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Datasheet for the decision of 3 July 2019

Case Number: T 1484/16 - 3.3.03

Application Number: 05792293.2

Publication Number: 1791875

IPC: C08F10/00, C08F6/00, B01J8/00, B01J19/18

Language of the proceedings: EN

Title of invention:
ENERGY EFFICIENT POLYOLEFIN PRODUCTION PROCESS

Patent Proprietor:
CHEVRON PHILLIPS CHEMICAL COMPANY LP

Opponent:
Total Research & Technology Feluy

Relevant legal provisions:
EPC Art. 123(2)
RPBA Art. 13(1)

Keyword:
Amendments - all requests - allowable (no)
Late-filed request - adjournment of oral proceedings would have been required (yes)

Decisions cited:
G 0002/10

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Case Number: T 1484/16 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 3 July 2019

Appellant: (Patent Proprietor)	CHEVRON PHILLIPS CHEMICAL COMPANY LP 10001 Six Pines Drive The Woodlands, TX 77380 (US)
Representative:	King, Lawrence A.A. Thornton & Co. 10 Old Bailey London EC4M 7NG (GB)
Respondent: (Opponent)	Total Research & Technology Feluy Zone Industrielle C 7181 Seneffe (BE)
Representative:	Raboin, Jean-Christophe Total Research & Technology Feluy Zone Industrielle C 7181 Seneffe (BE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 14 April 2016 revoking European patent No. 1791875 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	O. Dury
Members:	D. Marquis
	R. Cramer

Summary of Facts and Submissions

I. The appeal by the patent proprietor lies against the decision of the opposition division posted on 14 April 2016 to revoke European patent No. 1 791 875.

II. Original claims 13 to 15, which are the only claims of the application as filed which are relevant for the present case, read as follows:

"13. A manufacturing system for producing polyolefin, comprising:

a feed system;

a polyolefin reactor system having a polymerization reactor;

a diluent/monomer recovery system configured to process an effluent discharged from the polymerization reactor, wherein the effluent comprises polyolefin particles and diluent;

a fractionation system configured to process a portion of the diluent; and

an extrusion/loadout system having an extruder,

wherein the manufacturing system is configured to consume less than 144 kilogram of steam per metric ton of polyolefin produced."

"14. The manufacturing system of claim 13, wherein the feed system comprises a mass meter configured to measure a flow rate of ethylene fed to the polymerization reactor."

"15. The manufacturing system of claim 13, wherein the diluent/monomer recovery system is configured to facilitate recycle of at least about 80 weight % of diluent recovered in the diluent/monomer recovery system to the polymerization reactor without fractionation."

III. Claim 1 of the patent as granted read as follows:

"1. A manufacturing system for producing polyolefin, comprising:

a feed system comprising a mass flow meter configured to measure a flow rate of monomer fed to the polymerization reactor;

a polyolefin reactor system having a polymerization reactor, wherein the polymerization reactor comprises a continuous take-off;

a diluent/monomer recovery system configured to process an effluent discharged from the polymerization reactor, wherein the effluent comprises polyolefin particles and diluent, and wherein the diluent monomer recovery system is configured to facilitate direct recycle of at least 80 weight % of diluent recovered in the diluent/ monomer recovery system to the polymerization reactor without fractionation;

a fractionation system configured to process a portion of the diluent; and

an extrusion/loadout system having an extruder;

wherein the manufacturing system is configured to

consume less than 144 kilograms of steam per metric ton of polyolefin produced".

IV. The patent was opposed, inter alia on the ground that its subject matter extended beyond the content of the application as filed. The decision of the opposition division was based on the set of claims as granted as main request and on auxiliary requests 1, 1B, 1A filed during oral proceedings and auxiliary requests 2 and 3 filed with letter of 8 January 2016.

