



Federal Circuit Finds Written Description Support for Narrow Claim Range via Disclosure of Broader Ranges, Vacates PTAB Decision

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By: Thomas W. Landers, Rachel J. Elsby

The Federal Circuit recently vacated a PTAB decision that claims of an “e-cigarette” patent were unpatentable for lack of written description under 35 U.S.C. § 112. The question on appeal was whether a claimed range was adequately supported by the disclosure of broader ranges. In this case, the answer was “yes.”

The patent-at-issue—RAI Strategic Holdings, Inc.’s U.S. Patent No. 10,492,542—generally relates to “electrically powered smoking articles,” or “e-cigarettes.” In 2020, Philip Morris Products S.A. sought post grant review of the ’542 Patent, asserting (among other grounds) that dependent claims 10 and 27 were invalid for lack of written description. Those claims recited, in relevant part, a “heating member” with “a length of about 75% to about 85% of a length of [a] disposable aerosol forming substance.”

At the PTAB, Philip Morris argued that the claimed range of “about 75% to about 85%” lacked written description support because the specification disclosed only ranges of 75–125%, 80–120%, 85–115% and 90–110%. According to Philip Morris and its expert, those disclosures did not support the claimed range because (1) they were all “substantially narrower” than the claimed range, (2) none of them recited “an upper limit of 85%” as claimed and (3) they all “centered on” 100%, unlike the claim, which centered on 80%. RAI countered that the disclosed ranges of 75–125% and 85–115% together supported the claim because they expressly include “both ends of the claim range,” i.e., 75% and 85%. Nonetheless, the PTAB agreed with Philip Morris and found the claims unpatentable. RAI appealed.

On appeal, the Federal Circuit vacated the PTAB's decision, concluding that the facts more closely aligned with decisions finding written description support for a claim range. *In re Wertheim*, for example, held that the disclosure of coffee grounds with “25% to 60%” solid coffee extract supported a claim range of “between 35% and 60%.” 541 F.2d 257 (C.C.P.A. 1976). Importantly, the *Wertheim* court found no evidence that the “broad described range pertain[ed] to a different invention than the narrower (and subsumed) claimed range.”

Here, the Federal Circuit likewise saw no evidence—including from Philip Morris's expert—that the disclosed ranges were “different inventions” than the claimed range. That is, “nothing in the specification indicate[d] that changing the length of the heating member changes the invention, whether as to operability, effectiveness, or any other parameter.” Although the specification did not disclose the claimed range, it did expressly disclose both endpoints of the claimed range. Moreover, the “predictability of electro-mechanical inventions” such as e-cigarettes further supported the Federal Circuit's ruling, as predictable art requires “a lower level of detail” to satisfy written description than unpredictable art.

The Court also grappled with cases that found a lack of written description on somewhat similar facts, most notably *Indivior UK Ltd. v. Dr. Reddy's Laboratories S.A.*, 18 F.4th 1323 (Fed. Cir. 2021). The *Indivior* claims recited a therapeutic film comprising “about 48.2 wt % to about 58.6 wt %” polymers. The specification, meanwhile, disclosed a table with a 48.2 wt % polymer and a 58.6 wt % polymer—the endpoints of the claimed range. However, unlike the present case, in *Indivior*, there was a “lack of persuasive evidence that a skilled artisan would have understood the application as disclosing an invention *with the range between* these endpoints.” The *Indivior* patent also differed in that it involved an unpredictable art and the specification made “inconsistent statements regarding the desired amount of polymer.”

Finally, in coming to its conclusion, the Federal Circuit repeatedly emphasized that written description is assessed on a case-by-case basis and that “broadly articulated rules are particularly inappropriate in this area.” Instead, one must consider the technology at issue, the predictability of the art, the complexity of the claim limitation and the knowledge gained by a person skilled in the art reading the specification. Thus, while the Court relied on prior cases for support and guidance, its ruling was ultimately “based on the unique facts of this case.”

Practice Tip: Although claims directed to ranges that are not explicitly disclosed in the specification may be susceptible to written description attacks, particularly in arts regarded

as unpredictable, the *RAI* case shows that such claims may be adequately supported if the disclosed and claim ranges are not shown to be “different inventions.” Parties asserting and defending against such attacks should focus arguments on the specific facts of the case and, if possible, provide expert testimony that addresses how exactly the claim range is (or is not) a different invention from the ranges disclosed in the patent.

RAI Strategic Holdings, Inc. v. Philip Morris Products S.A., No. 22-1862 (Fed. Cir. Feb. 9, 2024)

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