

**Internal distribution code:**

- (A) [ - ] Publication in OJ  
(B) [ - ] To Chairmen and Members  
(C) [ - ] To Chairmen  
(D) [ X ] No distribution

**Datasheet for the decision  
of 16 December 2014**

**Case Number:** T 1562/12 - 3.3.10

**Application Number:** 03771489.6

**Publication Number:** 1525187

**IPC:** C07C273/12

**Language of the proceedings:** EN

**Title of invention:**

PROCESS FOR INCREASING THE CAPACITY OF A UREA PLANT

**Patent Proprietor:**

Stamicarbon B.V.

**Opponents:**

Borealis Agrolinz Melamine GmbH  
TOYO ENGINEERING CORPORATION  
CASALE S.A.

**Headword:**

**Relevant legal provisions:**

EPC Art. 54

**Keyword:**

Novelty -

(no) Purpose of process step in a known process does not lead to new use of said process and does not render said process novel

**Decisions cited:**

T 0279/93

**Catchword:**



**Beschwerdekammern  
Boards of Appeal  
Chambres de recours**

European Patent Office  
D-80298 MUNICH  
GERMANY  
Tel. +49 (0) 89 2399-0  
Fax +49 (0) 89 2399-4465

Case Number: T 1562/12 - 3.3.10

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.10**  
**of 16 December 2014**

**Appellant:** Stamicarbon B.V.  
(Patent Proprietor) Mercator 3  
6135 KW Sittard (NL)

**Representative:** Jansen, Cornelis Marinus  
V.O.  
Johan de Wittlaan 7  
2517 JR Den Haag (NL)

**Respondent:** Borealis Agrolinz Melamine GmbH  
(Opponent 1) St. Peter-Strasse 25  
A - 4021 Linz (AT)

**Representative:** Morawski, Birgit  
Maikowski & Ninnemann  
Patentanwälte  
Postfach 15 09 20  
10671 Berlin (DE)

**Respondent:** TOYO ENGINEERING CORPORATION  
(Opponent 2) 5-1 Marunouchi 1-chome  
Chiyoda-ku  
Tokyo 100-6511 (JP)

**Representative:** Hering, Hartmut  
Patentanwälte  
Berendt, Leyh & Hering  
Innere Wiener Strasse 20  
81667 München (DE)

**Respondent:** CASALE S.A.  
(Opponent 3) Pocobelli 6  
6900 Lugano (CH)

**Representative:** Zardi, Marco  
M. Zardi & Co. SA  
Via Pioda 6  
6900 Lugano (CH)

**Decision under appeal:**      **Decision of the Opposition Division of the  
European Patent Office posted on 17 April 2012  
revoking European patent No. 1525187 pursuant to  
Article 101(3)(b) EPC.**

**Composition of the Board:**

**Chairman**                    P. Gryczka  
**Members:**                  J. Mercey  
                                     F. Blumer

## Summary of Facts and Submissions

- I. The Appellant (Proprietor of the Patent) lodged an appeal against the decision of the Opposition Division revoking European patent No. 1 525 187.
- II. Notice of Opposition had been filed by the Respondents I to III (Opponents 1 to 3, respectively) requesting revocation of the patent in its entirety on the grounds of *inter alia* lack of novelty (Article 100(a) EPC), *inter alia* the following document being cited:
- (1a) RU899538 (English translation).
- III. In the decision under appeal, the Opposition Division found that the subject-matter of claim 1 of the then pending main request, namely the patent as granted, and of auxiliary requests 2 to 4, lacked novelty over the disclosure of *inter alia* document (1a). The subject-matter of the then pending auxiliary request 1 was found to violate Article 123(2) EPC. Claim 1 of the main request read as follows:

"Process for increasing the capacity of a urea plant, comprising a compression section, a high-pressure synthesis section, a urea recovery section, in which a urea melt is formed, and optionally a granulation section, characterized in that the capacity of the urea plant is increased by the additional installation of a melamine plant, the urea melt from the urea recovery section of the urea plant being fed wholly or partly to the melamine plant and the residual gases from the melamine plant being returned wholly or partly to the high-pressure synthesis section and/or the urea recovery section of the urea plant."

- IV. With letter dated 14 November 2014, the Appellant filed an auxiliary request, claim 1 of which reads as follows:

"Use of the additional installation of a melamine plant for increasing the capacity of a urea plant, the urea plant comprising a compression section, a high-pressure synthesis section, a urea recovery section, in which a urea melt is formed, and optionally a granulation section, wherein the capacity of the urea plant is increased by said additional installation of a melamine plant, the urea melt from the urea recovery section of the urea plant being fed wholly or partly to the melamine plant and the residual gases from the melamine plant being returned wholly or partly to the high-pressure synthesis section and/or the urea recovery section of the urea plant."

- V. The Appellant submitted that claim 1 of the main request was directed to a process for increasing the capacity of a urea plant by adding a melamine plant to it. The mere disclosure in the prior art, for example, in document (1a), of a urea and a melamine plant coupled to each other was not tantamount to the addition of a melamine plant to a pre-existing urea plant, let alone as a technical measure to increase the capacity of the urea plant. Claim 1 of the auxiliary request, which was a purpose-limited use claim similar to that of claim 1 of auxiliary request 3 on which the contested decision was based, was novel, as the use of a melamine plant to increase the capacity of a urea plant represented a new use of said melamine plant.
- VI. The Respondents submitted that the feature relating to the increase of the capacity of the urea plant was an inevitable result of feeding urea melt to a melamine

plant and recycling residual gases from the melamine plant to the urea plant, and thus already known from *inter alia* document (1a) which disclosed a urea and a melamine plant coupled in that way. Neither the claims, nor the description, of the patent in suit referred to an already existing urea plant to which a melamine plant was added at a subsequent time. The use claims of the auxiliary request did not add any feature to the method claims of the main request which would render them novel.

