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**D E C I S I O N**  
**of 3 July 2003**

**Case Number:** T 0446/00 - 3.3.2

**Application Number:** 94104710.2

**Publication Number:** 0616779

**IPC:** A23L 1/09

**Language of the proceedings:** EN

**Title of invention:**

Method for increasing expansion and improving texture of fiber fortified extruded food products

**Patentee:**

National Starch and Chemical Investment Holding Corporation

**Opponent:**

Goodman Fielder Limited

**Headword:**

METHOD FOR PREPARING EXTRUDED FOOD PRODUCTS/NATIONAL STARCH

**Relevant legal provisions:**

EPC Art. 111(1), 123(2)  
RPBA Art. 11(2), 11(3), 12

**Keyword:**

"Requests filed in abuse of procedure - inadmissible"  
"Late filed requests with no explanation for lateness - inadmissible"  
"Discretion to admit requests filed during oral proceedings (yes)"  
"Main and first auxiliary requests - non-allowable amendment"  
"Second auxiliary request - allowable amendment - novelty (yes) - inventive step (no) - solution obvious in the light of prior art"

**Decisions cited:**

T 0025/91, T 0382/90, T 0298/98, T 0577/97, T 0068/98,  
T 0070/98, T 0590/98, T 0732/98

**Headnote:**

1. It is an abuse of procedure not to comply with a procedural direction of the Board requiring a party to take a certain step or steps. This applies not only to a mandatory direction but also to a direction which only has effect if a party elects to respond to an opinion of the Board expressed in a communication. (See reasons, paragraphs 4.2.1 to 4.2.6 and 4.5.2)
2. It is an abuse of procedure for a party to adopt an unequivocal position on an issue and subsequently to depart from that position without explanation. This applies particularly in contested inter partes proceedings, in which another party is entitled to rely on that position as part of the case it has to meet, but can also apply in uncontested inter partes and ex parte proceedings in which the Board and the public must be able to rely on the applicant or proprietor's statement as to what is sought as part of a monopoly. (See reasons, paragraphs 4.1.1, 4.1.2 and 4.5.3)
3. It is the duty of any party to proceedings, whether ex parte or inter partes, to make its own case and to formulate its own requests and it is therefore an abuse of procedure to file requests subject to conditions to be met by the Board, or to take any other step in the proceedings which amounts to asking the Board to make the party's case or to formulate its requests. (See reasons, paragraphs 4.3 and 4.5.4)



Case Number: T 0446/00 - 3.3.2

**D E C I S I O N**  
of the Technical Board of Appeal  
of 3 July 2003

**Appellant:** National Starch and Chemical Investment  
(Proprietor of the patent) Holding Corporation  
501 Silverside Road  
Wilmington, Delaware 19809 (US)

**Representative:** Hagemann, Heinrich, Dr.rer.nat., Dipl.-Chem.  
Meissner, Bolte & Partner  
Postfach 86 03 29  
D-81630 München (DE)

**Respondent:** Goodman Fielder Limited  
(Opponent) Level 42, Grosvenor Place  
225 George Street  
Sydney NSW 2000 (AU)

**Representative:** Crump, Julian Richard John  
FJ Cleveland  
40-43 Chancery Lane  
London WC2A 1JQ (GB)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 8 February 2000  
revoking European patent No. 0616779 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** U. Oswald  
**Members:** M. Ortega Plaza  
C. Rennie-Smith

## Summary of Facts and Submissions

- I. European patent No. 0 616 779 based on application No. 94 104 710.2 was granted on the basis of 11 claims.

Independent claim 1 as granted read as follows:

"1. A method for preparing extruded food products comprising providing an uncooked cereal dough mix, adding sufficient water to the cereal dough mix to attain a moisture content of 14-22% by weight, processing the cereal dough in an extruder having an exit die of a predetermined shape and size at sufficient temperature and pressure to yield an expanded dough extrudate, and drying the extruded dough to a final moisture content of less than about 3%, characterized in adding to the uncooked cereal dough mix, up to 45%, by weight of the uncooked dough mix, of a starch resistant to amylase digestion (resistant starch)."

Independent claim 10 as granted read as follows:

"10. An extruded food product containing resistant starch obtainable by the method of claim 1."

- II. The following documents *inter alia* were cited in the proceedings:

- (1) WO-A-9 414 342
- (2) US-A-5 169 662
- (4) US-A-5 024 996
- (5) EP-A-0 512 249

- III. Opposition was filed and revocation of the patent in its entirety was requested pursuant to Article 100(a) EPC on the grounds of lack of novelty and lack of inventive step and pursuant to Article 100(b) EPC on the grounds of insufficiency of disclosure.
- IV. The opposition division revoked the patent under Article 102(1) EPC.

The opposition division considered that claims 1, 6, 10 and 11 of the main request (set of claims filed on 3 June 1998) did not meet the requirements of Article 84 EPC, in particular in respect to the introduction of the expressions "an amount effective to increase expansion" and "an amount effective to improve texture".

With respect to the auxiliary requests 1 and 2, filed during the oral proceedings before the first instance, the opposition division considered that they met the requirements of Articles 84, 123(2)(3) and 83 EPC.

However, the opposition division considered that claim 11 of the auxiliary request 1 lacked novelty vis-à-vis document (1), since it considered the priority date to be valid for the relevant parts of document (1).

As regards the auxiliary request 2, the opposition division considered that it met the requirements of Article 54 EPC. The opposition division took the view that claim 1 was novel over document (5) in view of the final moisture content.

With respect to inventive step, the opposition division defined the problem to be solved as the provision of food products comprising dietary fibers and showing improved expansion properties. It took the view that the subject-matter of claim 1 of the auxiliary request 2 did not involve an inventive step (Article 56 EPC) in the light of documents (5) and (2).

As regards the auxiliary request 3, filed during the oral proceedings before the first instance, the opposition division considered that the requirements of Article 123(2) and (3) EPC were met. However, it considered that claims 1 and 6 did not fulfil the requirements of Article 84 EPC in view of the reference to the AOAC method introduced in the said claims.

V. The appellant (patentee) lodged an appeal against that decision. The Notice of Appeal was filed and the appeal fee paid on 11 April 2000. The Notice of Appeal sought maintenance of the patent on the basis of one of four requests, namely the main and three auxiliary requests rejected by the opposition division. Of those four requests, the main and two auxiliary requests contained a product claim 11. The written statement of Grounds of Appeal filed on 19 June 2000 sought maintenance of the patent on the basis of a new main and nine auxiliary requests filed with the statement of which the main and first and second auxiliary requests corresponded to the previous auxiliary requests 1, 2 and 3 but without claim 11. In the Grounds of Appeal the appellant stated (paragraph 2) "Whereas claim 11 has been deleted in the requests which are on appeal, we would like to make the following remarks and to reserve the right to prosecute claim 11 as granted" and (paragraph 5) "In summary, the

Decision of the Opposition Division based on the statements that....product claim 11 is not novel in view of D1....is not well founded".

