IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SUNOCO PARTNERS MARKETING & TERMINALS L.P.,	)	
Plaintiff,	)	
v.	)	Civil Action No. 17-1390-LPS-CJB
POWDER SPRINGS LOGISTICS, LLC, and MAGELLAN MIDSTREAM PARTNERS, L.P.,	)	
Defendants.	)	

REPORT AND RECOMMENDATION

Pending before the Court in this patent infringement case is Defendants Powder Springs Logistics, LLC and Magellan Midstream Partners, L.P.'s ("Defendants") Motion for Summary Judgment of Non-Infringement and Invalidity (the "Motion"). (D.I. 381) Defendants make a number of different arguments in support of this Motion; this Report and Recommendation will address the Motion only as it relates to Defendants' argument that certain patent claims asserted by Plaintiff Sunoco Partners Marketing & Terminals L.P. ("Plaintiff") are invalid as anticipated or obvious over certain prior art references.[1] For the reasons that follow, the Court recommends that the Motion be DENIED in that respect.

I. BACKGROUND

Plaintiff alleges that Defendants infringe five of Plaintiff's patents. Those patents are United States Patent Nos. 9,494,948 (the "'948 patent"), 9,606,548 (the "'548 patent"), 9,207,686 (the "'686 patent"), 6,679,302 (the "'302 patent") and 7,032,629 (the "'629 patent") (collectively, "the asserted patents" or "the patents-in-suit"). The asserted patents relate to systems and

[1] The Court will address (or has addressed, (*see* D.I. 453; D.I. 495)) the remaining portions of the Motion in other Reports and Recommendations.

methods for the automated blending of butane and gasoline. The instant Motion puts the following patent claims at issue: claims 3 and 8 of the '548 patent, claims 3 and 7 of the '948 patent, and claim 3 of the '302 patent.

The Court hereby incorporates its summary of the technology at issue set out in its January 8, 2018 Report and Recommendation, (D.I. 68 at 1-8); further information about these subjects relevant to the pending Motion will be set out in Section III below. The Court also incorporates its summary of the procedural background of this matter, as set out in its January 16, 2020 Report and Recommendation. (D.I. 447 at 2)

II. STANDARD OF REVIEW

A. Summary Judgment

The Court hereby incorporates its prior discussion of the legal standards for resolving summary judgment motions, which was set forth in its January 16, 2020 Report and Recommendation. (*Id.* at 2-4) And because the Court's decision on this summary judgment motion also implicates principles relevant to claim construction, the Court also hereby incorporates its discussion of the legal standards for claim construction found in its July 26, 2019 Report and Recommendation. (D.I. 321 at 2-5)

B. Invalidity

A patent granted by the United States Patent and Trademark Office ("PTO") is presumed to be valid. 35 U.S.C. § 282(a); *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 100-03 (2011). The rationale underlying this presumption of validity is that "the PTO, in its expertise, has approved the claim[.]" *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 426 (2007). 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.*, 564 U.S. at

100-14. 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)).

1. Anticipation

A patent claim is anticipated under 35 U.S.C. § 102(a) or (b) if:

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . . .

35 U.S.C. § 102.[1] To anticipate, a "reference must disclose each and every element of the claimed invention, whether it does so explicitly or inherently." *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009). This test mirrors, to some extent, the test for infringement, and "it is axiomatic that that which would literally infringe if later anticipates if earlier." *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1378 (Fed. Cir. 2001). In order to anticipate, however, a reference must enable one of skill in the art to make and use the invention without undue experimentation, *In re Gleave*, 560 F.3d at 1334, and must also "show all of the limitations of the claims arranged or combined in the same way as recited in the claims[,]" *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008).

---

[1] The Court herein refers to the versions of 35 U.S.C. §§ 102-03 that were in force prior to the enactment of the Leahy-Smith America Invents Act, and which are applicable here. *See, e.g.*, *Solvay S.A. v. Honeywell Int'l Inc.*, 742 F.3d 998, 1000 n.1 (Fed. Cir. 2014).

