

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

MIDWEST ENERGY EMISSIONS	)	
CORP. and MES INC.,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Civil Action No. 19-1334-CJB
	)	
ARTHUR J. GALLAGHER & CO., et al.,	)	
	)	
Defendants.	)	

**MEMORANDUM ORDER**

This is a patent action filed by Plaintiffs Midwest Energy Emissions Corp. (“Midwest Energy”) and MES Inc. (“MES” and collectively with Midwest Energy, “Plaintiffs” or “ME2C”) against 34 Defendants, in which Plaintiffs assert five patents-in-suit. The Court has set out a listing of all of the parties and asserted patents in its recent October 16, 2023 Memorandum Opinion (“October 16, 2023 MO”), (D.I. 586 at 2); it incorporates that discussion by reference here. Presently pending before the Court is Defendants’ motion to exclude certain opinions of Plaintiffs’ damages expert Philip Green (“Motion”). (D.I. 571) ME2C opposes the Motion. For the reasons set forth below, the Motion is DENIED.<sup>1</sup>

**I. BACKGROUND**

ME2C commenced this action on July 17, 2019. (D.I. 1) Defendants filed the instant Motion on March 23, 2023. (D.I. 527; *see also* D.I. 571) The Motion was fully briefed as of April 18, 2023. (D.I. 555) Defendants filed a notice of subsequent authority on September 21, 2023. (D.I. 577) A trial is set to begin on November 13, 2023. (D.I. 507)

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<sup>1</sup> The parties have jointly consented to the Court’s jurisdiction to conduct all proceedings in this case, including trial, the entry of final judgment and all post-trial proceedings. (D.I. 398)

The Court here writes primarily for the parties, and so any facts relevant to this Memorandum Opinion will be discussed in Section III below.

## **II. STANDARD OF REVIEW**

The Court has frequently set out the relevant standard of review for assessing a motion, like this one, filed pursuant to Federal Rule of Evidence 702 (“Rule 702”) and *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. 579 (1993). One such instance came in *Integra LifeScis. Corp. v. HyperBranch Med. Tech., Inc.*, Civil Action No. 15-819-LPS-CJB, 2018 WL 1785033, at \*1-2 (D. Del. Apr. 4, 2018). The Court incorporates by reference those legal standards set out in *Integra*, and will follow them herein. To the extent that additional related legal principles regarding Rule 702 and *Daubert* are relevant, the Court will set those out in Section III.

## **III. DISCUSSION**

In this case, Plaintiffs seek a reasonable royalty for Defendants’ alleged infringement of the asserted patents. (D.I. 547, ex. A at ¶ 13) “The reasonable royalty theory of damages . . . seeks to compensate the patentee not for lost sales caused by the infringement, but for its lost opportunity to obtain a reasonable royalty that the infringer would have been willing to pay if it had been barred from infringing.” *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1334 (Fed. Cir. 2015). A reasonable royalty “may be based upon . . . the supposed result of hypothetical negotiations between the plaintiff and defendant.” *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1554 (Fed. Cir. 1995). A factfinder uses the hypothetical negotiation to “attempt to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began.” *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 770 (Fed. Cir. 2014) (internal quotation marks, citation and brackets omitted).

With their Motion, Defendants raise two issues with Mr. Green’s opinions: (1) that in relying upon three real-world licensing agreements, Mr. Green did not account for technical and economic differences between those agreements and the hypothetical negotiation; and (2) Mr. Green failed to properly apportion the value of the patents that he assumed were comparable to the asserted patents with respect to these licensing agreements. (D.I. 528 at 45-50; D.I. 555 at 23-25) The Court will address these arguments in turn.

**A. Comparability of Real-world Licenses**

“In determining the reasonable royalty, an expert witness may rely on existing royalty agreements entered into at arms-length[,] as long as those agreements are sufficiently comparable to the hypothetical license at issue in suit.” *Zimmer Surgical, Inc. v. Stryker Corp.*, 365 F. Supp. 3d 466, 494 (D. Del. 2019) (internal quotation marks and citations omitted).

“[C]omparisons of past patent licenses to the infringement must account for the technological and economic differences between them.” *Wordtech Sys., Inc. v. Integrated Networks Sols., Inc.*, 609 F.3d 1308, 1320 (Fed. Cir. 2010) (internal quotation marks omitted). Asserting “a loose or vague comparability between different technologies or licenses” is not sufficient when relying on licenses to support a reasonable royalty. *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012). It is Plaintiffs’ burden to show comparability of the licenses on which it relies. *ViaTech Techs., Inc. v. Adobe, Inc.*, Civil Action No. 20-358-RGA, 2023 WL 5975219, at \*9 (D. Del. Sept. 14, 2023) (citing *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1329 (Fed. Cir. 2009)).

