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Datasheet for the decision of 14 January 2016

Case Number: T 0807/14 - 3.3.10

Application Number: 07818804.2

Publication Number: 2086928

IPC: C07C273/04

Language of the proceedings: ΕN

Title of invention:

Process for urea production and related plant

Patent Proprietor:

Casale SA

Opponent:

Stamicarbon B.V.

Headword:

Relevant legal provisions:

EPC Art. 100(a), 56, 113(1), 111(1) RPBA Art. 12(2), 13(1)

Keyword:

Lack of inventive step (yes) (main request)
Remittal to the department of first instance (yes) (first auxiliary request)

Decisions cited:

T 0020/81

Catchword:



Beschwerdekammern Boards of Appeal

Chambres de recours

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Case Number: T 0807/14 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 14 January 2016

Appellant: Stamicarbon B.V.

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Decision under appeal: Decision of the Opposition Division of the

European Patent Office posted on 28 January 2014 rejecting the opposition filed against European patent No. 2086928 pursuant to Article 101(2)

EPC.

Composition of the Board:

Chairman P. Gryczka
Members: R. Pérez Carlón

C. Schmidt

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Summary of Facts and Submissions

- I. The appellant (opponent) lodged an appeal against the decision of the opposition division to reject the opposition against European patent No. 2 086 928.
- II. Notice of opposition had been filed on the ground of lack of novelty and inventive step (Article 100(a) EPC).
- III. The documents filed during the opposition proceedings included the following:

D1: WO 02/090323 D2: GB 1 542 371

IV. Claim 1 of the patent as granted, which is the main request of the respondent (patent proprietor), reads as follows:

"Process for urea production from ammonia and carbon dioxide, comprising the steps of:

- feeding ammonia and carbon dioxide into a urea synthesis section operating at a predetermined high pressure;
- reacting said ammonia and said carbon dioxide in said synthesis section obtaining an aqueous solution comprising urea, ammonium carbamate and ammonia;
- feeding a first part of said aqueous solution comprising urea, ammonium carbamate and ammonia to a treatment section operating at a predetermined medium pressure for the recovery of the ammonium

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carbamate and of the ammonia contained in it;

- subjecting said first part of aqueous solution comprising urea, ammonium carbamate and ammonia to dissociation in said treatment section obtaining an urea aqueous solution and a vapour phase comprising ammonia, carbon dioxide and water;
- subjecting said vapour phase comprising ammonia, carbon dioxide and water to condensation in said treatment section obtaining an ammonium carbamate aqueous solution;
- recycling said ammonium carbamate aqueous solution to said urea synthesis reaction;

characterised in that it comprises the further steps of:

- feeding said urea aqueous solution obtained by dissociation in said treatment section to a decomposer of a urea recovery section operating at a predetermined low pressure;
- subjecting said urea aqueous solution to decomposition in said decomposer of said urea recovery section obtaining a concentrated urea solution and a second vapour phase comprising ammonia, carbon dioxide and water;
- subjecting said second vapour phase to condensation in a condenser of said urea recovery section in fluid communication with said decomposer obtaining a first recycle ammonium carbamate aqueous solution;

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- subjecting a second part of said aqueous solution comprising urea, ammonium carbamate and ammonia to stripping including heat in a stripping unit operating substantially at said predetermined high pressure, obtaining a second urea aqueous solution and a third vapour phase comprising ammonia, carbon dioxide and water, said heat being provided through indirect thermal exchange with a steam flow with condensates to condensed steam,
- using at least a part of said condensed steam as a heating fluid for dissociating said first part of the aqueous solution comprising urea, ammonium carbamate and ammonia in said dissociation unit of said medium pressure treatment section."

Claim 1 of the first auxiliary request, filed during the oral proceedings before the board of appeal, which took place on 14 January 2016, reads as follows (features added to claim 1 of the main request underlined by the board):

"Process for urea production from ammonia and carbon dioxide, comprising the steps of:

- feeding ammonia and carbon dioxide into a urea synthesis section operating at a predetermined high pressure;
- reacting said ammonia and said carbon dioxide in said synthesis section obtaining an aqueous solution comprising urea, ammonium carbamate and ammonia;
- feeding a first part of said aqueous solution comprising urea, ammonium carbamate and ammonia to