- VI. The respondent (opponent) asked by a letter dated 26 January 2001 for clarification as to whether the appellant requested the maintenance of claim 11 in any of their requests. The appellant replied in a letter dated 6 March 2001 "Since no claim version contains claim 11, such a claim is not part of the appeal proceedings".
- VII. The Board sent a communication on 31 May 2002 raising a number of formal objections under Articles 123(2) and 84 EPC to the ten sets of claims (main request and nine auxiliary requests) filed by the appellant with its Grounds of Appeal and concluded "If in the light of this communication the Appellant wishes to file an amended set of claims, which it would consider to satisfy the requirements of Articles 84 and 123(2) and (3) EPC, it should do so within two months of the deemed date of receipt of this communication. The opponent will then have two months from the deemed date of receipt of its copy to file observations".
- VIII. In reply to the communication the appellant filed thirteen new sets of claims (a main request and twelve auxiliary requests) with its letter of 29 July 2002. The main request was the set of claims as granted including claim 11. Claim 11 also appeared in the ninth auxiliary request. In the same letter the appellant also said that it was uncertain if it had understood one of the Board's objections correctly and, if not, asked for further explanation; and that, in relation to

its submissions on other objections, "In case the Board of Appeal is of the opinion that the above facts are not reflected by the respective claim versions, we would appreciate an explanation of this objection" and "We are convinced this is entirely clear from the wording of the claims, however are prepared to amend the claims if the Board of Appeal is of the opinion that this is not the case".

- IX. The Board sent a further communication dated 2 December 2002 as annex to the summons to oral proceedings directing the parties to file novelty and inventive step arguments on the appellant's requests. There was no direction or invitation to file new requests.
- X. The respondent withdrew its opposition by its letter of 6 December 2002.
- XI. The appellant replied to the summons to oral proceedings in a letter dated 30 January 2003 with which it also filed twenty three requests (a main request and twenty two auxiliary requests). The main and twelve of the auxiliary requests were the same as those filed on 29 July 2002 and the further ten auxiliary requests were new. In its letter the appellant put forward arguments as to novelty and inventive step in respect of *inter alia* claim 11 as granted. The appellant also said that, taking account of the withdrawal by the respondent of its opposition, it would withdraw its request for oral proceedings if the Board could allow one of the main or twenty-two auxiliary requests and would make additional and other amendments to the claims if the Board found that necessary.



In a further letter faxed on 14 May 2003, the appellant asked to be told by return whether the oral proceedings would take place to which the Board's registrar replied on 23 May 2003 that the appointment for oral proceedings on 3 July 2003 stood.

- XII. The appellant filed four requests (modified auxiliary requests 15 and 16 and new auxiliary requests 23 and 24) with its letter of 23 June 2003 sent by fax.
- XIII. In a faxed letter of 1 July 2003, the appellant stated that at the oral proceedings it did "not intend to argue on" certain requests (the main request and auxiliary requests 1 to 11, 13 to 15 and 18 to 21) and intended to discuss only auxiliary requests 12, 16, 17 and 22 to 24. With the same letter it filed two requests (amended auxiliary requests 17 and 22).
- XIV. Oral proceedings were held on 3 July 2003. As a preliminary point the Board raised the admissibility of the various requests filed by the appellant - the thirteen requests filed on 29 July 2002 being in response to a communication inviting one new request to take account of the Board's objections in that communication and two of those requests containing a claim the appellant had previously expressly abandoned; those filed on 30 January 2003 being presented as conditional on the Board's acceptance of one of them (or some other version of one of them) and the appellant's withdrawal of its request for oral proceedings; and those filed on 23 June 2003 and 1 July 2003 being very late-filed with no explanation for the lateness.

After consideration of those admissibility matters, the appellant requested during the oral proceedings that the patent be maintained on the basis of one of the sets of claims filed as auxiliary request 8 on 29 July 2002 (main request), as auxiliary request 16 filed on 23 June 2003 (first auxiliary request), or as auxiliary request 19 filed on 30 January 2003 (second auxiliary request).

Claim 1 of the main request read as follows:

"1. A method for preparing extruded food products comprising providing an uncooked cereal dough mix, adding sufficient water to the cereal dough mix to attain a moisture content of 14-22% by weight, processing the cereal dough in an extruder having an exit die of a predetermined shape and size at sufficient temperature and pressure to yield an expanded dough extrudate, and drying the extruded dough to a final moisture content of less than about 3%, characterized in adding to the uncooked cereal dough mix **10 to 45%, by weight of the uncooked dough mix, of a resistant starch product comprising at least 15% by weight of a starch resistant to amylase digestion and considered to be dietary fiber as analyzed by the AOAC method of determining total dietary fiber [J. Assoc. Off. Anal. Chem. 68:677 (1985)] (resistant starch), wherein the granular structure of the resistant starch has been totally disintegrated.**" (*emphasis added by the Board*)

Claim 1 of the first auxiliary request read as follows:

"1. A method for preparing extruded food products comprising providing an uncooked cereal dough mix, adding sufficient water to the cereal dough mix to attain a moisture content of 14-22% by weight, processing the cereal dough in an extruder having an exit die of a predetermined shape and size at sufficient temperature and pressure to yield an expanded dough extrudate, and drying the extruded dough to a final moisture content of less than about 3%, characterized in adding to the uncooked cereal dough mix **10 to 45%, by weight of the uncooked dough mix, of a resistant starch product comprising at least 15% by weight of a starch resistant to amylase digestion and considered to be dietary fiber as analyzed by the AOAC method of determining total dietary fiber [J. Assoc. Off. Anal. Chem. 68:677 (1985)] (resistant starch), wherein the granular structure of the resistant starch product has been totally disintegrated.**" (*emphasis added by the Board*)

Claim 1 of the second auxiliary request read as follows:

"1. A method for preparing extruded food products comprising providing an uncooked cereal dough mix, adding sufficient water to the cereal dough mix to attain a moisture content of 14-22% by weight, processing the cereal dough in an extruder having an exit die of a predetermined shape and size at sufficient temperature and pressure to yield an expanded dough extrudate, and drying the extruded dough to a final moisture content of less than about 3%,

characterized in adding to the uncooked cereal dough mix, up to 45%, by weight of the uncooked dough mix, of a starch resistant to amylase digestion (resistant starch) **obtainable by gelatinizing a slurry of a starch that contains amylose in an amount greater than 40%, treating the gelatinized starch with a debranching enzyme for sufficient time to effect essentially complete debranching, deactivating the enzyme, and isolating the resistant starch product by drying, extrusion, or precipitation by the addition of salt.**"  
(*emphasis added by the Board*)

XV. The appellant's arguments may be summarised as follows:

(a) With respect to the issues of admissibility of its requests, the appellant said generally that it was not easy to delimit the claimed invention from the prior art and that no abuse of procedure had been intended.

