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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MAHLE BEHR CHARLESTON INC.,

Petitioner

v.

FRANK AMIDIO CATALANO,

Patent Owner

Case IPR2023-00861

U.S. Patent No. RE47,494

PATENT OWNER'S PRELIMINARY RESPONSE

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I. INTRODUCTION

Pursuant to 35 U.S.C. § 313 and 37 C.F.R. § 42.107, Frank Amidio Catalano (“Patent Owner”) submits this Preliminary Response to Mahle Behr Charleston’s (“Petitioner”) Petition for *Inter Partes* Review (“Petition,” Paper 1), challenging claims 12, 15-17, 19-29, 31-40, and 42-47 of U.S. Patent No. RE47,494 (the “’494 Patent”) (Ex. 1001). The Board should not institute *inter partes* review because Petitioner has not met its burden of demonstrating a reasonable likelihood of prevailing on any of the challenged grounds.

The Petition suffers from a number of fundamental flaws, each of which warrants denial of institution. To begin with, the Petition fails to show each element of each of the challenged independent claims in the asserted references and, thus, Petitioner cannot show that any of the challenged claims are reasonably likely to be found unpatentable. Specifically, the prior art cited by Petitioner suffers from the same lack of disclosure as the art cited during prosecution of the ’494 Patent. As noted by the Specialist in allowing the ’494 Patent, the prior art fails to teach “a sacrificial anode [that] is installed within ten inches of a hot liquid inlet of the radiator as recited in claims 12, 25, or 37...It would not have been obvious to modify the prior art radiators, devices and methods to arrive at the combinations embodied by claims 1, 12, 13, 25 or 37.” Ex. 1010, 492. The same is true for the prior art that Petitioner relies upon – there is simply no disclosure from any reference cited in the

Petition of this important feature of the invention and it would not have been obvious to modify the prior art to arrive at the challenged claims. Moreover, one of Petitioner's primary references – Godefroy – is a foreign language reference in which Petitioner relies on an inaccurate and unreliable translation. When considering the correct translation of Godefroy, it is clear that it, too, does not disclose a sacrificial anode installed within ten inches of a hot liquid inlet of the radiator. Because each of the independent claims requires this element, none of the challenged claims are anticipated or rendered obvious by the asserted prior art.

The Board should also deny institution on all grounds under 35 U.S.C. §315(b) because Petitioner's customer, DTNA, is a real party in interest and proxy for Petitioner. Patent Owner's exclusive licensee EPS sued DTNA for infringement of the '494 Patent over two years ago, making the petition time barred under §315(b). Indeed, DTNA failed to file a Petition before the one year deadline, thus relying on its supplier of certain accused products – Petitioner – to file a Petition instead. Petitioner's and DTNA's long-standing contractual relationship involving the accused products, their indemnity agreement, Petitioner's explicit agreement to assist DTNA with challenging the validity of the '494 Patent, and both parties' assertion of a common interest privilege over communications about the '494 Patent and related issues demonstrates that DTNA is both a real party in interest and privy to Petitioner.

The Board should also exercise its discretion under 35 U.S.C. §314(a) and deny institution on all grounds based on the *Fintiv* factors. Five of the six *Fintiv* factors weigh in favor of denial given the overlap of the prior art and arguments raised in both the co-pending litigation and Petition as well as the significant resources spent on the litigation by the parties and the Court given that the trial date is a mere four months away. Additionally, the Petition fails to establish compelling merits to invalidate the '494 Patent as required under the *Fintiv* analysis.

II. BACKGROUND OF THE INVENTION

The '494 Patent involves the mitigation of corrosion of automotive radiators caused by electrolysis, which is generally known as stray current corrosion. Electrolysis corrosion occurs when oxidation at an anode (where the current leaves the metal at the interface with the electrolyte) is driven by an external current source.

Radiators can vary greatly by size. Generally, aluminum automotive radiators can range from about 10" up to approximately 49" in width and from about 10" to approximately 35" in height. Ex. 2001, 4. For industrial-type vehicle radiators, however, the size of the radiator can be much larger. For example, pictured below is a radiator for the Caterpillar D11N vehicle which is significantly larger than the average car radiator.



Ex. 2002, 4. As another example, the Caterpillar 797 Off-Highway Truck has a radiator size that is 143.5" in width. Ex. 2003, 1. The size of the radiator may vary greatly with the size of the vehicle. The location of components within a radiator

may also vary greatly. For example, the radiator inlet may be located in the center (as shown in the above Caterpillar radiator picture) or may be off center more toward the sides of a radiator. Ex. 2001, 3 (listing 12 possibly inlet locations including on the side and center). As such, the dimensions of each component as well as the distance between those components may vary greatly depending on the type and the size of radiator in question.

III. OVERVIEW OF THE '494 PATENT

The '494 Patent was filed on August 5, 2014 and issued on July 9, 2019. It is titled, "Electrolysis prevention device and method of use." It issued from U.S. Patent Application No. 14/452,339 (the "'339 application"). The '494 Patent is a reissue of U.S. Patent No. 8,236,145 that was filed on December 7, 2009 and issued on August 7, 2012 from U.S. Patent Application No. 12/631,903.

Frank Catalano, the named inventor of the '494 patent, is the owner and operator of Webster Radiator, located in Concord, North Carolina. Mr. Catalano and his team have been working on and servicing radiators for over twenty-five years.

In 2007, Mr. Catalano discovered that the location of a sacrificial anode within a radiator can impact the radiator's performance and overall lifespan. The '494 patent recognizes that, prior to Mr. Catalano's inventions, "sacrificial anodes, constructed of active metals, that is metals that react with oxygen, such as

magnesium, aluminum, zinc or combinations thereof,” had been used as corrosion inhibitors. Ex. 1001 (’494 Patent, 2:6-9). However, the ’494 patent recognizes that sacrificial anode devices at the time were deficient in that they failed “to position the anode optimally to allow for maximum corrosion resistance” and were “too far from the inlet to effectively prevent corrosion from occurring.” *Id.* at 2:30-31, 33-36; *see also* Ex. 1010, 145 and 481. As shown in Fig. 4A below, the inventions claimed in the ’494 patent address this shortcoming by locating a sacrificial anode (13) near the inlet (16), e.g., within 10 inches of the inlet, as claimed, which positions the sacrificial anode in a more optimal position. Ex. 1001 (’494 patent at 2:1-36, claims 25, 37, Fig. 4A).

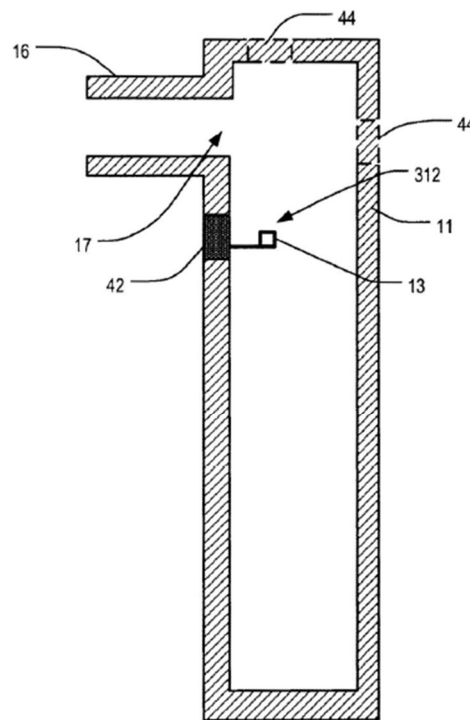


FIG. 4A

Id., Fig. 4A; 7:59-64; *see also*, Claim 12, 25, and 37. As acknowledged by the '494 patent, “[s]acrificial anodes do not eliminate the flow of electric current, but instead attract the electric current, acting as a ‘lightning rod’ that electricity clings to, thus relieving the anodic metal of the thermal control device from the corrosive damage of electrolysis.” *Id.* at 2:9-13. The placement also allows for easier accessibility to determine its effectiveness and for potential replacement once the sacrificial anode is depleted. *Id.*, 2:19-23.

Additionally, the patented device may be installed within radiators of any conventional type such as crossflow, downflow, and double pass radiators, regardless of size. *Id.*, 6:49-56; 6:65-7:2; 7:17-20; 7:24-29; 7:37-41; 7:53-57; 8:27-33; 10:17-21; *see also* Figs. 1-6, 10. Indeed, as described above, radiators vary not only by type (e.g., radiators with a center inlet versus an offset inlet), but also greatly vary by size. *See*, Section II. Thus the minimal distance of within 10 inches between the sacrificial anode to the inlet connection is particularly important regardless of the size or type of radiator.

IV. LEVEL OF ORDINARY SKILL IN THE ART

For the limited purpose of this Preliminary Response, Patent Owner does not contest Petitioner’s definition of a person of ordinary skill in the art, but it reserves the right to do so if trial is instituted.

V. CLAIM CONSTRUCTION

At this time, Patent Owner submits that the Board need not construe any claim term in a particular manner to arrive at the conclusion that the Petition is procedurally and substantively deficient. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 4941 (Fed. Cir. 2011) (“need only be construed ‘to the extent necessary to resolve the controversy’”).

VI. LEGAL STANDARDS

The Board may only grant a petition for *inter partes* review where “the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); 37 C.F.R. § 42.108(c). Petitioner bears the burden of showing that this statutory threshold has been met. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756 (Aug. 14, 2012) (“The Board . . . may institute a trial where the petitioner establishes that the standards for instituting the requested trial are met . . .”).

A. Anticipation

Petitioner is pursuing grounds that the '494 Patent is anticipated and/or obvious. “Anticipation requires that a single reference disclose each and every element of the claimed invention. [] Prior art that must be modified to meet the disputed claim limitation does not anticipate the claim.” *Enplas Display Device*

Corp. v. Seoul Semiconductor Co., 909 F.3d 398, 405 (Fed. Cir. 2018) (citations omitted). “A patent claim is anticipated ‘only if each and every element is found within a single prior art reference, arranged as claimed.’” *In re Smith Int’l, Inc.*, 871 F.3d 1375, 1381 (Fed. Cir. 2017) quoting *Summit 6, LLC v. Samsung Elecs., Co.*, 802 F.3d 1283, 1294 (Fed. Cir. 2015).

“[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.” *Hockerson-Halberstadt, Inc. v. Avia Group Inter., Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000); *see also Nystrom v. Trex Co., Inc.*, 424 F.3d 1136, 1149 (Fed. Cir. 2005), *cert. denied*, 547 U.S. 1055 (2006) (“Hockerson-Halberstadt indicated our disfavor in reading precise proportions into patent drawings which do not expressly provide such proportions”); *Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1268 (Fed. Cir. 2012) (“This court has repeatedly cautioned against overreliance on drawings that are neither expressly to scale nor linked to quantitative values in the specification.”

