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**D E C I S I O N**  
**of 6 December 2001**

**Case Number:** T 1082/00 - 3.2.2

**Application Number:** 94202526.3

**Publication Number:** 0643141

**IPC:** C21B 13/00

**Language of the proceedings:** EN

**Title of invention:**

Method for producing reducible iron-containing material having less clustering during direct reduction and products thereof

**Patentee:**

Akzo Nobel N.V.

**Opponent:**

Luossavaara- Kiirunavaara AB LKAB

**Headword:**

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**Relevant legal provisions:**

EPC Art. 54(2);(3)  
EPC R. 55(c), 56(1)

**Keyword:**

"Admissibility of opposition (no)"

**Decisions cited:**

T 0534/94; T 0533/94; T 0522/94; T 0199/92; T 0204/91;  
T 0002/89; T 0550/88; T 0222/85

**Catchword:**

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Case Number: T 1082/00 - 3.2.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.2**  
**of 6 December 2001**

**Appellant:** Akzo Nobel N.V.  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 31 August 2000  
revoking European patent No. 0 643 141 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** W. D. Weiß  
**Members:** R. Ries  
J. C. M. De Preter

## Summary of Facts and Submissions

- I. European patent No. 0 643 141 was granted on 25 March 1998 on the basis of European patent application No. 94 202 526.3.
- II. On 18 December 1998 a telecopy No. 769 by the opponent, now respondent, arrived at the EPO which according to its heading consisted of five pages of which only the pages 1/5 to 4/5 are in the file. These four pages are the four pages of EPO Form 2300 with the Title: "Notice of Opposition". On page 2, of this form under the heading "Grounds for Opposition", the two boxes referring to novelty and inventive step are cross-marked. On page 3 of this form under the heading "Publications", the following documents are cited:
- A1: EP-A-94 202 526.3 (application number of the opposed patent)
- A2: The Iron and Steel Institute of Japan (ISIJ) volume 33, 1993, No. 10, pages 1078 to 1087
- A3: DE-A-2 061 346 (claim 1, table page 6; page 2, lines 10 - ff)
- A4: The Iron and Steel Institute of Japan (ISIJ) volume 20, 1980, pages 228 to 235, in particular Synopsis page 228; page 233, column 1, lines 1 - ff
- A5: Canadian Metallurgical Quarterly (1974) volume 13, No. 4, in particular page 654, column 1, lines 50 to 66

A6: The Iron and Steel Institute of Japan (ISIJ)  
volume 32, 1992, No. 9, pages 962 to 971, in  
particular page 962, column 1, lines 20 to 25.

III. The confirmation letter of the Notice of Opposition received by the EPO on 30 December 1998 contained also annexes 1 to 6 (Facts and Arguments) of which annex 1 concerned the lack of novelty on the basis of document A2.

IV. With its decision posted on 31 August 2000 the Opposition Division held that the opposition complied with Articles 99(1) and 100 EPC and with Rule 55 EPC.

On the merits of the case it came to the conclusion that the claimed subject matter lacked an inventive step with respect to the combined teaching given in documents A3 and A7 or, alternatively, given in documents A8 and A7 and revoked the patent.

V. The appellant (proprietor) lodged an appeal against the decision of the opposition division on 31 October 2000 and the appeal fee was paid on the same date. The statement of the grounds of appeal was submitted on 4 January 2001. Amongst others the appellant developed arguments that the opposition did not meet the requirements of Rule 55(c) EPC at least concerning the ground of inventive step.

VI. In an official communication dated 7 August 2001 accompanying the summons to oral proceedings, the Board's provisional view was expressed that - having regard to the principles outlined in decisions T 0550/88 and T 0222/85 - the facts and evidence indicated in the Notice of Opposition would not as a

matter of law appear to support the grounds of opposition so that the basic requirements of Rule 55(c) appeared not to be met.

- VII. Oral proceedings were held on the question of admissibility of the opposition.

The appellant (proprietor) requested that the decision of the opposition division be set aside and the patent be maintained as granted.

