

Internal distribution code:

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

**Datasheet for the decision
of 12 September 2012**

Case Number: T 1980/11 - 3.3.03

Application Number: 03745718.1

Publication Number: 1490581

IPC: E21B 43/26

Language of the proceedings: EN

Title of invention:

Use of dispersion polymers as friction reducers in aqueous fracturing fluids

Applicant:

Nalco Energy Services, L.P.

Headword:

-

Relevant legal provisions:

EPC Art. 123(2)

Keyword:

"Amendments - added subject matter (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 1980/11 - 3.3.03

D E C I S I O N
of the Technical Board of Appeal 3.3.03
of 12 September 2012

Appellant: Nalco Energy Services L.P.
(Applicant) 7701 Highway 90-A
Sugar Land, TX 77478 (US)

Representative: Dr. Anthony John Chalk
Harrison Goddard Foote
Saviour House
9 St Saviourgate, York, YO1 8NQ (GB)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 1 April 2011
refusing the European patent application
No. 03745718.1.

Composition of the Board:

Chairman: B. ter Laan
Members: D. Marquis
C. Vallet

Summary of Facts and Submissions

- I. The appeal lies from the decision of the examining division dated 01 April 2011 to refuse European patent application number 03 745 718.1, originating from international application PCT/US03/10260, having an international filing date of 03 April 2003, and published as WO 03/085232.
- II. The application as originally filed contained 14 claims, claim 1 reading as follows:

"1. A method of reducing friction resulting from turbulent flow in an aqueous fracturing fluid in an oil field fracturing process comprising adding to the aqueous fracturing fluid an effective friction-reducing amount of one or more dispersion polymers, wherein the dispersion polymer is composed of from about 5 to about 95 mole percent of one or more nonionic monomers and from about 95 to about 5 mole percent of one or more cationic or anionic monomers and has a molecular weight of at least 100,000."

Claims 2 to 14 were directed to preferred embodiments of claim 1.

- III. The decision of the examining division was based on a main request as well as five auxiliary requests filed by the applicant on 17 January 2011 (main and auxiliary requests 1 to 4) and at the oral proceedings on 17 March 2011 (auxiliary request 5). In its decision, the examining division found that the main request and auxiliary requests 1 to 4 did not fulfil the requirements of Article 123(2) EPC and Article 84 EPC

and that auxiliary request 5 lacked an inventive step (Article 56 EPC).

- IV. On 31 May 2011, the applicant filed a notice of appeal and the prescribed appeal fee was paid on the same day. The statement setting out the grounds of appeal was filed on 10 August 2011 together with a declaration of Dr. K.T. Chang, one of the inventors, as well as a new main request and an auxiliary request.
- V. Summons to attend oral proceedings on 12 September 2012 and a communication containing the preliminary opinion of the Board were dispatched on 20 April 2012. In this communication, the Board invited the applicant to indicate a basis for the amendments to the claimed subject matter and a preliminary opinion was given about the clarity, sufficiency of disclosure, novelty and inventive step of the claims.
- VI. By letter dated 16 July 2012, the applicant submitted a new main request containing ten claims which replaced all the requests then on file, claim 1 reading:

"A method of reducing friction resulting from turbulent flow in an aqueous fracturing fluid in an oil field fracturing process comprising adding to the aqueous fracturing fluid from 25 to 2500 ppm of one or more polymers dispersed in an aqueous continuous phase containing one or more salts selected from inorganic or organic sulfates, phosphates, chlorides, fluorides, citrates, acetates, tartrates, hydrogenphosphates, or a mixture thereof, wherein the salts are used having a combined total concentration of 15 weight percent or above, wherein the polymer is composed of from 5 to 95

mole percent of one or more nonionic monomers and from 95 to 5 mole percent of one or more cationic monomers, or from 5 to 95 mole percent of one or more nonionic monomers and from 95 to 5 mole percent of one or more anionic monomers, and is an aqueous-based polymer that contains neither organic solvents nor surfactants,

wherein the cationic monomers are selected from the group consisting of dialkylaminoalkyl acrylates and methacrylates and their quaternary or acid salts, and

wherein the anionic monomers are selected from the group consisting of acrylic acid, methacrylic acid and the salts thereof, or 2-acrylamido-2-methylpropanesulfonic acid and the sodium salt thereof."

VII. The arguments provided by the appellant regarding Articles 123(2) and 84 EPC can be summarised as follows:

The objection of lack of clarity in view of the absence of any indication as to the type of molecular weight of the disclosed polymer or its method of measurement in claims 1, 8 and 9 has been resolved by the deletion of references to molecular weight in these claims.

The claims have also been modified so as to fulfil the requirements of Article 123(2) EPC in view of 2-acrylamido-2-methylpropanesulfonic acid (AMPS) and its sodium salt as well as the use of the term "linear".

VIII. On 11 September 2012, the appellant informed the Board that he would not be represented at the oral proceedings.

The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the main and sole request filed on 16 July 2012.

IX. The oral proceedings took place in the absence of the appellant.

Reasons for the Decision

1. The appeal is admissible.
2. As announced in his letter of 11 September 2012, the appellant, who had been duly summoned, did not attend the oral proceedings. The voluntary absence of the appellant was not a reason for delaying a decision as the Board was in a position to take a decision at the conclusion of the oral proceedings (Article 15(5) and (6) RPBA). The appellant, who submitted new claims after oral proceedings had been arranged but did not attend these proceedings could have expected that the Board might decide that the new claims were not allowable.
3. Article 123(2) EPC
 - 3.1 Claim 1 of the main request differs from claim 1 as originally filed among other features in that the polymers dispersed in the aqueous phase are no longer defined by their molecular weight.
 - 3.2 Claim 1 of the application as originally filed defined the dispersion polymers by a molecular weight of at least 100 000. The same requirement is found in the

description as filed on page 10 lines 6 to 8, where it is explicitly stated that the polymers of the invention have a molecular weight of at least 100 000. The description suggests that polymers of higher molecular weight are even preferred "[...] where the upper limit of the molecular weight is limited only by the solubility of the polymer in fracturing fluid." and contemplates polymers having molecular weights of at least one or even five million (page 10 line 9 and page 12 lines 12 to 15). The description does not contain any other passage that would suggest that dispersion polymers having a molecular weight below 100 000 might solve the technical problem underlying the invention and therefore does not disclose that dispersion polymers with a molecular weight below 100 000 are part of the invention. Amended claim 1 which now includes dispersion polymers with a molecular weight below 100 000 therefore contravenes the requirements of Article 123(2) EPC.

- 3.3 Although the appellant had been expressly invited by the Board to indicate a basis in the application as filed for all the amendments (point 5.1.1 of the annex to the summons to oral proceedings dated 19 April 2012), the appellant filed on 16 July 2012 a new main request without providing a basis for the totality of the amendments made in the main request. In particular, the deletion of the molecular weight requirement was emphasised in the appellant's reply but no support was provided for this amendment. Even if the deletion was performed in order to circumvent an objection of lack of clarity raised against the definition of the molecular weight of the polymers, the provisions of

Article 123(2) EPC have nevertheless to be met by the amended claims.

3.4 Since the sole request does not meet the requirements of Article 123(2) EPC, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

E. Görgmaier

B. ter Laan