When a party does not identify any disclosure in a prior art reference demonstrating that a claim element is explicitly present, a party may attempt to demonstrate that the “missing” element is “necessarily present” and is therefore inherently anticipated. *HTC Corp. v. Cellular Commc’ns Equip., LLC*, 877 F.3d 1361, 1368 (Fed. Cir. 2017). A party seeking to establish the inherent disclosure of

an element “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” *Cont’l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). “A party must ... meet a high standard in order to rely on inherency to establish the existence of a claim limitation in the prior art in an obviousness analysis.” *Par Pharm., Inc. v. Twi Pharms., Inc.*, 773 F.3d 1186, 1195-96 (Fed. Cir. 2014); *see also HTC Corp.*, 877 F.3d at 1369 (affirming the Board’s finding that IPR petitioner had failed to show inherent anticipation). To be inherent, “the limitation at issue necessarily must be present, or the natural result of the combination of elements explicitly disclosed by the prior art.” *Par Pharm.*, 773 F.3d at 1196. “Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *Cont’l Can Co.*, 948 F.2d at 1269 (citing *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981) (emphasis in original)). The existence of an alternative possibility precludes a finding of inherency. *See HTC Corp.*, 877 F.3d at 1369 (“HTC has only shown that it is possible for the start of a frame preceding an ACK/NACK signal to correspond to the start of a message transmission. This possibility, however, is not enough to find that Baker necessarily discloses [the limitation].”).

B. Obviousness

With respect to obviousness, Section 103 of the Patent Act provides that “[a] patent may not be obtained . . . 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). The obviousness analysis requires several threshold inquiries identified below.

If a single element of the claim is absent from the prior art, the claim cannot be considered obvious. *See CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (“[O]bviousness requires a suggestion of all limitations in a claim.”); *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993) (reversing obviousness rejection where prior art did not teach or suggest all claim limitations); *Garmin Int’l, Inc. v. Patent of Cuozzo Speed Techs. LLC*, Case No. IPR2012-00001, Paper 15 at 15 (P.T.A.B. Jan. 9, 2013) (refusing to institute an IPR under 35 U.S.C. § 103 where prior art did not disclose all claim limitations). The Board has recognized that, “in an obviousness analysis, conclusory assertions from a third party about general knowledge in the art cannot, without supporting evidence of record, supply a limitation that is not evidently and indisputably within the common knowledge of those skilled in the art.” *See* November 2019 Update to the Trial Practice Guide at 36. “Furthermore, because an *inter partes* review may only be requested ‘on the

basis of prior art consisting of patents or printed publications,’ 35 U.S.C. § 311(b), expert testimony cannot take the place of disclosure from patents or printed publications. In other words, expert testimony may explain ‘patents and printed publications,’ but is not a substitute for disclosure in a prior art reference itself.” *Id.*; *see also K/S Himpp v. Hear-Wear Techs., LLC*, 751 F.3d 1362, 1365 (Fed. Cir. 2014); *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1366-67 (Fed. Cir. 2016) (Reversing obviousness decision because the Patent and Trial Appeal Board presumed a missing claim limitation was present in the prior art based on conclusory statements made by Petitioner’s expert).

VII. SUMMARY OF PRIMARY REFERENCES

A. Overview of Tomosada

Petitioner’s first primary reference, Tomosada (Ex. 1005), is a Japanese Patent Application entitled “Aluminum Heat Exchanger” and generally discloses an aluminum heat exchanger tube with a metal turbulator acting as a sacrificial anode as an improvement to an aluminum heat exchanger. Ex. 1005, 1. As explained by Tomosada’s brief, two-page specification, a heat exchanger tube (1) is arranged inside a radiator (R). *Id.* A turbulator (2) is inserted into the heat exchanger tube (1) “for improving heat exchange performance of the heat exchanger tube 1” as shown below in Figures 1 and 2 from Tomosada. *Id.*; Fig. 1 and 2.

FIG. 1

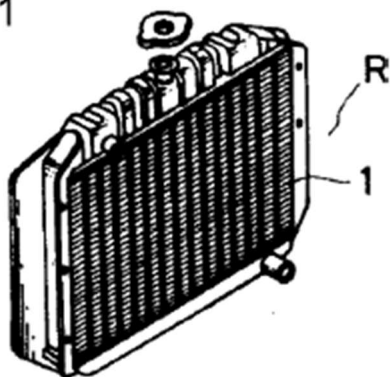
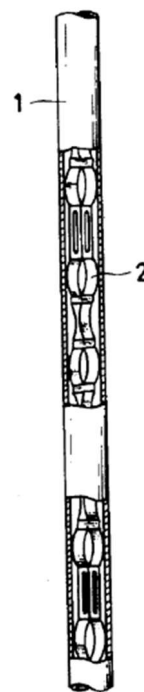


FIG. 2



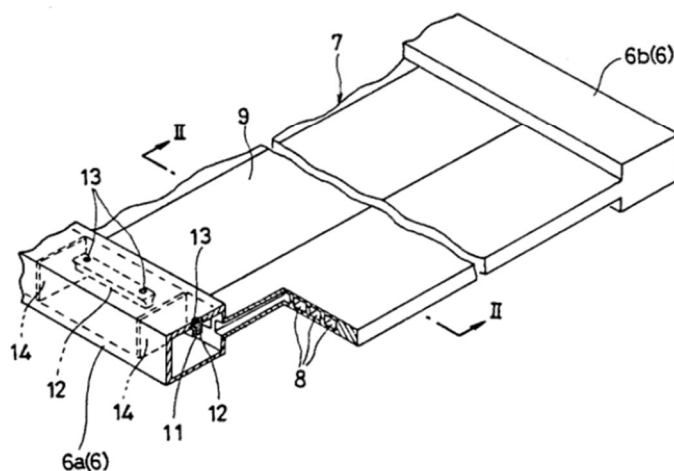
Notably, Tomosada does not disclose any dimensions or measurements of the radiator, turbulator, or any component of the invention. While Tomosada discloses the ring shaped component in Figure 2 as the turbulator (which can act as a sacrificial anode according to Tomosada), Tomosada does not describe any other component as a sacrificial anode nor describe the location, or distance, of the turbulator in relation to the inlet. *Id.*, 1. Likewise, Tomosada does not disclose any installation or holder for the turbulator.

B. Overview of Hanazaki-196

Petitioner's second primary reference, Hanazaki-196 (Ex. 1007), is a Japanese Patent Application entitled "Heat Exchanger Made From Aluminum" and generally

discloses an aluminum heat exchanger that uses brine and a sacrificial anode made of a metal less noble than aluminum.¹ Ex. 1007, 1-2. Hanazaki-196 discloses an aluminum heat exchanger in Figure 2A which is a cross-sectional view of the first embodiment of the invention:

6, 6a, 6b: Header Pipes
7: Heat Exchanging Pipe Unit
8: Brine Flow Path
11: Attaching Groove
12: Sacrificial Anode
13: Welding Point
FIG. 2A



Id., Fig. 2B. As noted in the description of the figure,

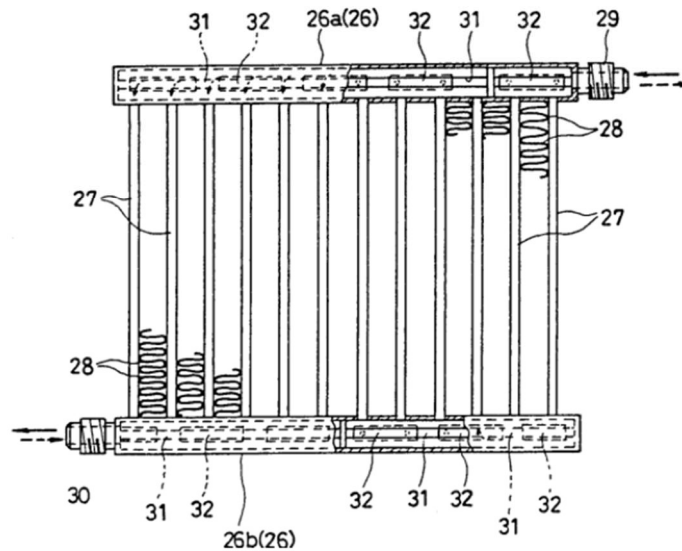
¹ Hanazaki-196 – which serves as Petitioner’s primary reference for Grounds 3 and 4 of the Petition – was identified by the Specialist during reexamination and previously considered by the Patent Office. Ex. 1010, 116-128. Indeed, Hanazaki-196 is marked on the title page of the ’494 Patent as cited by the examiner. Ex. 1001, (56).

[t]his heat exchanger is structured from a pair of header pipes 6 (6a and 6b) that have a relatively large diameter, arranged in parallel with a space therebetween, and heat exchanging pipe units 7, connecting between the header pipes 6a and 6b, where a coolant supplying opening and coolant exhausting opening are provided at the two ends of the primary side header pipe 6a that is positioned on the upstream side, where heat is exchanged in the heat exchange region during the time until the coolant that is introduced from the supplying opening arrives at the exhaust opening 10 after traveling serpentine through each of the brine flow paths 8 of each of the header pipes 6 and the heat exchanging pipe units 7.

Id., 4. Hanazaki-196 describes a cooling supplying opening at one of the ends of header pipe 6a (*Id.*). Notably, the location of the opening is not specified in the Figures. Nor does Hanazaki-196 specify which end the cooling supplying opening is located. The sacrificial anode is located at 12, however, Hanazaki-196 does not describe its location, or distance, in relation to the cooling supplying opening. *Id.*, Fig. 2A.

In another embodiment, Hanazaki-196 describes another aluminum heat exchanger also comprising header pipes (26a and 26b) with a coolant supplying opening 29 with several sacrificial anodes 32 fitted into an attaching groove 31 as shown in Figure 11 below in both the header pipes (26a and 26b):

26a, 26b: Header Pipes
 27: Heat Exchanging Pipe
 31: Attaching Groove
 32: Sacrificial Anode
 FIG. 11



Id., 5, Fig. 11. Like the embodiment described in Figure 2A, there is no description of the dimensions or size of the radiator, sacrificial anode, coolant supplying opening, or any other component described by Figure 11. The only reference to size given is that the sacrificial anode 32 “is fitted into the attaching groove 31, and is plug welded, at at [sic] least two welding points for each individual sacrificial anode 32, at prescribed intervals such as, for example, with a spacing of 30 cm.” *Id.*, 5. Hanazaki-196, however, does not specify what that 30 cm (11.8 inches) spacing refers to. Thus, Hanazaki-196 does not specify the distance between the sacrificial anode and the coolant supplying opening.

C. Overview of Godefroy

Petitioner's third primary reference, Godefroy (Ex. 1008, Ex. 2004), is a PCT Patent Publication entitled "Device For Protecting A Heat Exchanger Against Corrosion." Ex. 2004, Abstract. Using the correct translation of Godefroy,² it describes a radiator where the sacrificial resist "can be contained in a reservoir, in particular, a collector box, of the heat exchanger" or it can be "contained in tubing of the heat exchanger." *Id.*, 5. As shown in Figure 1, below, the tubing 12 is tubing leading to the collector box, or reservoir, 10 in which the sacrificial resist 14 is placed within the tubing.