In the present case, the opponent had withdrawn its opposition so no other party was prejudiced by new or late-filed requests. Many of the appellant's requests amounted to no more than changes of one or a few words and/or of reductions in the scope of the claims. It was proper to allow an appellant patentee a "last chance" to save its patent and the Board could always either adjourn the oral proceedings or remit the case to the first instance. Reference was made to a number of decisions of the Boards of Appeal including T 25/91 of 2 June 1992, T 68/98 of 10 May 2000, T 732/98 of 13 January 2003 and T 577/97 of 5 April 2000 (all unpublished in OJ, EPO).

As regards the thirteen requests filed on 29 July 2002, it had not understood from the Board's communication of 31 May 2002 that it had been invited to file only one new request.

As regards the twenty-three requests filed on 30 January 2003, the appellant had not fully understood the Board's communication of 2 December 2002 but had intended these requests to overcome the Board's objections.

As regards the requests filed on 23 June 2003 and 1 July 2003, the appellant observed some Boards of Appeal admit new requests during the oral proceedings even if opponents remain parties to the appeal.

- (b) With respect to the requirements of Article 123(2) EPC for claim 1 of the main and auxiliary requests, the appellant stated as basis in the application as originally filed the following passages: page 6, line 3 and page 5, line 26 (for the expression "at least 15% by weight"), page 3, lines 5 to 6 and page 6 lines 24 to 25 (for the specification of 10% as the lower limit for the added resistant starch product). It also explained that it was self-evident to a reader skilled in the field that the expression "resistant starch" meant, in the context of pages 3, 4 and 5 of the application as filed, "resistant starch product" as the product recovered from the enzymatic treatment. Such product contained at least 15% resistant starch. It also added that this fact was reflected by the

examples of the application as filed and that there was no upper limit defined in the claims of that application, hence such amendments were allowable as narrowing the scope of the invention claimed in the light of the application as filed.

With respect to the other amendments introduced in claim 1 it cited pages 2, 4, examples I and II.

As regards the second auxiliary request the appellant cited page 4, lines 8 to 11 of the description as originally filed.

- (c) With respect to the novelty of claim 1 of the second auxiliary request, the appellant stressed that documents (2) and (4) did not relate to the preparation of products having high amylose content but to products containing natural fibers such as those from oat bran. As regards document (5) it stated that the starches employed in the preparation process of example 3 were corn starch and waxy maize, both of them having a low amylose content. The products prepared by that process were not resistant starch as claimed in claim 1 of the second auxiliary request but starch products containing short chain amylose and being water soluble (hot or cold water).
  
- (d) With respect to inventive step, the appellant argued that, for the subject-matter of claim 1 of the second auxiliary request, document (2) was the closest prior art since it disclosed the same process steps for the preparation of the food product. The appellant defined the problem to be

solved as lying in the preparation of a food product with an increased fiber content and increased or similar expansion. The appellant argued that the comparative results in the table on page 5 of the patent as granted showed that, by replacing 25% of the oat bran in the dough mix by 25% of resistant starch according to the invention (resistant starch obtained from debranched HYLON VII), a significant increase (dough mix A, dough mix B) took place in the total dietary fiber content accompanied by similar or improved expansion.

The natural fibers such as those from oat bran (document (2)) and others did not lead to an acceptable texture and gave poor expansion. The fiber source according to the invention was a non-granular crystalline starch whose structure was not destroyed in the production processes (eg in the extruding step) as was the case with conventional starches. The 40% amylose content referred to high molecular amylose present in the non-granular product and this led to the dietary fiber which consisted of water insoluble resistant starch. When producing the resistant starch according to the invention retrogradation took place which caused the increase in the dietary fiber content. The starches of document (5) were water soluble starches and did not relate to dietary fibers.

The appellant stated that the resistant starch could not be formed, since the starches employed in the preparation process of example 3 had a low

amylose content. It added that the resistant starch could not be formed because there was too much short chain amylose and that the short chain amylose originated from debranching amylopectin. The appellant also said that when the high amylose content was below 40% there was a prevention of the formation of resistant starch.

The appellant also stressed that the expression "resistant starch" was to be understood as defined in the patent in suit and meant starch that is resistant to amylose digestion and is considered to be dietary fiber (page 2, lines 29, 30).

Finally, the appellant argued that document (5) did not disclose products with a high dietary fiber content and that the process disclosed in document (5) did not allow retrogradation which required preventing cooling or maintaining a certain time to allow the process to take place.

XVI. The appellant requested during the oral proceedings that the decision under appeal be set aside and that the patent be maintained on the basis of its main request (the set of claims filed as auxiliary request 8 on 29 July 2002) or its first auxiliary request (the set of claims filed as auxiliary request 16 on 23 June 2003) or its second auxiliary request (the set of claims filed as auxiliary request 19 on 30 January 2003).



## Reasons for the Decision

### 1. *Admissibility*

1.1 The appeal is itself admissible. However, the admissibility of the appellant's requests is much less straightforward. During the course of the appeal proceedings the appellant filed six "batches" of requests containing various sets of claims. The total number of such requests was in excess of fifty although this includes several auxiliary requests which reappeared in the same form at various stages under different numbers. While neither the number of requests nor the number of occasions on which the appellant filed requests is in itself a determining factor as to the admissibility or non-admissibility of the various requests, the Board does observe that the frequent filing of large numbers of requests presents the Board and any other parties with obvious difficulties, particularly when requests are filed shortly before oral proceedings.

1.2 It must also be remembered that the primary purpose of appeal proceedings is to review a first instance decision to see whether it is correct or not and an appellant's principal goal is therefore to persuade the Board that the decision it sought at first instance is the correct one. Similarly the purpose of communications issued by the Board during appeal proceedings is to refine and limit the issues and thus the possible forms the claims of a patent may take. It is therefore inappropriate either to burden appeal proceedings with a multiplicity of requests or, unless absolutely necessary, to amend requests once filed

either as to their wording or as to the appellant's order of preference. It is also well-known, and well-established in the case-law of the Boards of Appeal, that the later requests are filed, the less likely they are to be held admissible (see generally "Case Law of the Boards of Appeal of the European Patent Office", 4th edition 2001, section 14.2.1 at pages 547 to 548).

1.3 The Board will deal in turn with each "batch" of requests filed by the appellant, considering both the concerns which gave rise to its admissibility objections and the appellant's arguments at the oral proceedings; will then consider those of the appellant's arguments which were directed to all the Board's objections generally; and then draw its conclusions as to the admissibility of the requests.

2. *The requests filed with the Grounds of Appeal*

2.1.1 The requests contained in the Notice of Appeal and Grounds of Appeal are summarised in paragraph V above. After initially filing with the Notice of Appeal a main and three auxiliary requests which, as is to be expected in appeal proceedings, repeated requests which had been refused by the opposition division, the appellant then filed more and different requests with its Grounds of Appeal. The Board has no objection *per se* to that difference since it is the Grounds of Appeal which are intended to define an appellant's case. However, the Board and other parties (and indeed members of the public who may inspect the file) must be able to rely on the fact that the Grounds of Appeal do in fact define the appellant's case which should therefore be both clear and thereafter subject to

change only in reaction to submissions from other parties and any preliminary opinions expressed by the Board in communications.