Defendants first argue that Mr. Green’s opinions relying on three licenses (the “Nalco,” “ADA-ES” and “Chem-Mod” licenses) are unreliable and must be excluded because they “lack the requisite technological and economic bases” for a comparison to the hypothetical negotiation.

(D.I. 528 at 46-48) With respect to technological comparability, Defendants contend that Mr. Green asserts only that the technologies underlying these licenses are “similar” and thus “comparable” because they are from the same general field, (*id.* at 46 (citing D.I. 547, ex. A at ¶¶ 190, 199; D.I. 533, ex. 26 at 157-61)), and Plaintiffs’ technical expert “has not offered a sufficiently reliable predicate to compare [Plaintiffs’] patents to anyone else’s[.]” (*id.* (citing D.I. 533, ex. 11 at 149, at ¶ 157)).

The Court will not exclude Mr. Green’s testimony on this ground. Mr. Green relies on the opinions of Plaintiffs’ technical expert, Mr. Philip O’Keefe, regarding the technological comparability between the patent licenses at issue and Plaintiffs’ patents. (D.I. 547, ex. A at ¶¶ 5, 132, 137-39, 176) Mr. O’Keefe, in turn, explains that:

- The Nalco patent (the “692 patent”) has been licensed by Chem-Mod LLC (“Chem-Mod”) and Arthur J. Gallagher & Co. (“Arthur J. Gallagher”), and the patent’s claims require injecting halogen material into the flue gas, such that these licensees did not believe that they needed to license the patent because they do not inject material into the flue gas, (D.I. 546, ex. A at 146-47, at ¶¶ 151-52);
- The Chem-Mod patents (the “083 patent” and the “170 patent”) are licensed by various Defendants; the '083 patent describes the use of several additives, including calcium bromide, to coal for the reduction of mercury emissions (as well as certain steps that Defendants did not perform or performed only biannually). MerSorb and S-Sorb contain some of these additives.<sup>2</sup> (*Id.* at 147-48, at ¶¶ 153-54) The '070 patent is not very relevant to Defendants’ refined coal process because it describes, *inter alia*, combusting coal in the presence of nitrate salt, which is not a component included in MerSorb or S-Sorb. (*Id.* at 148, at ¶ 155); and
- The ADA-ES patent (the “986 patent”) describes the use of nitrogenous material to control NOx and halogen material to control mercury emissions from combustion chambers at

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<sup>2</sup> MerSorb and S-Sorb are the additives that Defendants apply to the coal to make refined coal. (D.I. 546, ex. A at 43, at ¶ 82; *id.* at 148, at ¶ 155)

coal-fired power plants, and this process is used to create and sell refined coal, (*id.* at ¶ 156).

- In sum, all of these patents “describe technology related to mercury capture for use with coal-fired combustion chambers” and are therefore “technically comparable” to Plaintiffs’ patents “at least in the sense that they are drawn toward the same field of technology.” (*Id.* at 149, at ¶ 157)

In the Court’s view, Mr. O’Keefe has sufficiently explained the ways in which the licensed technology is—and is not—comparable to the asserted patents. While Defendants focused on the last paragraph of the relevant section of Mr. O’Keefe’s report (paragraph 157), as demonstrated above, Mr. O’Keefe engaged in a more fulsome analysis than that. That is, he otherwise explained what the relevant patents cover (e.g., mercury control through the use of certain additives, some of which are also covered by the asserted patents) and noted certain other differences and similarities to the asserted patents.<sup>3</sup> (*See* D.I. 545 at 45); *see also, e.g., SB IP Holdings, LLC v. Vivint, Inc.*, Civil Action No. 4:20-CV-00886, 2023 WL 6601415, at \*4 (E.D. Tex. Oct. 10, 2023) (finding that an expert’s reliance on a license should not be excluded for failure to show technological comparability, where the expert’s opinion “was based on specific descriptions of the patents as well as elements and features shared by the patents”) (internal quotation marks and citation omitted); *Bio-Rad Lab’ys, Inc. v. 10X Genomics, Inc.*, C.A. No. 15-152-RGA, 2018 WL 4691047, at \*7 (D. Del. Sept. 28, 2018) (rejecting defendant’s argument that an expert alleged only a loose or vague comparability between certain licenses and the asserted patents, where he provided “reasonable and specific explanations” for selecting the agreements he did). Mr. O’Keefe’s opinions establish at least a showing of “baseline

