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Kaneka v. Xiamen Kingdomway Group: Implicit Order Read into Method Steps of Industrial Biotechnology Patent

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The Federal Circuit's recent decision in *Kaneka Corp. v. Xiamen Kingdomway Group Co. (Fed. Cir. 2015)* serves as a reminder that courts may implicitly read an order into a patent's method claim steps, even if the applicant did not intend such order. On June 10, 2015, the Federal Circuit issued its opinion construing several claim terms in U.S. Patent No. 7,910,340, affirming-in-part, vacating-in-part, and remanding to the district court for further proceedings. In doing so, the Federal Circuit applied an implicit order to the method claims of an industrial biotechnology patent.

The technology in *Kaneka* relates to processes for bio-producing oxidized coenzyme Q_{10} on an industrial scale. Kaneka filed its complaint against the defendants for patent infringement in district court on March 22, 2011, and then filed a complaint in the International Trade Commission ("Commission") on June 17, 2011. The district court stayed the proceedings until final determination by the Commission, after which it construed several terms and ruled on summary judgment that the defendants did not infringe. On appeal, the Federal Circuit applied the standard of review handed-down by the Supreme Court in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.* (2015), reviewing the district court's claim construction *de novo* except for subsidiary facts, which the Federal Circuit reviewed for "clear error."

The claims of the '340 patent recite a process for producing oxidized coenzyme Q_{10} generally comprising culturing a microorganism and then extracting and oxidizing the coenzyme. In several independent claims, the extracting and oxidizing occur in a different order and under different conditions (i.e., in a sealed tank or not). The claimed process is not numbered or otherwise explicitly ordered, but the Federal Circuit found that the language of two claims requires that the steps be read with implicit order, such that "*some* oxidation must occur before the extraction step" in one of these claims, "or after the extraction step" in the other. The court noted that "[w]here the steps of a method claim actually recite an order, we ordinarily construe the claim to require order," and "[a] method claim can also be construed to require that steps be performed in order where the claim implicitly requires order, for example, if the language of a claimed step refers to the completed results of the prior step." Here, for example, one of the claims referred to oxidizing the "thus-obtained" coenzyme and "then extracting the oxidized coenzyme."

The implicit ordering of method steps is not new. The court in *Mantech Environmental Corp. v. Hudson Environmental Services, Inc.* (Fed. Cir. 1998) applied an implicit order to "methods for remediating a hydrocarbon-contaminated region of a subterranean body of groundwater." The court held "that the sequential nature of the claim steps is apparent from the plain meaning of the claim language and nothing in the written description suggests otherwise." In *Loral Fairchild Corp. v. Sony Corp.* (Fed. Cir. 1999), the Federal Circuit applied an implicit order in semiconductor technology method claims. Relying on the "literal language of the claim," supported by the specification and prosecution history, the Federal Circuit read into the claim steps an implicit order even though the claims did not explicitly require such strict compliance. In *Altiris, Inc. v. Symantec Corp.* (Fed. Cir. 2003), the Federal Circuit described a two-part test for determining whether to apply an implicit

order to a claimed method, derived from earlier case law. First, the court looks to the claim language to determine if the claim steps, by logic or grammar, require performance in the order written. If the court finds that the claim language does not require such order, then the court will next look to the specification to determine whether the specification "directly or implicitly requires such a narrow construction. If not, the sequence in which such steps are written is not a requirement."

More recently, courts have read an implicit order in method claims related to electronic credit card technology in *E-Pass Techs., Inc. v. 3Com Corp.* (Fed. Cir. 2007); to virtual private computer network technology in *SSL Servs., LLC v. Citrix Sys.* (E.D. Tex. 2011); and to medical device technology in *W.L. Gore & Assocs. v. Medtronic, Inc.* (E.D. Va. 2012).

Kaneka reiterates the importance of careful claim drafting when preparing and prosecuting method claims for industrial biotechnology patent applications. To ensure that an implicit order does not unnecessarily limit claim scope to a specific order, it is important for applicants to precisely draft both the claim language and the specification. Additionally, applicants must be mindful during prosecution to not introduce arguments or amendments that may limit the order of method steps, if not desired. Using strategic claim drafting and patent prosecution will help applicants avoid unduly narrowing method claims to a specific implicit order.

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