cir. 1994)).

III. The Motion to Strike (Doc. 186)

A. Legal Standard

Rule 37(c)(1) states that "[a] party that without substantial justification fails to disclose information required by Rule 26(a) or 26(e)(1), or to amend a prior response to discovery as required by Rule 26(e)(2), is not, unless such failure is harmless, permitted to use as evidence at a trial ... any witness or information not so disclosed." That is, "Rule 37(c)(1) provides a self-executing sanction where 'a party fails to provide information or identify a witness as required by Rule 26(a) or (e).'" Goodwin v. Cockrell, No. 4:13–CV–199–F, 2015 WL 575861 (E.D.N.C. Feb. 11, 2015) (quoting Fed.R.Civ.P. 37(c)(1)). "The determination of whether a Rule 26(a) or (e) violation is justified or harmless is entrusted to the broad discretion of the district court." Reed v. Washington Area Metro. Transit Auth., No. 1:14CV65, 2014 WL 2967920, at *2 (E.D.Va. July 1, 2014).

In making such a determination, district courts in the Fourth Circuit

apply the following factors, as set forth in Southern States Rack and Fixture Inc. v. Sherwin-Williams Co.,:

> (1) the surprise to the party against whom the witness was to have testified; (2) the ability of the party to cure that surprise; (3) the extent to which allowing the testimony would disrupt the trial; (4) the explanation for the party's failure to name the witness before trial; and (5) the importance of the testimony."
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> 318 F.3d 592, 596 (4th Cir. 2003) (quoting Rambus, Inc. v. Infineon Technologies AG, 145 F.Supp.2d 721, 726 (E.D.Va.2001)).

B. Discussion

Based on the Motion and materials submitted, it appears that EPS's expert, Mr. Nranian, timely issued his Opening Expert Report on April 28, 2023, and his Rebuttal Expert Report on June 8, 2023. See Doc 186-1 at 3; Doc. Doc. 188 at 3 (sealed). On August 18, 2023, Mr. Nranian issued a Supplemental Report. DTNA seeks to strike the opinions set forth in this Supplemental Report.

1. Paragraphs 4 through 7

First, DTNA takes issue with the following paragraphs of the Supplemental Report, which purport to relate to benchtop testing conducted by Anodico "using a similar procedure to that described by" Mr. Krantz:

> 4. In addition, since authoring my prior reports in this matter, I have received additional information including the reports from DTNA's experts, as well as additional information that has been produced in this

matter.

5. For example, I have reviewed a report (and appendices) served by DTNA on June 8, 2023 from Anodico titled Mass Loss Test Report for Aluminum Samples. I also received a corrected Appendix D containing corrected test results from the tests performed by Anodico.

6. The test results observed by Anodico, as set forth in the Anodico report and corrected Appendix D, further support my opinion that the Accused Products infringe the asserted claims of U.S. Reissue Patent No. RE47,494 ("the Patent-in-Suit" or "the '494 Patent"). More specifically, the results from the Anodico testing further support my opinion that the "tube inserts" or "stiffeners" in the Accused Products meet the sacrificial anode limitation of the asserted claims.

7. As shown in the Anodico report, for each "Test #" in which a "tube insert" or "stiffener" was part of the test, the "tube insert" or "stiffener" had a higher corrosion rate and mass loss rate than the "tube." See, e.g., Corrected Appendix D to Anodico Test Report, Test #s 1, 3, and 6. In most instances, the corrosion rate and mass loss rate of the "stiffener" was significantly higher than the "tube." These results, further support my opinion that the Accused Products meet the "sacrificial anode" limitation of the Asserted Claims, as construed by the Court, because they demonstrate that the Accused Products have a piece of metal (i.e., tube stiffener) used to protect another piece of metal (i.e., the tube below the stiffener) by preferentially corroding.

Doc. 175-4 at 3 (Anodico Report); Doc. 188 at 3-4 (sealed).

DTNA contends that these paragraphs reflect "new and improved" opinions based on testing performed by DTNA, and that EPS intends to use

these opinions to "avert summary judgment." Doc. 186-1 at 3. DTNA further argues that, although expert discovery was extended through and including August 18, 2023, that extension was limited to expert discovery regarding the Mod8 and the Martin Accessory, that Mr. Nranian's arguable disclosure of the opinions set forth in his Supplemental Report during his June 29, 2023 deposition do not justify "the disclosure of untimely opinions in a supplemental report," Doc. 186-1 at 4, and that DTNA's Anodico testing was disclosed to EPS on July 22, 2023, almost a month prior to the issuance of Mr. Nranian's Supplemental Report.

The undersigned is not persuaded that Mr. Nranian's opinions, as set forth in paragraphs 4 through 7 of his Supplemental Report, should be stricken. First, although DTNA argues that expert discovery was extended for the limited purpose of allowing the parties' experts' time to consider only the Mod8 and Martin Accessory, the undersigned's July 24, 2023 Order did not explicitly set forth such a limitation. Additionally, it appears that Mr. Nranian's opinion regarding, at least, the benchtop testing conducted by EPS (and which Anodico contends its testing was intended to mimic) was disclosed during his June 29, 2023 deposition. Finally, in paragraphs 4 through 7, Mr. Nrarian is not discussing new testing that he performed but is commenting on the testing performed by Anodico.

2. The Remainder of the Supplemental Report

DTNA also argues that the Court should strike the remainder of Mr. Nranian's Supplemental Report because it espouses additional opinions regarding the Mod8.

In response, EPS asserts that Mr. Nranian's supplemental opinions regarding the Mod8 were timely disclosed during the extended expert discovery period, and that, in any event, EPS's expert, Dr. Sanders, issued a supplemental declaration on September 1, 2023 addressing Mr. Nranian's Supplemental Report. See Doc. 184-2 (sealed).

As addressed above, the undersigned extended the deadline by which the parties were to complete expert discovery through and including August 18, 2023. It appears that Mr. Nranian's Supplemental Report was issued on that date, and that Dr. Sanders has had an opportunity to respond to it.

IT IS THEREFORE ORDERED that Defendant Daimler Truck North America LLC's Motion to Exclude Testimony and Evidence about Resistivity and Benchtop Testing (Doc. 163) and Defendant Daimler Truck North America LLC's Motion to Strike Untimely Expert Opinions (Doc. 186) are **DENIED**.

Signed: November 14, 2023

W. Carleton Metcalf
United States Magistrate Judge