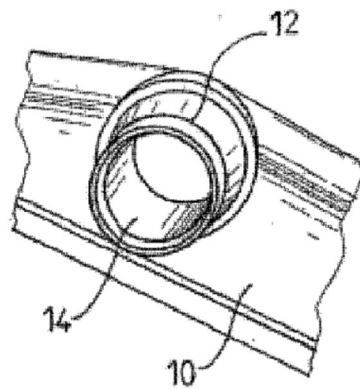
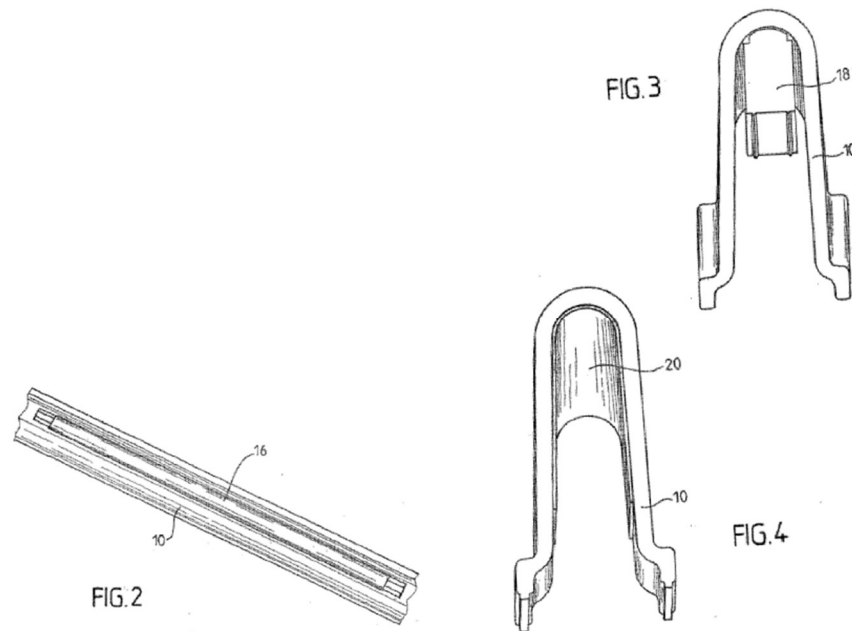


FIG.1

² As demonstrated in Section VIII below, Ex. 2004 is an accurate translation of Godefroy, which differs from Petitioner's version of Godefroy (Ex. 1008). Citations to the accurate version of Godefroy (Ex. 2004) are provided herein.

Id., Fig. 1. Godefroy further discloses that “[i]n order to avoid any risk of corrosion, a sacrificial resist 14, in this case in the form of tubular insert applied against the inside wall of the tubing 12, is provided inside the tubing 12.” *Id.*, 6. All of the remaining figures from Godefroy similarly focus on the collector box 10 and the tubing going into the collector box.



Id., Figs. 2-4; *Id.*, 6 (“Fig. 2 shows a portion of a collector box of a heat exchanger comprising a device according to the invention designed in the form of an insert or a cartridge; Fig. 3 is a cross-sectional view of a collector box of a heat exchanger in which a protection insert or cartridge is placed; and Fig. 4 is a cross-sectional view of a collector box of a heat exchanger comprising a protection device according to the invention designed in the form of a paint applied to the inside wall of the collector box.”). It is important to note that, as discussed in more detail herein, the collector

box, or coolant reservoir, for a heat exchanger system lies outside the radiator itself. Thus, Godefroy does not disclose a sacrificial resist inside a radiator, or a radiator inlet, let alone a sacrificial resist located within 10 inches of a radiator inlet. As such, Godefroy does not disclose a sacrificial anode within 10 inches of a hot liquid inlet to the radiator.

VIII. PETITIONER'S FOREIGN LANGUAGE TRANSLATION OF GODEFROY IS UNRELIABLE

The Petition relies on the foreign language reference Godefroy (Ex. 1008) in support of Grounds 5 and 6 but fails to provide an accurate translation of the reference. In order to rely upon a foreign language prior art reference, Petitioner must provide an accurate translation of the reference along with an affidavit attesting to the accuracy of the translation. *See*, 37 C.F.R. §42.63(b); *see also Shenzhen Aurora Tech. Co., Ltd. v. Putco, Inc.*, IPR2020-00670, Paper 10, 5-6 (PTAB Aug. 27, 2020) (denying institution, in part, because “regardless of the requirement to file a supporting affidavit, there are significant questions as to the accuracy of the submitted translations...”). While Petitioner provided an affidavit attesting to the accuracy of the translation (Ex. 1008, 16), Petitioner’s translation is inaccurate and unreliable at least with respect to two important terms. First, Ex. 1008 translates the French term “boîte(s) collectrices” as “manifold(s).” *Id.*, *compare* pp. 2 and 8 with pp. 18 and 25. Second, Ex. 1008 translates the French term “tubulures” as “pipe” or

“piping.” *Id.*, compare pp. 2 and 8 and pp. 18 and 24-25. Both of these translations, however, are inaccurate.

Patent Owner submits that the correct translation of Godefroy (Ex. 2004) was actually submitted by Defendant DTNA in the District Court case. In that English version of Godefroy, “boîte(s) collectrices” is properly translated as “collector box(es)” and “tubulures” is properly translated as “tube” or “tubing.” Ex. 2004, compare pp. DTNA00000108 and 113 with Ex. 1008 pp. 18 and 24-25 (stating “collector box(es)” and “tube(s)/tubing”). To verify that these translations are correct, Patent Owner also submits the sworn declaration of David A. Carroll II, a professional French translator with twelve years of experience translating French to English including significant experience translating automotive terminology. Ex. 2005 (Carroll Dec.), 1. As Mr. Carroll attests “I have reviewed separate English translations of the French language document [Godefroy, Ex. 1008 and Ex, 2004]...After reviewing both documents, I declare that the Godefroy_WO2003100337_English_EN is the most accurate translation” and further stating that “collector box” is the correct English translation of “boîte(s) collectrices” and that “connection tubing” is the correct English translation of “tubulures de raccordement.” Ex. 2005, 1-2.

In support of his analysis, Mr. Carroll provides cites from a popular help forum for translators – PROZ KudoZ – which cites the most popular translation for

“boîte collectrices” as “collector box.” Ex. 2005, 2; Ex. 2006, 1-3. The same PROZ KudoZ reference also notes that the correct translation for “tubulure.” Specifically, “[i]n the case of a motor vehicle heat exchange system, based on the thickness of the connection pieces, the word ‘tube’ or ‘tubing’ would be preferable to ‘pipe’ or ‘piping.’” Ex. 2005, 2; Ex. 2006, 4-6. In sum, Petitioner’s version of Godefroy (Ex. 1008) is inaccurate at least with respect to these two terms. Patent Owner submits that the correct translation of Godefroy is instead Ex. 2004.

IX. THE PETITION DOES NOT ESTABLISH A REASONABLE LIKELIHOOD OF SUCCESS

To justify the institution of an *inter partes* review, a petitioner must establish that there is a “reasonable likelihood that the petitioner would prevail with respect to at least one of the claims challenged in the petition.” 35 U.S.C. § 314(a). Petitioner has not met its burden of establishing a reasonable likelihood of success at least because the Petition fails to demonstrate that the asserted references disclose or otherwise render obvious the following independent claims limitations: “wherein the sacrificial anode is placed within 10 inches of a hot liquid inlet to the radiator” (claim 12); “a sacrificial anode installed within 10 inches of the hot liquid inlet of the radiator” (claim 25); and “an anode holder supporting the sacrificial anode, the anode holder adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator” (claim 37). Consequently, the Board should deny the Petition and decline to institute *inter partes* review.

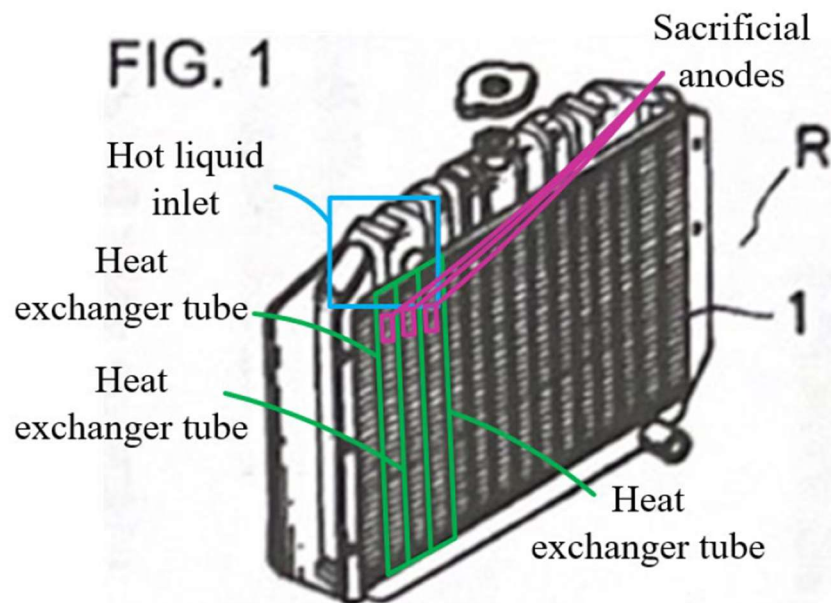
A. The Petition Does Not Demonstrate that the Challenged Claims are Unpatentable under Ground 1

1. Claim 12 - Tomosada does not disclose or render obvious “wherein the sacrificial anode is placed within 10 inches of a hot liquid inlet to the radiator.”

Petitioner has failed to demonstrate that Tomosada meets the claimed requirement that “the sacrificial anode is placed within 10 inches of a hot liquid inlet to the radiator” as required by claim 12, either under an anticipation or obviousness analysis. As an initial matter, within its limited three-page disclosure, Tomosada does not disclose any length measurement of any components of the Tomosada system, let alone any reference to the distance between the sacrificial anode and the hot liquid inlet. *See generally*, Ex. 1005, 1-3. Likewise, there is no description of the size of the radiators generally in Tomosada. *Id.* Indeed, Petitioner admits that Tomosada does not assign “the turbulator 2 [the alleged sacrificial anode] to any particular location within the heat exchanger tube 1.” Petition, 30. Additionally, neither Petitioner nor its expert Dr. Medlin alleges that the sacrificial anode is inherently “placed within 10 inches of a hot liquid inlet to the radiator.” *See, e.g.*, Petition, 29-33, Ex. 1004, ¶¶162-174. To be inherent, “the limitation at issue necessarily must be present, or the natural result of the combination of elements explicitly disclosed by the prior art.” *Par Pharm.*, 773 F.3d at 1196. For this reason alone, Tomosada does not explicitly or inherently anticipate a sacrificial anode

“placed within 10 inches of a hot liquid inlet to the radiator” and therefore Tomosada does not anticipate claim 12 or any of its dependent claims.

Petitioner also fails to demonstrate that it would have been obvious to place Tomosada’s sacrificial anode “within 10 inches of a hot liquid inlet to the radiator.” The only evidence Petitioner points to is a highly annotated version of a patent drawing from Tomosada:



Petition, 31. Apart from the fact that the alleged hot liquid inlet, heat exchanger tube, and sacrifice anodes identifications are supplied by Petitioner, the location of the alleged sacrificial anodes in relation to the hot liquid inlet is arbitrarily fabricated by the Petitioner. Tomosada is completely silent as to where the sacrificial anodes are located in relation to the hot liquid inlet. Petitioner cannot rely on such fabrications because “it is well established that patent drawings do not define the precise

proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.” *Hockerson-Halberstadt, Inc. v. Avia Group Inter., Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000); *see also Nystrom v. Trex Co., Inc.*, 424 F.3d 1136, 1149 (Fed. Cir. 2005), *cert. denied*, 547 U.S. 1055 (2006) (“Hockerson-Halberstadt indicated our disfavor in reading precise proportions into patent drawings which do not expressly provide such proportions”); *Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1268 (Fed. Cir. 2012) (“[t]his court has repeatedly cautioned against overreliance on drawings that are neither expressly to scale nor linked to quantitative values in the specification.”). Thus, Tomosada does not disclose a sacrificial anode “within 10 inches of a hot liquid inlet to the radiator.”