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- a treatment section operating at a predetermined medium pressure for the recovery of the ammonium carbamate and of the ammonia contained in it;
- subjecting said first part of aqueous solution comprising urea, ammonium carbamate and ammonia to thermal dissociation in a dissociation unit of said treatment section obtaining an urea aqueous solution and a vapour phase comprising ammonia, carbon dioxide and water;
- subjecting said vapour phase comprising ammonia, carbon dioxide and water to condensation in said treatment section obtaining an ammonium carbamate aqueous solution;
- recycling said ammonium carbamate aqueous solution to said urea synthesis reaction;

characterised in that it comprises the further steps of:

- feeding said urea aqueous solution obtained by said thermal dissociation in said treatment section to a decomposer of a urea recovery section operating at a predetermined low pressure;
- subjecting said urea aqueous solution to decomposition in said decomposer of said urea recovery section obtaining a concentrated urea solution and a second vapour phase comprising ammonia, carbon dioxide and water;
- subjecting said second vapour phase to condensation in a condenser of said urea recovery section in fluid communication with said decomposer obtaining a first recycle ammonium carbamate aqueous

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solution;

- subjecting a second part of said aqueous solution comprising urea, ammonium carbamate and ammonia to stripping including heat in a stripping unit operating substantially at said predetermined high pressure and in the presence of carbon dioxide feed as a stripping agent, obtaining a second urea aqueous solution and a third vapour phase comprising ammonia, carbon dioxide and water, said heat being provided through indirect thermal exchange with a steam flow with condensates to condensed steam,
- using at least a part of said condensed steam as a heating fluid for dissociating said first part of the aqueous solution comprising urea, ammonium carbamate and ammonia in said dissociation unit of said medium pressure treatment section,

and characterized in that it comprises the further steps of:

- <u>subjecting said third vapour phase comprising</u>
 <u>ammonia, carbon dioxide and water obtained in said</u>
 <u>stripping unit to condensation in a condensation</u>
 <u>unit operating substantially at said predetermined</u>
 <u>high pressure, obtaining a second aqueous solution</u>
 of recycle ammonium carbamate,
- <u>feeding said second urea aqueous solution obtained</u> <u>in said stripping unit in said decomposer of the</u> <u>urea recovery section operating at low pressure."</u>
- V. The opposition division concluded that document D1 was the closest prior art for the process of claim 1, and

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that the problem underlying the claimed invention was to provide a process for urea production with high conversion yield of carbon dioxide to urea and low energy consumption. The solution to this problem was characterised by feeding the urea solution obtained by dissociation to a decomposer of a urea recovery section, and in that the heat used in the stripping unit operating at high pressure was provided by indirect thermal exchange with a steam flow, which condensed and was subsequently used as a heating fluid in the dissociation unit of the medium-pressure treatment section. This solution was not obvious for the person skilled in the art and the subject-matter of claim 1 was thus inventive.

VI. The arguments of the appellant relevant for the decision were the following:

Document D1 was the closest prior art. The problem of providing a process for urea production with better conversion yield and lower energy consumption was not credibly solved by the features of claim 1 with respect to the conversion yield, as the patent in suit contained only assertions, not substantiated by experimental evidence. Thus, only the part of the problem related to requiring less energy could be regarded as solved by the process of claim 1. The solution to that problem was characterised in that the heat required for stripping at high pressure was provided through indirect thermal exchange, in that the condensed steam flow obtained after said thermal exchange was used as heating fluid in the dissociation unit of the medium pressure treatment section, and by feeding the urea aqueous solution obtained by dissociation in the medium pressure section to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide

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and water was obtained, said vapour phase being condensed in a condenser. The use of indirect heat exchange with steam, and the specific steps carried out with the concentrated urea solution obtained by dissociation in the low-pressure part of the process, were taught by document D1. The use of the hot steam condensate from the stripping step to provide the heat required for the dissociation in the medium-pressure section was known from D2. For those reasons the claimed process was not inventive.

The first auxiliary request had been filed towards the end of the oral proceedings before the board, thereby not allowing the appellant enough time to prepare its case. It should therefore not be admitted into the proceedings. If it were admitted, the case should be remitted to the opposition division for further prosecution.