- VII. The Appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request before the Opposition Division, namely the patent as granted, or subsidiarily, on the basis of the auxiliary request filed with letter dated 14 November 2014.

The Respondents requested that the appeal be dismissed.

- VIII. Oral proceedings were held on 16 December 2014 in the absence of Respondent I, who, after having been duly summoned, did not attend. At the end of the oral proceedings, the decision of the Board was announced.

### **Reasons for the Decision**

1. The appeal is admissible.

#### *Novelty*

#### *Main request*

2. Document (1a) discloses (see Example 1 and Figure 1) a process for the production of urea and melamine comprising a urea plant comprising a compression

section (pump 6), a high-pressure synthesis section (column 7 operated at 230 atm), and a urea recovery section (separator 8, distillation column 9 and evaporation unit 10), wherein the gases departing from the melamine synthesis reactor 2 are led *via* condenser 5 and pump 6 to urea synthesis column 7. The urea melt produced in column 7 passes through separator 8 and distillation column 9 to evaporator 10 where molten urea is obtained, a part of which is delivered by pump 1 to the melamine synthesis reactor 2.

- 2.1 Document (1a) thus discloses the following explicit process features of claim 1 of the main request: forming a urea melt, feeding at least partly the urea melt to the melamine plant, and returning at least partly the residual gases from the melamine plant to the high-pressure synthesis section of the urea plant; and the following explicit structural features: a melamine plant and a urea plant comprising a compression section, a high-pressure synthesis section and a urea recovery section. The presence of a melamine plant implies that a melamine plant was installed at some point in time.
- 2.2 The Appellant submitted that this document disclosed all the features of claim 1, apart from a process **for increasing the capacity of a urea plant** by the **additional** installation of a melamine plant (emphasis added). Document (1a) disclosed merely a urea and a melamine plant coupled to each other but not the addition of a melamine plant to a pre-existing urea plant, let alone as a technical measure to increase the capacity of the urea plant. The Appellant conceded that the apparatus disclosed in Figure 1 of document (1a) was the same as that used in the process of present claim 1.



2.2.1 The Board, however, holds that claim 1 does not define the chronological order in which the urea and melamine plants are installed, since the feature "the capacity of the urea plant is increased by the additional installation of a melamine plant" merely defines that a melamine plant is also installed at some point in time and that said melamine plant results in the capacity of the urea plant being increased *vis-à-vis* a stand alone urea plant, the claim not defining the specific steps of installing a urea plant and **thereafter** a melamine plant. Thus, the "order of installation", i.e. melamine plant to urea plant or *vice versa*, is not a feature of claim 1, since the step "additional installation of a melamine plant" in its broadest sense may be interpreted as merely connection of a melamine plant to a urea plant and covers the installation of lines from one to the other, this clearly having been done in the process of document (1a) (see lines from melamine plant (2) to urea plant (7) and back to melamine plant (2) in Figure 1).

Thus, the Board holds that all the structural and process features of claim 1 are disclosed in document (1a).

2.2.2 With regard to the Appellant's argument that the **purpose** of installing the melamine plant, namely to increase the capacity of the urea plant, was not disclosed in document (1a) and was thus a further distinguishing feature, the Board holds that the otherwise identical process and apparatus disclosed in document (1a) must also result in the capacity of the urea plant being increased. The capacity of the urea plant of document (1a) is not a "hidden feature", but is defined by the process steps and plant features

described, and is information readily available to the skilled person performing the process of document (1a). There may indeed be no corresponding statement of intended purpose in document (1a), namely to increase the capacity of the urea plant, this additional information contained in the patent in suit does not, however, teach the skilled person to do anything over and above what is already disclosed in document (1a) which would not have been done without knowing the content of the patent in suit (see T 279/93, point 5ff of the reasons, not published in OJ EPO). In other words, even if some new effect would have indeed been recognised, said effect does not lead to a new use of the known process over and above the known use of producing urea and melamine.

2.2.3 Since the process step of "increasing the capacity of a urea plant by the additional installation of a melamine plant" does not lead to any new use *vis-à-vis* the disclosure of document (1a), there is no need for the Board to rule on whether a new purpose of a process step in a known process can at all confer novelty on the process.

2.3 As a result, the main request is not allowable as the subject-matter of claim 1 lacks novelty within the meaning of Articles 52(1) and 54(1) and (2) EPC.

#### *Auxiliary request*

3. Claim 1 of the auxiliary request differs from claim 1 of the main request essentially in that the "Process for increasing the capacity of a urea plant [...] characterised in that the capacity of the urea plant is increased by the additional installation of a melamine plant" has been reformulated as "Use of the additional

installation of a melamine plant for increasing the capacity of a urea plant...".

3.1 Claim 1 is now directed to the use of a process step for increasing the capacity of a urea plant in a process which comprises the very same technical features as defined in claim 1 of the main request. The use of a process step for a particular purpose in a known process is, however, nothing but that very same process. Thus, as in the case of the main request, the purpose of the installation of the melamine plant, namely for "increasing the capacity of a urea plant" cannot distinguish the subject-matter of claim 1 from the process of document (1a).

3.2 The auxiliary request is thus also not allowable as the subject-matter of claim 1 lacks novelty within the meaning of Articles 52(1) and 54(1) and (2) EPC.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



C. Rodríguez Rodríguez

P. Gryczka

Decision electronically authenticated