Petitioner further argues that this claim element would have been obvious because “‘a sacrificial anode placed in a flow path provides anodic protection over a significantly smaller distance upstream of the sacrificial anode than the anodic protection it provides downstream of the sacrificial anode and ‘a POSITA would have been motivated to locate the sacrificial anode of the turbulator 2 as far upstream as possible (i.e., as close to a hot liquid inlet as possible, etc.) in order to provide protection to as much of the heat exchanger tube 1 as possible.’” Petition, 31-32, citing Ex. 1004, ¶171; *see also* Ex. 1004, ¶¶97-99, 172-74.

Petitioner is wrong for at least two reasons. First, neither Tomosada nor Petitioner’s arguments make any reference whatsoever to any length measurements

with respect to the invention disclosed by Tomosada or to radiators generally. As discussed in Section II, radiators can greatly vary in size with some vehicle radiators measuring up to 143.5” (nearly 12 feet) wide. Given this great variation, it is particularly important to evaluate the specific dimensions of the radiator in question. Yet, even in Petitioner’s arbitrary annotations to Tomosada’s Figure, there are no estimated distances given. Indeed, even if Petitioner provided support for the allegation that the sacrificial anode should be placed “as close to a hot liquid inlet as possible” (which is not supported), Petitioner provides no analysis for whether “as close as possible” would necessarily be within 10 inches.

Second, Petitioner’s argument is made up out of whole cloth based on the unsupported and conclusory opinion of its expert. Specifically, Tomosada does not disclose a sacrificial anode within 10 inches of the hot liquid inlet and Dr. Medlin supplies this missing claim limitation without any support. *See*, Ex. 1004, ¶¶97-174 (citing no support for the “within 10 inches” limitation). “[I]n an obviousness analysis, conclusory assertions from a third party about general knowledge in the art cannot, without supporting evidence of record, supply a limitation that is not evidently and indisputably within the common knowledge of those skilled in the art...expert testimony may explain ‘patents and printed publications,’ but is not a substitute for disclosure in a prior art reference itself.” *See* November 2019 Update to the Trial Practice Guide at 36; *see also Arendi S.A.R.L.*, 832 F.3d at 1366-67

(Reversing obviousness decision because the Patent and Trial Appeal Board presumed a missing claim limitation was present in the prior art based on conclusory statements made by Petitioner's expert); *DSS Tech. Mgmt.*, 885 F.3d at 1374 (“common sense is typically invoked to provide a known motivation to combine, not to supply a missing claim limitation.”). Such conclusory expert testimony is not a substitute for Tomosada's lack of disclosure on this point.

Lastly, Petitioner argues that the 10 inch limitation was “merely a design choice that would have been obvious.” Petition, 32. Petitioner is wrong. The '494 Patent identifies the 10 inch limitation as an important aspect of the invention and not merely “a design choice.” Specifically, the '494 Patent specification solely identifies the 10 inch limitation and does not identify any other limitation for the distance between the sacrificial anode and the hot liquid inlet in inches or otherwise. Ex. 1001, 3:21-24. Indeed, the design-choice doctrine is not applicable here because the proximity of the sacrificial anode has a functional impact on the overall system. *See, Unified Patents Inc. v. Velos Media, LLC*, IPR2019-00660, Paper 8, 8 (PTAB Aug. 7, 2019); *see also In re Chu*, 66 F.3d 292 (Fed. Cir. 1995) (holding that “design choice” cannot apply where the record shows a functional impact of the choice.”). Moreover, both of the “design choice” cases cited by Petitioner are readily distinguishable. Unlike the prior art references in *Rexnord* and *Airlite Plastics*, Tomosada does not teach the specific claimed limitation of a distance of “within 10

inches” or any distance whatsoever. *See, Rexnord Indus., LLC v. Kappos*, 705 F.3d 1347, 1356 (Fed. Cir. 2013) (“All of the structural elements of the claims are shown in the references.”); *Airlite Plastics Co. v. Plastilite Corp.*, 526 F.2d 1078, 1082-83 (8th Cir. 1975) (Prior art disclosed claimed limitation with a similar number of degrees (270° vs. 360°), with Court noting that patent owner’s expert was “equivocal or doubtful” whether claimed feature was not obvious). Indeed, this case is akin to *Noven Pharms., Inc. v. Actavis Labs, UT, Inc.*, where the Court concluded that because the prior art did not disclose the claimed size reduction of a drug patch (either 20% or 33%), “the specific size reduction in designing a smaller patch would not have been ‘an obvious design choice.’” No. 15-249-LPS, 2017 U.S. Dist. LEXIS 235612, at *79 (D. Del. Dec. 22, 2017) For each of the foregoing reasons, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 12 or its dependent claims.

2. Claim 25 – Tomosada does not disclose or render obvious “a sacrificial anode installed within 10 inches of the hot liquid inlet of the radiator.”

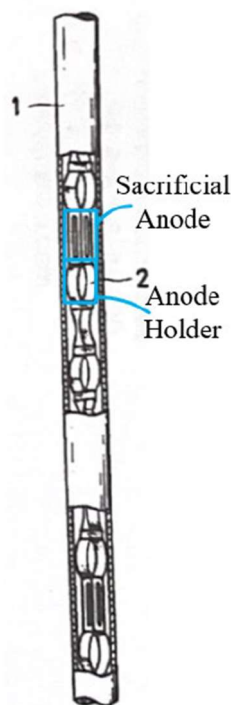
Petitioner makes no new argument with respect to independent claim 25, arguing “[a]s set forth above with respect to claim 12, Tomosada teaches that the turbulator 2 includes a sacrificial anode that is installed within 10 inches of a center axis of the hot liquid inlet of the radiator.” Petition, 37. Thus, for the same reasons set forth above in Section IX.A.1, Petitioner’s analysis of claim 25 is equally

deficient. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 25 or its dependent claims.

3. Claim 37 – Tomosada does not disclose or render obvious “an anode holder supporting the sacrificial anode, the anode holder adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator.”

With respect to the “anode holder supporting the sacrificial anode” portion of the limitation, Petitioner alleges “a POSITA would have understood that the ring-shaped component is an anode holder” of Tomosada’s Figure 2 as annotated below:

FIG. 2



Petition, 41-42, citing Ex. 1004, ¶¶208, 225-26. As an initial matter, Tomosada itself does not disclose that the “ring-shaped component” is an anode holder and further does not disclose that the rectangular portion is the sacrificial anode. Indeed,

Tomosada explicitly identifies “2” (the ring-shaped component) as “[a] turbulator 2 for improving heat exchange performance of the heat exchanger tube 1.” Ex. 1005, 1. Tomosada does not disclose any anode holder. Likewise, neither Petitioner nor Dr. Medlin allege that the “ring-shaped component” is inherently an anode holder. Similarly, whether such limitation would be obvious, Dr. Medlin once again provides a missing claim limitation via conclusory expert opinion with no supporting evidence cited beyond the arbitrary annotations of Figure 2. Ex. 1004, ¶¶225-226. As noted above, Dr. Medlin’s conclusory opinion “is not a substitute for disclosure in a prior art reference itself.” See November 2019 Update to the Trial Practice Guide at 36; *see also Arendi S.A.R.L.*, 832 F.3d at 1366-67; *DSS Tech. Mgmt.*, 885 F.3d at 1374. Thus, Tomosada does not explicitly or inherently anticipate nor render obvious an “anode holder supporting the sacrificial anode.”

With respect to the distance portion of the limitation, namely, “the anode holder adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator,” Petitioner makes no new argument, concluding that “the anode holder of Tomosada is adapted for installation in the radiator within 10 inches of a center axis of a hot liquid inlet to the radiator.” Petition, 41-42 citing Ex. 1004, ¶226 (“As I have explained above with respect to claim 12...); *see also* Petition, 40 citing Ex. 1004, ¶¶82, 83, 91, 94-99, 155-174, 207-210, 224-226. Thus, for the same reasons set forth above in Section IX.A.1, Petitioner’s analysis of claim 37 is equally

deficient. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 37 or its dependent claims.

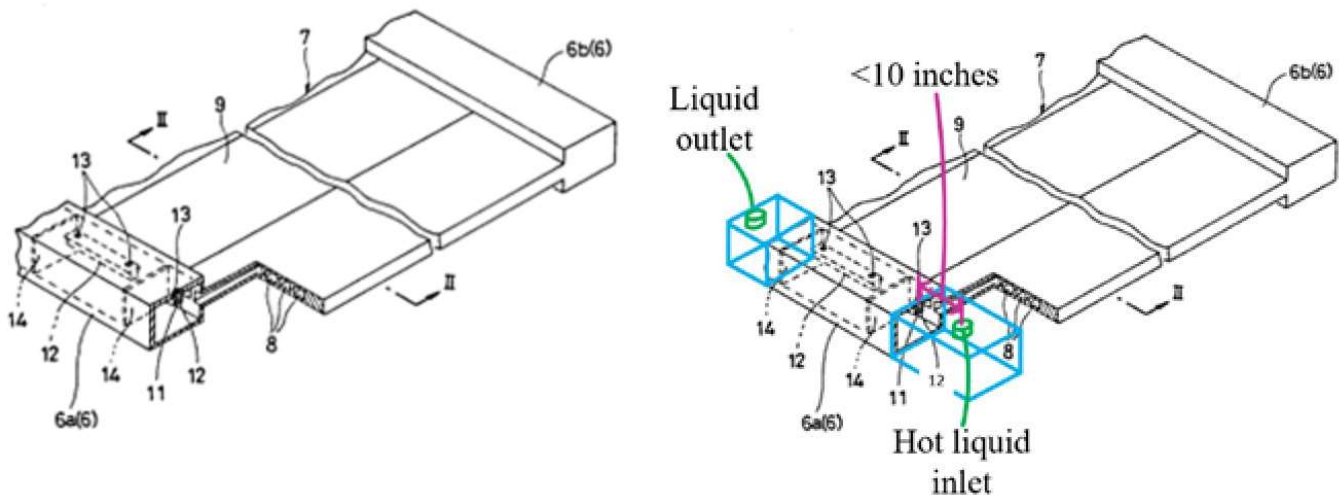
B. The Petition Does Not Demonstrate that the Challenged Claims are Unpatentable under Ground 3

1. Claim 12 – Hanazaki-196 does not disclose or render obvious “wherein the sacrificial anode is placed within 10 inches of a hot liquid inlet to the radiator.”