V. In the contested decision the opposition division held that the subject matter of claims 1 and 4 of the main request did not meet the requirements of Article 100(c) and 123(2) EPC. In particular the definition of the direct recycling of at least 80 % by weight of diluent without fractionation, the definition of the polymerization reactor comprising a continuous take-off and the generalization of the manufacturing system to systems comprising a mass flow meter measuring the flow rate of a monomer in general (as opposed to ethylene in particular) did not find a basis in the application as filed. Besides, the selection of only part of the features relating to the reduction of steam consumption in the application as filed to define the claimed subject matter amounted to an arbitrary selection of features which was not directly and unambiguously derivable from the application as filed (section 12.3 of the contested decision). Since the amendments performed in claim 1 of auxiliary request 1 did not address all the objections raised for the main request under Article 123(2) EPC, that request failed too. Since auxiliary request 1B prima facie did not meet the requirements of Article 123(2) and (3) EPC, that request was not admitted into the proceedings. The combination of features defining claim 1 of auxiliary

request 1A found also no basis in the application as filed. Since claim 1 of auxiliary request 2 and claim 1 of auxiliary request 3 were identical to claim 1 of the main request, auxiliary requests 1A, 2 and 3 failed for the same reasons as the main request.

VI. The patent proprietor lodged an appeal against that decision and submitted auxiliary requests 1A to 1D, 2A to 2D, 3A to 3D and 4A to 4D into the proceedings. Auxiliary requests 2A to 2D, 3A to 3D and 4A to 4D were later withdrawn, in the course of the oral proceedings.

Claim 1 of auxiliary request 1A and of auxiliary request 1B were identical to claim 1 of the main request.

Claim 1 of auxiliary request 1C differed from claim 1 of the main request in that the definition of the diluent/monomer recovery system was modified as follows (additions in bold, deletions in strikethrough) "configured to facilitate direct recycle of ~~at least~~ 80**-95** weight % of diluent recovered in the diluent/ monomer recovery system to the polymerization reactor without fractionation".

Claim 1 of auxiliary request 1D differed from claim 1 of auxiliary request 1C in that the monomer was defined as being ethylene.

VII. In a communication sent in preparation of oral proceedings, the Board summarised the points to be dealt with and provided a preliminary view on the disputed issues in respect of Article 100(c) EPC, Article 123(2) EPC and/or Article 123(3) EPC for the pending requests.

VIII. Oral proceedings were held on 3 July 2019. Besides withdrawing auxiliary requests 2A to 2D, 3A to 3D and 4A to 4D that had been filed with the statement setting out the grounds of appeal, the appellant submitted auxiliary request 5 into the proceedings. Claim 1 of that request differed from claim 1 of the main request in that the polymerization reactor was defined as comprising "2-3 continuous take-offs for use in normal operation for the polymerization reactor, with 1-2 continuous take-offs on standby, each continuous take-off having a dedicated flash line heater" and in that the monomer was defined as being ethylene.

IX. The arguments provided by the appellant, as far as relevant to the present decision, can be summarised as follows:

Article 100(c) and 123(2) EPC

(a) Claim 1 of the main request found a basis in claim 13 of the application as filed which disclosed a manufacturing system configured to consume less than 144 kilogram of steam per metric ton of polyolefin produced.

(b) The definition of the features relating to
- the use of a mass flow meter configured to measure a flow rate of monomer in the feed system,
- a continuous take-off comprised in the polymerization reactor and
- the configuration of the diluent/monomer recovery system to facilitate recycle of at least 80 weight % of diluent without fractionation

in claim 1 of the main request all found an individual basis in the application as filed

(paragraphs 31, 44, 32, 108 and claim 15). The skilled person knew that the presence of flash heaters on continuous take-offs was not required. In that respect, the non incorporation of flash heaters in the wording of claim 1 did not infringe Article 123(2) EPC.

(c) With regard to the combination of these individual features in claim 1 of the main request, the introductory statements of paragraphs 29 and 30 of the description showed the generality of the text of the application as filed as a whole and in particular stressed that the various techniques presented in the application could be implemented in a multiplicity of combinations.