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<sup>3</sup> Indeed, the Court notes that Defendants’ own expert, Dr. Niksa, opines that the '692 patent is technologically comparable to the asserted patents, and in doing so, he focuses on the additives used and the patent’s goal of reducing mercury (just as Mr. O’Keefe did). (D.I. 618, ex. B at ¶ 71)

comparability[;]” the “degree of comparability” can be further explored through cross-examination. *Bio-Rad Labs, Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1374 (Fed. Cir. 2020) (internal quotation marks and citation omitted).

As for economic comparability, Defendants argue that Mr. Green’s analysis is deficient because:

- The Chem-Mod licenses were entered into as part of a closed common structure of companies designed to earn Section 45 tax credits and included “engineering, technical, financial, and business support[;]” yet Mr. Green offers no explanation for concluding that such circumstances should or could apply to the arms-length, patent-focused hypothetical negotiation, (D.I. 528 at 47 (citing D.I. 433, ex. 26 at 64-65, 96-97));
- The Nalco license constitutes a litigation settlement agreement and Mr. Green does not explain how such circumstances would be similar to those of the hypothetical negotiation, (*id.*); and
- The ADA-ES license was an exclusive license between a licensor and a company formed by the licensor to commercialize his inventions, and Mr. Green “offers no opinion that would let a jury bridge the gap between that type of arrangement and the hypothetical negotiation” between the parties here, (*id.* at 48).

Taking up the ADA-ES license first, as Plaintiffs note, (D.I. 545 at 46), Mr. Green acknowledges the fact that the ADA-ES license “differs from the licenses resulting from the hypothetical negotiation in that it is an exclusive license to a related party[;]” while the licenses between the parties here “would be non-exclusive and not with parties related to” Plaintiffs, (D.I. 547, ex. A at ¶ 178). Mr. Green could have done a better job of more expressly providing a clearer explanation as to “what extent this lack of a competitive relationship impacted the royalty calculation[.]” *Moskowitz Fam. LLC v. Globus Med., Inc.*, CIVIL ACTION No. 20-3271, 2023 WL 5487662, at \*9 (E.D. Pa. Aug. 24, 2023); *Zimmer Surgical, Inc.*, 365 F. Supp. 3d at 496

(concluding that an expert failed to show that a license was economically comparable to the asserted patents, where the license related to a settlement agreement and the expert “engage[d] in no analysis of the underlying litigation *and how it may have affected the royalty rate*”) (emphasis added); *Intel Corp. v. Future Link Sys., LLC*, C.A. No. 14-377-LPS, 2017 WL 2482881, at \*2 (D. Del. June 1, 2017) (“Mr. Chandler also identified indicia of economic comparability between the comparable license agreements and the hypothetical licenses involved here, *as well as any effect of alleged differences between them*”) (emphasis added). However, Mr. Green does note that the documentary evidence indicates that the royalties from this license could amount to as much as \$1 per ton, (D.I. 547, ex. A at ¶ 177), and yet he opines that the parties here would have “first considered that existing licensing indicates that royalties of between \$0.60 and \$0.65 per ton of refined coal have actually been paid for the use of similar technologies[,]” (*id.* at ¶ 199, 205 (chart not reflecting the ADA-ES agreement as a quantitative data point)). Thus, it appears that he *did* account for the differences in the competitive circumstances between the ADA-ES license and the hypothetical negotiation in his ultimate analysis. *Cf. Moskowitz Fam. LLC*, 2023 WL 5487662, at \*9 (declining to exclude the expert’s testimony on a lack-of-economic-comparability basis, where although the damages expert facially “did nothing to assess how much lower than 10% the reasonable royalty rate should be to account for the lack of a competitive relationship . . . such mathematical precision is not required[,]” and where the expert did “provide some explanation why and to what extent this lack of a competitive relationship impacted the royalty calculation”); *see also Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1212 (Fed. Cir. 2010) (where “Finjan noted multiple differences between the Finjan–Microsoft licensing scenario and a hypothetical negotiation with Defendants[,]” such as the fact

that “Finjan did not compete with Microsoft but does compete against Secure[,]” these “differences permitted the jury to properly discount the Microsoft license”).

