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**Datasheet for the decision  
of 3 April 2025**

**Case Number:** T 0470/23 - 3.2.01

**Application Number:** 15712234.2

**Publication Number:** 3116334

**IPC:** A24F47/00

**Language of the proceedings:** EN

**Title of invention:**

AN AEROSOL DELIVERY DEVICE AND RELATED METHOD AND COMPUTER  
PROGRAM PRODUCT FOR CONTROLLING AN AEROSOL DELIVERY DEVICE  
BASED ON INPUT CHARACTERISTICS

**Patent Proprietor:**

RAI Strategic Holdings, Inc.

**Opponent:**

Imperial Tobacco Limited

**Headword:**

**Relevant legal provisions:**

EPC Art. 84, 123(2), 56  
RPBA 2020 Art. 13(2), 12(4)

**Keyword:**

Claims - clarity - main request (yes)

Amendments - allowable (yes) - added subject-matter (no)

Inventive step - (yes) - problem and solution approach -  
reformulation of the technical problem

Amendment after summons - exceptional circumstances (no)

Amendment to case - admissibly raised and maintained (yes)

**Decisions cited:**

T 0526/21

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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**Case Number:** T 0470/23 - 3.2.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.01**  
**of 3 April 2025**

**Appellant:** Imperial Tobacco Limited  
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**Representative:** Carpmaels & Ransford LLP  
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**Respondent:** RAI Strategic Holdings, Inc.  
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**Representative:** D Young & Co LLP  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
22 December 2022 concerning maintenance of the  
European Patent No. 3116334 in amended form.

**Composition of the Board:**

**Chairman** G. Pricolo  
**Members:** M. Geisenhofer  
P. Guntz

## Summary of Facts and Submissions

- I. The appeal was filed by the opponent against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 2, the patent in suit met the requirements of the EPC.
- II. In particular, the opposition division decided that the subject-matter of this request involved an inventive step over a combination of documents
- |    |                    |             |
|----|--------------------|-------------|
| D4 | EP 0 516 293 A1    | with either |
| D7 | WO 203/0225921 A1  | or          |
| D9 | WO 2013/093469 A2. |             |
- III. Oral proceedings were held before the Board.
- (a) The appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked.
- (b) The respondent (patent proprietor) requested that the appeal be dismissed, i. e. that the patent be maintained as upheld by the opposition division based on auxiliary request 2 (main request) or, in the alternative, based on one of the auxiliary requests 2a, 2b, 2c or 4, as filed with their reply on 19 September 2023.
- IV. Independent device claim 1 of the **main request** reads as follows:
- "An aerosol delivery device (100, 200) comprising:  
a puff sensor (108, 208) configured to detect a puff  
input to the aerosol delivery device;*

*a heater (134, 234) configured to heat aerosol precursor composition to form an inhalable substance, wherein the aerosol precursor composition comprises tobacco;*  
*a haptic feedback component; and*  
*processing circuitry (310) coupled with the puff sensor and heater, wherein the processing circuitry is configured to cause the aerosol delivery device to at least:*  
*determine (400) a characteristic of the puff input;*  
*determine (410) a control function having a defined association with the characteristic; and*  
*perform (420) the control function in response to the puff input,*  
*wherein in at least one other instance in which another puff input does not have the characteristic, the aerosol delivery device does not perform the control function, and is instead caused to control power supplied to the heater to heat the aerosol precursor composition."*

Independent method claim 8 of the main request reads as follows:

*"A method for controlling an aerosol delivery device (100, 200) based at least in part on user input characteristics, the aerosol delivery device being equipped with a heater (134, 234) configured to heat aerosol precursor composition to form an inhalable substance, wherein the aerosol precursor composition comprises tobacco, and a haptic feedback component; the method comprising the aerosol delivery device:*  
*determining (400) a characteristic of a puff input to the aerosol delivery device, the puff input comprising one or more puffs;*