VII. The arguments of the respondent relevant for the decision were the following:

Document D1 was the closest prior art. The problem underlying the claimed invention was that of providing a process for urea production which allowed better yield and required less energy. The solution was characterised by feeding the urea aqueous solution obtained by dissociation to a decomposer operating at low pressure. The absence of a stripping step after the dissociation in the medium-pressure section allowed a higher capacity of the process and thus better conversion yields, as disclosed in paragraphs [0033], [0097] and [0098] of the patent in suit. The claimed solution was further characterised by using the hot condensate steam, from an indirect thermal exchange in the stripping, as heating fluid for the dissociation unit of the medium-pressure

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treatment section, which reduced the energy requirements of the process. The problem underlying the claimed invention was therefore solved by the process of claim 1.

If, nevertheless, the problem underlying the claimed invention were to be considered merely as that of providing a process with reduced energy requirements, then the solution was characterised in that the heat required for stripping at high pressure was provided through indirect thermal exchange, in that the condensed steam flow obtained after said thermal exchange was used as heating fluid in the dissociation unit of the mediumpressure treatment section, and by feeding the urea aqueous solution obtained by dissociation in the mediumpressure section to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water was obtained, and in condensing said vapour phase in a condenser. Such a solution was not obvious having regard to the prior art. The subjectmatter of claim 1 was thus inventive.

The first auxiliary request was based on a previous request filed in response to the board's communication annexed to the summons to oral proceedings. This request could thus not surprise the board or the other party. Further, it had been filed as a reaction to the discussion at the oral proceedings, which focused for the first time on whether the wording of claim 1 excluded the presence of a stripping step in the section operating at medium pressure. The first auxiliary request should thus be admitted into the proceedings.

VIII. The final requests of the parties were the following:

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- The appellant requested that the decision under appeal be set aside and that European patent No. 2 086 928 be revoked.
- The respondent requested that the appeal be dismissed or alternatively that the patent be maintained on the basis of the first or second auxiliary request, filed at the oral proceedings before the board.
- IX. At the end of the oral proceedings, the decision was announced.

Reasons for the Decision

1. The appeal is admissible.

Main request, inventive step

Claim 1 of the main request relates to a process for urea production. The claimed process is carried out in three different sections, one operating at high pressure, the second at medium pressure and the last at low pressure.

The process of claim 1 requires splitting the solution obtained in the synthesis section and feeding a first part thereof to a treatment section operating at medium pressure, where it is subjected to dissociation; a second part is subjected to high-pressure stripping, including heat.

The urea aqueous solution obtained by dissociation at medium pressure is fed to a decomposer of a urea recovery section operating at low pressure, where it is decomposed. The vapour phase thus obtained is subsequently condensed at low pressure.

Lastly, claim 1 requires providing heat to the high-pressure

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stripping unit by indirect thermal exchange with steam, which condensates. This steam condensate is subsequently used as heating fluid for dissociating the first part of the aqueous solution obtained in the synthesis section in the dissociation unit of the medium-pressure treatment section.

- 3. Closest prior art
- 3.1 The opposition division and the parties considered that document D1 was the closest prior art.

The board mentioned in a communication annexed to the summons to oral proceedings that document D2 could also be the closest prior art.

However, document D2 does not contain a key feature of the present invention, namely that a part of the solution resulting from the synthesis section is subjected to dissociation in a treatment section operating at medium pressure, and a second part thereof is subjected to high-pressure stripping, whereas this feature is disclosed in D1. The absence of this feature involves substantial differences in every downstream step. The technology of D2 is thus more remote from that of the claimed invention than that of document D1, which thus represents the closest prior art.

3.2 Document D1 discloses a process for producing urea (see figure 2) including a high-pressure section (URE, HSCR, HCC, HST), a medium-pressure section (MDIS, MST, MCC) and a low-pressure urea recovery section (LPR).

D1 discloses subjecting a part (USS) of the solution resulting from the synthesis section (URE) to dissociation (MDIS) at medium pressure, and a second part (USS) to high-pressure stripping (HST).

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- 3.2.1 It has not been disputed that document D1 fails to disclose:
 - providing heat through indirect thermal exchange to the stripping unit operating at high pressure and
 - that the condensed steam obtained after said thermal exchange is used as heating fluid for the dissociation unit of the medium-pressure treatment section.
- 3.2.2 Document D1 does not provide a detailed disclosure of the steps required for treating, in the low-pressure urea recovery section (LRP), the urea aqueous solution obtained by dissociation in the medium-pressure section.

In contrast, claim 1 of the patent in suit requires the urea aqueous solution obtained by dissociation in the medium-pressure section to be fed to a decomposer of the low-pressure urea recovery section, in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water is obtained, and said vapour phase to be condensed in a condenser. This sequence of steps represents a further distinguishing feature with respect to D1.