Turning next to the Nalco license, Mr. Green explains that, as a general matter, “depending on the facts surrounding a given licensing circumstance, the royalty amounts and terms included in settlement agreements may not be comparable to those that would be reached in the arms-length negotiation of the hypothetical negotiation construct.” (D.I. 547, ex. A at ¶ 79) At the same time, however, settlement agreements and related licenses can provide reliable evidence regarding a reasonable royalty “where the royalty reflects the economic demand for the claimed technology as opposed to being largely driven by the coercive facts inherent in litigation.” (*Id.* (internal quotation marks and citation omitted)) In the Court’s view, Mr. Green provides enough details about the Nalco litigation to support the idea that the Nalco license was not largely driven by litigation-related coercion and instead reflects the demand for the claimed technology (such that his reliance on this license can be a part of his analysis). These details include the fact that: (1) the license was the product of a settlement of two lawsuits regarding the '692 patent; (2) the defendants did not believe that they needed to license the patent because they did not perform the claimed method; (3) the licenses note that if damages were applied to all uses of the Chem-Mod solution, including at plants that were non-parties to the suits, they could total hundreds of millions of dollars, but Chem-Mod and the defendants denied that any such damages should be awarded; and (4) the amounts reflected in the Nalco license “were the minimum royalties due because validity and infringement had not been determined” for the licensed patents. (*Id.* at ¶¶ 135-44, 199) Beyond that, any failure by Mr. Green to account for other variables can be explored on cross examination. *See e.g., Shopify Inc. v. Express Mobile, Inc.*, Civil Action No. 19-439-RGA, 2021 WL 4288113, at \*28 (D. Del. Sept. 21, 2021).



Finally, with respect to the Chem-Mod licenses, Plaintiffs retort that Mr. Green “noted that Chem-Mod entered into agreements for similar amounts with its corporate relatives (AJG entities) and with unrelated entities (CERT and DTE entities).” (D.I. 545 at 46 (citing D.I. 547, ex. A at ¶¶ 131-34, 168-73)) While it is not clear to the Court where in these paragraphs Mr. Green notes that certain of these agreements were with corporate relatives and others were not, it does appear that the royalty rates at issue were similar enough. Thus, Defendants’ criticisms here too go to the weight of Mr. Green’s analysis rather than to the admissibility.

## **B. Apportionment**

Defendants make two arguments relevant to apportionment that the Court will address in turn.

First, Defendants argue that for the purportedly comparable licenses that he relied upon, Mr. Green was required to—but failed to—isolate the portion of each license fee attributable to the assertedly comparable patents. (D.I. 528 at 48) According to Defendants, Mr. Green did not offer any apportionment theory with respect to the Nalco and ADA-ES licenses, and he opined that no apportionment is necessary regarding the Chem-Mod licenses on the incorrect assumption that the entire payment was for “comparable” mercury emission reduction technology. (*Id.* at 49) According to Defendants, this analysis thus ignored additional benefits provided by the Chem-Mod licenses, including technology for NOx reduction (which the patents do not cover) and consulting and business services relating to Section 45 tax credits. (*Id.*)

Plaintiffs respond, (D.I. 545 at 47), by arguing that Mr. Green *did* take apportionment into account in rendering his opinion, in that he concluded that:

“[T]here has been a substantial amount of licensing of technically comparable technologies. These licenses have provided for royalty rates of between \$.35 and \$.65 per ton of coal processed using technologies comparable to those claimed by the Asserted Patents.

I understand that the [United States Court of Appeals for the] Federal Circuit has concluded that in circumstances in which comparable licenses exist[,] royalties that consider these agreements are essentially “self-apportioning” as they indicate the willingness of licensees to pay for the use of the technology and already consider the portion of profits that a licensee would be willing to pay for the rights to patented technology.

(D.I. 547, ex. A at ¶ 185) In deposition testimony, Mr. Green further explained that: (1) the licenses between Chem-Mod and DTE did not vary according to how many patents were at issue in the licenses because the licensees were paying for access to the technology, (D.I. 533, ex. 26 at 86, 91); (2) while the Chem-Mod patents enabled treating coal to reduce mercury and sulfur, the same royalty rates applied to the licenses even if sulfur reduction was not needed, (*id.* at 87, 89-90); (3) a licensee that did not need to reduce NO<sub>x</sub> would not get a reduced royalty rate, (*id.* at 90-91); and (4) royalties were due regardless of whether any other services were provided, (*id.* at 95-96).