*determining (410) a control function having a defined association with the characteristic; and performing (420) the control function in response to the puff input, wherein in at least one other instance in which another puff input does not have the characteristic, the aerosol delivery device does not perform the control function, and instead controls power supplied to the heater to heat the aerosol precursor composition."*

V. The appellant's arguments (as far as they were relevant for the present decision) can be summarised as follows:

- (a) The objections of clarity and added subject-matter had been admissibly raised during opposition proceedings. They had been raised at the oral proceedings before the decision was announced, and were dealt with in the reasons of the contested decision.
- (b) The term "*aerosol precursor composition containing tobacco*" used in claim 1 of the main request was not clear.
- (c) Claim 1 of the main request contained subject-matter that extended beyond the content of the application as originally filed.
- (d) The subject-matter of claim 1 was not novel over D2.
- (e) The subject-matter of claim 1 according to the main request was not inventive when starting from document D4 as closest prior art. Each of documents D7 - D9 rendered it obvious to use a haptic feedback device.

- (f) Documents D8 and D9 were cited in the opposition division's decision and hence formed part of the appeal proceedings.

VI. The respondent's arguments (as far as they were relevant for the present decision) can be summarised as follows:

- (a) The opposition division had committed a substantial procedural violation when allowing a discussion on clarity and added subject-matter during the oral proceedings since the opponent had previously stated that they had no objections with regard to these issues.
- (b) Independent claim 1 of the main request was clear.
- (c) The amendments to independent claim 1 of the main request did not extend beyond the content of the application as originally filed.
- (d) The objection of lack of novelty over D2 was withdrawn during opposition proceedings and hence could not be re-introduced in appeal.
- (e) The subject-matter of claim 1 according to the main request was inventive since the skilled person would not consider use of a haptic feedback device pursuant to D7 in D4.
- (f) The argument on inventive step using a combination of D4 with D8 was only raised during oral proceedings before the Board and hence should not be admitted.

- (g) The argument on inventive step using a combination of D4 with D9 was not prosecuted during oral proceedings in opposition proceedings and hence was implicitly withdrawn. It should not be re-admitted in appeal proceedings.
- (h) In any case, document D9 had not been admitted by the opposition division, at least not correctly.

## **Reasons for the Decision**

### **Clarity (Article 84 EPC)**

- 1. The opposition division held that claim 1 of the main request was clear.
  - 1.1 The appellant argued that claim 1 of the main request referred to an aerosol precursor composition comprising tobacco whereby it remained unclear which form the composition should take, i.e. whether the composition which was commonly in liquid form included loose leaf tobacco or a substance derived therefrom, such as nicotine, and what structural differences were implied by this feature for the claimed heater that would distinguish it over the prior art.
    - 1.2 However, this does not amount to a lack of clarity.
      - 1.2.1 The Board agrees that claim 1 is not restricted to a particular form of composition, in particular not to a liquid precursor composition.

Claim 1 only requires that the claimed device comprises a heater that is "*configured to heat aerosol precursor*



*composition to form an inhalable substance, wherein the aerosol precursor composition comprises tobacco".*

- 1.2.2 A person skilled in the art of electronic cigarettes is able to distinguish between precursor compositions comprising tobacco and other precursor compositions that do not contain tobacco. The term "*tobacco*" in this context refers to a preparation from a plant that is cured by a process of drying and fermentation whereas nicotine is a chemical substance contained in that plant. Tobacco hence cannot be considered to be the same as nicotine but contains a plurality of further ingredients.
- 1.2.3 The skilled person is also able to recognize whether the heater of a particular device is able to produce an inhalable substance from this precursor composition - either in liquid or solid form - or not.
- 1.3 The Board hence fully agrees with the opposition division's reasoning with regard to clarity (reasons for the decision 11.3 ).