3.2.3 Document D1 discloses (see figure 2) subjecting a part of the solution obtained in the reactor (URE) to dissociation (MDIS), thus obtaining a urea aqueous solution (DUSS, which is stripped (MST). The resulting solution is subsequently sent to the low-pressure recovery section (LPR).

The respondent considered that the wording of claim 1, which requires (see first lines of the characterising portion)
"feeding said urea aqueous solution obtained by dissociation in said treatment section" necessarily excluded, after the dissociation, any step other than feeding the urea aqueous solution, labelled (DUSS) in figure 2 of D1, to a decomposer of the urea recovery section operating at low pressure.

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However, the board considers that the wording of claim 1 only requires a first part of the aqueous solution from the synthesis section, such as (URE) in figure 2 of D1, to be subjected "to dissociation" giving rise to "an urea aqueous solution and a vapour phase", and this wording does not exclude, as argued by the respondent, the presence of stripper (MST) after the dissociation zone (MDIS), since claim 1 requires sending to the low-pressure zone an urea aqueous solution subsequent to a dissociation step, but not sending said solution directly after dissociation.

Thus, the solution which emerges from the bottom part of the stripping unit (MST in figure 2 of D1) is anurea aqueous solution obtained by dissociation, and which is fed to the low-pressure recovery section (LPR), as required by claim 1.

3.2.4 The parties had different views on whether any dissociation took place in stripper (MST) and on whether the stripping process changed the composition of the aqueous urea solution (DUSS).

Since the board considers that the mere wording of claim 1 does not exclude the presence of a stripping step such as (MST) in Figure 2 of claim 1, irrespectively of whether said stripping induced any dissociation or otherwise changed the composition of the feed (DUSS) obtained by dissociation, it is not necessary to decide on these issues.

- 3.2.5 The board thus concludes that document D1 fails to disclose the following features of claim 1 of the patent as granted:
 - that the heat required for stripping at high pressure is provided through indirect thermal exchange,

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- that the condensed steam flow obtained by said thermal exchar is used as heating fluid in the dissociation unit of the medium-pressure treatment section, and
- that, in the urea recovery section operating at low pressure, the urea aqueous solution obtained by dissociation in the medium-pressure section should be fed to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water are obtained, said vapour phase being condensed in a condenser.
- 4. Technical problem underlying the invention

The appellant defined the technical problem underlying the claimed invention as providing a process for urea production which allowed better conversion yield and required less energy.

5. Solution

The solution to this technical problem is the process of claim 1, characterised in that the heat required for stripping at high pressure is provided through indirect thermal exchange, in that the condensed steam flow obtained by said thermal exchange is used as heating fluid in the dissociation unit of the medium-pressure treatment section, in that the urea aqueous solution obtained by dissociation in the medium-pressure section is fed to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water is obtained, and in that said vapour phase is condensed in a condenser.

6. Success

6.1 There is no direct comparison on file with the closest prior art D1, let alone a comparison reflecting solely the effect of the distinguishing features of the claimed invention.

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The respondent relied on paragraphs [0033], [0097] and [0098] of the patent in suit to show that the problem as formulated in point 4. above had been credibly solved by the features of claim 1. However, these paragraphs lack any experimental detail and thus merely amount to unsubstantiated assertions.

6.2 The respondent further argued that, by omitting the stripping step at medium pressure required by the process of D1, the claimed process reduced the amount of condensation water fed to the low-pressure urea recovery section and thus increased the conversion yield.

However, as explained above (see point Error: Unable to retrieve cross-reference value!), the wording of claim 1 does not exclude such a stripping step and, for this reason, any effect which might result from its absence is not achievable over the whole scope of the subject-matter claimed.

Thus, the part of the problem relating to increasing the capacity and thus achieving better conversion yields is not credibly solved by the process of claim 1.

- 6.3 It is, however, apparent that by using the condensed steam flow obtained after indirect thermal exchange in the high-pressure stripping as heating fluid for the dissociation unit of the medium-pressure treatment section, the part of the problem related to requiring less energy is successfully solved by the process of claim 1. This has not been challenged by the appellant.
- 7. Reformulation of the technical problem
- 7.1 According to the case law, alleged but unsupported advantages cannot be taken into consideration in determining the problem underlying the invention (see

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e.g. decision T 20/81, OJ EPO 1982, 217, Reasons 3, last paragraph). As the alleged improvement in terms of higher capacity and better conversion yield lacks the required support, the technical problem as defined above needs to be reformulated as providing a process for urea production requiring less energy than those of the prior art.