2. Obviousness

A patent claim is invalid as obvious under 35 U.S.C. § 103 "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). "Obviousness is a question of law based on underlying factual findings: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) objective indicia of nonobviousness." *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). A party seeking to invalidate a patent on the basis of obviousness must establish (by clear and convincing evidence) that a person of ordinary skill in the art (a "POSITA") would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the POSITA would have had a reasonable expectation of success in doing so. *Id.*[2]

III. DISCUSSION

Defendants seek summary judgment that U.S. Patent No. 3,530,867, issued on September 27, 1970 to Robert Hass ("Hass"), anticipates claims 3 and 8 of the '548 patent and renders

---

[2] In determining what would have been obvious to a POSITA, the use of hindsight is not permitted. *See KSR*, 550 U.S. at 421 (cautioning the trier of fact against "the distortion caused by hindsight bias" and "arguments reliant upon *ex post* reasoning" in assessing obviousness); *see also Pfizer Inc. v. Teva Pharms. U.S.A., Inc.*, 882 F. Supp. 2d 643, 664 (D. Del. 2012). Put another way, the task of determining whether a patent is invalid requires a court to "step back in time to before the moment of actual invention, and out of the actual inventor's shoes into those of a hypothetical, ordinary skilled person who has never seen the invention." *Eisai Co., Ltd. v. Teva Pharms. USA, Inc.*, No. 03 Civ. 9223(GEL), 2006 WL 2872615, at *2 (S.D.N.Y. Oct. 6, 2006) (citing *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983)).

obvious claims 3 and 7 of the '948 patent. (D.I. 382 at 23-31) Defendants also argue that Hass, in view of a 1985 *Oil & Gas Journal* article written by Curt Benefield and Robert Broadway ("Benefield") renders obvious claim 3 of the '302 patent. (D.I. 382 at 31-32) The Court will discuss each of these arguments in turn.

A. '548 Patent: Anticipation By Hass

Defendants first challenge claims 3 and 8 of the '548 patent as being anticipated by Hass. (D.I. 382 at 23-27) Those challenged claims, and the claims from which they depend, are shown below (with emphasis added on the key disputed limitations):

> **1**. A system for blending butane with a gasoline stream having a gasoline flow rate, comprising[:]
> an injection device injecting the butane into the gasoline stream at a butane flow rate;
> a volatility measurement device *in communication with the gasoline stream*, the volatility measurement device configured to output data representative of a volatility measurement; and
> a processor in connection with the injection device and the volatility measurement device, the processor configured to:
> receive the volatility measurement; receive a target volatility value;
> determine an adjustment to the butane flow rate based on the volatility measurement and the target volatility value; and
> output a signal representative of the adjustment to the injection device.

('548 patent, col. 17:11-28 (emphasis added))

> **3**. The system of claim **1**, further comprising a plurality of gasoline streams each associated with a different type of gasoline, at least one gasoline stream being selectable for blending with the butane.

(*Id.*, col. 17:32-35)

> **6**. A system for blending butane with a gasoline stream having a gasoline flow rate, comprising:
> an injection device injecting the butane into the gasoline stream at a butane flow rate;

> a volatility measurement device *in communication with the gasoline stream*, the volatility measurement device configured to output data representative of a volatility measurement; and
> a processor in connection with the injection device and the volatility measurement device, the processor configured to: receive the volatility measurement; receive a target volatility value; and
> determine an adjustment to the butane flow rate based on the volatility measurement and the target volatility value; and output a signal representative of the adjustment to the injection device, wherein the volatility measurement device is *in communication with the gasoline stream at a location downstream of the injection device*.

(*Id.*, cols. 17:40-18:3 (emphasis added))

> **8**. The system of claim **6**, wherein the adjustment includes a blend ratio, and the processor calculates the blend ratio based on the volatility measurement and the target volatility value.

(*Id.*, col. 18:7-10)

The key dispute as to these claims is whether the term "in communication with the gasoline stream" (italicized above) requires that the volatility measurement device must be in communication with an *unblended* gasoline stream (as Plaintiff argues) or whether it can allow for the device to be in communication with a *blended* gasoline stream (as Defendant argues). (D.I. 382 at 26) More specifically, Plaintiff argues that "Hass does not disclose 'a volatility measurement device in communication *with the gasoline stream*,' as recited by claims 1 and 6[,]" because the term "gasoline stream," as used in this limitation, refers to an *unblended* gasoline stream, and it is undisputed that "Hass only discloses 'measuring the vapor-liquid ratio *of a blended product*.'" (D.I. 405 at 27-28 (certain emphasis in original); *see also* D.I. 382 at 26 (Defendants stating that "[t]here is no dispute between the parties that Hass discloses a volatility measurement device in communication with the blended gasoline stream"); D.I. 385, ex. 24, col. 2:20-22; D.I. 406, ex. A at ¶ 353; *id.*, ex. B at ¶ 132)

Does the phrase "gasoline stream" in the claim term "in communication with the gasoline stream" refer only to an *unblended* gasoline stream? Plaintiff points to a number of pieces of evidence that show that it does.