2.1.2 In the present case the respondent noted the appellant's equivocal position as regards the claim 11 which had appeared in the patent as granted and in two of the requests refused by the opposition division and repeated in the Notice of Appeal, but which was not present in any of the requests filed with the Grounds of Appeal although the appellant apparently defended that claim in its arguments. When challenged by the respondent, the appellant stated categorically in reply "Since no claim version contains claim 11, such a claim is not part of the appeal proceedings". However the appellant subsequently filed on 29 July 2002, and maintained until 1 July 2003 (two days before the oral proceedings), a new main request containing claim 11 and gave no explanation for this. Nor was any explanation or argument presented by the appellant when the Board raised this issue at the oral proceedings.

2.2 *The requests filed on 29 July 2002*

2.2.1 The unexplained re-appearance of claim 11 apart, the appellant filed thirteen requests on 29 July 2002 in response to a communication which invited **one** new request. The purpose of that communication was quite clearly to set out the Board's objections, as to "formal" matters under Articles 84 and 123(2) EPC, to the requests filed with the Grounds of Appeal and to invite the appellant, if it accepted some or all of those objections, to file a request which would **limit** the scope of the appeal proceedings to a set of claims

which met those objections so that the parties could concentrate on the "substantive" issues of novelty and inventive step. It was equally clearly not an invitation to the appellant to produce multiple sets of alternative claims. The appellant argued at the oral proceedings that it had not understood only one request was invited, but the words used by the Board (see paragraph VII above) are so clear that the appellant's argument is really untenable.

2.2.2 It is true that, at various points in its letter of 29 July 2002 replying to the communication, the appellant said it was unsure if it had understood the Board's objections and expressed a willingness to amend its requests further (see paragraph VIII above). As to the uncertainty, further explanation was in fact supplied in the Board's second communication of 2 December 2002, but neither this nor any subsequent letter of the appellant indicated that it had not understood the direction to file a single request in addition to those already filed with the Grounds of Appeal.

2.3 *The requests filed on 30 January 2003*

2.3.1 The requests filed on 30 January 2003 were all put forward under the "umbrella" of the conditional withdrawal of the appellant's request for oral proceedings if the Board should allow one of the requests and the "offer" to amend the claims further if the Board so wished. This was effectively a request to the Board to choose a set of claims or even to suggest a further amended set of claims itself. A party cannot abdicate its responsibility to present its case to the

Board, particularly not by filing a large selection of claims and inviting the Board to choose. At the oral proceedings the appellant presented no arguments specifically directed to this objection.

2.4 *The requests filed on 23 June 2003 and 1 July 2003*

2.4.1 The amended and new requests filed on 23 June 2003 and 1 July 2003 were beyond doubt filed at a very late stage of the proceedings - respectively eight and two days before the oral proceedings. Further, auxiliary requests 23 and 24 filed on 23 June 2003 contained amendments which made them quite different from any previous requests - the addition of a disclaimer in auxiliary request 23 and of additional process features in auxiliary request 24 which, if allowed, would have meant the invention claimed would have "shifted" from anything previously claimed. At the time of filing no reason was given for the extreme lateness of these requests, although the appellant did, in its fax of 1 July 2003, indicate that at the oral proceedings it intended to discuss only six of its many filed requests and did not intend to discuss the rest. A statement of intent not to discuss requests is not of course equivalent to withdrawing requests and indeed the appellant acknowledged, at the commencement of the oral proceedings, it had not withdrawn any of the requests it had filed during the appeal proceedings.

2.4.2 The only reason advanced by the appellant at the oral proceedings for the late filed requests of 23 June 2003 and 1 July 2003 was that some Boards of Appeal admit new requests filed as late as during the oral proceedings, thus impliedly submitting that two or

eight days before the oral proceedings should be acceptable. The earlier decisions of the Boards cited by the appellant were in large part in support of this argument and these are considered below (see paragraph 3.5).

### 3. *The Appellant's Arguments*

#### 3.1 *General*

3.1.1 The Board has no doubt that the appellant did not intend to commit any abuse of procedure or to file inadmissible requests. Indeed, it can rarely if ever be the case that a party intentionally prejudices even a small part of its case. The Board can also accept that the appellant had difficulty delimiting its claimed invention from the prior art. That is however a problem which faces many applicants for or proprietors of patents and their representatives and with which they must deal within the confines of the established procedure.

3.1.2 The Board further accepts that many of the appellant's requests amounted to no more than changes of one or two words and/or of reductions in the scope of the claims - indeed in its covering letters the appellant went to considerable lengths to explain the differences between previous and current versions of the claims and between various requests filed together. However, the apparent minor nature of amendments is again not an acceptable reason for failing to observe procedural requirements.

3.1.3 None of these arguments of the appellant justify the repeated filing of multiple sets of requests without

indicating whether earlier requests were withdrawn or not, without (where applicable) explaining either a change of direction or lateness of filing (see paragraphs 2.1.2 and 2.4 above), or with an attempt to impose conditions on their acceptance or to make the Board itself select or compose an acceptable request (see paragraph 2.3 above).

### 3.2 *Withdrawal of the Opposition*

- 3.2.1 The appellant argued next that, the opponent having withdrawn its opposition, no other party was prejudiced by new or late-filed requests. This overlooks a number of matters. First, even in the absence of the opponent, this is the proprietor's appeal against the decision to revoke its patent and the burden therefore lies on the appellant to show why that decision was wrong and, if it wishes, to put forward one or more requests which the Board may consider allowable. Second, although the respondent may no longer be concerned with the outcome of the appeal, the Board remains so concerned and is entitled to expect parties to explain changes of direction, lateness of filing and the need (if any) for multiple requests. Third, and perhaps most importantly, the Board when seized of a case has the responsibility (as do first instance departments at earlier stages of procedure) of guarding the public interest. There are two aspects of this responsibility - at a general level, the Board cannot condone misuse of procedure since this might encourage other parties to follow suit and, at the level of a particular case, the Board must ensure that the public can at any time ascertain with at least reasonable certainty what is the extent of the monopoly sought. It would be strange, and indeed contrary to

public policy, if at the last possible stage of EPO proceedings (in an appeal against revocation after opposition), the public were less able to ascertain the extent of monopoly sought than at earlier stages such as examination or grant.

- 3.2.2 If, as appears may be the case, the appellant took the view that, after the respondent withdrew its opposition, these proceedings became *de facto ex parte*, then the Board must make clear it considers that view is incorrect. In examination or examination appeal proceedings the question is whether or not to grant a patent, in other words whether a restriction should be imposed on the freedom of action of the public. In opposition proceedings the question is whether or not a patent already granted should be limited or revoked, in other words whether such a restriction on public freedom should be reduced or removed. An opposition appeal against revocation is the last opportunity to contest the removal of that restriction on the public; it may indeed be the last time the conflict between the private interest of a particular patentee and the public interest is judged. Therefore, even after an opposition is withdrawn, the opponent's arguments and evidence must be considered by the Board as an expression of the public interest in avoiding unjustified monopolies and the Board, which has to balance the competing interests, cannot allow the proceedings to become a mere discussion with the patentee as to the acceptable terms of a monopoly. (Further, the Board observes that even in *ex parte* proceedings, the admissibility of requests may be refused for unexplained late filing or, in certain circumstances, as an abuse of procedure; see for



example the discussion of T 25/91 in paragraph 3.5.4 below and T 70/98 of 15 September 2001, unpublished in OJ EPO.)

