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D E C I S I O N
of 14 February 1995

Case Number: T 0056/92 - 3.3.2

Application Number: 84303834.0

Publication Number: 0131378

IPC: C01B 11/02

Language of the proceedings: EN

Title of invention:

Process for the production of chlorine dioxide

Patentee:

Sterling Canada, Inc.

Opponent:

Eka Nobel AB

Headword:

Chlorine dioxide/STERLING

Relevant legal provisions:

EPC Art. 54, 114(1)

Keyword:

"Withdrawal of opposition - continuation of appeal proceedings with new set of claims unchallenged before withdrawal of opposition - examination of own motion by the Board limited to ground for revocation (here: lack of novelty)"

Decisions cited:

G 0010/93, T 0629/90

Catchword:

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Case Number: T 0056/92 - 3.3.2

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 14 February 1995

Appellant: Sterling Canada, Inc.
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Representative: W. P. THOMPSON & CO.
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Respondent: Eka Nobel AB
(Opponent) S-44501 SURTE (SE)

Representative: Schöld, Zaid
Nobel Industries AB
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Decision under appeal: Decision of the Opposition Division of the European Patent Office dated 28 October 1991 revoking European patent No. 0 131 378 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: A. J. Nuss
Members: G. J. Wassenaar
C. Holtz

Summary of Facts and Submissions

I. European patent No. 0 131 378 was granted in response to European patent application No. 84 303 834.0.

II. Notice of Opposition was filed against the European patent by the Respondent. Revocation of the patent was requested on the grounds of lack of novelty, lack of inventive step and insufficiency of disclosure.

During the procedure before the Opposition Division the following documents were cited:

- (1) US-A-4 081 520
- (2) Pulp & Paper, 22 April 1968 pages 32-35
- (3) Partridge, "Preparation of Bleaching Chemicals", 1979, pages 632-633
- (4) TAPPI, Vol. 39, No. 8, August 1956, pages 554-556.

III. The Opposition Division revoked the patent for the reason that Claim 1 on file lacked novelty over (1).

IV. The Appellant (Patentee) lodged an appeal against this decision. In the Statement of Grounds, it was argued that in the process according to (1), so called "white-outs" occur, which are prevented when keeping the reaction conditions within the claimed ranges. Moreover the efficiency would be increased by keeping the acid normality between 7 and 9. Two alternative sets of Claims A and B were filed as auxiliary requests.

V. The Respondent disagreed with these submissions and expressed the view that (1) disclosed in the example,

Run 3, an identical process so that the problem of the occurrence of "white-outs" did not exist.

- VI. In a communication of the Board, the novelty of granted Claims 1, 2 and 5; Claims 1 and 2 of auxiliary request A and Claim 1 of auxiliary request B was questioned. The opinion was further expressed that the requirements "deliberately" and "high efficiency" did not limit the claims. It was also indicated that the novelty objection would not apply to Claim 3 of the main request.
- VII. The Respondent submitted further arguments against inventive step of Claim 3 of the main request and made reference for the first time to three US-patents to support the argumentation.
- VIII. During oral proceedings, which took place on 2 August 1994 and which were not attended by the Respondent although duly summoned in accordance with Rule 7(1) EPC, the Appellant filed two new sets of claims; Appendix A as main request and Appendix B as auxiliary request. The earlier main request to maintain the patent as granted was abandoned. The Board decided that the procedure was to be continued in writing, whereby the Respondent was requested to file observations, if any, to the new requests on file.

The new independent Claim 1 according to Appendix B reads as follows:

"1. A continuous process for the production of chlorine dioxide at high efficiency by reducing sodium chlorate with methanol in an aqueous acid reaction

medium wherein aqueous sodium chlorate solution and sulphuric acid are continuously fed to a boiling aqueous acid reaction medium in a reaction zone maintained under a subatmospheric pressure, methanol is continuously fed to the reaction medium in sufficient quantity to form chlorine dioxide from the reaction medium, chloride dioxide is continuously removed from the reaction zone in gaseous admixture with steam and dissolved in water to form an aqueous solution thereof, and sodium acid sulphate is continuously deposited from the aqueous medium in the reaction zone, characterised in that:

 sulphuric acid is fed to the reaction medium to maintain a total acid normality of at least 7 normal and less than 9 normal, and the reaction medium is boiled at an evaporation rate of 50 to 500 lb of gaseous admixture/hr/sq.ft (244 to 2441 kg/hr/sq.m) of surface area of reaction medium."

- IX. No observation with respect to the new claims were filed by the Respondent. With a letter filed on 8 November 1994, the Respondent withdrew the opposition.

- X. With a telefax dated 10 February 1995, the Appellant withdrew the main request submitted at the oral proceedings.

- XI. The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the set of claims Appendix B submitted during oral proceedings.

Reasons for the Decision

1. *Admissibility*

The appeal is admissible

2. *Withdrawal of Opposition*

Withdrawal of the opposition in appeal proceedings has no immediate procedural significance if the Opposition Division has revoked the European patent. The Board must then examine the substance of the Oppositions Division's decision of its own motion; cf. T 629/90, OJ EPO 1992, 654. In fact the procedural situation has become comparable to an ex-parte appeal procedure, whereby a patent application was refused by the Examining Division. In such a case, the Board has the power to act of its own motion; cf. G 10/93, to be published in OJ, which confirms the finding in T 629/90.

3. *Allowability of the amendments*

Amended Claim 1 differs from Claim 5 as granted in the specification of the evaporation rate. The amendment is based on page 4, lines 21 to 26 of the description as originally filed, with - in brackets - the original imperial units converted into metric units, and does not extend the protection conferred. The features of the only dependent Claim 2 are identical to granted Claim 7. The requirements of Article 123(2) and (3) EPC are therefore fulfilled.

4. *Novelty*

The process of Claim 1 differs from the processes disclosed in (1) in the specification of the evaporation rate (between 244 and 2441 kg/hr/sq.m). The claimed evaporation rate is representative for relatively large scale operation (page 3, lines 11-15 of the description).

Document (1) does not mention any evaporation rate. However, since Run No. 2 of (1), (see column 3, line 7 ff.) achieves a chlorine dioxide production of only 0.36 g/l/min, the process disclosed there is a typical small scale laboratory experiment, which necessarily implies much lower evaporation rates than required by present Claim 1. The required evaporation rate was thus neither explicitly nor implicitly disclosed in (1). Therefore, the novelty objection on which the contested decision was based, does not apply to present Claim 1. The novelty of present Claim 1 was, in fact, not contested by the Respondent before the withdrawal of the opposition.

5. *Sufficiency of disclosure and inventive step*

The Respondent did not file any observation with respect to the patentability of the claims according to the present request, so that sufficiency of disclosure and inventive step of the subject-matter of these claims was not challenged.

After withdrawal of the opposition and without evidence that the skilled man would be unable to perform the invention as now claimed or that these claims would not involve an inventive step, the Board sees no reason to

examine these issues of its own motion under Article 114(1) EPC.

6. It follows from the above that there is no ground which would prejudice the maintenance of the patent with the claims according to Appellant's latest request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent with Claims 1 and 2 according to Appendix B filed during the oral proceedings, and a description to be adapted thereto.

The Registrar:

The Chairman:

P. Martorana

A. Nuss