United States Court of Appeals for the Federal Circuit

03-1240

IN RE MANCHAK PATENT LITIGATION

FRANK MANCHAK, JR.,

Plaintiff-Appellant,

v.

AGRONOMICS MANAGEMENT GROUP, INC.,

Defendant-Appellee.

DECIDED: December 9, 2003

Before NEWMAN, BRYSON, and PROST, Circuit Judges.

NEWMAN, Circuit Judge.

Frank Manchak, Jr. charged Agronomics Management Group, Inc. (AMG) with infringement of United States Patent No. 4,079,003 (the '003 patent), issued June 7, 1977, reexamination certificate issued April 7, 1999. The United States District Court for the District of Delaware granted summary judgment of noninfringement in favor of AMG.[1] We affirm the court's judgment.

THE PATENTED INVENTION

The '003 patent is directed to a method of transforming organic waste known as "sludge" into

ecologically acceptable solid material. In a sequence of processing steps, the sludge is combined with calcium oxide (lime) under conditions that establish an exothermic, steam-producing reaction that purifies and transforms the sludge into a friable and substantially odor free composition. The broadest claim of the '003 patent follows:

> 1. A method of transforming aqueous organic material containing sludge that may include virus and odor forming bacteria and toxic soluble compounds that are converted to substantially insoluble compounds in an alkaline environment into a solid, friable, and substantially odor free reaction product, said method comprising the steps of:
>
> a. sequentially moving said sludge from a source thereof at a first rate;
>
> b. sequentially moving calcium oxide from a source thereof at a second rate,
>
> with said second rate so related to said first rate that when sludge and calcium oxide are mixed an exothermic reaction is initiated in which said sludge and calcium oxide react with the evolution of steam to form a solid, friable, substantially odor free reaction product that has a pH of at least 12 and in which bacteria and virus initially present in said sludge are deactivated by said pH and the heat of said exothermic reaction, and said soluble toxic compounds initially present in said sludge are transformed to substantially water insoluble compounds due to the high pH of the mixture of said sludge and calcium oxide as they transform to said reaction product;
>
> c. providing an elongate confined space that has first and second ends;
>
> d. directing said sludge and calcium oxide at said first and second rates into said first end of said confined space;
>
> e. concurrently mixing and moving the mixture of said sludge and calcium oxide in said confined space from said first end towards said second end thereof, with the rate of longitudinal movement of said mixture in said confined space being such that said exothermic reaction has transformed said mixture to said reaction product by the time said reaction product has reached said second end;
>
> f. withdrawing said steam from said confined space; and
>
> g. sequentially removing said reaction product from said second end of said confined space.

Manchak sued AMG for infringement, based on AMG's process for the treatment of waste at the Village Creek Wastewater Treatment Plant in Fort Worth, Texas.

The summary judgment followed from the court's definition of the term "sludge" as used in the '003 patent, and specifically, the water content of the sludge as it enters the process. The specification describes sludge as containing various forms of aqueous and non-aqueous waste, such as sewage, oil, and marine silt. The water content is significant to the process, for excessive water negatively affects the exothermic reaction with the calcium oxide and results in incomplete treatment and an unsatisfactory

product. The patent specification states that the preferred water content of the sludge is not over 75 percent:

> The sludge to be transformed to a reaction product preferably has a water content of not over 75 percent (75%) by weight. If the sludge has over 75 percent (75%) by weight of water it is preferably pretreated in a hopper with thickening agents added thereto and thoroughly mixed therewith, prior to feeding into hopper.

Col. 9, lines 13-19 (drawing numbers omitted).

On January 14, 1998, the United States Patent and Trademark Office granted a third-party request for reexamination in view of several references. The reference of primary concern, Patent No. 918,744 to Fryklind, issued April 20, 1909, describes the treatment of night-soil (sewage) by exothermic reaction with quick-lime. To distinguish his process from that of Fryklind, Manchak stressed during reexamination that in the '003 process the sludge contains less than 75 percent water, whereas night-soil generally contains more than 75 percent water. An expert Declaration submitted on Manchak's behalf by Ronald Neufeld, Ph.D., states that while Fryklind controls the flow of night-soil through the treatment facility by a series of shutters, indicating that the feed material is semi-liquid, "Manchak, on the other hand, has his sludge at a minimum of 25% solids (no more than 75% moisture) thus allowing for a continuous process."

The reexamination examiner was eventually persuaded. Manchak's Brief on Appeal in the PTO stated: "As Mr. Manchak pointed out in the '003 patent, sludge has a water content of not more than 75%." (Emphasis in original.) In the examiner's statement of reasons for Confirmation of Patentability, he referred to the Declarations submitted by Manchak and Neufeld and stated that "the definition of [Fryklind's] night soil is not compatible with the definition of a sludge having a water content of not over 75% by weight, as defined by applicant's specification in column 9, lines 13-24." Thus during reexamination the definition of sludge was limited to a maximum of 75 percent water, in accordance with the Declarations and argument presented by Manchak to overcome the Fryklind reference.

DISCUSSION

An infringement analysis requires that the court determine the scope and meaning of the claims asserted, and compare the construed claims to the allegedly infringing device. Cybor Corp. v. FAS Technologies, Inc., 138 F.3d 1448, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (*en banc*). We give plenary review to the district court's claim construction, id. at 1455, 46 USPQ2d at 1173, and to the grant of summary judgment. Conroy v. Reebok International, Ltd., 14 F.3d 1570, 1575, 29 USPQ2d 1373, 1377 (Fed. Cir. 1994). In determining the meaning and scope of patent claims, the primary sources are the specification and the prosecution history. Glaxo Wellcome, Inc. v. Andrx Pharms., Inc., 344 F.3d 1226, 1229, 68 USPQ2d 1302, 1304 (Fed. Cir. 2003). If relevant and helpful, the court may receive the testimony of experts in the field of the invention. Id. (citing Fed. R. Evid. 702).

In the accused AMG process, sewage sludge is treated with calcium oxide in a sequence of steps, as in the '003 process, whereby an exothermic reaction serves to deactivate the toxins. It was agreed that the sludge fed into the AMG process contains approximately 78 percent water. Manchak argues that the reexamined claims do not contain a limitation to 75 percent water, and that this water content, described in the specification as "preferred," does not precisely limit the claims. Manchak states that the district court improperly limited the claims to the preferred embodiment, when the specification left open the possibility that the process could be used with sludge with a water content somewhat higher than 75 percent.

The district court correctly ruled that the prosecution of the reexamination limited the claims to sludge having no more than 75 percent water, as a condition of the confirmation of the claims. That ruling is required by the prosecution record, which contains a clear disclaimer of coverage of a process using sludge with a higher water content. The prosecution record removed any flexibility in the scope of the 75 percent limitation. Because the accused process uses sludge containing 78 percent water, and no material fact remains in dispute, infringement of the '003 patent cannot be found. The district court's

grant of summary judgment was correct, and is affirmed.

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[1] In re Manchak Patent Litig., No. 98-356 (D. Del. Dec. 20, 2002).