

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NJOY, LLC,
NJOY HOLDINGS, INC.,
Petitioners,

v.

JUUL LABS, INC.,
Patent Owner

IPR2024-00231
Patent No. 10,130,123

**PATENT OWNER'S MOTION TO SUBMIT SUPPLEMENTAL
INFORMATION**

Pursuant to 37 C.F.R. § 42.123 and the Board’s email of March 20, 2025, Patent Owner moves for admission of supplemental information, namely Section V.C.2 of the International Trade Commission’s Opinion in 337-TA-1368 (“Commission Opinion”), which is included with this motion as Appendix A. The Board has already authorized submission of Section V.B of the Commission Opinion, which construed the term “pressure sensor” from the ’123 patent. Section V.C.2 of the Commission Opinion applies its construction of “pressure sensor” to the JUUL products JAGWAR and JUUL2, both of which have a pressure sensor similar to that of the JUUL System at issue in this proceeding, concluding that neither literally practice the term, but do so under the Doctrine of Equivalents. The Board should therefore authorize submission of Section V.C.2, because it provides additional clarification to the Board’s construction and also directly relates to the parties’ dispute whether the JUUL System practices a “pressure sensor,” either literally or under the Doctrine of Equivalents.

I. STATEMENT OF MATERIAL FACTS

1. In 337-TA-1368, PO alleges that Petitioners infringes the ’123 patent.
2. On August 23, 2024, the ALJ issued its final initial determination, holding that PO’s JUUL2 product literally practices claims 27 and 32 of the ’123 patent.
3. On October 24, 2024, the Commission determined to review the ALJ’s final initial determination.
4. On February 19, 2025, the Commission issued the public version of its

opinion, construing “pressure sensor” to require “at least one ‘pressure sensor’ that has both ‘a first side ... exposed to a sealed air flow path’ and ‘a second side ... exposed to a device air path open to ambient pressure.” Ex. 1052, 3-15. The Commission also determined that the JAGWAR and JUUL2 devices, which each “comprise two microelectromechanical system (MEMS) pressure sensing components ... that work together as components” to sense differential pressure, do not literally practice a “pressure sensor,” but do so under DOE. Appx. A, 38-70.

5. In this proceeding, the parties dispute whether the JUUL System, which similarly comprises “[t]wo pressure sensors that, working together, sense differential pressure” (Ex. 2003, 14) practices the claimed “pressure sensor.” Patent Owner contends that the JUUL System’s pressure sensors practice the claim both literally and under the Doctrine of Equivalents. POR, 22-23. Petitioner disagrees. Reply, 32.

II. THIS MOTION IS TIMELY

Under 37 C.F.R. § 42.123(b), this motion “must show why the supplemental information reasonably could not have been obtained earlier.” The Commission Opinion was not publicly issued until February 19, 2025, less than a month before Patent Owner’s March 14 request to the Board to submit portions of it. Between the Commission’s issuance of the Opinion and Patent Owner’s request, the parties spent several weeks conferring on which sections to submit to the Board. Thus, the supplemental information could not have been obtained earlier.

III. THE SUPPLEMENTAL INFORMATION IS RELEVANT AND ITS CONSIDERATION IS IN THE INTERESTS OF JUSTICE

Section V.C.2 of the Commission Opinion is “relevant to a claim for which the trial has been instituted” and its consideration is “in the interests-of-justice.” 37 C.F.R. § 42.123. The parties and the Board agree that the Commission’s construction of “pressure sensor” is “relevant information that is inconsistent with a position advanced by the party during the proceeding,” and therefore the parties were obligated to submit Section V.B. 37 C.F.R. § 42.51(b); Consolidated Trial Practice Guide at 47.

The same holds true for Section V.C.2 because it provides clarification to the Commission’s construction of “pressure sensor.” The Commission did not actually provide an express construction of “pressure sensor,” but instead “construe[d] those limitations as requiring at least one ‘pressure sensor’ that has both ‘a first side ... exposed to a sealed air flow path’ and ‘a second side ... exposed to a device air path open to ambient pressure.’” Ex. 1052, 15. In other words, the Commission’s construction of “pressure sensor” merely repeats the limitations of the ’123 patent.

The Commission’s application of its construction provides important clarification to the Commission’s construction. In particular, the Commission held that its construction cannot “be met by a configuration that has two pressure sensors, each pressure sensor having only one exposed side.” Appx. A, 39; *see also id.*, 47 (“Because JLI cannot point to a single pressure sensor within these configurations that has both the claimed ‘first side’ and ‘second side,’ JLI essentially concedes that it

cannot establish literal infringement with respect to either the JAGWAR or JUUL2 device.”). In addition, the Commission’s determination that the products practice a “pressure sensor” under the Doctrine of Equivalents is based on its conclusion that its construction is “broader” than a construction that requires the pressure sensor to “directly measure the pressure difference between the two air paths, by using, *e.g.*, a conductive diaphragm or membrane, with two opposing sides, as depicted in the embodiment shown in Figure 25 of the ’123 patent.” Appx. A, 58 & n.32. Accordingly, Section V.C.2 provides important clarification to the scope and meaning of the Commission’s construction of “pressure sensor.”