### 3.3 *The "Last Chance" Argument*

3.3.1 As for the appellant's argument that a patentee should be allowed a "last chance" to save its patent, the Board considers this inappropriate to justify the appellant's approach to the filing of requests. The words "last chance" must be not be interpreted to allow more than their literal meaning. In one sense, an appeal against revocation is clearly a last chance, and the oral proceedings in such an appeal the very last chance, for a patentee to save its patent. As some of the decisions cited by the appellant show (see paragraph 3.5 below), Boards have permitted a patentee to file as late as during oral proceedings a new request of reduced scope and with no or little new subject-matter: whether or not described as a "last chance", that is clearly the approach such Boards have taken.

3.3.2 The present Board expresses some sympathy with that practice, and has in effect adopted it in the present case (see paragraph 4.6 below), but cannot agree that there is an established "last chance" doctrine or any absolute right of a patentee to such a "last chance" request - the admissibility of late requests is always a matter for the Board's discretion. Further, even if there were such a doctrine, or even such a right, it could not be stretched to cover the appellant's approach in this case. The concept of a "last chance" clearly suggests **one** last chance at the end of the

proceedings and not multiple "last chances" on numerous occasions during the course of the appeal.

### 3.4 *Remittal or Adjournment*

3.4.1 The appellant coupled with its "last chance" argument the fact that the Board could always either adjourn the oral proceedings or remit the case to the first instance to deal with new requests. Remittal is a power the Board possesses but again it is a discretionary power (see Article 111(1) EPC). While a remittal might result from a new set of claims, for example if it entailed a further search for or consideration of additional prior art, that pre-supposes that a request with such a new set of claims has been admitted into the appeal proceedings. It is not an argument which *per se* can justify the admissibility of one new request, let alone a multiplicity of requests. Much the same can be said of adjournment of the oral proceedings. An adjournment could exceptionally be warranted, for example to allow an opponent (or the Board itself) to consider the implications of a new set of claims but, again, this pre-supposes that a request has been found admissible.

3.4.2 Remittal or adjournment would have been wholly inappropriate in the present case. Either course would have given the appellant a period of time in which to make good its procedural lapses and, during that time, a revoked patent kept alive only by the suspensive effect of an appeal would remain a possible deterrent to third parties. Moreover, remittal or adjournment would not just have the effect of delaying the final outcome of this case but could also delay other pending

cases in which the parties have complied with the requirements of procedure.

### 3.5 *Case-law*

3.5.1 In support of its arguments as to the admissibility of its requests the appellant cited a number of decisions of the Boards of Appeal. However, in the opinion of the Board, none of these decisions assists the appellant.

3.5.2 T 68/98 dealt *inter alia* with an issue of late-filed evidence but not late-filed requests; there is a section headed "Admissibility of amendments" but this is in fact concerned only with issues under Article 123 EPC relating to the difference between a claim as granted and as considered by the opposition division (see Reasons, paragraphs 2 and 4).

3.5.3 In T 732/98 an opponent appealed against an interlocutory decision of the opposition division to maintain a patent in amended form. The respondent (patentee) requested the dismissal of the appeal but was permitted, when that request failed (i.e. the Board found the claims as maintained unallowable), to file an auxiliary request which was held admissible (although not eventually allowable) because its claims were narrower than the previous claims, because it reflected the objections of the Board and the appellant as detailed during the oral proceedings, and because it did not surprise the appellant (see Reasons, paragraph 5). Thus the circumstances of that case were vastly different from the present.

3.5.4 T 25/91 merely reinforces the Board's objection to the late filing of the requests of 23 June 2003 and 1 July 2003. In that case an applicant appealed against refusal of its patent application for lack of inventive step. The Grounds of Appeal requested grant of a patent with the claims refused by the examining division. A new set of claims filed the day before the oral proceedings were held inadmissible since they were filed late with no good reason for the lateness. It was also observed that the claims put forward represented a radical departure from those previously advanced. The proceedings were continued in writing and, after a communication from the Board, the appellant filed amended claims identical to those held inadmissible at the oral proceedings and they were again held inadmissible (see Reasons, paragraph 2).

3.5.5 In T 577/97 Board 3.3.5 had to consider an objection by an appellant/opponent to the filing by the respondent/patentee during oral proceedings of an auxiliary request. In its decision that Board observed, as have many decisions of the Boards of Appeal, that the admissibility of amended claims filed in oral proceedings is a matter for the Board's discretion. It criticised, and elected not to follow, earlier decisions in which one factor for refusing to admit auxiliary requests filed during oral proceedings was that they were "clearly not allowable" and expressed the opinion that a patentee should normally be allowed a last chance to obtain a patent by having an opportunity to limit its claims during the oral proceedings. Its conclusion on this issue read: "Therefore, the Board is of the opinion that the discretion not to admit auxiliary requests should in

principle be limited to exceptional cases in which the filing of the auxiliary requests can be said to amount to an abuse of procedural rights" (see Reasons, paragraph 3).

- 3.5.6 In the present case the Board sees no need to decide between the approach to requests filed at oral proceedings taken in T 577/97 and the approach in the earlier cases from which it differed, or indeed for or against any other approach, for two reasons. First, T 577/97 was concerned only with one request filed at oral proceedings and not, as here, with a multiplicity of requests filed at several earlier stages of the proceedings; in other words, the circumstances of the two cases are quite different. Second, even if the Board were, as the appellant appears to have argued it should, to adopt the approach taken in T 577/97 to the wholly different circumstances of this case, there would remain the exception clearly identified by Board 3.3.5 of "cases in which the filing of the auxiliary requests can be said to amount to an abuse of procedural rights".

#### 4. *Admissibility of requests- the Board's Conclusions*

##### 4.1 *Unexplained Change of Case*

- 4.1.1 As regards the appellant's statement that claim 11 "is not part of the appeal proceedings" and its subsequent filing of requests with such a claim (see paragraph 2.1.3 above), the Board has no hesitation in finding this unexplained volte-face an abuse of procedure. Parties which consciously and deliberately take a clear and unambiguous position, on which other

parties rely as part of the case against them, cannot be allowed to resile from that position without at least explaining why.

- 4.1.2 The fact that the respondent in this case subsequently withdrew its opposition does not affect this finding - the abuse arose when the respondent was still a party. Moreover, even if only dealing with one party, the Board must be able to rely on that party's self-avowed position as being its true position, as must interested members of the public who may inspect the file with a view to ascertaining what is or may be sought as part of a monopoly (see paragraphs 3.2.1 and 3.2.2 above). This is not to say parties may never change their position (indeed, they may do so as a result of another party's argument or a communication from the Board) but only that, if they do change their position, they must make clear they are doing so and explain why.