(d) Then, each of the individual passages relating to the mass flow meter, the continuous take-off and the diluent recovery without fractionation taught that the implementation of these features, in the general manufacturing system described in the application as filed, had a common and direct impact on the reduction of steam consumption.

(e) A skilled reader would thus understand from the description of the application as filed that the selected features relating to the mass flow meter, the continuous take-off and the diluent recovery without fractionation were directly relevant to the subject matter of claim 13 and that they could be combined. In that respect, there was no indication in the application as filed that would prevent the skilled person from combining original claim 13 with any passages of the application as filed directed to steam reduction, alone or in combination, in particular not with the passages of

the application as filed reflected in granted claim 1. Also, as less emphasis was laid in the application as filed on the use of a purge column into the extruder feed tank in order to reduce steam consumption, that feature, which was otherwise known to have less impact on steam consumption, did not need to be added to claim 1 of the main request.

(f) Claim 1 of the main request therefore met the requirements of Article 123(2) EPC.

(g) The same arguments applied to claim 1 of auxiliary requests 1A and 1B which were identical to claim 1 of the main request.

(h) The amendment, in claim 1 of auxiliary request 1C, of the range defining the amount of diluent that can be recycled in the diluent/monomer recovery system found a basis in paragraph 51 of the application as filed. Paragraph 121 provided a further basis for that amendment since a skilled reader understood from Figure 7 that the recycling referred to in claim 1 concerned both diluent and unreacted monomer. Therefore, claim 1 of auxiliary request 1C met the requirements of Article 123(2) EPC.

(i) The amendment of the monomer now defined as ethylene in claim 1 of auxiliary request 1D, was based on the multiple references made to ethylene in the application as filed, in particular in paragraphs 44 and 64. Claim 1 of auxiliary request 1D thus met the requirements of Article 123(2) EPC.

Admittance of auxiliary request 5

(j) The amendment concerning the use of 2-3 continuous take-offs was based on paragraph 32 of the application as filed. That passage also linked the use of 2-3 continuous take-offs to the reduction of steam consumption. The wording defining the operation of the continuous take-offs in claim 1 was commonly known in the art and thus did not lack clarity. For these reasons, auxiliary request 5 should be admitted into the proceedings.

X. The arguments provided by the respondent, as far as relevant to the present decision, can be summarised as follows:

Article 100(c) and 123(2) EPC

(a) Some of the individual features defining claim 1 of the main request found no basis in the application as filed. In particular, paragraph 44 cited as a basis for the use of a mass flow meter in the feed system was limited to ethylene only. There was no basis for a generalization of the use of a mass flow meter to any monomer as now defined in claim 1 of the main request.

(b) The definition of the recovery system in claim 1 of the main request which only concerned a direct recycle of at least 80 weight % of diluent was also not disclosed as such in the application as filed. While the recovery system was addressed in several passages of the application as filed, these passages did not disclose the same range of diluent recycled (paragraphs 51 and 114), were limited to the direct recycling of diluent and monomer only

(paragraph 67), or concerned the recycling of "flashed" diluent only (paragraph 114). Therefore, the definition of the recovery system according to claim 1 of the main request did not find a basis in the application as filed.

(c) Then, the combination of features defining claim 1 of the main request represented an embodiment that had been created by arbitrarily selecting passages of the application as filed. The combination of these features was however not derivable from the application as filed.

(d) In particular, a reduction of steam consumption was not only common to the mass flow meter, continuous take-offs and the diluent recovery without fractionation but steam reduction was also associated with the combination of an upstream purge with an extruder feed tank as disclosed in paragraph 126, a feature that was not present in claim 1 of the main request. There was therefore no basis for leaving out that feature from the wording of claim 1 of the main request.

(e) Besides, there was no basis for the introduction of a continuous take-off in the subject matter of claim 13 of the application as filed specifically, the reasoning being that paragraph 31, cited as a basis for the operation of a continuous take-off, did not link the use of a continuous take-off as defined in claim 1 of the main request to steam reduction. Paragraph 32, which mentioned steam reduction, only disclosed the use of continuous take-offs mounted with flash liners. That limitation was however not in claim 1 of the main

request.