The Commission’s determination regarding the equivalent function, way, and result of the claimed “pressure sensor” also provides clarification regarding the scope of its construction. Appx. A, 61 (determining that the function of a “pressure sensor” is “to sense pressure at the sealed air flow path and at the device air path open to ambient pressure for the purpose of obtaining differential pressure readings between the pressures sensed in the two paths”), 64 (determining that the “way” is “using at least one pressure sensor that has both a first side exposed to the sealed air flow path and a second side exposed to the device air path open to ambient pressure, and to determine differential pressure readings between the pressures sensed at the two exposed sides”), 70 (determining that the “result” is to “output differential pressure readings derived from the ambient and sealed air flow path pressures”).

In addition, the Commission’s application of its construction of “pressure sensor” is directly related to the parties’ dispute here regarding whether the JUUL System practices a “pressure sensor” literally or under the Doctrine of Equivalents. See POR 22-23; Reply 32; Sur-Reply 28-30. And although the Commission’s determination was in the context of whether JUUL established a Domestic Industry, the Commission’s determination is just as relevant to whether the JUUL System practices the ’123 patent (whether literally or under DOE) for the purposes of establishing nexus to secondary considerations evidence. See, e.g., *Dome Patent, L.P. v. Rea*, 2014 WL 2948927, *26 (D.D.C. 2014), *aff’d*, 799 F.3d 1372, (Fed. Cir. 2015) (“[T]he Court is persuaded that the commercial success of a product that infringes a patent claim under the doctrine of equivalents can inform whether the patent claim is obvious. To begin with, the Director’s contention that a process that infringes by equivalence is *outside* the scope of a claim is inconsistent with the established principle that ‘[t]he scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described.’ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. at 732. In this vein, courts have considered the commercial success of a competitor’s infringing product or process as a secondary consideration, without distinguishing between literal infringement or infringement by equivalence. See, e.g., *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d at 1130.”).

Date: March 28, 2025

By: /s/ *James M. Glass*
James M. Glass (Reg. No. 46,729)
Lead Counsel for Patent Owner

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on March 28, 2025, a complete and entire copy of the above document was provided by email to Petitioners by serving correspondence addresses of record as follows:

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Dated: March 28, 2025

/s/ James M. Glass
James M. Glass (Reg. No. 46,729)
Lead Counsel for Patent Owner

