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**D E C I S I O N**  
**of 5 March 1998**

**Case Number:** T 1020/96 - 3.2.3

**Application Number:** 90118085.1

**Publication Number:** 0424668

**IPC:** B03B 9/06

**Language of the proceedings:** EN

**Title of invention:**

Plant for recovering inert material contained in toxic-noxious industrial waste

**Patentee:**

Rivi, Carlo

**Opponent:**

Ecotecnica S.r.l.

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 100(b), 56, 100(a)

**Keyword:**

"Opposition grounds - insufficiency of disclosure"  
"Inventive step - non-obvious combination of known features"

**Decisions cited:**

-

**Catchword:**

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Boards of Appeal

Chambres de recours

Case Number: T 1020/96 - 3.2.3

**D E C I S I O N**  
of the Technical Board of Appeal 3,2.3  
of 5 March 1998

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**Appellant:**  
(Opponent)

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**Representative:**

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**Respondent:**  
(Proprietor of the patent)

Rivi Carlo  
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402019 Scandiano  
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**Representative:**

**Decision under appeal:**

Decision of the Opposition Division of the  
European Patent Office posted 24 September 1996  
rejecting the opposition filed against European  
patent No. 0 424 668 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** F. Brösamle  
J.-P. Seitz

## Summary of Facts and Submissions

I. With decision of 24 September 1996 the opposition division rejected the opposition of ECOTECNICA S.r.l. - appellant in the following - against European patent No. 0 424 668 according to Article 102(2) EPC.

II. Claim 1 of the opposed patent reads as follows:

"1. A plant for recovering inert material contained in industrial waste classified as toxic-noxious, of the type containing a high volume percentage of inerts, the inert material being usable for back-filling or similar use, comprising a feed hopper (10) for the toxic-noxious waste material; a rotary screen (14) continuously fed by the feed hopper (10) to separate the finer part of the toxic-noxious waste material; a slurring unit (22) fed with the remaining material leaving the rotary screen (14); a vibrating mesh screen (24) fed with the slurry leaving the slurring unit (22) to separate the larger slurry pieces of the toxic-noxious-waste material; means (25) for washing the remaining material leaving the slurring unit (22) which material forms wet inert material; one or more filter press(es) (38) fed with the slurry which passes through the vibrating mesh screen (24), the press(es) (38) producing panels of toxic-noxious material; purification means (46) for the dirty water leaving the filter press(es) (38) to obtain clean water; and recirculation means (50) for the obtained clean water, to return this latter to the slurring unit (22)."

III. Appellant's objections were based on Articles 100(b), 100(a) and 56 EPC in the light of the following documents:

(D1) CASTALIA - Reclamation Project and

(D2) MISITI et al - Waste management, pages 183-190

and their translations into English indicated in the following by "-EN".

IV. He requested to set aside the impugned decision and to revoke European patent No. 0 424 668 (by implication).

V. The proprietor of the patent - respondent in the following - was not active in the appeal proceedings, but it must be assumed that he wishes to maintain the patent as granted and to dismiss the appeal.

VI. Following the board's communication of 30 September 1997 in which the parties were informed of the crucial issues to be decided, oral proceedings were held on 5 March 1998 in which the respondent did not take part (informing the board with the telefax of 4 March 1998).

VII. The appellant brought forward the following arguments:

- it is not clear from the opposed patent how the slurring unit "22" works so that a person skilled in the art was not in a position to carry out the invention;
- with respect to (D1-EN) it is known that toxic and non-toxic materials can be separated by washing and screening;

- claim 1 only picks out known features from (D1) and combines them differently i.e. in accordance with the industrial waste to be processed;
- a skilled person was aware of the fact that the bigger parts of the industrial waste are likely to be non-toxic, i.e. inert, in contrast to the smaller particles thereof so that claim 1 only follows known principles;
- under these circumstances the rearrangement of known method steps for treating industrial waste according to claim 1 does not define inventive subject-matter so that the attacked patent should be revoked.

VIII. The respondent not being active in the appeal proceedings and not being present in the oral proceedings before the board obviously relied on his arguments brought forward in the opposition proceedings and being relied on in the impugned decision.

### Reasons for the Decision

1. The appeal is admissible.
2. *Objection under Article 100(b) EPC*
  - 2.1 Whether or not claim 1 is worded in a general form has nothing to do with the question whether or not the **European patent** discloses the invention in a manner sufficiently clear and complete to be carried out by a person skilled in the art, Article 100(b) EPC. To answer this question properly, both the description and the drawings of the European patent in suit have simultaneously to be considered.

2.2 According to EP-B1-0 424 668, column 5, lines 32 to 36, "the waste material must contain ... of fairly large size (exceeding 10 mm) mixed with toxic-noxious material which is finer or at least disintegrates in water", (see also the object of the present invention according to EP-B1-0 424 668, column 2, lines 6 to 15, where the material to be treated is defined as containing inerts of a rather large and variable size - normally exceeding 10 mm).

2.3 Taken as a whole the opposed patent does therefore contain a definition of the material to be processed in the claimed plant so that a skilled person is in a position to carry out the claimed subject-matter at least if claim 1 as granted is interpreted in the light of the description and drawing according to Article 69(1) since EP-B1-0 424 668, see column 4, lines 27 to 44, also defines the slurring unit "22" as "a rotary drum immersed in water" so that the slurry leaves through the perforations of the rotary drum towards the vibrating mesh screen "24" whereas the remaining material leaving the slurring unit, i.e. the "rather large" inert material not passing through the perforations of the rotary drum, is washed (at "25") with clean water and thereafter conveyed by a belt "30" to form a heap of inert material.