The opponent (respondent) requested that the appeal be dismissed.

- VIII. At the oral proceedings, the appellant argued as follows:

Within the nine months opposition period pursuant to Article 99(1) EPC, the opponent's notice of opposition filed by telefax consisted of five pages, namely pages 1 to 4 of form 2300 and page 1 of the Annex 1 titled "Facts and Arguments". It is apparent from paragraph VI. on page 2 of form 2300 that the opposition was based on the grounds of lack of novelty and lack of inventive step. Page 1 of the "Facts and Arguments" exclusively deals with the ground of lack of novelty vis-à-vis document A2 which, however, fails to succeed since this document is published after the priority date of the patent. As to the ground of lack of inventive step, no specific arguments based on the technical teaching given in documents A3 to A6 were presented. Having regard to the passages of particular relevance in documents A3 to A6 referred to by the opponent on page 3 of Form 2300, it is not discernable for the patentee which line of reasoning in support of

the opponent's opposition on the ground of lack of inventive step is being adduced, ie the teaching of which documents are supposed to be combined to challenge the presence of an inventive step. Consequently, the ground of inventive step was neither properly alleged nor properly substantiated in the Notice of Opposition within the 9 months opposition period, as required by law. Given that the notice of opposition did not comply with the provisions of Rule 55 (c) EPC it had to be rejected as inadmissible by the Opposition Division.

IX. The respondent argued as follows:

The ground of lack of novelty against the opposed patent is no longer maintained. As to the ground of lack of inventive step, the particular relevant passages in documents A3 to A6 referred to on page 3 of EPO Form 2300 are sufficient for a person skilled in the art to follow, albeit in an indirect and somewhat concealed fashion, the opponent's intended reasoning. As set out in decisions T 0533/94 and T 0534/94, point 8, the Notice of Opposition is addressed to the Opposition Division and the patentee who are not only skilled in the art but also competent in examining novelty and inventive step. Thus, a detailed and exhaustive discussion of the matters which are implicit to such skilled persons upon reading the cited passages is not needed to ascertain the opponent's case and, therefore, not an admissibility requirement. Although the whole disclosure of document A3 may be difficult to understand, the skilled reader grasps immediately from Table 6 that the presence of higher amounts of alumina in the pellet gangue lower the incidence of clustering. Moreover, document A6 discloses on page 962, lines 20

to 25 that iron ore has been coated ie with gangue which generally includes alumina to prevent sticking. Having regard to decision T 0199/92, point 1.2, the patentee is expected to undertake a certain amount of interpretation when reading the cited document in order to understand the opponent's attack on the ground of obviousness. In doing so, the study of other parts of document A6 (e.g. the synopsis; 6. Conclusion) shows that the tendency of sticking of iron ore fines in the fluidized bed reactor is drastically reduced when using ores rich in alumina. Moreover, either the fluidized bed reduction of iron ore fines or the reduction of agglomerates such a pellets or briquets in a shaft furnace constitute a "direct reduction process" and thus belong to the same technical field. It is, therefore, obvious for a skilled person to combine the technical teaching relating to the problem of anti-sticking during the direct reduction of iron ores in both processes. The Notice of Opposition, therefore, satisfies the provisions of Rule 55(c) EPC.

### **Reasons for the Decision**

1. The appeal is admissible.
  
2. Before examining the grounds of opposition under Article 100(a) EPC on their substantial merits it has to be decided whether the opposition is admissible. This decision depends upon whether or not the Notice of Opposition did afford an indication of the facts, evidence and arguments in support of the grounds of novelty and inventive step which was sufficient in the sense prescribed in Rule 55 EPC and by the established jurisprudence of the Boards.