#### **Amendments (Article 123(2) EPC)**

- 2. The opposition division held that the amendments to claim 1 of the main request did not add new technical information going beyond the content of the application as originally filed.
- 2.1 The appellant argued that the application as originally filed lacked disclosure for an aerosol precursor composition comprising tobacco but only referred on page 1, lines 4/5 to an undefined "*material comprising tobacco*".

In the Board's view, the skilled person understands from the application as originally filed that the material referred to on page 1 is identical to the precursor composition. As set out on page 8 in lines 14 - 16, the aerosol delivery device according to the invention uses electrical energy to heat a material to form an inhalable substance. Claim 1 defines a heater that produces an inhalable substance from an aerosol precursor composition. The skilled person hence directly and unambiguously recognizes that the material of page 1 is identical to the aerosol precursor composition mentioned in claim 1.

- 2.2 The appellant further argued that a haptic feedback component was disclosed in the description as originally filed only in combination with a control component and/or a user interface. Omitting these further parts of the device resulted in an unallowable intermediate generalization.

The Board does not agree. The paragraph bridging pages 11 and 12 discloses the haptic feedback component but does not refer to a functional or structural interaction with the control component or a user interface. No details are provided in this passage on how the control component controls the haptic feedback, how the feedback can be influenced by the user via the user interface or when this feedback is given.

The same applies to the passage on page 20 in lines 5 - 11 which in the last line refers to any *"other feedback or notification to a user"*. This very general definition is again not restricted to a particular feedback (response to a user input or a status notification) and still is not restricted to a

particular form of feedback as long as it can be recognized by the sense of touch.

- 2.3 The Board hence cannot acknowledge that claim 1 contains an unallowable amendment and therefore shares the opposition division's decision (reasons for the decision 11.1 and 11.2).
3. Since the objections of lack of clarity and unallowable amendments do not convince in substance, there is no need to give here further explanations about why the issues of inadmissibility raised by the respondent in this respect are not convincing.

#### **Novelty (Article 54 EPC)**

4. The novelty attack based on document D2 was withdrawn during opposition proceedings and is not admitted in appeal proceedings pursuant to Article 12(6) RPBA.
- 4.1 The appellant argued that due to the lack of clarity of claim 1, document D2 was highly relevant to the assessment of novelty. Furthermore, the opposition division expressed in their preliminary view accompanying the summons to oral proceedings that D2 appeared to anticipate the subject-matter of claim 1.
- 4.2 However, during oral proceedings before the opposition division the appellant raised an objection of lack of novelty over D2 with regard to the auxiliary request 2 (the present main request), but subsequently withdrew it and raised instead a new objection under Article 123(2) EPC (see minutes, point 8.3.1 and reasons for the decision, point 12.2) and an objection under Article 84 EPC (point 9 of the minutes).

- 4.3 Accordingly, the appellant deliberately withdrew the novelty objection whilst being aware of the circumstances, namely the preliminary opinion of the opposition division and the clarity objection, that are now relied upon for admitting the novelty objection in appeal proceedings. There are therefore no circumstances of the appeal case that would justify the admittance of the novelty objection.

**Inventive step (Article 56 EPC)**

5. The opposition division considered document D4 to represent the closest prior art and held that the subject-matter of claim 1 differed from the aerosol delivery device disclosed in D4 only in that the device comprises a haptic feedback component.

This is not disputed by the parties. The Board also agrees.

*Combination of D4 with D7*

6. The opposition division held that document D7 cannot render it obvious to use a haptic feedback component in D4.
- 6.1 They considered the technical problem to be solved by the distinguishing features as making the device more convenient to the user (reasons for the decision 13.3).
- 6.1.1 The Board disagrees with this formulation of the technical problem to be solved by the invention.

Claim 1 of the main request defines a haptic feedback component without providing any further information on the function of this component (in particular in response to what it provides feedback and when), which kind of feedback it generates (duration, intensity or where it can be sensed) and, moreover, whether it interacts with further components of the device, and, if so, with what further components.