For example, Plaintiff notes that in claims of certain of the other, related patents-in-suit, the patentee appears to have used terms like "the blend" or "the blended gasoline stream" when referring to gasoline mixed with butane—and to have simply used the term "gasoline" or "gasoline stream" to refer to an unblended gasoline stream. (D.I. 405 at 5-6) In the '302 patent (an ancestor of the '548 patent), for example, claim 16 refers to transmitting and calculating "the gasoline vapor pressure[,]" but claim 17 refers to transmitting a signal that corresponds to "the vapor pressure of the blend[.]" ('302 patent, col. 14:39, 45-46) Claim 31 of the '629 patent (another ancestor of the '548 patent) recites "receiving a first measurement indicating a vapor pressure of the gasoline stream" and also "receiving a second measurement indicating a vapor pressure of the blended gasoline stream and butane stream." ('629 patent, col. 16:10-11, 19-20) And claim 1 of the '948 patent (a sibling of the '548 patent, as both are continuations of the '686 patent) recites a vapor pressure analyzer "configured to determine the vapor pressure of the gasoline" and transmit it to a processor, while claim 3 adds that "said processor receives the vapor pressure of a blend of gasoline and butane." ('948 patent, col. 17:15-18, 35-36) So clearly, when the patentee wanted to denote that a substance was a blend of gasoline and butane, it knew how to do so and did so by using terms other than "gasoline" or "gasoline stream." *See Trs. of Columbia Univ. in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1369 (Fed. Cir. 2016) ("[W]here multiple patents derive from the same parent application and share many

common terms, we must interpret the claims consistently across all asserted patents.") (internal quotation marks and citation omitted).[3]

Plaintiff also points to the opinion of Defendants' expert, Dr. Michael Nikolaou, wherein Dr. Nikolaou was assessing claims 14 and 16 of the '302 patent. (D.I. 405 at 6-7 & nn.6-7) There, Dr. Nikolaou considered the claim term "vapor pressure of the gasoline stream[,]" found in claim 14 of the '302 patent, and opined that it referred to "unblended gasoline[.]" (D.I. 406, ex. B at ¶¶ 306-07) Moreover, Dr. Nikolaou opined that "Hass does not disclose [the] limitation" in claim 14 of the '302 patent that "the blend ratio is determined from a vapor pressure of the gasoline stream" because "Hass describes a vapor-liquid analyzer in communication with the *blended gasoline stream*" and thus "does not receive or use a measurement of the vapor pressure of the *gasoline to be blended*." (D.I. 406, ex. B at ¶ 617 (emphasis added); *see also* '302 patent, col. 14:18-20) In other words, in assessing related questions of claim construction and invalidity as to the '302 patent, even Defendants' expert seems to agree with Plaintiff's position here. It is hard to see how Defendants can now assert that Hass indisputably discloses "a volatility measurement device in communication with the gasoline stream" with regard to a limitation in the '548 patent, when its expert argued the opposite result for a similar claim term in a related patent.[4]

---

[3] *See also NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005), *abrogation on other grounds recognized by IRIS Corp. v. Japan Airlines Corp.*, 769 F.3d 1359, 1361 n.1 (Fed. Cir. 2014); *Bioverativ Inc. v. CSL Behring LLC*, Civil Action No. 1:17-cv-00914-RGA, 2019 WL 1276030, at *3-4 (D. Del. Mar. 20, 2019) (noting that a court may construe similar language in related patents in a consistent fashion).