(f) Claim 1 of the main request did not meet the requirements of Article 123(2) EPC.

(g) The objections raised against the main request also applied to claim 1 of auxiliary requests 1A and 1B.

(h) Paragraph 51 of the application as filed only provided a basis for the recycling of "up to 80-95%" of the diluent discharged from the reactor. That passage did not disclose the range of 80-95 weight % defining claim 1 of auxiliary request 1C. Paragraph 121, which disclosed the range of 80-95 weight %, did so only in relation to the amount of diluent and unreacted monomer. There was thus no basis in the application as filed for the amendment in claim 1 of auxiliary request 1C.

(i) The definition, in claim 1 of auxiliary request 1D, of the monomer as being ethylene constituted a further selection of subject matter that was added to operative claim 1 and for which there was no basis in the application as filed. Claim 1 of auxiliary request 1D did not meet the requirements of Article 123(2) EPC.

Admittance of auxiliary request 5

(j) Auxiliary request 5 was filed late. Claim 1 of that request did not solve all the issues of added matter as discussed for the main request and further introduced new issues relating to Article 84 EPC. In particular, there was no basis in the application as filed for the combination of the use of a specific mass flow meter, several

continuous take-offs and the direct recycling of at least 80 weight % of diluent in the context of a system configured to consume less than 144 kilograms of steam per metric ton of polyolefin produced. In addition, terms like "normal" and "stand-by" that were introduced in claim 1 lacked clarity. Auxiliary request 5 should not be admitted into the proceedings.

XI. The appellant requested that the decision under appeal be set aside and the patent be maintained as granted (main request), or alternatively be maintained in amended form on the basis of one of auxiliary requests 1A to 1D filed with the statement of grounds of appeal, or on the basis of auxiliary request 5 filed during the oral proceedings.

XII. The respondent requested that the appeal be dismissed.

Reasons for the Decision

Main request (claims as granted)

1. Article 100(c) and 123(2) EPC

1.1 For the assessment of Article 123(2) EPC, the question to be answered is whether or not the subject-matter of an amended claim extends beyond the content of the application as filed, i.e. whether after the amendment the skilled person is presented with new technical information (see G 2/10, OJ EPO 2012, 376, point 4.5.1 of the Reasons and Case Law of the Boards of Appeal of the EPO, 8th edition, 2016, II.E.1 and 1.2.1). In the case of multiple amendments being made, as is the case here, the question has to be posed whether the specific

combination of features now being defined in operative claim 1 emerges from the application as filed, whereby the description is not to be viewed as a reservoir from which features pertaining to separate embodiments can be freely combined in order to artificially create a certain embodiment (Case Law, supra, II.E.1.4.1).

1.2 As a basis for operative claim 1, the appellant cited claim 13 of the application as filed which is the only instance in the application as filed in which a system is disclosed as being configured to consume less than 144 kilogram of steam per metric ton of polyolefin produced.

1.3 The subject-matter of operative claim 1 corresponds to claim 13 as filed with the following amendments:

(a) the specification of the feed system comprising a mass flow meter configured to measure a flow rate of monomer fed to the polymerization reactor;

(b) the specification that the polymerization reactor comprises a continuous take-off;

(c) the specification that the diluent monomer recovery system is configured to facilitate direct recycle of at least 80 weight % of diluent recovered in the diluent/monomer recovery system to the polymerization reactor without fractionation.

1.4 With regard to the combination of amendments (a) to (c) in operative claim 1, the appellant first pointed to a basis for each of the separate amendments in the application as filed (see the references to the passages of the application as filed indicated in section IX (b) above), as had been done by the

opposition division in their contested decision (reasons of the decision: section 12.1, first paragraph), and argued that the combination of these amendments in accordance to operative claim 1 could be derived from:

(i) the statement in paragraphs 29 and 30 suggesting that the various techniques to increase energy efficiency in the manufacture of polyolefin disclosed in the application as filed could be implemented in a multiplicity of combinations, and

(ii) the consideration that each of amendments (a) to (c) listed above and defining claim 1 of the main request was individually identifiable as a measure leading to a reduction of steam consumption throughout the application as filed.

