United States Court of Appeals for the Federal Circuit

CQV CO., LTD.,
Appellant

v.

MERCK PATENT GMBH,
Appellee

2023-1027

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. PGR2021-00054.

Decided: March 10, 2025

NICHOLAS GEIGER, Cantor Colburn LLP, Hartford, CT, argued for appellant.

JOHN A. DRAGSETH, Fish & Richardson P.C., Minneapolis, MN, argued for appellee. Also represented by JOSHUA GRISWOLD, Dallas, TX; ALEXANDER MICHAEL PECHETTE, Boston, MA.

Before CHEN, MAYER, and CUNNINGHAM, *Circuit Judges*.

CUNNINGHAM, *Circuit Judge*.

Merck Patent GmbH ("Merck") owns U.S. Patent No. 10,647,861. CQV Co., Ltd. ("CQV") petitioned the Patent Trial and Appeal Board for post-grant review of claims 1–22 of the '861 patent. In its final written decision, the Board concluded that CQV had failed to show by a preponderance of the evidence that any of the challenged claims are unpatentable. *CQV Co., Ltd. v. Merck Patent GmbH*, No. PGR2021-00054, Paper 56 at 2 (P.T.A.B. Aug. 11, 2022) ("*Decision*").[1] On appeal, CQV argues, among other things, that the Board's decision was not supported by substantial evidence because the Board did not consider certain relevant evidence. For the reasons below, we vacate and remand for further proceedings.

I. BACKGROUND

A.

The '861 patent is titled "α-Alumina Flakes." It relates to α-Al_2O_3 ("alpha-alumina") flakes with particular characteristics and to the flakes' use "in paints, industrial coatings, automotive coatings, printing inks, cosmetic formulations[,] and in particular as transparent substrate for effect pigments." '861 patent col. 1 ll. 3–6. Pearlescent pigments based on transparent flakes, such as the alpha-alumina flakes described in the '861 patent, can be used to "[i]mpart[] a pearlescent luster, metallic luster, color flop[,] or multicolor effect." *Id.* col. 1 ll. 7–9. The '861 patent describes transparent alumina flakes that, compared to the prior art, "show improved optical properties," such as "increased chroma, higher luster, lower haze[,] and excellent finishing" while retaining "a high chemical stability." *Id.* col. 2 ll. 5–9. The specification of the '861 patent explains

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[1] Because the Board's decision is not reported, citations in this opinion are to the version of the Board's decision included in the Joint Appendix. For example, *Decision* at 1 is found at J.A. 1.

that "[p]earlescent pigments based on α-Al_2O_3 flakes are well-known in the literature and commercially available under the trademark XIRALLIC® from Merck KGaA."[2] *Id.* col. 1 ll. 10–12.

Claim 1 is illustrative of the claims on appeal and recites:

> 1. Al_2O_3 flakes having a particle thickness of 130–400 nm, a D_{50}-value of 15–30 µm, a D_{90}-value of 30–45 µm, a D_{10}-value of <9.5 µm and wherein the flakes are α-alumina flakes.

Id. col. 13 ll. 53–56.

B.

On February 11, 2021, CQV petitioned the Board for post-grant review of claims 1–22 of the '861 patent. *Decision* at 2; J.A. 41. CQV asserted that various combinations of prior art references render the claims obvious. *Decision* at 6–7. Specifically, CQV challenged claims 1–17 and 21 as obvious in view of Xirallic® and other references. *Id.* CQV did not rely on Xirallic® for its challenges to claims 18–20 and 22. *Id.*

During the proceedings before the Board, the parties disputed the critical date of the '861 patent.[3] *Id.* at 25. They also disputed the prior art status of the relevant samples of Xirallic®. *Id.* at 19, 25. CQV agreed, however, that it was acceptable for the Board to focus its analysis on a particular lot of Xirallic® identified as "Sample C." *Decision* at 25; J.A. 4397–98 at 19:22–20:4.

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[2] Merck KGaA is the parent company of Merck. Merck Certificate of Interest, ECF No. 6 at 2.

[3] CQV alleged that April 30, 2013, was the critical date, whereas Merck alleged that April 30, 2012, was the critical date. *Decision* at 25.

In its August 2022 final written decision, the Board held that CQV had "not supported adequately its contention that the Xirallic lot used for Sample C qualifies as prior art" under either alleged critical date. *Decision* at 29–30. Accordingly, the Board considered the instituted grounds without referring to Xirallic®. *Id.* at 30. The Board concluded that CQV had not shown by a preponderance of the evidence that the challenged claims were unpatentable. *Id.* at 34.