[4] In attempting to address this apparent inconsistency, Defendants argue (in a footnote in their reply brief) that the reason Dr. Nikolaou interpreted the claims of the '302 patent in this way was that "[t]he '302 and '629 patents only disclose systems with an upstream analyzer to control the blend and thus measure the unblended gasoline[,]" whereas the '548 patent "added new matter" and "broadened the scope of [Plaintiff's] claims to cover the use of upstream

In response, Defendants argue that Plaintiff's reading of "gasoline stream" in these claim terms would "lead[] to a technically impossible claim." (D.I. 414 at 7) Here, Defendants note that in claim 6 of the '548 patent, which is a claim to a system for "blending butane with gasoline[,]" the "volatility measurement device" (or "analyzer") is "at a location downstream of the" butane injection device. ('548 patent, cols. 17:40-18:3; *see also* D.I. 414 at 7) Defendants then argue that if "the analyzer is downstream of the injection point, it will sample a gasoline stream into which butane has already been injected, e.g., the blended stream." (D.I. 414 at 7) But this argument assumes that such a "downstream" analyzer can only ever take a sample of a blended gasoline stream (and can never take a sample of an unblended gasoline stream). As the Court discussed in a recent Report and Recommendation, that is not necessarily so. Instead, there could be scenarios where, at a point when the claimed system is not yet blending butane with the gasoline, the downstream analyzer called for in claim 6 is simply sampling unblended gasoline (and thus would read on this claim limitation). (D.I. 495 at 4-8; *see also* D.I. 405 at 28 (Plaintiff arguing that "when *downstream*, [the analyzer] can be in communication [with the unblended gasoline stream] *if configured* to sample the unblended gasoline prior to butane blending, such as with the accused systems") (certain emphasis in original); D.I. 406, ex. A at ¶¶ 352-53)

---

analyzers, downstream analyzers, and/or either upstream or downstream analyzers to control the blending." (D.I. 414 at 8 n.9) Yet the Court does not see why this is so. The '302 patent and '629 patent both mention measurements corresponding to the vapor pressure of the "blend." ('302 patent, col. 14:46-48; '629 patent, col. 16:19-20 ("receiving a second measurement indicating a vapor pressure of the blended gasoline stream and butane stream")) Moreover, such an argument fails to credibly explain why the same "gasoline stream" term in the '548 patent should be construed differently than the "gasoline stream" term in the '302 patent—even assuming that the '548 patent's claims "broadened the scope" of the invention, as Defendants assert.

Thus, the Court recommends that the District Court deny Defendants' Motion as it relates to anticipation of claims 3 and 8 of the '548 patent by Hass.[5]

B. '948 Patent: Obviousness Over Hass

Defendants challenge claims 3 and 7 of the '948 patent as being rendered obvious by Hass. (D.I. 382 at 27-31) Those challenged claims, and the claims from which they depend, are shown below:

> **1**. A system for blending butane with gasoline in a pipe, wherein the gasoline has a vapor pressure, comprising:
> a) a butane reservoir in fluid connection with said gasoline;
> b) an injector valve for discharging butane into said gasoline;
> c) a vapor pressure analyzer connected to said pipe, said analyzer configured to determine the vapor pressure of the gasoline and to transmit said vapor pressure to a processor;
> d) a programmable logic controller governing the flow of butane through said injector valve; and
> e) a processor programmed to receive the vapor pressure from the analyzer, calculate an amount of butane to inject into the gasoline based on seasonal and/or regional data and a maximum preprogrammed volatility limit, and provide a control signal to said programmable logic controller according to said seasonal and/or regional data and maximum preprogrammed volatility limit;
> wherein the programmable logic controller is configured to adjust the injector valve to govern the flow of butane through said injector valve into said gasoline based on the signal from the processor.

('948 patent, col. 17:9-32)

> **3**. The system of claim **1** wherein said processor receives the vapor pressure of a blend of gasoline and butane.

(*Id.*, col. 17:35-36)

---

[5] Because the Court concludes that Defendants' Motion is not well taken here in light of Plaintiff's arguments described above, it need not discuss Plaintiff's alternative arguments for denial of the Motion in this regard. (D.I. 405 at 28-29)

7. A system for blending butane with gasoline in a pipe to form a blend of butane and gasoline, wherein the gasoline and the blend of gasoline and butane each have a vapor pressure, comprising:

a) a butane reservoir in fluid connection with said gasoline;
b) an injector valve for discharging butane into said gasoline;
c) a vapor pressure analyzer connected to said pipe, said analyzer configured to determine the vapor pressure of the blend of gasoline and butane, and to transmit said vapor pressure to a processor;
d) a programmable logic controller governing the flow of butane through said injector valve; and
e) a processor programmed to receive the vapor pressure from the analyzer, calculate an amount of butane to inject into the gasoline based on a maximum preprogrammed volatility limit, and provide a control signal to said programmable logic controller according to said maximum preprogrammed volatility limit;

wherein the programmable logic controller is configured to adjust the injector valve to govern the flow of butane through said injector valve into said gasoline based on the signal from the processor.