1.5 Regarding argument (i), it is however apparent that the passage in paragraphs 29 and 30, which is essentially an introduction to the different techniques for increasing energy efficiency in the manufacture of polyethylene presented in the application, does not specifically address the reduction of steam consumption defining operative claim 1. While it lists the techniques that are disclosed in more detail in the application as filed, that passage is unspecific as to the combination of techniques that would constitute the invention and does not provide a pointer as to which techniques would be recognized as being compatible with a manufacturing system specifically configured to consume less than 144 kilogram of steam per metric ton of polyolefin produced.

1.6 Paragraphs 29 and 30 are thus not of particular relevance to the subject matter of claim 13 of the application as filed and they cannot provide a basis for the combination of original claim 13 with the specific amendments (a) to (c) listed above in order to provide a manufacturing system that will consume less than 144 kilogram of steam per metric ton of polyolefin produced as defined in operative claim 1.

1.7 With respect to argument (ii) mentioned above, the appellant considered that the reduction of steam consumption in manufacturing systems for producing polyolefins was associated with each of the amendments (a) to (c) and that this constituted a pointer to the combination of amendments made to claim 13 as filed. However, in order to meet the requirements of Article 123(2) EPC in the present case, each amendment has to be directly and unambiguously linked to the reduction of steam consumption in the manufacturing systems of operative claim 1 and the combination of amendments (a) to (c) with the remaining features defining said claim has to emerge directly and unambiguously from the content of the application as filed.

1.8 In the present case, amendment (b) in operative claim 1 specifies that the polymerization reactor comprises a continuous take-off. The appellant gave, as a basis for that amendment, paragraphs 32 and 108 of the application as filed. The question that the Board had to answer was whether the application as filed disclosed that the use of a continuous take-off resulted in a reduction in steam consumption.

1.8.1 Paragraph 32 concerns the polymerization reactor system. It discusses the advantages of using a continuous take-off instead of a conventional intermittent discharge employing settling legs but gives very little information as to the operation of the continuous take-off within the polymerization reactor system. The only specific information regarding the operation of continuous take-offs is given in the last part of the paragraph which teaches that higher production rates can be obtained with a particular set-up involving a single reactor fitted with 2-3 continuous take-offs in normal operation and 1-2 continuous take-offs on standby. It is only in that context that paragraph 32 concludes that higher production rates of the polyolefin are obtained with lower steam usage. In that respect, paragraph 32 only addresses the advantage of lower steam consumption for a polymerization reactor system comprising 2-3 continuous take-offs in normal operation and 1-2 continuous take-offs on standby.

1.8.2 Paragraph 108 essentially provides the same general information as that given in paragraph 32, additionally underlining that a reactor with a continuous take-off can be operated at higher solids concentration, but lacking a reference to the consumption of steam. Since none of the passages cited by the appellant establishes a direct link between the operation of a reactor with a single continuous take-off, as it is encompassed by the wording of operative claim 1, and steam, it cannot be concluded that the use of a single continuous take-off addressed in paragraph 108 would necessarily result in a reduction of steam consumption in the manufacturing systems disclosed in the application as filed, in particular in a system according to original claim 13.

1.8.3 It can thus be concluded that the application as filed does not associate amendment (b) present in operative claim 1 with a reduction of steam consumption as defined in original claim 13 and therefore, the application as filed does not provide a basis for the introduction of amendment (b) in operative claim 1 on the grounds that that amendment pertains to a reduction of steam consumption.