- 7.2 It has not been disputed that this technical problem has been solved by the process of claim 1, characterised in that the heat required for stripping at high pressure is provided through indirect thermal exchange, in that the condensed steam flow obtained after said thermal exchange is used as heating fluid in the dissociation unit of the medium-pressure treatment section, in that the urea aqueous solution obtained by dissociation in the medium-pressure section is fed to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water is obtained, and in that said vapour phase is condensed in a condenser.
- 8. It thus remains to be decided whether or not the proposed solution to the objective problem defined above is obvious from the prior art.
- 8.1 The claimed process is characterised by three features or groups of features:
 - the heat required for stripping at high pressure is provided through indirect thermal exchange,
 - the condensed steam flow obtained after said thermal exchange is used as heating fluid in the dissociation unit of the medium-pressure treatment

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section, and

- the urea aqueous solution obtained by dissociation in the medium-pressure section is fed to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water is obtained, and said vapour phase is condensed in a condenser.

It has not been challenged that only the second of these features, relating to using a part of the condensed steam coming from the stripping unit as heating fluid for the dissociation unit of the medium-pressure treatment section, contributes to solving the problem of providing a process requiring less energy than that of D1, and that the remaining two groups of characterising features only contribute to providing a further method for urea production.

8.1.1 Indirect thermal heating of the stripping unit

Document D1 discloses, in its figure 2, that the high pressure stripper (HST) dissociates unconverted ammonium carbamate "with the aid of high pressure steam and a part of the carbon dioxide feed" (page 11, lines 10-12). D1 is silent on how said high pressure steam is used. No further detail is provided.

Figure 2 of D1 only discloses two feeds into the stripper (HST), namely a $\rm CO_2$ feed and a feed (USS) from the reactor (URE). No water or steam feed is disclosed.

Given that water is a by-product of the carbamate decomposition step, whose removal is a major technical issue in a process for producing urea, and that document D1 does not disclose any line which could feed water or

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steam into stripper (HST), the skilled person would not consider, as alleged by the respondent, using the high-pressure steam mentioned on page 11, lines 10-12 of D1 as a stripping agent but, instead, would use it for indirectly heating the stripper and would thus arrive at this part of the claimed solution without using inventive skills.

8.1.2 Feeding the urea aqueous solution obtained by dissociation in the medium-pressure section to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water is obtained, said vapour phase being condensed in a condenser

Document D1 discloses that the urea solution obtained by dissociation in the medium-pressure section is fed to the low-pressure recovery section, but does not provide further details about this part of the process.

Document D1 discloses, nevertheless, how to operate the low-pressure recovery section (LRS) with respect to another urea solution (SUSS).

In the context of figure 2, D1 discloses (page 11, lines 12-16) that the urea solution (SUSS) leaving the high-pressure stripper (HST) is fed to the low pressure recovery section, where further purification takes place. Since the products of said purification are ammonia and carbon dioxide, decomposition took place. Said ammonia and carbon dioxide are further condensed and returned to the medium-pressure section.

Trying to put into practice the teaching of document D1, the skilled person would apply the procedure disclosed for another urea solution (SUSS) fed into the (LRS)

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section to the urea solution originating from the decomposition in the medium-pressure section, since, if the inventors of D1 had envisaged a different set-up for other urea solutions in the (LPR) section, they would have mentioned it explicitly.

For this reason, it is considered that the feature requiring the urea aqueous solution obtained by dissociation in the medium-pressure section to be fed to a decomposer in which a concentrated urea solution and a vapour phase comprising ammonia, carbon dioxide and water is obtained, and said vapour phase to be condensed in a condenser, is an obvious option for the skilled person having regard to D1.

8.1.3 Using the condensed steam flow obtained after said thermal exchange as heating fluid in the dissociation unit of the medium-pressure treatment section

The respondent has not disputed that this is the sole distinguishing feature over the closest prior art, D1, contributing to solving the problem of reducing the energy consumption of the claimed process.