Petitioner has also failed to demonstrate that Hanazaki-196 anticipates or renders obvious the claimed requirement that “the sacrificial anode is placed within 10 inches of a hot liquid inlet to the radiator” as required by claim 12. Like Tomosada, Hanazaki-196 does not disclose any length measurement of any components of the Hanazaki-196 system, let alone any reference to the distance between the sacrificial anode and the hot liquid inlet. *See generally*, Ex. 1007. Likewise, there is no description of the size of the radiators generally in Hanazaki-196. *Id.* As noted above in Section II, radiators can vary greatly in size and dimension, thus the distance between radiator components can also greatly differ.

With respect to this limitation, Hanazaki-196 discloses a “heat exchanger [that] is structured from a pair of header pipes 6a and 6b, where a coolant supplying opening and coolant exhausting opening are provided at the two ends of the primary side header pipe 6a that is positioned on the upstream side.” *Id.*, 4. Figure 2A of Hanazaki-196 demonstrates where the header pipe 6a is located and where the

sacrificial anode 12 is located, but there is no disclosure of where the hot liquid inlet on header pipe 6a is located. *Id.*, 2A. To make up for this deficiency, Petitioner fabricates an annotated Figure 2A, which assumes without *any* support or evidence the complete size of header pipe 6a, the location of the hot liquid inlet on header pipe 6a, and assumes that the side that the hot liquid inlet is on is the same side as the sacrificial anode. *Compare*, Ex. 1007, Fig. 2a and Petition, 52 (annotated Fig. 2a):



As shown above, Petitioner’s annotations make up out of whole cloth that the hot liquid inlet is on the same side as the sacrificial anode, the general location of the hot liquid inlet in relation to the sacrificial anode, and the distance between them. But even if Petitioner’s arbitrary annotations were correct, there is no disclosure in Hanazaki-196 that indicates the sacrificial anode would necessarily be within 10 inches of the hot liquid inlet. As previously stated, “it is well established that patent drawings do not define the precise proportions of the elements and may not be relied

on to show particular sizes if the specification is completely silent on the issue.” *Hockerson-Halberstadt, Inc.*, 222 F.3d at 956; *see also Nystrom v. Trex Co., Inc.*, 424 F.3d at 1149; *Krippelz*, 667 F.3d at 1268. Thus, Hanazaki-196 does not explicitly disclose a hot liquid inlet within 10 inches of a sacrificial anode.

Indeed, neither Petitioner nor its expert Dr. Medlin alleges that the sacrificial anode is inherently “placed within 10 inches of a hot liquid inlet to the radiator.” *See, e.g.,* Petition, 52-54, Ex. 1004, ¶¶117-121, 264-167. To be inherent, “the limitation at issue necessarily must be present, or the natural result of the combination of elements explicitly disclosed by the prior art.” *Par Pharm.*, 773 F.3d at 1196. For this reason, Hanazaki-196 does not explicitly or inherently anticipate a sacrificial anode “placed within 10 inches of a hot liquid inlet to the radiator.” In other words, even if Hanazaki-196’s sacrificial anode *could* be placed “within 10 inches of a hot liquid inlet to the radiator,” this possibility does not satisfy the demanding inherency requirement. *Cont’l Can Co.*, 948 F.2d at 1269 (“Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.”) Thus, Hanazaki-196 does not anticipate claim 12 or any of its dependent claims.

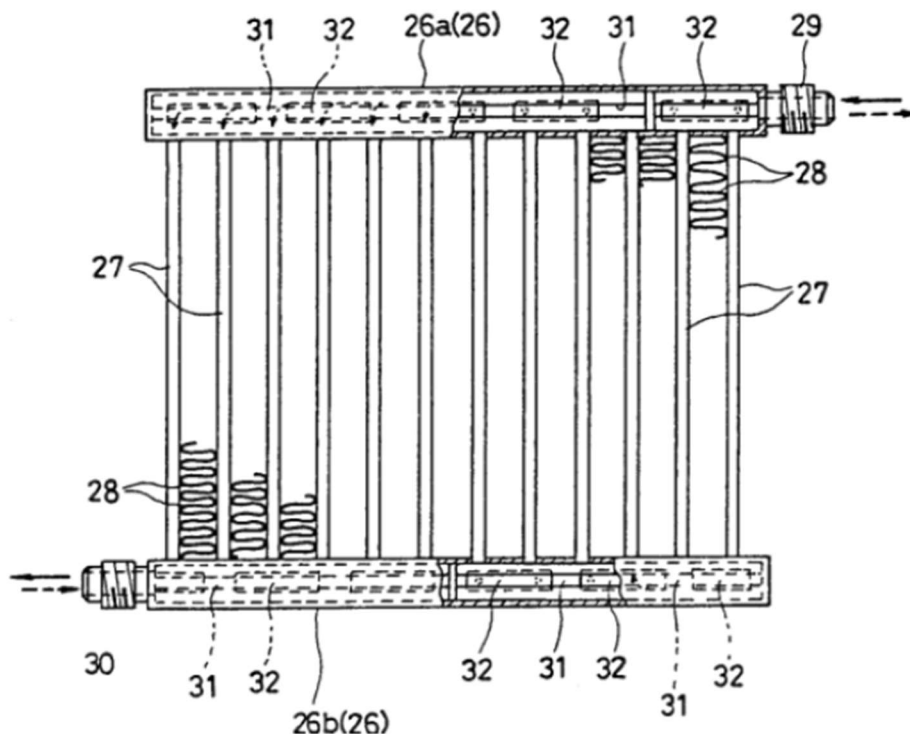
Petitioner also fails to demonstrate that it would have been obvious to place Hanazaki-196’s sacrificial anode “within 10 inches of a hot liquid inlet to the radiator.” With respect to the alleged obviousness of this limitation, Petitioner again

points to is a highly annotated version of Figure 2A and alleges that a “POSITA would have understood at least one of the sacrificial anodes 12 depicted in Figure 2A to be within 10 inches of a center axis of the hot liquid inlet. [] This understanding of the hot liquid inlet is consistent with the definition of an inlet provided by the ’494 Patent.” Petition, 53 citing Ex. 1004, ¶265, Ex. 1001, 7:4-8 (“The specific inlet connection 16 varies by vehicle make, model and model year, but the inlet 17 is generally understood to refer to the vicinity of where hot water coming directly from the engine enters into the radiator 11”). But this disclosure from the ’494 Patent does not support the specific annotations provided by Petitioner as (i) it does not specify where exactly the inlet is located and (ii) it makes clear that the adjoining inlet connection “varies by vehicle make, model and model year.” Ex. 1001, 7:4-5. More importantly, Petitioner cannot use a description of the patented invention itself as a roadmap to modify the prior art. “This line of reasoning would import hindsight into the obviousness determination by using the invention as a roadmap to find its prior art components.” *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005). Petitioner’s argument therefore necessarily fails.

Petitioner further argues that Hanazaki-196 teaches locating a sacrificial anode 32 at a supplying opening 29 in another embodiment (Figure 11) and that “[t]hese teachings would further motivate a POSITA to locate the sacrificial anode

12 within 10 inches of a center axis of the hot liquid inlet.” Petition, 53-54 citing Ex. 1007, 5; Ex. 1004, ¶267.

FIG. 11



Ex. 1007, Fig. 11. Like the embodiment described in Figure 2A, there is no description of the dimensions or size of the radiator, sacrificial anode, coolant supplying opening, or any other component described by Figure 11. The only reference to size given is that the sacrificial anode 32 “is fitted into the attaching groove 31, and is plug welded, at at [sic] least two welding points for each individual sacrificial anode 32, at prescribed intervals such as, for example, with a spacing of 30 cm.” *Id.*, 5. Hanazaki-196, however, does not specify what that 30 cm (11.8

inches) spacing refers to. Indeed, the only distance measurement of spacing is *greater* than 10 inches.

Hanazaki-196 is therefore completely silent as to where the sacrificial anodes are located in relation to the hot liquid inlet. Neither embodiment of Hanazaki-196 referenced by Petitioner discloses or renders obvious a sacrificial anode “within 10 inches of a hot liquid inlet to the radiator.”

Petitioner further argues that this claim element would have been obvious for the same reasons described for Tomosada. Petition, 53, citing Ex. 1004, ¶¶97-100, 171-74 (“As established above...Dr. Medlin has provided a variety of reasons why a POSITA would have located a sacrificial anode within 10 inches of a center axis of a hot liquid inlet.”). For the same reasons set forth above in Section IX.A.1, Petitioner’s analysis of claim 12 is equally deficient. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 12 or its dependent claims.

C. The Petition Does Not Demonstrate that the Challenged Claims are Unpatentable under Ground 4

1. Claim 25 – Hanazaki-196 and Hanazaki-069 do not disclose or render obvious “a sacrificial anode installed within 10 inches of the hot liquid inlet of the radiator.”

Although Ground 4 adds the Hanazaki-069 reference, Petitioner makes no new argument with respect to this claim limitation of independent claim 25, arguing “[a]s set forth above with respect to claim 12, Hanazaki-196 teaches that the

sacrificial anode 12 is installed within 10 inches of a center axis of the hot liquid inlet of the radiator.” Petition, 61-62 citing Ex. 1004, ¶¶259-67, 299-301. Thus, for the same reasons set forth above in Section IX.B.1, Petitioner’s analysis of claim 25 is equally deficient. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 25 or its dependent claims.

2. Claim 37 – Hanazaki-196 and Hanazaki-069 do not disclose or render obvious “an anode holder supporting the sacrificial anode, the anode holder adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator.”

With respect to the limitation “the anode holder adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator,” Petitioner makes no new argument, concluding that “a POSITA would have understood that the welding points 13 (or bolts) support the sacrificial anode 12 and are ‘adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator.’” Petition, 64-65 citing Ex. 1004, ¶¶259-67, 329-34. Thus, for the same reasons set forth above in Section IX.B.1, Petitioner’s analysis of claim 37 is equally deficient. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 37 or its dependent claims.

D. The Petition Does Not Demonstrate that the Challenged Claims are Unpatentable under Ground 5

1. Claim 12 - Godefroy does not disclose or render obvious “installing a sacrificial anode assembly including a sacrificial anode within the radiator.”

Petitioner has failed to demonstrate that Godefroy³ discloses or renders obvious “installing a sacrificial anode assembly including a sacrificial anode within the radiator” as required by claim 12. Petitioner cites Figure 1, which discloses a collector box 10 and a “sacrificial resist 14, in this case in the form of a tubular insert applied against the inside wall of the tubing 12, is provided inside the tubing 12.” Petition, 68-69, Ex. 2004, 6. According to Petitioner, because the sacrificial anode 14 is inside the tubing 12, Godefroy allegedly discloses “installing a sacrificial anode assembly including a sacrificial anode within the radiator.” Petition, 69. But the collector box 10 is not part of the radiator. As noted by Godefroy, “[h]eat exchangers of this kind are typically made up of a bundle of tubes **connected to one or more collector boxes** which define a volume through which a heat transfer fluid passes...” Ex. 2004, 1 (emphasis added). Specifically, the collector box is a coolant reservoir that is part of the engine cooling system and is separate from the radiator. As shown

³ As noted in Section VIII, Petitioner’s translation of Godefroy is inaccurate.