1.9 Besides the lack of basis for the introduction of amendment (b) in operative claim 1, operative claim 1 is also not allowable under Article 123(2) EPC because the combination of amendments (a), (b) and (c) does not emerge directly and unambiguously from the application as filed. The argument made by the appellant with respect to that combination was that the amendments (a), (b) and (c) emerged as being relevant to claim 13 as filed because they were each disclosed in the application as filed as providing a reduction of steam consumption. Since the reduction of steam consumption was common to amendments (a), (b) and (c), the skilled person would have considered their combination as defined in operative claim 1.

1.10 Amendments (a), (b) and (c) are however not the sole measures that the skilled person could take in the operation of the manufacturing system of the application as filed to reduce steam consumption. In fact, the application teaches in paragraph 126 that a reduction of steam consumption can also be obtained by adequately selecting the extrusion/loadout system defining the manufacturing system according to operative claim 1, i.e. by combining a purge column into the extruder feed tank. As far as the reduction of steam is concerned, the measure relating to the extrusion/loadout system is given the same weight in

the application as filed as any of amendments (a) to (c). The appellant argued that a skilled reader would understand that the combination of a purge column into the extruder feed tank had a lesser impact on steam consumption and that as a result he would not have considered it in its definition of operative claim 1. However, the pointer that was considered to be relevant for the combination of amendments (a) to (c) by the appellant was only the reduction of steam consumption, it was not the selection of the most effective steam reduction measure. In fact, the effectiveness of any given measure at reducing steam consumption is nowhere addressed in the application as filed and can thus not be considered as a pointer showing that any subject-matter emerges from the application as filed. Thus, the skilled reader considering the reduction of steam consumption according to original claim 13 would have considered the combination of all the measures described to have that effect in the application as filed and not only amendments (a), (b) and (c) defining operative claim 1. Under these circumstances, the combination of amendments (a), (b) and (c) only, in the context of a reduction of steam consumption, as in operative claim 1, does not emerge directly and unambiguously from the application as filed and constitutes therefore new technical information as compared to the content of the application as filed.

1.11 The appellant argued that there was no indication in the application as filed that would have prevented the skilled person from combining any passages related to steam reduction disclosed in a general manner in the application as filed, in particular not claim 13 and the passages corresponding to amendments (a) to (c).

However, in the absence of any pointer in the

application as filed to that specific combination of features, it cannot be concluded that the skilled person had any incentive to select and combine exactly these features. Rather, in doing so, additional information is required to direct the skilled person to that precise combination. For that reason, the appellant's argument is rejected.

1.12 The Board concludes that claim 1 of the main request does not meet the requirements of Article 100(c) and 123(2) EPC.

Auxiliary requests 1A and 1B

2. Article 123(2) EPC

2.1 Since claim 1 of auxiliary requests 1A and 1B is identical to claim 1 of the main request, the reasoning and conclusion applying to the main request also applies to auxiliary requests 1A and 1B.

Auxiliary request 1C

3. Article 123(2) EPC

3.1 With respect to claim 1 of the main request, which discloses that the diluent recovery system is configured to facilitate direct recycle of at least 80 weight % of diluent recovered in the diluent/monomer recovery system to the polymerization reactor without fractionation, claim 1 of auxiliary request 1C was amended in that the range is defined as being "80-95 weight %".

3.2 The amendment in claim 1 of auxiliary request 1C thus consists in a limitation of the range defining the

diluent recovery system relating to amendment (c) in claim 1 of the main request (see above), that does not affect the definition of other parts of the manufacturing system, such as the polyolefin reactor system discussed above under point 1.8. In that respect, the amendment to claim 1 does not alter the conclusion reached by the Board concerning the lack of a direct link between the use of a continuous take-off and the reduction in steam consumption. In addition, it is not apparent from the application as filed, nor was this argued by the appellant, that the reduction of steam consumption becomes the common pointer to amendments (a) to (c) in claim 1 as a result of the limitation of the range defining the diluent recovery system. Under these circumstances, even after consideration of the amendment in claim 1 of auxiliary request 1C, the Board finds that the combination of amendments (a), (b) and (c) does not emerge directly and unambiguously from the application as filed.