APPENDIX A

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of

CERTAIN VAPORIZER DEVICES,
CARTRIDGES USED THEREWITH,
AND COMPONENTS THEREOF

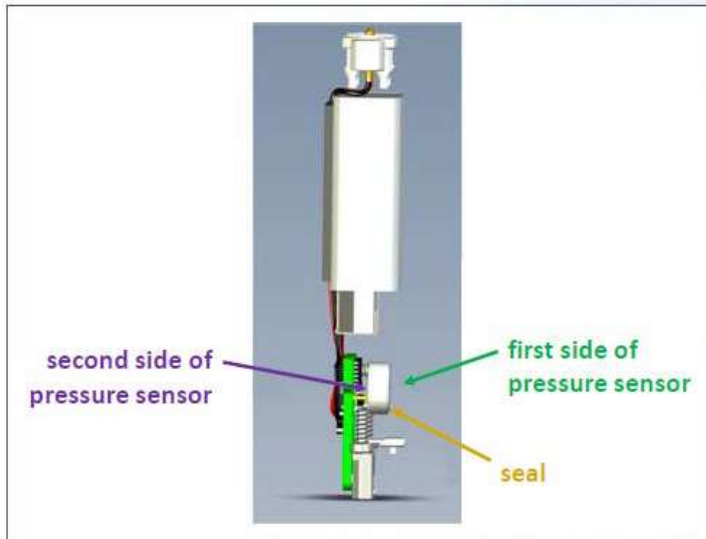
Investigation No. 337-TA-1368

COMMISSION OPINION

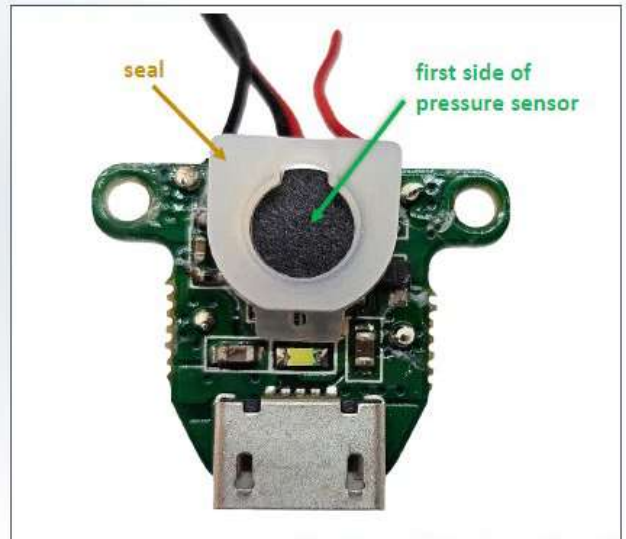
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CPX-0058C (NJOY ACE CAD Model)



CX-0060 (Product Photo)

Tr. (Alarcon) at 449:15-451:11; CDX-0004C.145 (reproducing annotated CPX-0058C, CX-0060); *see* CX-0814C (Bonet²⁷ Dep. Tr.) at 159:16-160:2 (one side of the pressure sensor is exposed to the battery cavity and the other is exposed to ambient air), 192:19-193:13 (the battery compartment is sealed so pressure can be sensed).

Accordingly, the Commission finds that the accused NJOY ACE literally practices limitations 27[d] and 27[e] of claim 27 of the '123 patent under the Commission's construction of "pressure sensor" and, therefore, finds that the NJOY ACE literally practices independent claim 27 and dependent claim 32 of the '123 patent.

2. JAGWAR and JUUL2

a. Final ID

As to limitations 27[d] and 27[e], NJOY and OUII both disputed only that the JAGWAR and JUUL2 have "a pressure sensor . . . wherein a first side of the pressure sensor is exposed to a sealed air flow path and a second side of the pressure sensor is exposed to a device air path open

²⁷ Mr. Jose Bonet is one of NJOY's corporate representatives.

to ambient pressure.” ID at 112 (citing RRP HB at 39-52; OIP HB at 158-60), 122-23 (citing RRP HB at 52; OIP HB at 159). Because the ID construes limitations 27[d] and 27[e] such that they could be met by a configuration that has two pressure sensors, each pressure sensor having only one exposed side, the ID finds that both the JAGWAR and JUUL2 literally practice those limitations. *See id.*; ID at 118-23. The ID does not consider the parties’ DOE arguments. ID at 122-23.

b. Analysis

The Commission determined to review whether the JAGWAR iteration of the JUUL system and the JUUL2 system practice limitations 27[d] and 27[e] of claim 27 of the ’123 patent based on its decision to review the ID’s construction of “pressure sensor.” 89 Fed. Reg. at 89042. The Commission requested additional briefing from the parties on the following Question #4 relating to this issue, as addressed below:

Do the asserted JAGWAR iteration of the JUUL DI system and the asserted JUUL2 DI system practice (literally and/or under the doctrine of equivalents) limitations 27[d] and 27[e] of claim 27 of the ’123 patent under a construction of those limitations requiring at least one “pressure sensor” that has both “a first side . . . exposed to a sealed air flow path” and “a second side . . . exposed to a device air path open to ambient pressure.”

Id.

i. Literal Practicing of Limitations 27[d] and 27[e]

(A) The Parties’ Submissions on Question #4

(1) JLI’s initial submission on Question #4

JLI argues that, even under a construction requiring a single pressure sensor with the two claimed sides, [REDACTED] literally practice limitations 27[d] and 27[e] “because they comprise two microelectromechanical system (MEMS) pressure sensing components (*n.b.*, each is an absolute pressure sensor that measures pressure relative to a vacuum, *i.e.*, zero

pressure) that work together as components of *a single* differential pressure sensor that has the two claimed sides (*i.e.*, a sensor that measures a pressure difference between the claimed two sides as opposed to a difference relative to zero pressure as in the case of an absolute pressure sensor).” CIBr. at 26 (emphasis in CIBr.).

JLI submits that un rebutted record evidence establishes that the JAGWAR and JUUL2 include:

[REDACTED]

Id. (citing ID at 118-22; Tr. (White) at 238:2-242:10, 266:3-9; Tr. (Bowen) at 106:19-21; Tr.

(Murillo) at 337:21-338:5; Tr. (Alarcon) at 466:4-476:18; CDX-0004C.166-169; JX-

0024C.0013-14; CPX-0011; JX-0024C.0015 ([REDACTED])

[REDACTED]

[REDACTED]

[REDACTED]); JX-0023C.0017 ([REDACTED])

[REDACTED]), .0023 [REDACTED]); JX-0024C.0011; *see also*

Tr. (Alarcon) 547:15-550:19, 551:7-552:14 [REDACTED]

[REDACTED]

[REDACTED]); Tr. (McAlexander) 957:3-13, 972:19-23, 979:3-13 (providing same opinions for

JUUL2 as for JUUL); CDX-0004C.197-199; JX-0050C.0013, .0030 ([REDACTED])

[REDACTED]);

Tr. (Alarcon) 547:15-550:19, 551:7-552:14; JX-0050C.0012).