Citations to the correct version of Godefroy (Ex. 2004) are therefore cited herein.

below for a Freightliner M2 truck, the radiator is identified with a red arrow and the collector box is identified with a blue arrow:



Ex. 2007, 1. Godefroy specifies the sacrificial resist “can be contained in a reservoir, in particular a collector box, of the heat exchanger.” Ex. 2004, 5. Thus, the tubing 12 is not “within the radiator” and therefore neither is the sacrificial resist 14 as required by claim 12. Moreover, the Petition does not otherwise argue why a POSITA would have been motivated to place the sacrificial anode within the

radiator. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 12 or its dependent claims.

2. Claim 12 - Godefroy does not disclose or render obvious “wherein the sacrificial anode is placed within 10 inches of a hot liquid inlet to the radiator.”

Petitioner has failed to demonstrate that Godefroy meets the claimed requirement that “the sacrificial anode is placed within 10 inches of a hot liquid inlet to the radiator” as required by claim 12, either under an anticipation or obviousness analysis. The Petition again relies as Figure 1 and alleges that “the sacrificial anode 14 [of Godefroy] (formed as an insert) is applied to the pipe 12’ [which Godefroy discloses is intended for the inlet] and a ‘POSITA would have understood that the sacrificial anode is therefore necessarily placed within 10 inches of a center axis of a hot liquid inlet to the radiator.” Petition, 69-70 citing Ex. 1004, ¶¶355-361, Ex. 1008, 8. This is the sum total of Petitioner’s argument for this claim limitation.

Once again, Petitioner ignores the fact that the tubing 12 is the tubing that allows fluid flow into the collector box, not to the radiator. Ex. 2004, 6 (“Fig. 1 shows a collector box of a heat exchanger provided with tubing in which a protection device according to the invention is placed.”). As discussed above, the collector box of a heat exchanger is different than a radiator. Thus, locating a “sacrificial resist 14” within “tubing 12” of the collector box does not disclose a sacrificial anode located “within 10 inches of a hot liquid inlet to the radiator” required by claim 12.

Likewise, because the inlet described in Godefroy is an inlet a collector box, Godefroy also does not disclose or describe a “hot liquid inlet to the radiator” in the first place. Moreover, Godefroy is silent as to any distance between the sacrificial anode and the radiator generally, much less a hot liquid inlet to the radiator. For this additional reason, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 12 or its dependent claims.

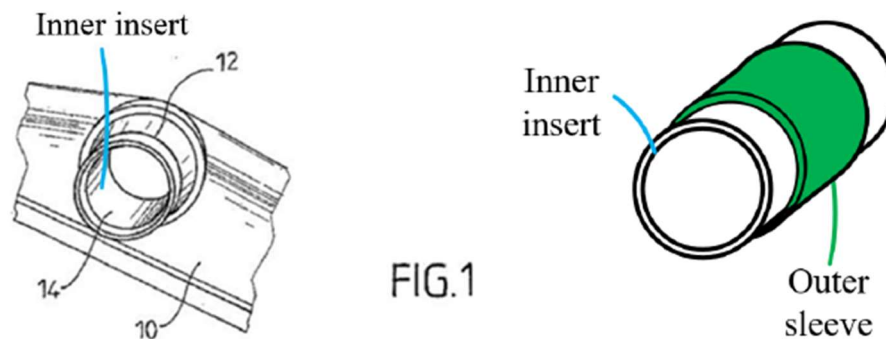
3. **Claim 25 – Godefroy does not disclose or render obvious “a hot liquid inlet to the radiator from an engine of the motor vehicle, the hot liquid inlet providing fluid communication for fluid flow of hot liquid from the engine” or “a sacrificial anode installed within 10 inches of the hot liquid inlet of the radiator.”**

Petitioner makes no new argument with respect to independent claim 25, using the same arguments it did for claim 12. Petition, 72-73. Thus, for the same reasons set forth above in Section IX.D.1 and 2, Petitioner’s analysis of claim 25 is equally deficient. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 25 or its dependent claims.

4. **Claim 37 – Godefroy does not disclose or render obvious “an anode holder supporting the sacrificial anode, the anode holder adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator.”**

With respect to the “anode holder supporting the sacrificial anode” portion of the limitation, Dr. Medlin alleges, with no support “a POSITA would have

understood Godefroy as showing that the sacrificial anode 14 (formed as an insert) includes an inner insert that is a sacrificial anode, or that includes sacrificial anodes, and an outer sleeve within which the inner insert is placed. The outer sleeve facilitates application of the inner insert to the pipe 12. **While Godefroy does not depict the outer sleeve in Figure 1**, a POSITA would have understood that there are numerous feasible configurations for the outer sleeve.” Ex. 1004, ¶407 (emphasis added).



Id., Fig. 1. According to Dr. Medlin, “the outer sleeve holds the inner insert, and therefore is an ‘anode holder supporting the sacrificial anode.’” *Id.*, ¶408.

As Dr. Medlin admits, Godefroy does not disclose any “outer sleeve.” *Id.*, ¶407. Indeed, Godefroy contains no disclosure that any anode holder is used to allegedly place the sacrificial anode in tubing 12. Likewise, because the collector box is separate from the radiator, Godefroy does not disclose “an anode holder adapted for installation in an engine radiator” as required by claim 37.

Similarly, whether such limitation would be obvious, Dr. Medlin once again provides a missing claim limitation via conclusory expert opinion with no supporting evidence cited beyond his imaginary “outer sleeve” figure. Ex. 1004, ¶¶407-408. As noted above, Dr. Medlin’s conclusory opinion “is not a substitute for disclosure in a prior art reference itself.” *See* November 2019 Update to the Trial Practice Guide at 36; *see also Arendi S.A.R.L.*, 832 F.3d at 1366-67; *DSS Tech. Mgmt.*, 885 F.3d at 1374. Thus, Godefroy does not explicitly or inherently anticipate nor render obvious an “anode holder supporting the sacrificial anode.”

With respect to the distance portion of the limitation, namely, “the anode holder adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator,” (including the limitation of “a hot liquid inlet to the engine radiator”) Petitioner makes no new argument, referring back to claim 12. Petition, 75-76. Thus, for the same reasons set forth above in Section IX.D.1 and 2, Petitioner’s analysis of claim 37 is equally deficient. As a result, Petitioner has not carried its burden of demonstrating a reasonable likelihood of success with respect to claim 37 or its dependent claims.

X. THE BOARD SHOULD DENY INSTITUTION BASED ON §315(b)

Petitioner is well aware that EPS “has sued one of Petitioner’s customers, DTNA for alleged infringement of the ’494 Patent” over a year before the Petition was filed. Petition, 1; Ex. 1002. DTNA is a real party in interest and is in privity

with Petitioner. *See*, Ex. 1002. Accordingly, the Board should deny institution of the Petition as time barred pursuant to 35 U.S.C. §315(b).

A. LEGAL STANDARD

Under 35 U.S.C. §315(b), an *inter partes* review “may not be instituted if the petition requesting the proceeding is filed more than one year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.” “Determining whether a non-party is a ‘real party in interest’ demands a flexible approach that takes into account both equitable and practical considerations, with an eye toward determining whether the non-party [1] is a clear beneficiary that [2] has a preexisting, established relationship with the petitioner.” *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018) (“AIT”); *see also Worlds Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1246 (Fed. Cir. 2018) (adopting AIT 2-part test); *Sirius XM Radio, Inc. v. Fraunhofer-Gesellschaft Zur Forderung der Angewandten Forschung E.V.*, IPR2018-00681, 2018 Pat. App. LEXIS 8292 (Sept. 21, 2018) (same). In other words, the AIT test asks “whether a non-party ‘desires review of the patent’ and whether a petition has been filed at a nonparty’s behest.” *Id.* at 1351 (quoting Trial Practice Guide, 77 Fed. Reg. at 48,759). A non-party is a clear beneficiary where it “will benefit from the redress that the chosen tribunal might provide,”—i.e., “having [the challenged patent] claims canceled or invalidated.” *Id.* at 1348-49. With respect

to the term “real party in interest” the Federal Circuit cited various aspects of the AIA, suggesting that the term should “sweep[]” broadly. *AIT*, 897 F.3d at 1346-47.

Additionally, “privity,” as used in §315(b), exists where “the petitioner is simply serving as a proxy to allow another party to litigate the patent validity question that the other party raised in an earlier-filed litigation.” *WesternGeco LLC v. ION Geophysical Corp.*, 889 F.3d 1308, 1319 (Fed. Cir. 2018) citing *Taylor v. Sturgell*, 553 U.S. 880, 895 (2008). In *Taylor v. Sturgell*, the Supreme Court provided a non-exhaustive list for examining whether the legal relationship between two parties establishes that one is the privy of the other: “(1) an agreement between the parties to be bound; (2) pre-existing substantive legal relationships between the parties; (3) adequate representation by the named party; (4) the non-party’s control of the prior litigation; (5) where the non-party acts as a proxy for the named party to relitigate the same issues; and (6) where special statutory schemes foreclose successive litigation by the non-party (e.g., bankruptcy and probate).” 553 U.S. at 894–95. Any one of these factors can support a finding of privity. *AIT*, 897 F.3d at 1360 (describing “six categories that create independent exceptions” to the normal rule forbidding non-party preclusion). For example, privity exists “where the nonparty to an earlier litigation acts as a proxy for the named party to relitigate the same issues.” *Taylor*, 553 U.S. at 895. Petitioner bears the burden of persuasion to show that the petition is not time-barred under §315(b), and thus bears the burden of

proving that DTNA is not a real party in interest or Petitioner's privy. *AIT*, 897 F.3d at 1356; *Bungie*, 903 F.3d at 1242.

B. DTNA is a real party in interest

The Federal Circuit's two-part test can easily be applied here to show that Petitioner is merely a proxy for DTNA. On April 19, 2021, EPS sued DTNA for infringement of the '494 Patent in the Western District of North Carolina ("the Litigation"). Ex. 1002. DTNA failed to file an IPR within the one-year statutory period. The instant Petition was filed more than two years after EPS sued DTNA. Petition, 89. The Petition challenges each of the claims that DTNA is accused of infringing in the Litigation. *Compare* Petition, 8-9 and Ex. 1003, 6. There can be no legitimate dispute that DTNA would benefit from the cancellation of the challenged '494 Patent claims.⁴ *See*, Petition, 3 ("DTNA may benefit from this proceeding..."); *see also AIT*, 897 F.3d at 1351.

Petitioner and DTNA also had a preexisting, established relationship at the time of filing the Petition. *AIT*, 897 F.3d at 1351. DTNA and Petitioner have done

⁴ Petitioner, on the other hand, has not been sued by EPS. As such Petitioner is "at most, a 'nominal plaintiff' with 'no substantial interest in [the *inter partes* review] apart from those of its client," DTNA. *See RPX Corp. v. Virnetx Inc.*, Case IPR2014-00171, Paper 49, 10 (PTAB June 5, 2014).

business together since at least 2016. Ex. 1019, 1. As Petitioner admits, “Petitioner supplies certain radiator products to DTNA pursuant to DTNA’s standard Terms.” Petition, 3 citing Ex. 1019. DTNA and Petitioner have therefore had a long-standing contractual relationship. Ex. 1019. With respect to the radiator products Petitioner supplies to DTNA, Petitioner claims that the Litigation “does not accuse Petitioner’s products of infringing the ’494 Patent.” Petition, 2. This is not true. DTNA specifically notified Petitioner that “[t]he complaint and EPS’s initial infringement contentions **only identify a single radiator that is not supplied to DTNA by MAHLE Behr...**” Ex. 1018 (emphasis added); *see also* Ex. 1003, 9. Thus, not only do Petitioner and DTNA have an established and existing relationship, but that relationship is predicated on the very products accused of infringing the ’494 Patent.

