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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number : T 205/86 - 3.4.1

D E C I S I O N of 29 May 1989 correcting errors in the decision of the Technical Board of Appeal 3.4.1 of 11 April 1989

Appellant : Nederlandse Central Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek

Representative : van der Beek, George Frans et al,
Nederlandsch Octrooibureau
Johann de Wittlaan 15
P.O. Box 29720
NL - 2502 LS Den Haag

Decision under appeal : Decision of Examining Division 031 of the European Patent Office dated 7 March 1986 refusing European patent application No. 84 200 379.0 pursuant to Article 97(1) EPC

Composition of the Board :

Chairman : K. Lederer
Members : J. Roscoe
R. Schulte

In application of Rule 89 EPC the Decision given on 11 April 1989 is hereby corrected as follows:
Point 2 of the Order reads as follows:

"The case is remitted to the Examining Division for further prosecution on the basis of Claims 1 to 6 and pages 3 and 3a of description filed on 21 March 1989, pages 1, 2 and 4 to 8 of description filed on 9 December 1988 and the drawings as originally filed."

The Registrar: The Chairman:

F. Klein K. Lederer

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Aktenzeichen / Case Number / N° du recours : T 205/86 - 3.4.1

Anmeldenummer / Filing No / N° de la demande : 84 200 379.0

Veröffentlichungs-Nr. / Publication No / N° de la publication : 0 119 661

Bezeichnung der Erfindung:
Title of invention:
Titre de l'invention : A method for water treating sulphur binding additives upon burning solid fuels

Klassifikation / Classification / Classement :

ENTSCHEIDUNG / DECISION

vom / of / du 11 April 1989

Anmelder / Applicant / Demandeur : Nederlandse Central Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek

Patentinhaber / Proprietor of the patent / Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence :

EPÜ / EPC / CBE Articles 54, 111(1)

Schlagwort / Keyword / Mot clé : "Novelty (yes)"; "Remittal to Examining Division"

Leitsatz / Headnote / Sommaire

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Summary of Facts and Submissions

I. European patent application 84 200 379.0 (publication number 0 119 661) was refused by decision of the Examining Division of the European Patent Office.

II. The decision was based on Claims 1 to 6 filed on 5 December 1985.

III. The reason given for the refusal was that in view of the disclosure in GB-A-2 070 963 hereinafter referred to as D1, the subject-matter of Claim 1 was lacking in novelty within the meaning of Article 54 EPC. In the decision, the remaining appendant claims were said not to introduce any novel or inventive matter.

IV. An appeal was lodged against the decision and the Appellant subsequently filed the Statement of Grounds, which was accompanied by a proposed addition to the description.

V. Following an exchange of communications between the Rapporteur and the Appellant's representative, a revised set of claims and description was filed on 9 December 1988. These claims and page 3 of the description were subsequently replaced by a revised set of claims and pages 3 and 3a of description filed on 21 March 1989. In these corrected documents it is clear that the word "is" is missing before "added" on the last line of Claim 1 and at the corresponding point in the consistory statement on page 3. In what follows this omission is assumed to have been corrected. The Appellant is now therefore requesting that the decision of the Examining Division be set aside and a European patent granted on the basis of Claims 1 to 6 filed on 21 March 1989.

The revised Claim 1, which is the only independent claim, reads as follows:

1. A method for treating, with water, ash resulting from the combustion of solid fuel in the presence of the sulphur binding additive calcium oxide or calcium magnesium oxide or a compound forming such an oxide under the reaction conditions to react with the partially sulphated additive in the ash, which is to be recycled, characterized in that (a) the partially sulphated additive to be treated is contacted at a temperature from 50°C to 300°C with fuel to be burnt thereby causing the water naturally present in the fuel to transfer, directly or via evaporation, to said additives present in the ash and to react therewith to form hydroxyde and/or hydrated sulphate of calcium or calcium and magnesium, resulting in reactivation of said additive and a decrease of the water content of the fuel, and (b) either no water, or, if the natural water content of the fuel is itself too low, no more than is required to ensure that the total amount of water available is sufficient to completely react the additive is added to the fuel to be burnt.

