

**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.)	

James M. Lennon, DEVLIN LAW FIRM, Wilmington, DE; Bradley W. Caldwell, Jason D. Cassady, John Austin Curry, Justin T. Nemunaitis, Daniel R. Pearson, Adrienne R. Dellinger, CALDWELL CASSADY CURRY P.C., Dallas, TX; Attorneys for Plaintiffs.

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MEMORANDUM OPINION

November 3, 2023
Wilmington, Delaware


BURKE, United States Magistrate Judge

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 for summary judgment No. 8: invalidity of asserted claims under 35 U.S.C. §§ 102 (“Section 102”), 103 (“Section 103”) and 112 (“Section 112”) (the “Motion”). (D.I. 570) ME2C opposes the Motion. For the reasons set forth below, the Motion is DENIED.¹

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. 570) The Motion was fully briefed as of April 18, 2023. (D.I. 555) A trial is set to begin on November 13, 2023. (D.I. 507)

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

¹ 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 incorporates by reference the standard of review for summary judgment motions, which it set out in the October 16, 2023 MO. (D.I. 586 at 3-4)

The burden of proving invalidity rests with the patent challenger at all times, who must establish a patent's invalidity by clear and convincing evidence in order to prevail. *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011). Clear and convincing evidence places within the mind of the fact finder "an abiding conviction that the truth of [the] factual contentions are highly probable." *Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009) (quoting *Colorado v. New Mexico*, 467 U.S. 310, 316 (1984)) (alteration in original).

III. DISCUSSION

The asserted claims of the asserted patents relate to methods for reducing mercury emissions from power plants with the use of bromine-enhanced coal (or "refined coal") and a sorbent such as activated carbon. (D.I. 533, exs. 1-5; *see also* D.I. 546, ex. A at 19, at ¶ 49, D.I. 546, ex. A at 32, at ¶ 70) According to Defendants, all asserted claims cover adding additives containing bromine to coal before the coal is combusted. (*See* D.I. 528 at 27) The '147 patent was issued on May 1, 2012 from an application that was filed on April 6, 2009. (D.I. 533, ex. 2 at 1) The '225 patent was issued on March 17, 2020 from an application that was filed on May 14, 2015. (*Id.*, ex. 3 at 1) The '114 patent was issued on July 9, 2019 from an application that was filed on May 14, 2018. (*Id.*, ex. 1 at 1) The '517 patent was issued on March 24, 2020 from an application that was filed on June 4, 2018. (*Id.*, ex. 4 at 1) The '430 patent was issued on June 2, 2020 from an application that was filed on May 8, 2018. (*Id.*, ex. 5 at 1)

Each asserted patent purports to claim priority to Provisional Application 60/605,640 (the "640 Provisional"), which is dated August 30, 2004. (D.I. 533, ex. 1 at 2; *id.*, ex. 2 at 1; *id.*, ex.

3 at 1; *id.*, ex. 4 at 2; *id.*, ex. 5 at 2; *see also id.*, ex. 6 at 1; D.I. 546, ex. B at ¶ 53)² The '640 Provisional contains Figure 2 which, along with accompanying text (together with the figure, “Fig. 2”), depicts the addition of the bromine additive to the coal before going into the boiler, within the boiler, or after the boiler. (D.I. 533, ex. 6 at ME2C-RC-00055880-81 (noting that “[t]he [bromine] additive can be injected where desired (e.g., before, after, or within the boiler”); *see also* D.I. 530, ex. A at ¶ 264) Fig. 2 was not included in the first non-provisional application filed in the family, and it did not appear in any applications thereafter until 2018.³ (D.I. 528 at 27, 33; D.I. 545 at 23; *see also* D.I. 530, ex. A at ¶¶ 180, 202) The early utility applications that did not include Fig. 2 stated that the '640 Provisional was “hereby incorporated by reference[.]” (See D.I. 528 at 10; D.I. 546, ex. B at ¶ 54)

With the Motion, Defendants argue that the absence of Fig. 2 in intervening applications defeats a claim of priority to the '640 Provisional. (D.I. 528 at 28) And without the benefit of that priority date, Defendants contend that the asserted claims of the '114, '225, '430 and '517 patents are invalid under Section 102 and 103. (*Id.* at 33-34) Moreover, Defendants assert that the omission of Fig. 2 from the applications leading to the '147 patent and the '225 patent means that the claims of these patents lack written description support for adding bromine to coal before combustion (and are thus invalid under Section 112(a)). (*Id.* at 33)

² Defendants argue that the asserted claims of the '114, '225, '430 and '517 patents are anticipated or rendered obvious by, *inter alia*, prior art references Sjostrom, Eckberg and Olson-646, which post-date Plaintiffs’ claimed August 30, 2004 priority date. (See D.I. 530, ex. A at ¶¶ 19, 21, 25, 27) Thus, in order for these references to render the claims invalid, Defendants must show that these patents have a later priority date. (See D.I. 545 at 21)

³ This means that Fig. 2 was not included in the applications leading to the '147 patent and the '225 patent. (See D.I. 528 at 33; D.I. 530, ex. A at ¶¶ 179-80, 202)

Below, the Court first assesses Defendants’ Section 102/103 arguments. Then it will turn to Defendants’ written description argument.