#### 4.2 *Disregard of the Board's Direction*

- 4.2.1 As regards the filing by the appellant on 29 July 2002 of thirteen requests when directed to file one (see paragraph 2.2 above), the Board cannot accept that the appellant misunderstood the Board's communication of 31 May 2002 in this respect. In fact, it appears more likely that the appellant misunderstood the nature and purpose of communications. As appears from the Rules of Procedure of the Boards of Appeal (in the form in which they apply to this appeal - see OJ 1980, 171; 1983, 7; 1989, 361 and 2000, 316), a communication expresses a non-binding opinion of a Board on substantive or legal matters (Article 12 RPBA), draws attention to matters which seem to be of special significance or helps

concentration on essentials during oral proceedings (Article 11(2) RPBA). These provisions must be read in conjunction with the requirement that, if oral proceedings take place (as in this case, in which the appellant requested oral proceedings), the Board shall ensure that the case is ready for decision at the conclusion of those oral proceedings (Article 11(3) RPBA).

4.2.2 It is thus clear that one purpose, if not the primary purpose, of a communication is to focus the appeal proceedings on "essentials". This also follows from the very nature of appeal proceedings whose function is to review the correctness of a first instance decision. It is not the purpose of an appeal to widen the issues, either in terms of the number of issues or the number of ways in which the issues may be resolved (for example, by multiple requests).

4.2.3 It is inherent in the system of communications that they may contain *inter alia* either an opinion of the Board, or a direction to the party or parties to take a certain procedural step or steps, or both. It is well-known that parties to appeal proceedings often want communications - in many cases they ask for them during the written proceedings, and organisations of parties and representatives have on occasions pressed for communications to be made mandatory. Parties and representatives want communications so that they may know where they stand and may better prepare for oral proceedings.

4.2.4 In the present case, the communication of 31 May 2002 both expressed an opinion (as to the compatibility of the requests filed with the Grounds of Appeal with Articles 123(2) and 84 EPC) and gave a direction, namely that if the appellant wished to file an amended set of claims meeting the Board's objections, it should do so. This was clearly in keeping with the purpose of using communications to concentrate on essentials and ensure the case was ready for decision at the end of the oral proceedings - if the "formal" issues under Articles 123(2) and 84 EPC could be dealt with during the written proceedings, thus producing a request which complied with those Articles, the oral proceedings (and indeed the subsequent written proceedings) could be used to concentrate on the substantive issues of novelty and inventive step.

4.2.5 While the Board's direction was not mandatory - the appellant was not required to file a further request - it was clear on the face of the communication that, if it chose to do so, the direction was to file one new request dealing with the Board's objections. The appellant, and in particular its representative, should have been aware of the procedure and purpose of communications and should have co-operated with the Board's attempt (made, it must be observed, in the interest of the parties) to limit the issues as the appeal progressed. The appellant would of course have been entitled to respond by disagreeing with the Board's opinion in which case the direction to file a further request would not have taken effect. However, the appellant neither did that nor, as directed by the Board, did it file one new request but instead filed thirteen new requests. That was clearly contrary both



to the direction in the communication and to the purpose of communications as expressed above.

- 4.2.6 If by communications the Boards of Appeal provide parties with a service they want and need, namely delimiting issues and allowing them to refine their requests, it is incumbent on parties to comply with directions in communications. If communications were in whole or in part ignored, their purpose would be negated, appeal proceedings would become less focussed, and oral proceedings would be lengthened by having to deal with matters which could and often should be dealt with earlier. The Board cannot sanction disregard for its directions and must accordingly refuse to admit the requests filed on 29 July 2002 as an abuse of procedure. This is in keeping with the Board's recent decision T 590/98 of 30 April 2003 (unpublished in OJ EPO, see Reasons, paragraph 1) in which written arguments filed in disregard of a direction were not taken into account.

#### 4.3 *Multiple and Conditional Requests*

- 4.3.1 As regards the large number of requests filed on 30 January 2003 with the attached condition of withdrawal of the request for oral proceedings and invitation to the Board to prompt further possible amendments (see paragraph 2.3 above), the case-law of the Boards of Appeal suggests that such requests are inadmissible.

4.3.2 As Board 3.3.3 said in decision T 382/96 of 7 July 1999 (unpublished in OJ EPO, see Reasons, paragraph 5.2):

"Es ist ein Grundprinzip des Europäischen Patentrechts, daß die Anmelderin, im Einspruchsverfahren die Patentinhaberin, die Verantwortung für die Festlegung des Patentgegenstandes hat. Dies drückt sich im EPÜ beispielsweise in den Bestimmungen der Regel 51 (4) bis (6) EPÜ und der Regel 58 (4), (5) EPÜ aus. Diese Verantwortung kann die Anmelderin/Patentinhaberin nicht durch die Vorlage einer Unzahl von Anträgen, noch weniger von nicht ausformulierten Antragsvarianten, de facto auf das Europäische Patentamt, hier die Beschwerdekammer, und gegebenenfalls andere Verfahrensbeteiligte, hier die Beschwerdegegnerinnen/Einsprechenden, abwälzen."

(It is a basic principle of European Patent law that the applicant, in opposition proceedings the patent proprietor, has the responsibility for determining the content of the patent. This appears for example from the requirements of Rule 51(4) EPC and Rule 58(4)(5) EPC. The applicant/proprietor cannot, by presenting a large number of requests, still less incomplete variants of requests, shift this responsibility *de facto* to the European Patent Office, in this case the Board of Appeal, or as the case may be to other parties, in this case the respondent/opponent. - *translation by the Board, the original decision being only available in German*)

4.3.3 Similarly, in T 298/97 (OJ EPO 2002, 83) a party's request which asked the Board to make a selection between various alternatives (none of which was in fact

possible) was described by Board 3.3.6 as vexatious if not an abuse of procedure. The Board finds accordingly that the requests filed on 30 January 2003 were an abuse of procedure and therefore inadmissible.

#### 4.4 *Late-filed Requests*

4.4.1 As regards the requests filed on 23 June and 1 July 2003, these were beyond doubt late-filed without any explanation for their lateness. As indicated above (see paragraph 3.5), the Board does not consider that the earlier decisions cited by the appellant, which relate either to late-filed evidence or to new requests filed during oral proceedings, are relevant to the present case.

4.4.2 Moreover, it is clear that none of those decisions support the proposition, inherent in the appellant's argument, that since requests filed during oral proceedings have on occasions been admitted, no explanation for lateness is required. That is simply a fallacy - unjustified lateness is not *per se* acceptable. Indeed, in cases such as the appellant cited, the reason for late filing is abundantly clear, in as much as the need to file a new request only becomes apparent during oral proceedings when other requests filed earlier have not succeeded. In the absence of any explanation for late filing, the Board must find the requests filed on 23 June 2003 and 1 July 2003 inadmissible.