D2 discloses (see claim 1, page 1, lines 10-69 and figures 1a and 1b) a process for obtaining urea from carbon dioxide and ammonia of the Snamprogetti type. The process requires a high-pressure section (see steps (a)-(c) on page 1; (1), (11), (9) in figure 1a) including a stripping step ((b); (9)), a medium- pressure section (page 1, steps (e)-(g); (16), (21) in figure 1a) including a decomposition step (step (e); (16)) and a low-pressure section (steps (j)-(m) on page 1; (29), (31) in figure 1b).

In figure 1a of document D2, the steam and water feeds

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for heating stripper (9) and decomposition unit (16) are represented by horizontal arrows which do not bear any label.

On page 2, lines 12-16, document D2 discloses that the heat required to operate of the medium-pressure decomposer is supplied by the hot condensate obtained from the steam used to heat the high-pressure decomposer. It is immediately apparent that this feature reduces the energy requirement of the urea process compared to a process using two non-related heating feeds, by taking advantage of the remaining heat of the condensed steam.

The skilled person, trying to develop a process which requires less energy, would apply this teaching of document D2 and provide the heat required for the medium-pressure dissociation unit by means of the hot water resulting from the indirect heating of the high-pressure stripper, thus arriving at the claimed invention without using inventive skills.

8.2 The board thus concludes that the distinguishing features with respect of the closest prior-art document D1 are obvious having regard to the teaching of D1 and D2. The subject-matter of claim 1 is therefore not inventive as required by Article 56 EPC, and for this reason the ground mentioned under Article 100(a) EPC precludes the maintenance of the patent as granted.

First auxiliary request, admissibility

9. The first auxiliary request was filed towards the end of the oral proceedings before the board. Claim 1 resulted from the combination of claims 1 and 4 as granted, further limited by requiring the high-pressure stripping

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to be carried out in the presence of carbon dioxide, the dissociation in the medium-pressure treatment section to be a thermal dissociation, and said thermal dissociation to be carried out in a dissociation unit.

- 9.1 The respondent argued that this request should be admitted into the proceedings, since it was very similar to a previous request filed as fourth auxiliary request with a letter dated 14 December 2015 in response to the communication of the board annexed to the summons for oral proceedings, and did not introduce any unexpected issue which could not be dealt with at the oral proceedings.
- 9.2 The appellant argued that it could not have foreseen this request and was thus not prepared to address it at such a late stage of the proceedings. The request could not represent a response to any new, unexpected issue, as lack of inventive step, with document D1 as the closest prior art, had been a ground of opposition from the start of the proceedings, the opposition division had already decided on that very point, and the notice of appeal relied on the same argument.

As the first auxiliary request was late-filed, it had not been triggered by any new issue, and the appellant was not prepared to address it, it should not be admitted into the proceedings.

9.3 The board holds, however, that the filing of the first auxiliary request represented a reaction to a new development of the arguments during the oral proceedings before the board.

During the opposition proceedings and the written part of these appeal proceedings, the discussion on whether - 21 - T 0807/14

claim 1 excluded the presence of stripper (MST) of D1 focused on whether any dissociation took place in said stripper, and on whether the stripper changed the composition of the feed (MDIS).

In contrast, during the oral proceedings before the board, the discussion hinged for the first time on whether the wording of claim 1 necessarily excluded the presence of any step further to the dissociation (MDIS) before feeding the urea solution obtained by dissociation into a low-pressure treatment section.

Under these circumstances, not allowing the respondent to file a new request in reaction to this new aspect of the discussion would be in breach of Article 113(1) EPC. The board thus decides to admit the first auxiliary request into the proceedings.

Remittal

- 10. According to Article 111(1) EPC, a board may either exercise any power within the competence of the department which was responsible for the appealed decision, i.e. decide on all issues, or it may remit the case to the first instance for further prosecution.
- 11. The appellant has requested that, if the first auxiliary request is admitted, the case be remitted to the opposition division for further prosecution as, due to the lateness of the filing of the first auxiliary request and to the complexity of the case, it was not prepared to address said request during the oral proceedings. The respondent had no objection to such remittal.

Under these circumstances, the board considers it

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appropriate to remit the case to the opposition division for further prosecution.

Order

For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- 2. The case is remitted to the opposition division for further prosecution on the basis of claims 1 to 10 of the first auxiliary request, filed during the oral proceedings before the board.

The Registrar:

The Chairman:



C. Rodríguez Rodríguez

P. Gryczka

Decision electronically authenticated