3.3 Besides, the application as filed does not contain a direct and unambiguous basis for a diluent recovery system configured to facilitate direct recycle of "80-95 weight %" of diluent recovered in the diluent/ monomer recovery system to the polymerization reactor without fractionation as defined in claim 1 of auxiliary request 1C. For instance, the range of recovered diluent defined in paragraph 51 ("up to 80-95%") does not correspond to the range now defining claim 1. In addition, the passage in paragraph 121 mentioning the range defining claim 1 of auxiliary request 1C does so only in the context of the recycle of diluent together with unreacted monomer and not the sole diluent as claimed.

3.4 The Board concludes that claim 1 of auxiliary request 1C does not meet the requirements of Article 123(2) EPC.

Auxiliary request 1D

4. Article 123(2) EPC

4.1 As compared to claim 1 of auxiliary request 1C, claim 1 of auxiliary request 1D was amended in that the monomer used in the manufacturing system for producing polyolefin is ethylene.

4.2 Thus, claim 1 of auxiliary request 1D is also defined by the diluent recovery system being configured to facilitate direct recycle of "80-95 weight %" of diluent recovered in the diluent/monomer recovery system to the polymerization reactor without fractionation, for which it was established above in point 3.3 that there was no direct and unambiguous basis in the application as filed. The limitation of claim 1 to the production of polyolefin from ethylene does not change that conclusion since the amount of diluent bypassing the fractionation system is independent from the choice of ethylene as monomer in the application as filed.

4.3 Also, while the use of ethylene as monomer is mentioned in the application as filed, such as in original claim 14 and in paragraphs 44 and 64 cited by the appellant, the use of ethylene in the manufacturing system of claim 1 of auxiliary request 1D does not affect the definition of the polyolefin reactor system with regard to the presence of a continuous take-off discussed above under point 1.8. In that respect, the amendment to claim 1 does not alter the conclusion reached by the

Board concerning the lack of direct link between the use of a continuous take-off and the reduction in steam consumption. Besides, the application as filed does not establish the selection of ethylene as the monomer in the manufacturing system as the factor responsible for the reduction of steam consumption. The limitation of claim 1 of auxiliary request 1D to ethylene does therefore not change the conclusion of the Board regarding the lack of a valid basis in the application as filed for the combination of amendments (a), (b) and (c).

4.4 The Board concludes that claim 1 of auxiliary request 1D does not meet the requirements of Article 123(2) EPC.

Auxiliary request 5

5. Admittance

5.1 The Rules of Proceedings of the Boards of Appeal set out that any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion (Article 13(1) RPBA).

5.2 Both amendments in claim 1 of auxiliary request 5 were said to relate to objections under Article 123(2) EPC against the definition of features in claim 1 of the main request, namely the presence of a continuous take-off on the polymerization reactor and the use of ethylene as monomer.

5.3 Claim 1 of auxiliary request 5 essentially corresponds to claim 1 of the main request but for which the polyolefin reactor system having a polymerization

reactor is defined in that it comprises "2-3 continuous take-offs for use in normal operation for a single reactor, with 1-2 continuous take-offs on standby, each continuous take-off having a dedicated flash line heater" and the monomer being ethylene. Claim 1 of auxiliary request 5 is thus still defined by the combination of features which did not find a basis in claim 13 of the application as filed (points 1.9 to 1.11 above) and so the Board does not see how claim 1 of auxiliary request 5 could succeed under Article 123(2) EPC while the main request did not.

5.4 The Board does also not see how a different conclusion could be reached when starting from claim 15 of the application as filed, as put forward by the appellant during the oral proceedings before the Board. While that claim contains feature (c), it can prima facie not provide a basis for the claimed combination of specific features (a), (b) and (c).

5.5 In view of the above, the Board finds it appropriate, in the circumstances of the present case, to make use of its discretion pursuant to Article 13(1) RPBA by not admitting into the proceedings auxiliary request 5.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

B. ter Heijden O. Dury

Decision electronically authenticated