4.5 *Abuse of Procedure-Summary*

- 4.5.1 While it would be undesirable, and inconsistent with the Board's inherent jurisdiction to control its own proceedings, to define abuse of procedure by way of an exhaustive list of possible abuses, the Board can in the light of the present case express the following opinion.
- 4.5.2 It is an abuse of procedure not to comply with a procedural direction of the Board requiring a party to take a certain step or steps. This applies not only to a mandatory direction but also (as in this case) to a direction which only has effect if a party elects to respond to an opinion of the Board expressed in a communication.
- 4.5.3 It is an abuse of procedure for a party to adopt an unequivocal position on an issue and subsequently to depart from that position without explanation. This applies particularly in contested *inter partes* proceedings, in which another party is entitled to rely on that position as part of the case it has to meet, but can also apply in uncontested *inter partes* and *ex parte* proceedings in which the Board and the public must be able to rely on the applicant or proprietor's statement as to what is sought as part of a monopoly.
- 4.5.4 It is the duty of any party to proceedings, whether *ex parte* or *inter partes*, to make its own case and to formulate its own requests and it is therefore an abuse of procedure to file requests subject to conditions to be met by the Board, or to take any other step in the

proceedings which amounts to asking the Board to make the party's case or to formulate its requests.

#### 4.6 *Admissible Requests*

4.6.1 It would follow from the above conclusions that all the requests filed by the appellant during the appeal proceedings are inadmissible with the exception of those filed with the Grounds of Appeal. However, so far as the appellant was concerned, those requests were superseded - even if not in so many words withdrawn - by further requests filed later. In the oral proceedings the appellant asked that only three of its previous requests be admitted and the Board agreed, those requests being in effect treated as if filed at the oral proceedings after all other requests had failed.

4.6.2 This decision was consistent with the cases cited by the appellant and with its suggestion that an appellant patentee should have a "last chance" to save its patent. The Board reiterates its view that there is no right to a "last chance" and that the admissibility of requests filed at oral proceedings is, as with all late-filed requests, a matter for the discretion of the Board. On this occasion the Board exercised its discretion in favour of the appellant, in part because it was clear that, however surprisingly, the appellant had not realised the admissibility problems it had created in respect of its previous requests, and in part because any other course of action would have unnecessarily delayed the proceedings.

5. *Article 123 EPC*

5.1 Claim 1 of the main and first auxiliary requests both include the definition "of a starch resistant product comprising **at least 15% by weight** (*emphasis added by the Board*) of a starch resistant to amylase digestion and considered to be dietary fiber as analyzed by the AOAC method of determining total dietary fiber [J. Assoc. Off. Anal. Chem. 68:677 (1985)] (resistant starch)". The Board has noted three references in the application as filed to starch content.

5.1.1 First, the "typical starch content" for the recovered starches (from the enzymatic treatment) is defined in the application as originally filed only in connection with the range "**15-30% by weight**" (page 5, line 26). Hence, the lower value of the range cannot be taken as basis for the definition of a minimum content while the upper limit remains open ("at least 15% by weight").

5.1.2 Second, the resistant starch content is indeed defined as "a minimum of about 15% resistant starch" (on page 6, lines 2 to 3), but only in connection with a specific isolation method, i.e. when the starch product is recovered by adding an inorganic salt. Therefore, this passage cannot be accepted as basis for the amendment in claim 1 ("at least 15% by weight") since it amounts to an unallowable generalisation of a specific disclosure.

5.1.3 Finally, the contents of resistant starch are disclosed on pages 4 to 6 of the originally filed description in connection with the resistant starch product recovered after a specific preparation method, namely by

- gelatinizing a slurry of a starch followed by enzymatic treatment, whereas claim 1 encompasses resistant starches independent of their origin.
- 5.2 The appellant cited as further basis the examples in the application as filed, but in example I the content of resistant starch in the resistant starch product is in the range of **10-15%** (*emphasis added*) and in example II the value is not stated. Therefore, neither example can provide the basis for the amendment "at least 15% by weight" introduced in claim 1 of the main and first auxiliary requests.
- 5.3 The argument that this amendment represents only a narrowing of a broader definition appearing in the claims cannot avoid the requirement that there be a basis in the application as originally filed within the meaning of Article 123(2) EPC.
- 5.4 The Board concludes, in view of the above analysis, that claim 1 of the main request and claim 1 of the auxiliary request do not meet the requirements of Article 123(2) EPC. Consequently the main and first auxiliary requests are rejected.
- 5.5 As regards the second auxiliary request, the amended claim 1 is based on claim 1 of the set of claims as granted, in which the definition of the resistant starch as "obtainable by gelatinizing a slurry of starch, etc. " has been introduced. The said definition finds its basis on page 4, in particular lines 8 to 12, of the description as originally filed. Furthermore, the Board is satisfied that the subject-matter claimed in amended claim 1 does not extend beyond the subject-

matter of the claims as granted. The same applies *mutatis mutandis* to amended claim 6. Therefore, the Board considers that the subject-matter of the claims of the second auxiliary request meets the requirements of Article 123(2) and (3) EPC.

6. *Novelty*

6.1 The priority date of document (1) (24 December 1992) is not valid as effective date within the meaning of Article 89 EPC for the subject-matter disclosed in document (1) which might be relevant for the assessment of novelty under Article 54(3) EPC of the patent in suit. In particular the water content either used in the process or present in the final products does not possess the right to the priority date (cf. *inter alia* the moisture content in table 2 on page 8, page 9, line 29, table 3, page 11, page 12, line 12). Therefore, document (1) does not form part of the state of the art within the meaning of Article 54(3) EPC, since its effective date is its filing date (24 December 1993) and the effective date for the subject-matter claimed in the second auxiliary request is the priority date claimed in the patent in suit, i.e. 24 March 1993.

6.2 Neither document (2) nor document (4), both relating to the preparation of dietary food products, discloses the addition of a resistant starch which may be obtainable by gelatinizing a slurry of a starch that contains amylose in an amount greater than 40%, followed by treatment with a debranching enzyme and suitable recovering. The resistant starch employed in the process of documents (2) and (4) is native resistant starch (the source is oat bran) [cf. *inter alia*



columns 3 and 4 of document (2), column 3 of document (4)].

6.3 The novelty of the subject-matter claimed vis-à-vis document (5) arises from the specific water content of less than about 3% of the final product. Therefore the Board concludes that the subject-matter claimed in the second auxiliary request meets the requirements of novelty (Article 54 EPC).

7. *Inventive step*

7.1 *The closest prior art*

7.1.1 The Board is satisfied that document (2) represents the closest prior art. As the appellant has not disputed, document (2) discloses expanded dietary food products, wherein oat bran is the source for resistant starch; indeed it discloses all the steps of the method for preparing extruded food products appearing in claim 1 (column 3, lines 37 to 53). The method disclosed in document (2) provides products with a maximum moisture content of about 3% by weight (column 3, lines 51, 52); and the product prepared according to that method contains more than 20% total dietary fiber, of which about 55% to 70% is soluble dietary fiber and about 30% to about 45% is insoluble dietary fiber (column 3, lines 62 to 65).