As correctly pointed out by the appellant in the statement of grounds of appeal, *"there is no disclosure in the patent that the technical effect should extend to whether or not the device is in the user's mouth when the feedback is provided, since it could cover any form of feedback or notification to a user"*.

When determining the effect of the distinguishing feature, moreover, due consideration must be given to the disclosure of the piece of prior art taken as the starting point. In the present case, D4 undisputedly discloses the provision of feedback to the user, by means of heater-active indicators (LEDs or other indicators devices (column 8, lines 38-40)). For determining the effect, on which basis the objective technical problem is to be formulated, it has to be assessed what is achieved when the distinguishing feature is implemented in D4. Due to the broad formulation of the distinguishing feature, the feedback provided by the haptic component may, in fact, be completely independent from the visual feedback of D4. In other words, the haptic feedback component does not have to provide the same effect as the feedback means of D4 (which would result in the problem being generally formulated as "providing an alternative"), nor does it have to provide an effect which is in addition and simultaneous to the feedback means of D4.

Importantly, not any haptic feedback component will achieve the technical effect cited by the opposition division in their decision, namely of *"providing the user of the device with feedback, without requiring that the device be taken from the user's mouth in order to be looked-at for visual feedback"*. As an example only, feedback may be given when the user holds the device in their hand and powers it on or off.

6.1.2 Hence the Board takes the view that the objective technical problem solved must be formulated in a broader manner such as to provide additional feedback.

- (a) The respondent requested to not admit this formulation of the technical problem as it was raised by the appellant for the first time during oral proceedings before the Board (Article 13(2) RPBA) .
- (b) However, although the formulation of the technical problem in the appellant's statement of grounds of appeal was *"how to provide user stimulation"*, this cannot be taken in isolation from the context of the appellant's reasoning according to which *"the skilled person would readily add a haptic feedback component from either D7 or D9 to solve the problem of how to provide user stimulation"* (see page 7 of the statement of grounds of appeal). It is therefore clear that *"how to provide user stimulation"* was meant to include adding feedback. The Board thus does not see an amendment of the appellant's case in the *"reformulation"* of the technical problem.

6.2 The opposition division further held that the skilled person would not use a haptic feedback component in D4

since the vibrations of the feedback component would disturb the lip sensor used to identify a user's drag on the cigarette.

The Board is not convinced by this argument. Document D4 describes in column 6 in lines 10 - 55 a control system using several subsystems to analyse the lip sensor's signal such that it is reasonable to assume that this control is able to filter out a superimposed signal from a haptic feedback component having a known shape and intensity. The skilled person would hence not be deterred from using a haptic feedback component in D4.

6.3 The Board, however, is of the opinion that the skilled person would indeed not combine D4 with D7 for a different reason:

6.3.1 The device known from D4 includes a plurality of heaters which may be selectively activated in order to heat one of a plurality of charges of flavour-generating materials (column 8, lines 13 - 40). D4 uses LEDs to provide a feedback on the activation of the respective heater (column 3, lines 38/39: "*heater-active indicators 307 (light emitting diodes (LEDs) or other indicator devices*"). As can be seen in figure 5, the device comprises a total of eight LEDs 307 each corresponding to a heater.

6.3.2 The appellant argued that D7 discloses in paragraph [0093] that an aerosol generating device can provide feedback to the user using visible means (e. g. a LED), audible means or tactile means (e. g. by vibration). The skilled person hence would replace the visible means of D4 by a haptic feedback component.

- 6.3.3 In the Board's view, replacing the plurality of visible means (LEDs) used in D4 by one single haptic feedback component is not an obvious modification of the device known from D4.

If only one single haptic feedback component is used, it is no longer possible to check which heater is presently used and how many charges of flavour-generating material are available. This loss of information would prevent the skilled person from replacing the plurality of visual means by a single haptic means.