The Federal Circuit has explained that “[w]hen a sufficiently comparable license is used as the basis for determining the appropriate royalty, further apportionment may not necessarily be required.” *Vectura Ltd. v. GlaxoSmithKline LLC*, 981 F.3d 1030, 1040 (Fed. Cir. 2020). “That is because a damages theory that is dependent on a comparable license (or a comparable negotiation) may in some cases have ‘built-in apportionment.’” *Id.* (citation omitted). “Built-in apportionment effectively assumes that the negotiators of a comparable license settled on a royalty rate and royalty base combination embodying the value of the asserted patent.” *Id.* at 1041.

The Court finds that Mr. Green’s explanation is sufficient here, as he has explained why, in his view, the licenses that he relies upon had built-in apportionment. The Court isn’t saying that Mr. Green is *correct*; he may or may not be, and Defendants can surely explore their

disagreements with Mr. Green on that front during cross-examination. *See RSB Spine, LLC v. DePuy Synthes Sales, Inc.*, Civil Action No. 19-1515-RGA, 2022 WL 17084156, at \*2 (D. Del. Nov. 18, 2022).

Finally, Defendants contend that Mr. Green’s royalty rate opinion must be excluded because he fails to apportion out the value of the Section 45 tax credits that were earned by the licensees of Chem-Mod’s, Nalco’s and ADA-ES’s technology (but instead opines that the Section 45 tax credits served as the economic basis for the alleged infringement). (D.I. 528 at 49 (citing D.I. 547, ex. A at ¶¶ 127-28, 149, 151; *id.*, ex. B at ¶¶ 16, 251, 256)) Defendants argue that this failure is “fundamentally flawed” because: (1) the asserted patents do not claim qualifying for Section 45 tax credits or reducing NOx, which is a requirement to earn such tax credits, such that the value of the credits cannot be attributed to the alleged infringement; and (2) even if practicing the patents is necessary to earn the credits, the value of the infringing product would be attributable to tax code compliance rather than to the value of the technical contribution of the asserted patents to the field of mercury reduction. (*Id.* at 49-50)

In response, Plaintiffs argue that Mr. Green’s royalty rate opinion is a “flat per-unit amount” that is “assessed on a per-ton basis, and determined from a variety of inputs.” (D.I. 545 at 48 (citing D.I. 547, ex. A at ¶¶ 189-205)) As for apportionment of tax credits, Plaintiffs assert that Mr. Green’s royalty rate opinion “does not *include* any tax credit component to apportion *out*, and Defendants identify no evidence to show the *inclusion* of the value of the tax credits.” (*Id.* at 48-49 (emphasis in original); *see also* Plaintiffs’ Dispositive Motions Hearing Slides at Slide 85 (“Mr. Green Does Not Capture Any Tax Credit Value”)) Plaintiffs contend that Mr. Green’s damages opinion “identifies the economics of Defendants’ infringement and separates

the apportioned value for the use of the patented technology[.]” (D.I. 545 at 49 (citing D.I. 533, ex. 26 at 214-16))

On this record, where the parties’ arguments were not very clear, at least to the Court, the Court can only take Plaintiffs at their word that Mr. Green’s royalty rate range is not going “include a[] tax credit component” (and therefore does not “[f]ail to [a]pportion tax credits.” (*Id.* at 48-49) In light of this representation, Defendants’ argument that Mr. Green’s royalty rate opinions must be excluded for failure to apportion out Section 45 tax credits is not well-taken.

#### IV. CONCLUSION

For the reasons set out above, the Court hereby ORDERS that Defendants’ Motion is denied.

Because this Memorandum Order may contain confidential information, it has been released under seal, pending review by the parties to allow them to submit a single, jointly proposed, redacted version (if necessary) of the Memorandum Order. Any such redacted version shall be submitted no later than **November 9, 2023** for review by the Court. It should be accompanied by a motion for redaction that shows that the presumption of public access to judicial records has been rebutted with respect to the proposed redacted material, by including a factually-detailed explanation as to how that material is the “kind of information that courts will protect and that disclosure will work a clearly defined and serious injury to the party seeking closure.” *In re Avandia Mktg., Sales Pracs. & Prods. Liab. Litig.*, 924 F.3d 662, 672 (3d Cir. 2019) (internal quotation marks and citation omitted). The Court will subsequently issue a publicly-available version of its Memorandum Order.

Dated: November 7, 2023

  
Christopher J. Burke  
UNITED STATES MAGISTRATE JUDGE