CQV timely appealed. We have subject matter jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

II. STANDARD OF REVIEW

"We review the Board's legal conclusions de novo and its fact findings for substantial evidence." *Game & Tech. Co. v. Wargaming Grp. Ltd.*, 942 F.3d 1343, 1348 (Fed. Cir. 2019). "Substantial evidence means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *FanDuel, Inc. v. Interactive Games LLC*, 966 F.3d 1334, 1343 (Fed. Cir. 2020) (internal quotation marks and citation omitted). "The substantial evidence standard . . . involves examination of the record as a whole, taking into account evidence that both justifies and detracts from an agency's decision." *OSI Pharms., LLC v. Apotex Inc.*, 939 F.3d 1375, 1381 (Fed. Cir. 2019) (internal quotation marks and citation omitted).

III. DISCUSSION

CQV challenges the Board's determination that CQV failed to meet its burden to show the challenged claims are unpatentable. Merck challenges CQV's standing for this appeal. We address the threshold issue of standing before addressing the Board's determination.

A.

As the party appealing the Board's final written decision, CQV "has the burden of showing that it suffered an

injury in fact sufficient to confer Article III standing to appeal." *Gen. Elec. Co. v. United Techs. Corp.*, 928 F.3d 1349, 1353 (Fed. Cir. 2019). "The injury in fact must be 'concrete and particularized,' not merely 'conjectural or hypothetical.'" *Id.* (quoting *JTEKT Corp. v. GKN Auto. Ltd.*, 898 F.3d 1217, 1220 (Fed. Cir. 2018)). To establish injury in fact, "it is generally sufficient for the appellant to show that it has engaged in, is engaging in, or will likely engage in activity that would give rise to a possible infringement suit." *Grit Energy Sols., LLC v. Oren Techs., LLC*, 957 F.3d 1309, 1319 (Fed. Cir. 2020) (internal quotation marks and citation omitted). We conclude that CQV has shown such facts here and has therefore established the requisite injury in fact to confer Article III standing.

CQV initially attempted to establish its Article III standing by relying on a declaration by Mr. Byung-Ki Choi, CQV's Chief of Lab. Appellant's Br. 1 (citing J.A. 4496–98). Specifically, the initial declaration states that "CQV manufactures and sells a line of pearlescent pigment products known as Adamas®," which competes with Xirallic® and that Merck contacted "[a]t least one customer of CQV who distributes and sells Adamas® in the United States . . . and alleged that Adamas® infringes the '861 [p]atent." J.A. 4497.

After the court ordered additional briefing on the issue of standing, ECF No. 68, CQV filed a supplemental declaration, *see generally* Addendum to Appellant's Suppl. Br. ("Suppl. Choi Decl."), with more detailed allegations. The supplemental declaration explains that prior to this appeal, Merck reached out to two of CQV's customers that purchased Adamas® in the United States and discussed potential infringement in the context of U.S. Patent Application Publication No. 2014/0322536, which later issued as the '861 patent. Suppl. Choi Decl. at 2–3. One of the customers ceased purchasing Adamas® from CQV after Merck's letter; the other required CQV to enter into a formal indemnity agreement. *Id.* at 3, 7–8. CQV explained

that the indemnity agreement would require CQV to indemnify the customer if Merck were to sue that customer for infringement of the '861 patent. Oral Arg. 3:45–4:27, https://oralarguments.cafc.uscourts.gov/default.aspx?fl=23-1027_05062024.mp3.

In the supplemental declaration, CQV alleges facts showing that it "is obligated to indemnify its customer[] from infringement liability," which we have found sufficient for a supplier "to commence a declaratory judgment action" "where a patent holder accuses customers of direct infringement based on the sale or use of a supplier's equipment." *Arris Grp., Inc. v. Brit. Telecomms. PLC*, 639 F.3d 1368, 1375 (Fed. Cir. 2011); *see* Suppl. Choi Decl. 7. Because the standard for establishing standing under the Declaratory Judgment Act is the same as the standard for establishing Article III standing, *Arris*, 639 F.3d at 1373, CQV has shown that it has standing to pursue this appeal.

Merck argues that its communications cannot establish standing, because they "merely identify Merck's rights and their general coverage" without "identif[ying] any accused product," "suggest[ing] that the recipient is doing anything in the U.S.," or "mak[ing] an explicit or implicit charge of infringement." Appellee's Suppl. Br. 2–3. But a showing of standing requires no magic words in Merck's communications. *See, e.g., Adidas AG v. Nike, Inc.*, 963 F.3d 1355, 1357 (Fed. Cir. 2020) (holding that an appellant does not need to allege a specific threat of infringement by a patentee to establish standing). Given at least one customer's purchase and use of Adamas® products in the United States, Merck's communications with that customer, and CQV's indemnity agreement with that customer, CQV has established that it has standing to pursue this appeal.