Petitioner not only supplies many of the radiator products accused of infringement, Petitioner (Seller) also agreed to indemnify DTNA (Buyer) for those products by warranting “that the goods or services sold will not infringe any U.S. or foreign patent and/or any third party intellectual property right, and Seller will, at its expense, defend, indemnify and save Buyer harmless from and against any loss, damage, expense or liability....” Ex. 1019, ¶14 (emphasis added). Pursuant to the indemnification clause in the parties’ agreement, DTNA requested indemnification from Petitioner for Petitioner’s products at issue in the Litigation. Ex. 1018. While Petitioner initially declined to indemnify DTNA for the Litigation, it has since

significantly assisted DTNA in the Litigation, including assistance with invalidity arguments against the '494 Patent. Ex. 1020 (“MAHLE has cooperated with DTNA, through counsel, to assist DTNA in defending against certain claims of patent infringement in the Lawsuit **by producing...prior art that on their merit should dispose of the Lawsuit in its entirety**. MAHLE is willing to continue to cooperate with DTNA as necessary with respect to the Lawsuit.”) (emphasis added). Indeed, two of the Petition’s primary references – Godefroy and Hanazaki-069 – are primary references in DTNA’s invalidity contentions. *See*, Ex. 1006, 1008; *see also* Ex. 2008, 3. The indemnification agreement, subsequent correspondence regarding indemnification, and overlap of the prior art asserted in both actions evidence Petitioner’s and DTNA’s coordinated efforts to challenge the validity of the '494 Patent.

Notably, Petitioner confirmed that DTNA is a real party in interest by claiming that its communications with DTNA concerning prior art and invalidity arguments against the '494 Patent are subject to a *common interest privilege*. Specifically, EPS served a subpoena in the Litigation to Petitioner requesting “[a]ll documents relating to EPS, the Patent-in-Suit, and/or this action, including any communications between Mahle Behr Charleston and DTNA related to any of the foregoing” and “[a]ll agreements with DTNA related to the Patents-in-suit.” Ex. 1021, 9 (Request Nos. 6 and 10). In response to both requests, Petitioner objected

on privilege grounds, including the common interest privilege, and refused to produce any communications or agreements with DTNA. Ex. 2009, 1-2, 6, 8-9. In fact, Petitioner explicitly asserted “that **it and DTNA have common legal interests related to the defense of any such claims (e.g., any...invalidity...positions as to the ’494 Patent)**.” Ex. 1020 (emphasis added).

Likewise, DTNA claimed a common interest privilege for communications with Petitioner regarding the ’494 Patent and refused to produce or log the requested communications. Ex. 2010, 1 (“[T]he remaining unproduced communications [with Petitioner] [are] protected by the common interest privileged [sic].”); *see also* Ex. 2011, 1. “Rather than a separate privilege, the ‘common interest’...rule is an exception to ordinary waiver rules designed to allow attorneys for different clients pursuing a common legal strategy to communicate with each other.” *Waymo LLC v. Uber Techs., Inc.*, 870 F.3d 1350, 1359 (Fed. Cir. 2017) quoting *In re Pac Pictures Corp.*, 679 F.3d 1121, 1129 (9th Cir. 2012). “However, a shared desire to see the same outcome in a legal matter is insufficient to bring a communication between two parties within this exception. Instead the parties must make the communication in pursuit of a joint strategy in accordance with some form of agreement – whether written or unwritten.” *Pac Pictures*, 679 F.3d at 1129 (internal citations omitted). The common interest privilege applies when “the specific communications at issue were designed to facilitate a common legal interest; a business or commercial

interest will not suffice. *Minebea Co. v. Pabst*, 228 F.R.D. 13, 16 (D.C. Cir. 2005) (internal citations omitted).

Here, both Petitioner and DTNA admit to a common legal interest in asserting that the '494 Patent claims are invalid. This admission should be conclusive regarding DTNA's status as a real party in interest. See *AIT*, 897 F.3d at 1360 (describing "six categories that create independent exceptions" to the normal rule forbidding non-party preclusion, including a "pre-existing substantive legal relationships between the parties" and "adequate representation by the named party.").

In *Cisco Sys., Inc. v. Hewlett Packard Enter. Co.*, the PTAB denied a petition finding that an unnamed party that was a defendant in a co-pending litigation on the same patent was a real party in interest, noting that the common interest doctrine had been invoked with respect to communications between Petitioner and the unnamed party. IPR2017-01933, Paper 9 (PTAB Mar. 16, 2018). By shielding its communications with DTNA regarding validity of the '494 Patent behind a "common interest privilege," Petitioner confirms that DTNA is a real party in interest.

Petitioner claims that "DTNA has no control over this proceeding (and could not control this proceeding), [] DTNA is not funding or directing this proceeding" and "Petitioner and DTNA have had no communications regarding this Petition or

proceeding.” Petition, 3. But this belies the fact that Petitioner has provided assistance to DTNA regarding its invalidity allegations in the Litigation, which as previously shown directly overlaps with the invalidity allegations in the Petition. Nonetheless, whether DTNA has control over the IPR is not dispositive. As the Federal Circuit noted in *AIT*, a “non-party to an IPR can be a real party in interest even without entering into an express or implied agreement with petitioner to file an IPR petition.” *AIT*, 897 F.3d 1354. In fact, “a non-party may be a real party in interest *even in the absence of control or an opportunity to control.*” *Cisco Sys.*, IPR2017-01933, Paper 9, 13, citing Trial Practice Guide, 77 Reg. at 48,760 (emphasis in original).

This case is analogous to *Ventex Co., Ltd. v. Colombia Sportswear North America, Inc.*, where the PTAB vacated an IPR because an unnamed defendant in a co-pending litigation was a real party in interest and time barred under §315(b). IPR2017-00651, Paper 148 (PTAB Jan. 24, 2019). In *Ventex*, Petitioner and defendant had a customer-supplier relationship for many years pursuant to a “Supplier Agreement” in which the *Ventex* Petitioner agreed to indemnify and defend defendant. *Id.*, 7. Here, Petitioner and DTNA have done business together for several years under a similar agreement including a clause in which Petitioner agreed to indemnify and defend DTNA. Ex. 1019, ¶14.

In *Ventex*, Patent Owner sued defendant of infringing the patent at issue in the IPR which incorporated products made by Petitioner. *Ventex*, IPR2017-00651, Paper 148, 7. Here, DTNA specifically admitted that Patent Owner’s infringement contentions only “identify a single radiator that is not supplied to DTNA by MAHLE Behr.” Ex. 1018. Indeed, the indemnification clause in the agreement between DTNA and Petitioner specifies that Petitioner warrants that the “goods...sold [i.e., radiators supplied by Petitioner identified in Patent Owner’s infringement contentions] will not infringe any U.S. or foreign patent” and “will, at its expense, defend, indemnify, and save Buyer harmless from any ... liability.” Ex. 1019, ¶14.

Further still, in *Ventex*, the subject of the contract:

between the two parties – material that is the subject of infringement allegations tied to the [same patent] – incentivizes both parties to invalidate claims of the [same patent]. In that sense, [defendant] is a clear beneficiary of [Petitioner’s] efforts in this *inter partes* review, and it follows readily that [Petitioner] represents [defendant] in this proceeding. Importantly, [Petitioner] seeks relief in this forum that [defendant] is barred under §315(b) from seeking for itself. As in AIT, the evidence suggests that [Petitioner] filed this action, in part, to benefit [defendant].

Ventex, IPR2017-00651, Paper 148, 8. The same is true here.

Indeed, Petitioner’s arguments that DTNA is not a real party in interest mirror the same failed arguments by the petitioner in *Ventex*. In *Ventex*, Petitioner argued

that it “had its own reasons for filing this action” apart from assisting defendant. *Ventex*, IPR2017-00651, Paper 148, 8. Likewise here, Petitioner argues that its “interests in invalidating the ’494 Patent extend beyond those of DTNA...to eliminate the possibility of any future dispute with EPS regarding the ’494 Patent.” Petition, 3. But as *Ventex* notes, this argument “misses the point.” *Ventex*, IPR2017-00651, Paper 148, 9. “That [Petitioner] had interest in invalidating claims in the [patent] does not address whether [defendant] is a real party in interest—‘it is not an either-or proposition.’” *Id.*, citing *AIT*, 897 F.3d at 1353. “The point is not to probe [Petitioner’s] interest (it does not need any); rather, it is to probe the extent to which [defendant]—as [Petitioner’s] client—has an interest in and will benefit from [Petitioner’s] actions, and inquire whether [Petitioner’s] can be said to be representing that interest.” *Id.*

While the claims challenged in this IPR do not directly overlap with the claims asserted in the litigation, this is not material to the real party in interest determination. As *Ventex* points out, “it is abundantly clear that [defendant] had considerable interest in [Petitioner’s] pursuit of an invalidity determination for claims of [the patent]. That is logically so even if without perfect overlap between claims involved in [defendant’s] Litigation and claims involved in the IPRs. There cannot be any credible assertion that a determination of invalidity as to claims of the patents would not inure to the benefit of [defendant] in [defendant’s] Litigation.” *Id.*

For the foregoing reasons, DTNA is a real party in interest, thus rendering the Petition time-barred under §315(b).

C. Petitioner and DTNA are in privity

The Federal Circuit has established that “serving as a proxy to allow another party to litigate the patent validity question that the other party raised in an earlier-filed litigation” is sufficient to establish privity. *WesternGeco*, 889 F.3d at 1319. Here too, *Ventex* is directly on point. As previously discussed, Petitioner and DTNA had a preexisting, substantial legal relationship concerning the alleged invalidity claims. This relationship is confirmed by DTNA and Petitioner’s joint assertion and acknowledgement of a common interest privilege between them concerning the alleged invalidity of the ’494 Patent. Additionally, DTNA and Petitioner are parties to a customer-supplier agreement that includes an indemnity clause pertaining to the accused products. *See*, Section X.B. Further still, the contract specified an obligation to defend DTNA and directly related to the products accused of infringing the ’494 Patent in the Litigation. *Id.* These same factors were also present in *Ventex*, where the Board ruled that “[f]inding [defendant] and [Petitioner] in privity with one another comports with the goal of ‘tak[ing] into account the ‘practical situation’ and [extending privity] to parties, to transactions, and other activities *relating to the property in question.*” *Ventex*, IPR2017-00651, Paper 148, 12-13 quoting Trial Practice Guide, 77 Fed. Reg. at 48,759 (emphasis in original).

In sum, the Board should find that Petitioner and DTNA are in privity, thus rendering the Petition time-barred under §315(b).