(*Id.*, col. 18:12-35)

Defendants' argument that the '948 patent is rendered obvious by Hass is dependent on Defendants' construction of the claim term "vapor pressure," (D.I. 382 at 28; D.I. 405 at 30; D.I. 414 at 9 (arguing "Hass renders obvious the '948 patent claims under Defendants' construction of 'vapor pressure'") (emphasis omitted)), which the Court has rejected, (D.I. 331).[6] For this reason alone, the Court recommends denying Defendants' Motion as to claims 3 and 7 of the '948 patent.[7]

---

[6] Defendants filed objections to the Court's construction, (D.I. 338), which are currently pending.

[7] The Court also notes that claim 3 of the '948 patent (which is dependent on claim 1) requires that the system at issue contain an analyzer that is configured to determine and transmit the "vapor pressure of the gasoline"—i.e., it includes the same type of "gasoline" term as was at issue above with regard to claims 3 and 8 of the '548 patent. (D.I. 405 at 30) Thus, for the reasons discussed above in Section III.A., the Court also recommends denying Defendants' Motion as it relates to obviousness of claim 3 of the '948 patent over Hass. Moreover, in light of

C. '302 Patent: Obviousness Over Hass in View of Benefield

Defendants challenge claim 3 of the '302 patent as being rendered obvious by Hass in view of Benefield. (D.I. 382 at 31-32) Claim 3, and the claims from which it depends, are shown below:

> **1**. A system for blending gasoline and butane at a tank farm comprising:
> a) a tank of gasoline;
> b) a tank of butane;
> c) a blending unit, at the tank farm, downstream of and in fluid connection with the tank of gasoline and the tank of butane;
> d) a dispensing unit downstream of and in fluid connection with the blending unit; and
> e) a rack, wherein the dispensing unit is located at the rack and is adapted to dispense gasoline to gasoline transport vehicles.

('302 patent, col. 13:12-24)

> **2**. The system of claim **1** further comprising a process control unit, wherein the process control unit generates a ratio input signal that controls the ratio of butane and gasoline blended by the blending unit.

(*Id.*, col. 13:25-28)

> **3**. The system of claim **2** wherein the ratio input signal is derived from a calculation of the ratio of butane and gasoline that will yield a desired vapor pressure.

(*Id.*, col. 13:29-31)

As with Defendants' argument regarding the '948 patent, Defendants' argument that claim 3 of the '302 patent is rendered obvious by Hass in view of Benefield is dependent on Defendants' currently-rejected construction of the claim term "vapor pressure." (D.I. 382 at 31-

---

its decision above as to this issue, the Court need not reach Plaintiff's additional arguments for denial of this portion of the Motion. (*Id.* at 30-31, 33-35)

32 ("[a]pplying Defendants' construction of 'vapor pressure'"); D.I. 405 at 31) For this reason, the Court recommends denying Defendants' Motion as to claim 3 of the '302 patent, and need not address any other arguments for denial raised by Plaintiff, (D.I. 405 at 31-35).

IV. CONCLUSION

For all of the above reasons, the Court recommends that the District Court DENY Defendants' Motion for Summary Judgment as it relates to Defendants' argument that certain patent claims asserted by Plaintiff are invalid as anticipated or obvious over certain prior art references.

This Report and Recommendation is filed pursuant to 28 U.S.C. § 636(b)(1)(B), Fed. R. Civ. P. 72(b)(1), and D. Del. LR 72.1. The parties may serve and file specific written objections within fourteen (14) days after being served with a copy of this Report and Recommendation. Fed. R. Civ. P. 72(b)(2). The failure of a party to object to legal conclusions may result in the loss of the right to de novo review in the district court. *See Sincavage v. Barnhart*, 171 F. App'x 924, 925 n.1 (3d Cir. 2006); *Henderson v. Carlson*, 812 F.2d 874, 878-79 (3d Cir. 1987).

The parties are directed to the Court's Standing Order for Objections Filed Under Fed. R. Civ. P. 72, dated October 9, 2013, a copy of which is available on the District Court's website, located at http://www.ded.uscourts.gov.

Dated: February 27, 2020

Christopher J. Burke
UNITED STATES MAGISTRATE JUDGE