A. Section 102/103

Generally, a patent’s effective filing date (i.e., the priority date), is the date on which the patent application was filed with the United States Patent and Trademark Office (“PTO”), unless the patentee claims the benefit of an earlier-filed application pursuant to 35 U.S.C. § 120 (“Section 120”). *See Cozy, Inc. v. Dorel Juv. Grp., Inc.*, CIVIL ACTION NO. 21-10134-JGD, 2023 WL 4137380, at *2-4 (D. Mass. June 22, 2023). Section 120 provides in relevant part as follows:

An application for patent for an invention disclosed in the manner provided in section 112(a) . . . in an application previously filed in the United States, . . . which names an inventor or joint inventor in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application[.]

35 U.S.C. § 120. Accordingly, a patentee claiming priority to an earlier application must establish that, *inter alia*, the invention described in the new application was disclosed in accordance with 35 U.S.C. § 112(a) “in an application previously filed in the United States[.]” *Encyclopaedia Britannica, Inc. v. Alpine Elecs. of Am., Inc.*, 609 F.3d 1345, 1349 (Fed. Cir. 2010) (internal quotation marks and citation omitted).⁴ The United States Court of Appeals for

⁴ Section 112 requires a patent specification to “contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same[.]” 35 U.S.C. § 112(a).

the Federal Circuit has explained that the purpose of Section 120 “is to provide clear notice to the public of the patentee’s claimed priority date.” *Droplets, Inc. v. E*TRADE Bank*, 887 F.3d 1309, 1320 (Fed. Cir. 2018). “Determination of a patent’s priority date is purely a question of law if the facts underlying that determination are undisputed.” *Id.* at 1315 (internal quotation marks and citation omitted).

Defendants first argue that Fig. 2 is “essential material,” and thus it cannot be incorporated by reference into any of the asserted patents because, pursuant to 37 C.F.R. § 1.57 (“Section 1.57”), “[e]ssential material”—which the regulation defines as “material that is necessary to . . . [p]rovide a written description of the claimed invention[] . . . as required by” Section 112— may only be incorporated “by reference to a U.S. patent or U.S. patent application publication[.]” (D.I. 528 at 28-29 (quoting 37 C.F.R. § 1.57(d)); D.I. 555 at 15-16)⁵ The '640 Provisional is neither of these things. (D.I. 528 at 29); *see also Nomadix, Inc. v. Second Rule LLC*, Case No. CV 07-01946 DDP (VBKx), 2009 WL 10668158, at *25 (C.D. Cal. Jan. 16, 2009) (explaining that provisional applications are unpublished and are not patents or patent applications).

However, on this record, the Court cannot conclude that Fig. 2 is essential material. Defendants’ expert, Dr. Stephen Niska, asserts that Fig. 2 is essential material because having reviewed “all of the intervening patent applications, [he concludes that] a POSITA—regardless of how defined—would not understand any of them to provide written description support for adding bromine-containing additives to coal prior to combustion unless the POSITA was specifically instructed that such applications included Figure 2 and its accompanying

⁵ For purposes of the Motion, Defendants do not dispute that the '640 Provisional supports the claims of the asserted patents. (D.I. 528 at 28 & n.13, 31 & n.16; D.I. 545 at 24)

description.” (D.I. 530, ex. C at ¶ 21) However, as the Court will set out below, there is evidence of record that the intervening applications may provide such written description support. *See infra* at 8-10.

Defendants next argue that regardless of whether the '640 Provisional is “essential,” the applicants did not properly incorporate by reference the application in the relevant priority chains. (D.I. 528 at 29; D.I. 555 at 17) The Federal Circuit has explained that “[t]o incorporate material by reference, the host document must identify with *detailed particularity* what specific material it incorporates and *clearly indicate where* that material is found in the various documents.” *Zenon Env’t, Inc. v. U.S. Filter Corp.*, 506 F.3d 1370, 1378 (Fed. Cir. 2007) (internal quotation marks and citation omitted) (emphasis in original). “Whether and to what extent a patent incorporates material by reference [] is a legal question[.]” *Hollmer v. Harari*, 681 F.3d 1351, 1355 (Fed. Cir. 2012). The standard that applies to this question is whether one reasonably skilled in the art would understand that the host document “describes the material to be incorporated by reference with sufficient particularity.” *Zenon*, 506 F.3d at 1379 (internal quotation marks and citation omitted).