7.1.2 The dough mix used in document (2) contains oat bran, corn bran and corn flour and provides a product with excellent extrusion and expansion properties (column 5, lines 48 to 51). The source of dietary fiber in the products prepared by the methods of document (2) is oat

bran and corn bran and the source of resistant starch is mainly oat bran which is present in the uncooked dough mix in amounts of from about 45% to 55% by weight, dry basis (column 5, lines 39 to 43).

7.1.3 Document (2) mentions in general cereals as sources for dietary fiber (soluble and insoluble) and gelatinized starch products as components for dietary food products (cf analysis of background art on column 2, especially lines 39 to 42, 60 to 62 and column 3).

7.2 *The problem to be solved and the solution*

7.2.1 The appellant defined the problem to be solved over the prior art as lying in the preparation of a food product with an increased fiber content and increased or similar expansion than the known products. It referred to the examples in the table on page 5 of the patent in suit as comparative examples with the products of document (2) which provided proof that this problem had been solved.

7.2.2 A closer inspection of the data displayed in table 5 shows that the amount of oat bran in the dough employed for preparing the expanded dietary food products according to document (2) is from about 45% to about 55% by weight, dry basis.

7.2.3 The dough mix used in document (2) also contains corn bran and corn meal in order to provide a product with excellent extrusion and expansion properties (column 5, lines 48 to 51). However, the amount employed in the comparative examples in the table on page 5 of the patent in suit is 25% by weight, dry basis for dough

mixes A and B and 38% by weight, dry basis for dough mix C. Moreover, there is no corn bran in the dough mix which is a necessary condition for the dough mix according to document (2) in order to achieve excellent expansion. Additionally, the resistant starch RS chosen for the comparative examples corresponds to a specific resistant starch according to the invention, namely resistant starch obtained from debranched HYLON VII.

7.2.4 However, claim 1 encompasses resistant starches which are for comparative purposes closer to the native resistant starch employed in the methods of document (2) than that employed in the comparative examples of the table on page 5. In particular, claim 1 of the second auxiliary request encompasses up to 45% by weight of a resistant starch obtainable by gelatinizing and treating enzymatically **any** starch with the only condition that it contains amylose in an amount greater than 40%. **Native starch**, as for instance native high amylose starch such as corn starch from hybrid varieties of corn, also fulfils the condition with respect to the amylose content defined in claim 1 (cf. for instance document (5), page 2, lines 15 to 16).

7.2.5 In view of the above, the Board considers that the comparative examples appearing in the table on page 5 are not suitable for defining the problem as stated by the appellant. Accordingly, in the absence of a more appropriate comparison (i.e. that concerning the closest approximation to the prior art), starting from document (2) the problem to be solved can only be defined as to provide a further process for preparing expanded dietary food products.

7.2.6 The problem is solved by the method claimed in claim 1 which *inter alia* involves an extrusion step to yield an expanded dough extrudate. The description, in particular the examples I and II, shows that the problem has indeed been solved.

### 7.3 *Obviousness of the solution*

7.3.1 The skilled person faced with the problem as defined above and knowing the steps of the method disclosed in document (2) would have considered as an obvious option an analogous preparation process varying the components of the dough mix, for instance by adding further or other cereal or starch from other sources in the dough mix.

7.3.2 Furthermore, the skilled person in the field of expanded food products would have been familiar with the contents of document (5) which discloses the preparation of extruded food products containing high amylose starch by using an analogous method to that of the patent in suit (cf. also claim 1 of document (5)). Additionally, document (5) discloses the preparation of debranched starch by gelatinizing a slurry of a starch followed by treatment with a debranching enzyme (such as pullulanase), deactivation of the enzyme and isolation of the starch product (cf. page 10, example 3).

7.3.3 Furthermore, the starches to be converted by the debranching method may be chosen according to document (5) from *inter alia* native starches or modified starches (page 10, line 16, page 4, lines 25 to 29). Native high amylose starches which contain at

least about 40% amylose are specifically mentioned on page 2, lines 15 to 16. Document (5) further discloses that "This debranched starch may comprise both native long chain amylose and short chain amylose generated by debranching amylopectin molecules" (page 2, lines 19 to 21). Furthermore, document (5) states that the use of high amylose starches leads to improvement of expansion properties and that the food formulations may be modified to contain more fiber (page 2, lines 27 to 31). Finally, it is to be noted that the use of native high amylose starches, such as those disclosed in document (5), for increasing fiber content and improving expansion is not excluded from claim 1. Actually, claim 1 does not specify the nature of the starch used for the gelatinization which then undergoes enzymatic debranching.

7.3.4 Therefore, in the light of the disclosures in documents (2) and (5), the subject-matter of claim 1 results from an obvious modification of the prior art method.

7.3.5 The appellant argued that the starches disclosed in document (5) were soluble starches and mentioned specifically those prepared in example 3. However, the preparation of debranched starch by means of gelatinizing and enzymatic treatment is exemplified in the preparation of example 3 for corn starch and waxy maize starch, which do not necessarily contain 40% amylose before the debranching. The high amylose content present after the debranching relates to short chain amylose as shown in Table III, page 2. The short amylose source mainly relates to the amylopectin present in the native starches employed (which is even

higher in the waxy maize). Depending on the starch initially used and its amylopectin content, the composition of the recovered product may vary with respect to the short amylose content.

- 7.3.6 Furthermore, there is no limitation in claim 1 with respect to the nature of the starch to be treated by the debranching enzyme, nor to the fact that the starch product obtainable by the process has to be water insoluble (hot and cold water), i.e. native high amylose starches containing amylopectin may be used as starch to be treated in an analogous manner as the process exemplified in example 3 of document (5).
- 7.3.7 Moreover, there is no mention in claim 1 of a minimum amount of resistant starch in the starch (product) resistant to amylase digestion which is obtainable by means of the enzymatic treatment. Hence, the addition of a recovered starch product containing a certain amount of short chain amylose also falls within claim 1.
- 7.3.8 Furthermore, the features appearing in claim 1 do not require that the recovered starch product has to be considered dietary fiber, nor does claim 1 mention what percentage of the dietary fiber is present in the recovered product. Hence the argument put forward by the appellant, that the starch products prepared according to example 3 of document (5) are not dietary fiber, fails.
- 7.3.9 Additionally, while the appellant's assertion, that the starch products recovered from the preparation disclosed in example 3 of document (5) do not constitute dietary fiber, may apply to the specifically

exemplified products, it does not necessarily apply to the starch products obtainable from the high amylose starch varieties mentioned on page 2, line 15 and 4, line 4 of document (5).

- 7.4 Therefore the Board can only conclude that the second auxiliary request lacks an inventive step within the meaning of Article 56 EPC.

### **Order**

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

The appeal is dismissed

The Registrar:

The Chairman

A. Townend

U. Oswald