Nor would the skilled person consider replacing each visual feedback means (LED) of D4 with corresponding haptic feedback components, as it is not apparent how a user would then be able to distinguish between a number (e.g. eight) of haptic feedbacks.

- 6.3.4 The skilled person would also not use the haptic feedback component suggested in D7 in addition to the LEDs of D4.

Document D7 discloses in both paragraphs [0009] and [0093] that the device comprises a button-operated temperature selection with an indicator that can be visual or audible, or provides a sensory output, e. g. a vibration. The indicator provides the user with a feedback when the temperature of the heater is changed to a different temperature.

Since D4 does not provide the functionality of changing the heater's temperature, the skilled person has no incentive to add the feedback component of D7 to D4 informing the user on such a temperature change.



- 6.4 The skilled person hence would not provide the device of D4 with a haptic feedback component in the light of D7, be it either as a replacement component or an additional component. The opposition division's decision was hence correct albeit for different reasons.

*Combination of D4 with D8*

7. The appellant further argued with a combination of documents D4 and D8.
- 7.1 This line of argument was presented in appeal proceedings for the first time during oral proceedings before the Board and hence must be assessed with regard to the provisions of Article 13(2) RPBA.
- 7.1.1 The appellant argued that exceptional circumstances in the sense of Article 13(2) RPBA arose in view of the fact that during oral proceedings it became clear that the Board did not agree with the technical problem as formulated by the Opposition Division .
- 7.1.2 This, however, is not tantamount to exceptional circumstance in particular because the Board in fact essentially agreed with the formulation of the problem as stated by the appellant itself in the statement of grounds of appeal (see above the discussion of D4 in combination with D7).
- 7.2 This line of argument was hence not admitted to the appeal proceedings pursuant to Article 13(2) RPBA.

*Combination of D4 with D9*

8. The appellant finally argued with a combination of documents D4 and D9.

8.1 Document D9 was filed during opposition proceedings with letter of 8 October 2021 within the time limit set for the scheduled oral proceedings before the opposition division on 8 December 2021 (the oral proceedings were later postponed to 25 October 2022). The appellant requested in the letter to admit these documents since they were filed in response to amended requests of the respondent.

8.1.1 Whether document D9 can be admitted into the proceedings was not discussed during oral proceedings before the opposition division nor did the opposition division take a decision on the admissibility of document D9.

8.1.2 Furthermore, the minutes of this oral proceedings do not reflect that a discussion on inventive step involving document D9 took place. However, the written decision refers in point 13.4.2 to a combination of D4 with D9, stating that the same reasoning as with respect to the combination of D4 with D7 applies.

(a) The respondent deduces from the fact that the appellant did not rely on a combination of documents D4 and D9 during oral proceedings before the opposition division that this line of argument was implicitly withdrawn.

(b) The Board does not agree because the fact of not making oral submissions as regards this line of

argument, which was relied upon in writing, does not amount to the withdrawal thereof.

- (c) The respondent relied upon decision T 526/21. The facts in T 526/21 are however different from those of the present case. In T 526/21 the Board did not admit lines of attacks based on two documents because it concluded that these attacks were either implicitly abandoned or not raised in opposition proceedings, in particular in view of the fact that at the oral proceedings the opponents agreed on one document, different from the above, as representing the closest prior art (reasons for the decision 3.1.2). In the present case there are no circumstances pointing to an implicit abandonment.

- 8.2 Taking into consideration that the respondent did not have the opportunity to comment on the admissibility of D9, and that if the opposition division were to admit document D9, then assessment of inventive step starting from D4 and in combination with D9 should be made taking into account the objective technical problem as formulated above and not as formulated in the decision under appeal, and against the background that the respondent requested a remittal and the appellant did not object, the Board considers that there are special reasons in the sense of Article 11 RPBA which justify a remittal to the opposition division for further prosecution.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division for further prosecution.

The Registrar:

The Chairman:



H. Jenney

G. Pricolo

Decision electronically authenticated