B.

Turning to the merits of the Board's decision, we address CQV's challenge to the Board's finding that CQV

failed to show that the Xirallic® lot used for Sample C qualifies as prior art. *See Decision* at 30; Appellant's Br. 21–22. Because we cannot discern whether the relevant evidence was properly evaluated, we remand to the Board for further consideration and explanation of its analysis.

In a post-grant review before the Board, the petitioner bears the burden to show by a preponderance of the evidence that an asserted reference qualifies as prior art. In holding that CQV failed to carry its burden to show that Sample C qualifies as prior art as of either proposed critical date, the Board considered and discounted (1) general statements about the availability of the Xirallic® product line that were not linked to Sample C, *Decision* at 26–27; (2) the testimony of Mr. Choi that CQV purchased Sample C in about October 2011, *Decision* at 27–28; and (3) evidence from CQV that Merck manufactured Sample C in 2007 and is incentivized to sell a batch as soon as possible so as not to waste shelf-life, *Decision* at 28–29. The Board held that these pieces of evidence, taken together and unrebutted, failed to establish that Sample C was probably available to the public before April 30, 2012. *Decision* at 24–29.

We do not need to reach CQV's challenges to each of those individual determinations, Appellant's Br. 24–30, because even if the evidence on which the Board *did* rely supports its conclusion, the Board erred by failing to consider the whole record. "[A]lthough our review under the APA is deferential, that 'does not relieve the agency of its obligation to develop an evidentiary basis for its findings.'" *Alacritech, Inc. v. Intel Corp.*, 966 F.3d 1367, 1372 (Fed. Cir. 2020) (quoting *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1358 (Fed. Cir. 2019)). "[T]he Board is obligated to 'articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.'" *Id.* at 1373 (quoting *In re NuVasive, Inc.*, 842 F.3d 1376, 1382 (Fed. Cir. 2016)). A Board decision that meets that standard allows us to "reasonably discern

that [the Board] followed a proper path, even if that path is less than perfectly clear." *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015). The Board must "consider the entirety of the record." *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018).

The Board omitted from its opinion any discussion of Mr. Fritsch's testimony that Xirallic® can generally "be grabbed by . . . a customer order" "after being released by . . . quality control," J.A. 3071 at 53:4–14, and testimony that "[t]he quality control process for Adamas products requires an average of two to three weeks." J.A. 3213–14; *see also* Oral Arg. 20:49–21:02 (Merck agreeing that CQV's quality control evidence is unrebutted). Although a "failure to explicitly discuss every issue or every piece of evidence does not alone establish that the tribunal did not consider it," the error in the Board's decision goes beyond a failure to discuss a "cursory argument." *Novartis AG v. Torrent Pharms. Ltd.*, 853 F.3d 1316, 1328 (Fed. Cir. 2017). CQV raised highly material and unrebutted evidence that Sample C would have been made available to the public within a few weeks of being placed into quality control, which the Board discarded without explanation. *Compare* J.A. 3157, *with Decision* at 26–29. Merck raises some plausible arguments for why the Board may have disregarded the quality control evidence: perhaps the Board thought that Sample C was only an experimental batch, or perhaps the Board believed that Sample C was treated differently. Appellee's Br. 13, 18–19. Merck's arguments fail because the Board did not make these findings, nor did it provide any basis for us to make those inferences on its behalf. "As such, we cannot reasonably discern whether the Board followed a proper path in determining that" CQV failed to show by a preponderance of the evidence that Sample C of Xirallic® constitutes prior art. *Alacritech*, 966 F.3d at 1371.

On remand, the Board should carefully consider and explain whether, taken as a whole, the evidence establishes that Sample C was more likely than not available as of the alleged critical dates. In so doing, it should be careful not to overstate the required degree of certainty. *See Decision* at 29. The party with the burden of persuasion loses on a point only if the fact trier of the issue is left uncertain "as required by the applicable standard." *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378–79 (Fed. Cir. 2015). In other words, a party with the burden of persuasion must convince the factfinder to the degree of certainty required by the standard (here, preponderance of the evidence), and no further. *Id.*

IV. CONCLUSION

We vacate the Board's decision with respect to the patentability determinations concerning claims 1–17 and 21, and we remand to the Board for further proceedings consistent with this opinion.

VACATED AND REMANDED

COSTS

No costs.