The intervening applications in the priority chain with respect to the '114 patent state that the '640 Provisional is “hereby incorporated herein by reference to the extent appropriate.” (D.I. 530, ex. A at ¶ 170; D.I. 533, ex. 12 at 25-27) Similarly, with respect to the '225, '430 and '517 patents, the intervening patents to which they claim priority state that priority is claimed to the '640 Provisional “to the extent appropriate[.]” (D.I. 530, ex. A at ¶ 170; D.I. 533, ex. 12 at 19-21) Defendants contend that this language, in just incorporating the '640 Provisional “to the extent appropriate,” is not a complete incorporation and fails to convey what specifically is incorporated. (D.I. 528 at 30; D.I. 555 at 17)

Here, the Court agrees with Defendants.⁶ In arguing that the applicants properly incorporated by reference the '640 Provisional, Plaintiffs contend that “[t]he patentee need not identify specific portions of the application or otherwise expressly state that the prior application is incorporated ‘in its entirety.’” (D.I. 545 at 25-26) They cite in support to: (1) MPEP 201.06(c), which notes that the phrase “hereby incorporated by reference” is sufficient to incorporate a prior application; and (2) *Harari v. Lee*, 656 F.3d 1331, 1335-36 (Fed. Cir. 2011) which held that entire applications were incorporated by the language that the disclosures of the applications are “hereby incorporate[d] by reference.” (*Id.*) But Plaintiffs are sidestepping the fact that the relevant language at issue here is not simply that the application was “incorporated by reference,” full stop, but that it is “incorporated by reference *to the extent appropriate.*” *Cf. Zenon*, 506 F.3d at 1379 (concluding that incorporating only “relevant disclosures” of a prior patent does not incorporate the entirety of the document). This language does not tell us what is incorporated (or to what “extent”), or where that material is found in the '640 Provisional. (D.I. 528 at 30; D.I. 555 at 17; D.I. 530, ex. C at ¶¶ 27-28)

Finally, Defendants argue that the '114, '225, '430 and '517 patents lose their priority claims in the absence of Fig. 2 throughout the priority chains. (D.I. 528 at 30-33; D.I. 555 at 17-19) That is not the end of the inquiry, however, because Plaintiffs point to allegedly alternate support for adding bromine to coal before combustion that Defendants say fails. (D.I. 545 at 28-30)

Plaintiffs’ expert details how the intervening applications contain additional disclosures that support claims reciting the addition of bromine to coal before combustion. (D.I. 546, ex. B

⁶ In *inter partes review* proceedings, the Patent Trial and Appeal Board agreed with Defendants on this issue. (D.I. 556, ex. 41 at 30-31; *id.*, ex. 42 at 31-32)

at ¶¶ 86-89, 91-93, 96-102; Plaintiffs’ Dispositive Motions Hearing Slides at Slides 61-66) Defendants’ expert explains why he disagrees with Plaintiffs’ expert in this regard. (D.I. 530, ex. A at ¶¶ 289-90; *id.*, ex. C at ¶¶ 35-37, 45-46) These are disputes of material fact that the jury must resolve. Thus, in the end, the Court must deny this portion of Defendants’ Motion.

B. Written Description

Defendants contend that because the applicants did not copy Fig. 2 into the applications leading to the '147 and '225 patents, these patents lack written description of adding bromine to coal before combustion and are therefore invalid under Section 112(a). (D.I. 528 at 33; D.I. 555 at 19) The test for sufficiency of a patent’s written description, as required by Section 112(a), “is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). The written description inquiry is a question of fact. *Id.* “Compliance with the written description requirement . . . is amenable to summary judgment in cases where no reasonable fact finder could return a verdict for the non-moving party.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1307 (Fed. Cir. 2008). “A party must prove invalidity for lack of written description by clear and convincing evidence.” *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 682 (Fed. Cir. 2015).

Because the '225 patent contains similar disclosures that Plaintiffs’ expert relies upon in the above argument, there is a dispute of fact as to whether the '225 patent’s specification provides sufficient support for the patent’s claims. (D.I. 545 at 31; *see also* '225 patent, col. 20:34-35) As for the '147 patent, the claims require “injecting the particulate sorbent material at a sorbent material injection rate and injecting separately the bromine containing promoter[.]”

(*See, e.g.*, '147 patent, col. 24:35-37; *see also* D.I. 545 at 31) Plaintiffs' expert opines that the specification provides support for this limitation. (D.I. 546, ex. B at ¶¶ 228-33) This portion of Defendants' Motion is therefore denied.

IV. CONCLUSION

For the foregoing reasons, Defendants' Motion is DENIED. An appropriate Order will issue.

Because this Memorandum Opinion 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 Opinion. Any such redacted version shall be submitted no later than **November 8, 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 Opinion.