Having regard to the implementing regulations laid down in Rules 56(1) and 55(c) EPC with respect to the issue of admissibility of opposition, it is accepted jurisprudence that

- the indication of the facts, evidence and arguments presented in support of the grounds means that the patentee and the opposition division must be able to understand, without undue burden, the case that is being made against the patent in the notice of opposition on at least one ground of opposition raised (cf. T 0204/91, points 5 to 7 of the reasons; T 0222/85, OJ 1988, 128, point 4 of the reasons),
  - the sufficiency of the notice of opposition in this respect must be distinguished from the strength of the opponent's case (cf. T 0222/85, point 5),
  - the question whether a particular notice of opposition meets the minimum requirements for admissibility can only be decided in the context of that particular case (cf. T 0534/94, point 3).
3. In the present case, the Notice of Opposition that was submitted by telefax No. 769 within the nine months opposition period and which consisted of 5 pages, contained according to the file only pages 1 to 4 of EPO Form 2300. However, like the parties, the Board is of the opinion that, as the EPO misplaced the fifth page, it is reasonable to assume that this fifth page consisted of the first page of the Facts and Arguments (Annex 1 (1/1)). Further submissions made by the opponent after the expiry of the opposition period,



inter alia those concerning new documents like A7 and A8, cannot be taken into account for assessing the admissibility of opposition. Consequently, the evidence and factual reasons on which the Notice of Opposition in question relies is limited to the five pages mentioned above and to the disclosure of documents A2 to A6.

In support of the ground of lack of novelty discussed in detail on the first page of Facts and Arguments (Annex 1(1/1)), the opponent's arguments are based exclusively on document A2. It is, however, undisputed by the opponent that document A2 was published in October 1993 ie after the first priority date of the patent at issue (see patentee's letter dated 6 August 1999). Hence, document A2 does not belong to the "state of the art" pursuant to Article 54(2) and (3) EPC and has to be disregarded (see in this context decision T0550/88, OJ EPO, 1992, 117, 4.2 of the reasons). Consequently, the facts and evidence indicated in the notice of opposition cannot as a matter of law support the first ground of opposition, ie lack of novelty.

Turning to the second ground for opposition, lack of inventive step, the Notice of Opposition did not comprise any arguments with respect to the cited documents A3 to A6. Specifically, the five pages submitted by telefax No. 769 neither include an indication of the document which is regarded as constituting the closest prior art nor do they indicate the teaching of which documents is to be combined to lead in an obvious way to the claimed process. The purpose of the requirements of Rule 55(c) EPC is, however, to ensure that the Notice of Opposition sets out the opponent's case sufficiently so that both the

patentee and the opposition division can understand, without undue burden, the reasoning which supports the opponent's case (cf. T 0199/92, point 1.2). In the absence of any arguments, the question to be decided by the Board, therefore, is whether it was readily discernable, upon reading the passages of particular relevance cited in detail on page 3 of Form 2300, which arguments were intended to be presented by the opponent in support of lack of inventive step.

4. The Board has carefully considered the relevant passages and is unable to assess the opponent's case concerning the ground of lack of inventive step from the mere study of these cited passages. Specifically, the citations do not provide any clear suggestion that in order to minimize clustering, reducible iron containing **agglomerates** such as pellets should be contacted with a dispersion comprising an aluminium containing particulate material which is substantially non-hardening in the presence of water.

As opposed to documents A5 and A6 which deal with the factors affecting sticking of iron ore fines during fluidized bed reduction, only documents A3 and A4 address the problem of clustering during the reduction of agglomerates (pellets) in a shaft furnace. However, the passage in document A3, page 2, lines 10 to 12 and the data according to Table 6 which reflect the clustering properties of the only example given therein merely disclose a method of coating the pellets with talcum powder ( $3\text{MgO} \cdot 4\text{SiO}_2 \cdot \text{H}_2\text{O}$ ) rather than an aluminium containing dispersion as does the patent. Although the opponent itself admitted to have difficulties in interpreting the data given in Table 6 of A3, it was asserted that the beneficial effect of higher amounts

of alumina in the pellets on clustering was obvious therefrom to the expert. In fact, the Table on page 6 simply discloses the chemical analysis of the gangue in the uncoated and coated pellets which differs in the amounts of  $(Al_2O_3+TiO_3)$  and  $SiO_2$ . It is, however, immediately evident from the example that these differences in the composition of the gangue cannot be attributed to the presence or absence of a talcum coating ( $3MgO \cdot 4SiO_2 \cdot H_2O$ ) that neither comprises alumina nor titanium oxide.