Reasons for the Decision

1. The appeal is admissible.

2. None of the present claims is open to objection under Article 123(2) EPC since they contain no subject-matter which was not included in the application as originally

filed. Thus, in Claim 1 the treatment temperature range was disclosed at page 4, line 21, the feature of transport of water directly, i.e. as liquid, or by evaporation is disclosed explicitly (for evaporation) at page 4, line 19, while the possibility of direct transfer of some water is implicit in the passage at page 3, lines 21-23 read in conjunction with page 4, lines 31-34 and page 6, lines 7-9, the feature concerning the water addition requirement part explicitly and part by implication in the passage from page 4, line 35 to page 5, line 3. The remaining features are derivable from the passage on page 3, lines 7-14 read in conjunction with the description of the prior art on page 1, lines 4-25. The features of the remaining Claims 2-6 are to be found in original Claims 2 and 5 to 8. The revised description also contains no new matter.

3. Novelty.

3.1 D1 discloses combustion of fuel in a fluidised bed in the presence of the sulphur-binding additive limestone or dolomite. The additive is fed to the bed in admixture with the fuel, ash resulting from the combustion, and water. The stated purpose of mixing water with the fuel is to give it the required fluidity by the generation of steam bubbles, although the water is also said to control the bed temperature. No reference is made to the presence of partially sulphated additive in the ash, though this must be assumed to be present, or to hydration of this or other material in the ash. Indeed the only role the recycled ash is said to play is that of maintaining a constant height of bed in the combustion.

In the Board's opinion, it cannot be deduced from this document that the mixture being fed to the bed is at a

temperature above 50°C for any length of time prior to combustion to enable the hydration referred to in Claim 1 to occur. More important, there is absolutely no suggestion in the document that the water can be dispensed with, or that the amount used should be determined by the natural water content of the fuel, still less that an amount should be used which, in combination with this natural water content would just be enough to ensure that all the partially sulphated additive which is fed back is fully hydrated, as required by Claim 1.

3.2 The other document, US-A-4 325 327, referred to in the impugned decision, discloses a method in which the fines (ash) from the combustion in a turbulent circulatory fluidised bed, in the presence of limestone, of the finer grains of a crushed solid fuel are fed to the bed with said finer fuel grains and the ash from combustion in a separate furnace of the coarser grains. Like D1, it makes no reference to the presence in the ash of partially sulphated limestone, or to a process of hydration. In contrast to D1 it does not propose the addition of water to any of the materials fed to the bed for this or any other purpose. The arrangements for feeding the fuel and ash from the two sources to the bed are moreover only shown schematically and there is nothing to indicate that the fuel and ash are held in contact at 50°C or more for a time long enough for hydration of any partially sulphated limestone which might be in the latter by the only water available, that derivable from the fuel (coal) itself. Indeed, it is not even clear that the ash and fuel are brought together until immediately before being fed into the furnace.

3.3 In the method disclosed in the document DE-A-2 735 436 referred to in the present application, which has all the features of the preamble of Claim 1 the partially sulphated limestone or dolomite in the ash is hydrated by the

addition of a stoichiometric amount of water prior to being fed to the fluidised bed in admixture with the fuel.

3.4 For the above reasons the Board finds the subject-matter of Claim 1, hence also that of the remaining, appendant, claims to be novel.

4. Since the objection, that of lack of novelty, on which the rejection of the then Claim 1 was based in the impugned decision has been overcome by the introduction into Claim 1 inter alia of a limitation which was held not to be present in it (see item 2, second paragraph of the decision) and was not present in any of the appendant claims valid when that decision was taken, the Examining Division has had no opportunity to finally decide whether or not the subject-matter of the present claim involves an inventive step.

In these circumstances, and so as not to deprive the Appellant of the opportunity of an examination of this issue before two instances, the Board deems it appropriate, in exercise of the powers conferred on it by Article 111(1) EPC to remit the application to the Examining Division for further prosecution as foreshadowed in the communication of 10 October 1988.

Order

For these reasons, it is decided that:

1. **The appealed decision is set aside.**

2. The case is remitted to the Examining Division for further prosecution on the basis of the claims and pages 1, 2 and 4 to 8 of description filed on 9 December 1988, pages 3 and 3a of description filed on 21 March 1989, and the drawings as originally filed.

The Registrar: The Chairman:

F.Klein K.Lederer