2.4 Summarizing the above considerations a person skilled in the art knows from the opposed European patent the type of industrial waste to be treated and also knows therefrom the type of slurring unit to achieve the washing and screening steps.

Under these circumstances the opposed European patent taken as a whole contains sufficient information to achieve the wished result, namely to recover inert material contained in industrial waste so that the requirements of Article 100(b) EPC are clearly met.

2.5 It should be added in this context that the appellant's **clarity** objection raised in the statement of grounds of appeal cannot succeed either since an alleged lack of clarity does not fall under the grounds of opposition according to Article 100 EPC.

3. *Novelty*

Since the issue of novelty was not under dispute between the parties, and is acknowledged by the Board, no detailed arguments are necessary in this respect.

4. *Inventive step*

4.1 As already set out in the board's communication to the parties the teaching of granted claim 1 can be summarized as follows:

- the initial material contains a significant percentage of inert material (preferably exceeding 10 mm);
- this material is separated in a rotary screen "14" into a first finer toxic-noxious material which is dumped at "18" whereas the remaining material is conveyed to a slurring unit "22";
- in the slurring unit the remaining material is subjected to water; the bigger parts leave the slurring unit and are washed in unit "25" (not "95"!) and thereafter conveyed to a dump "32"; the particles dumped at "32" are wet and inert; at this stage "the recovering of inert material in industrial waste" according to the introductory part of claim 1 is already terminated;

- nevertheless the slurry leaving unit "22" is further processed, namely in a vibrating mesh screen in which particles exceeding a particular size, e.g. 7 mm, are separated and dumped at "28" whereas the remaining slurry is further treated in one or more filter press(es) "38" leading to panels of toxic-noxious material and to dirty water which is purified in "46" and afterwards recycled to the slurring unit "22".

4.2 The appellant's contention that from (D1-EN) it is known that washing and screening are the two essential method steps for processing industrial waste containing toxic and non-toxic materials and that granted claim 1 is only distinguished from (D1-EN) by applying these method steps in combination with a specific industrial waste cannot be accepted by the board for the following reasons:

4.3 According to claim 1 a **dry** industrial waste is fed to the hopper "10" and subjected to the action of a rotary screen "14" from which the larger particles can escape to the slurring unit "22" whereas the smaller particles are conveyed to a heap "18" and not further treated.

4.4 In (D1-EN) a **wet** waste, namely a "sludge", is the initial material to be processed, however, so that the starting point in (D1-EN) is **completely different** with respect to claim 1.

According to scheme 1 of page 15 bis of (D1-EN) the initial material is treated in a coarse screening unit "8" and subsequently in a vibrating screen "9" with a **heater for the mesh**, see page 16 describing the scheme 1 of page 15 bis. This heater is completely

contradictory to what happens in the subject-matter of claim 1 since there only **dry** material is handled prior to the slurring and washing units "22" and "25" **without application of heat** to the material.

4.5 The appellant's further argument that reference sign "3" is a sludging and also a **desludging unit**, see page 16 of (D1-EN), is also not convincing since it is not what is claimed in claim 1, see above remark 4.1 where the method steps are set out in their **chronological order**. It should be added that a claim in which the subsequent treating steps are prescribed cannot be compared with a teaching in which this order is **not observed** and in which the initial material is **different** from the claimed one and processing steps are prescribed, (see drying step according to (D1-EN)), unknown in the claimed plant.

4.6 Even if in (D1-EN) the rotary drum washing system mentioned on page 16, lines 15 to 18, is seen as a slurring unit, it is not disclosed in (D1-EN) that the inert material can only be separated in this unit and that the separated inert material **must be washed** subsequently after leaving the "rotary drum washing unit" according to (D1-EN), page 16, line 16. **Where and after which method** any separated inert material is **retrieved** in the plant is moreover not (directly) derivable from (D1-EN) so that a skilled person is not directed to solve the object of the invention set out in column 2, lines 6 to 15 of EP-B1-0 424 668, according to the combination of features of granted claim 1.

4.7 The appellant's findings that (D1-EN) is helpful to achieve the claimed plant according to claim 1 is therefore not supported by the facts since the existence of a washing and screening unit in (D1-EN) is only one step in achieving a plant to recover inert

material contained in industrial waste but is not at all an exhaustive teaching for a skilled person confronted with the object to be solved by the invention to readily achieve the claimed plant.

- 4.8 The subject-matter of granted claim 1 is therefore novel and not rendered obvious by (D1-EN) so that this claim is valid.

Granted claims 2 to 5 are also valid as dependent claims of claim 1 concerning further embodiments of the invention.

- 5. The objections of the appellant under Articles 100(b), 56 and 100(a) EPC not being justified the impugned decision has not to be rectified.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

*N. Maslin*  
 N. Maslin



The Chairman:

*C. T. Wilson*  
 C. T. Wilson

Beglaubigt/Certified  
 Certifiée conforme:  
 München/Munich

Geschäftsstelle  
 Registrar

23. APR 1998  
*[Signature]*