The cited relevant passages in document A4, ie. Synopsis page 228, page 233, column 1, lines 1 to ff, reflect the experience that the tendency of clustering can be decreased or prevented in the shaft furnace direct reduction process by coating the surface of high grade pellets with CaO or MgO or  $(Ca(OH)_2$  or  $Mg(OH)_2$  in appropriate amounts. Likewise, there is no incentive for the reader to infer that dispersions comprising alumina might be useful. On the basis of the cited passages in documents A3 and A4, the opponent's possible reasoning with respect to the alleged lack of inventive step, therefore, remains obscure.

5. The respondent has argued at the oral proceedings that the expert, looking for information to solve the problem of clustering or sticking encountered in the direct reduction of iron ore, would also consider the fluidized bed reduction process disclosed in documents A5 and A6. Referring to decision T 0199/92, point 1.2 it was further argued that a certain amount of "interpretation" of the cited documents has to be made by the patentee to understand the opponent's case.
6. To the Board, the technical information given in

documents A5 and A6 is contradictory and clearly incomplete with respect to the problem of clustering. Turning to document A5 it is disclosed on page 654, column 1, lines 50 to 66 that coating the ore particles with alumina (size 0.05  $\mu\text{m}$ ) delayed the defluidization at 680°C for five minutes, and no improvement was found at higher temperatures compared with uncoated fines. It was also found that the nucleation or sticking characteristics remained unchanged when heat-treating the covered particles. By contrast, the reduction temperatures for reducing agglomerates in a shaft furnace are as high as 850 or 900°C (cf. the opposed patent, page 5, examples, lines 17, 18). Hence, there is clearly nothing in the teaching of document A5 which can be understood as pointing to an advantage when using alumina coatings in the high temperature shaft furnace reduction process.

The passage on page 962, column 1 lines 20 to 25 of document A6 lists a number of known methods for preventing defluidization by lowering the adhesive forces or contact area among the ore fines, including inter alia coating the ore surface with carbon or gangue. It may be true that the term "gangue" does or does not include alumina, as alleged by the opponent. However, there is no apparent relationship between the mere mentioning of an anti-sticking coating composed of gangue and the effectiveness of applying a dispersion comprising aluminium containing particulate material that is substantially non-hardening in the presence of water to provide an anti-adhesive coating on agglomerated iron ores. Hence no clear argument against the claimed process could be found, neither in the cited passages in documents A5 and A6 alone nor when combining this teaching with that given in documents A3

and A4.

7. As to decision T 0199/92, point 1.2, the Board concurs with the respondent's position that a certain degree of interpretation of the prior art is to be made by the patentee. This "interpretation" by the reader is, however, essentially concerned with the cited passages in the prior art documents. It does not entail to scrutinizing the contents of the whole document exhaustively to bring to light what the opponent's conclusion could have been. Reference is made in this context to the principle laid down in T 0204/91, point 5 where it is stated that the term "indication" in Rule 55(c) EPC needs to be construed as requiring more than a mere hint at a number of possible attacks upon a patent as well as the likely support for each such possible attack. Instead, the opponent must indicate the technical context and the conclusions he has drawn from it. The content of the notice of opposition must be such as to enable the patentee and the opposition division to examine the alleged ground for revocation without recourse to independent enquiries (cf. also T 0522/94, OJ EPO 1998, 421, point 11 of the reasons).

8. As upon reading the cited passages of documents A3 to A6 it is no possible to discern readily which were the arguments presented by the opponent in support of inventive step, it has to be concluded that this ground of opposition is also not adequately supported.

In view of the above, the notice of opposition was, in Board's judgement, incurably deficient and therefore inadmissible.

**Order**

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

1. The decision under appeal is set aside.
2. The opposition is rejected as inadmissible.

The Registrar:

The Chairman:

V. Commare

W. D. Weiß