XI. THE BOARD SHOULD ALSO EXERCISE ITS DISCRETION UNDER §314(a) AND DENY INSTITUTION BASED ON *FINTIV* FACTORS

As set forth above, Petitioner fails to carry its burden of demonstrating that the challenged claims are unpatentable. Additionally, Petition also merits denial under an analysis of the *Fintiv* factors due to the advanced stage of the parallel district court proceedings and the duplication of the invalidity grounds asserted therein. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11, 2-3 (PTAB Mar. 20, 2020) (precedential); *see also Cisco Sys., Inc. v. Oyster Optics, LLC*, IPR2021-00238, Paper 10 (Jun. 1, 2021) (Panel exercising discretion to deny institution after holistic analysis of *Fintiv* factors).

A. Legal Standards

The PTAB has set out six factors the Board should consider when deciding whether to exercise its discretion to deny a petition in view of parallel litigation. According to *Fintiv I*, “[w]hen the patent owner raises an argument for discretionary denial under *NHK* due to an earlier trial date, the Board’s decisions have balanced [six] factors,” including:

- (1) whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;

- (2) the proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
- (3) investment in the parallel proceeding by the court and the parties;
- (4) overlap between issues raised in the petition and in the parallel proceeding;
- (5) whether the petitioner and the defendant in the parallel proceeding are the same party; and
- (6) other circumstances that impact the Board’s exercise of discretion, including the merits.

Apple Inc. v. Fintiv, Inc, IPR2020-00019, Paper 11, 6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”). “These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Id.* In evaluating these factors, the Board takes “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.*, citing Patent Trial and Appeal Board Consolidated Trial Practice Guide at 58 (November 2019).

Additionally, “[i]n circumstances where, [] the Board’s analysis of *Fintiv* factors 1-5 favors denial of institution, the Board shall then assess compelling merits. In doing so, the Board must provide reasoning sufficient to allow the parties to challenge that finding and sufficient to allow for review of the Board’s decision.”

Commscope Technologies LLC v. Dali Wireless, Inc., IPR2022-01242, Paper 23, 5 (PTAB Feb. 27, 2023) (precedential). “[W]hen determining whether there is a compelling unpatentability challenge, the Board evaluates whether the Petition presents challenges in which the evidence, if unrebutted at trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence. *Id.*, 3 (internal citations omitted). As discussed below, the majority of the *Fintiv* factors favor denying institution. Likewise, Petitioner has failed to provide a compelling unpatentability challenge.

B. Factor 1: The Court has not granted a stay in the co-pending litigation and is highly unlikely to stay the co-pending litigation

The first *Fintiv* factor addresses the likelihood of a stay if this proceeding is instituted. Here, the district court has not considered a motion to stay. *Cisco Sys., Inc. v. Oyster Optics, LLC*, IPR2021-00238, Paper 10, 11 (PTAB Jun. 1, 2021). Moreover, even if a stay were requested at this time, it is highly unlikely that the request would be granted.⁵ That is because the Litigation is already in its third year with trial set just less than four months from now on January 2, 2024. Ex. 2012, 2. Although the Board has in the past declined to infer how a district court would rule on a motion to stay, the facts of the current case are inescapable given that no motion

⁵ Petitioner notably makes no argument whatsoever in its Petition regarding any potential motion to stay or Factor 1 of *Fintiv*.

to stay has been filed in over two years of litigation with the trial setting a mere four months away.⁶ Based on the facts of this case, Factor 1 strongly weighs against institution.

C. Factor 2: The Court’s trial date is approximately a year before the expected date of a Final Written Decision

The precedential *Fintiv I* decision, IPR2020-00019 at Paper 11, in discussing the earlier *NHK* decision, expressly noted that:

Specifically, under § 314(a) the Board considered the fact that the parallel district court proceeding was scheduled to finish before the Board reached a final decision as a factor favoring denial. The Board found that the earlier district court trial date presented efficiency considerations that provided an additional basis, separate from the independent concerns under 35 U.S.C. § 325(d), for denying institution. Thus, *NHK* applies to the situation where the district court has set a trial date to occur earlier than the Board’s deadline to issue a final written decision in an instituted proceeding.

⁶ It should also be noted that the Federal Circuit has denied multiple petitions for mandamus relief on the grounds that the district court had not abused its discretion in denying motions to stay pending *inter partes* review or post-grant review. *See In re Sand Revolution LLC*, 823 F. App’x 983, 984 (Fed. Cir. 2020); *In re Vulcan Indus. Holdings, LLC*, 830 F. App’x 318 (Fed. Cir. 2020).

Fintiv I, Paper 11 at 3. *NHK* applies to the case at bar because the trial date (January 2, 2024) is scheduled to occur over eleven months before the Final Written Decision deadline of December 6, 2024. This earlier trial date presents efficiency considerations that are a separate, independent basis for the Board to exercise its discretion and deny institution under § 314(a). In the later *Fintiv II* decision, *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 (PTAB May 13, 2020) (“*Fintiv II*”), which applied the earlier precedential *Fintiv I* decision, the Board found that a trial occurring only two months before the expected final written decision weighed in favor of discretionary denial. *Id.*, 13. Thus, a trial date occurring over eleven months before the expected final written decision weighs heavily in favor of discretionary denial.

D. Factor 3: Significant investment has been made by both the parties and the Court and will continue to be made before institution

The third *Fintiv* factor “is related to the trial date factor, in that more work completed by the parties and court in the parallel proceeding tends to support the argument that the parallel proceeding is more advanced, a stay may be less likely, and instituting would lead to duplicative costs.” *Fintiv I*, IPR2020-00019, Paper 11 at 9–10. “Specifically, if, at the time of the institution decision, the [] court has issued substantive orders related to the patent at issue in the petition, this fact favors denial.” *Id.* The third factor favors denying institution when substantive milestones have passed. *See Intel Corp. v. VLSI Tech. LLC*, IPR2020-00106, Paper 17, 9 (PTAB May

5, 2020) (denying institution where final infringement and invalidity contentions had been served and fact and expert discovery were set to close within two months).

Patent Owner and Petitioner have invested significant time and resources in the Litigation. To date, the parties completed claim construction briefing, received a claim construction order, served final contentions, completed fact and expert discovery, and have completed mediation in which the Mediator concluded that the parties remain at an impasse. *See* Exs. 2012, 2 and 2013, 2. Significantly more work will continue before institution as the parties exchange pretrial disclosures on October 18, 2023 and jury instructions on November 10, 2023. Ex. 2012, 2.

The resource investment in this case is more than other cases where the Board found Factor 3 weighed in favor of discretionary denial. For example, in *Amazon.com*, the parties served infringement and invalidity contentions, completed claim construction, and produced thousands of documents. *Amazon.com, Inc. v. Freshub, Ltd.*, IPR2020-01145, Paper 10, 13-15 (PTAB Jan. 11, 2021). In addition to these milestones, the parties here have exchanged final infringement and invalidity contentions, received a claim construction order, have completed both fact and expert discovery and completed mediation. Ex. 2012, 2 and 2013, 2.

In the later *Fintiv II* decision, “the Board found that the completed Markman hearing and detailed claim construction order, completed contention discovery, but incomplete expert discovery and substantive motion practice,” favored denying

institution. *Fintiv II*, IPR2020-00019, Paper 10 at 15. Thus, the same benchmarks that the *Fintiv* Board found favored discretionary denial are present here, plus additional milestones. Because the resource investment in this case is far greater than that in *Fintiv* and *Amazon.com*, this factor weighs heavily in favor of the Board exercising discretionary denial. Tellingly, Petitioner did not address this factor in its Petition.

E. Factor 4: There is significant overlap between the issues raised in the petition and the co-pending litigation

Under the fourth *Fintiv* factor, “if the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Fintiv I*, IPR2020-00019, Paper 11 at 12. Here, two of the four prior art references addressed in the Petition are also part of DTNA’s Amended Invalidity Contentions. *See*, Ex. 2008, 3. Specifically, both the Petition and DTNA’s Invalidity Contentions allege that claims 25-27, 29, 31-37, 42, 43, and 45-47 are invalid as anticipated or obvious in light of Godefroy (Ex. 1008) and claims 25-27, 29, 31-37, 42, 43, and 45-47 are obvious in light Hanazaki-069 (Ex. 1006) with other references including Godefroy. *Compare* Petition, Grounds 2, 4, 5 and 6 and Ex. 2014, 1; Ex. 2015, 1 (“To the extent that Masayuki JP’2069 [Hanazaki-069] is found not to anticipate one or more of the Asserted Claims of the ’494 Patent, those claims are also invalid as obvious in view of Masayuki JP’2069 alone and/or with other prior-art references disclosed in

[DTNA's] invalidity contentions.'').⁷ While this Petition challenges claims not at issue in the district court litigation, that fact is not enough to favor institution without some explanation as to why the additional claims are impactful. *Cisco Sys., Inc. v. Oyster Optics, LLC*, IPR2021-00238, Paper 10 at 16. Indeed, the Petition challenges all of the claims asserted in the Litigation.

While Tomosada and Hanazaki-196 are not asserted in the Litigation, four of the six Grounds in the Petition rely on Godefroy and/or Hanazaki-069, which are asserted in the Litigation. As a result, if instituted, Patent Owner will need to duplicate its efforts in defending the '494 Patent against Godefroy and Hanazaki-069. Accordingly, this factor weighs in favor of discretionary denial.

F. Factor 5: Whether the Petitioner and the defendant in the parallel proceeding are the same party

While Petitioner is not a party to the co-pending litigation, this factor alone is not dispositive of the *Fintiv* analysis. Indeed, as discussed in Section X, DTNA is a real party in interest and privy to Petitioner. Thus, while this factor may not favor denial, each of the other factors overwhelmingly tip the scales in favor of denial.

G. Factor 6: The merits of the Petition are far from compelling

Finally, the Petition fails to present compelling merits. Indeed, the Petition does not identify any particular strengths that it believes the Board should consider

⁷ Patent Owner later dropped certain claims to streamline the case.

under the *Fintiv* analysis. Conversely, Patent Owner notes that Petitioner’s grounds of asserted invalidity (1) relies exclusively on arbitrarily annotated figures from Tomosada and Hanazaki-196 that do not show specific claim limitations; (2) relies on Godefroy that fails to disclose any sacrificial anode within a radiator; and (3) relies in part on references that the Specialist already considered such as Hanazaki-196 – which serves as Petitioner’s primary reference for Grounds 3 and 4 of the Petition. Ex. 1010, 116-128; *see also* Ex. 1001 (56). These reasons also strongly favor discretionary denial under the sixth *Fintiv* factor.

XII. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board decline to institute *inter partes* review of the ’494 Patent.

Dated: September 6, 2023

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CERTIFICATE OF COMPLIANCE WITH WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), I certify that this Preliminary Response complies with the type-volume limits of 37 C.F.R. § 42.24(b)(1) because it contains 13,459 words, excluding the parts of this Patent Owner's Preliminary Response that are exempted by 37 C.F.R. § 42.24(a), according to the word processing system used to prepare this Patent Owner's Preliminary Response.

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Patent Owner's Preliminary Response was served on September 6, 2023, to Lead and Back-up Counsel for Petitioner at the service address provided in Petitioner's Mandatory Notices:

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