JLI argues that [REDACTED]

[REDACTED]

[REDACTED] *Id.* at 27 (quoting JX-0139C.0020). JLI explains that [REDACTED]

[REDACTED]

[REDACTED] *Id.*

(quoting JX-0139C.0020). Thus, according to JLI, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *Id.* (citing RPet. at 7-8 ([REDACTED])

[REDACTED]); Tr. (Alarcon) 466:4:12-470:15 ([REDACTED])

[REDACTED]

[REDACTED]; JX-0139C ([REDACTED]);

Tr. (Alarcon) 547:15-550:19, 551:7-552:14 (explaining the above analysis [REDACTED])

[REDACTED]

[REDACTED]; Tr. (White) 265:4-266:9; Tr. (McAlexander) 1030:24-1036:12).

JLI thus contends that the ID correctly finds that the JAGWAR and JUUL2 literally practice limitations 27[d] and [e] [REDACTED]

[REDACTED]

[REDACTED] *Id.* at 29 (quoting ID at 122; citing ID at 120-22 (finding “[t]he

evidence supports that the pressure sensors [REDACTED] are *a differential pressure sensor*” and

“a first side of *the pressure sensor* [is] exposed to a sealed air path and a second side of *the*

pressure sensor [is] exposed to ambient air”)) (emphases in RIBr.).

(2) NJOY’s initial submission on Question #4

NJOY argues that both the JAGWAR and JUUL2 [REDACTED] and thus neither literally practices limitations 27[d] and 27[e] when construed as requiring at least “one pressure” that has both a “first side . . . exposed to a sealed air flow path” and a “second side . . . exposed to a device air path open to ambient pressure.” RIBr. at 14.

NJOY asserts that JLI’s documents, shown below, “clearly and unequivocally state that [REDACTED] *Id.* (citing JX-0140C.0002-.0003 (JUUL JAGWAR Bill of Materials) (identifying [REDACTED] [REDACTED]); JX-0050C.0013 (JUUL2 PMTA) (identifying [REDACTED] [REDACTED])).

[REDACTED]	
JX-0140C.0003 (JUUL Jagwar BOM) (annotated)	JX-0050C.0013 (JUUL2 PMTA) (annotated)

Indeed, per NJOY, JLI “told [the] FDA in a submission regarding JAGWAR that “[t]he Company ultimately selected and qualified [REDACTED] [REDACTED] *Id.* at 15 (quoting SX-0001C.00025) (emphases in RRB.).

NJOY also submits that both its expert *and* JLI’s expert “confirmed that [REDACTED]
[REDACTED] *Id.* (citing Tr. (Alarcon) at 466:21-23 [REDACTED]
[REDACTED]
[REDACTED]), 547:24-548:5 (“this the JUUL2 version . . . [a]nd here, we
have [REDACTED]); Tr.
(McAlexander) at 958:19-959:5 [REDACTED]
[REDACTED]
[REDACTED]), 1030:24-1036:12 [REDACTED]
[REDACTED]) (emphases in RRB.).

NJOY further argues that “it was undisputed that [REDACTED]
[REDACTED] *Id.* (citing Tr. (McAlexander) at 966:11-14 (“[REDACTED]
[REDACTED]
[REDACTED]”), 960:19-961:16, 974:22-975:13)
(emaphses in RRB.). NJOY thus concludes that “JAGWAR and JUUL2 simply lack at least
one pressure sensor that has both a first exposed side and a second exposed side, and therefore,
do not literally practice limitations 27[d] and 27[e].” *Id.*

(3) OUII’s initial submission on Question #4

OUII argues that if the claimed “sides” of the pressure sensor is understood to mean “two
sides of a single pressure sensing component,” then the JAGWAR and JUUL2 do not practice
limitations 27[d] and 27[e] “because [REDACTED]
[REDACTED]
[REDACTED] OIBr. at 25-26. More specifically, OUII explains that [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] *Id.* at 26. In addition, [REDACTED]

[REDACTED] *Id.*

OUII also submits that although [REDACTED]

[REDACTED] *Id.* at 27-28 (reproducing CPX-0011 (annotated); CX-0075 (annotated); JX-0088

(annotated), 29 (reproducing images in RPet. at 26; citing ID at 129-33). Thus, in OUII's view,

[REDACTED] *Id.*

(B) Analysis

The Commission finds that the JAGWAR iteration of the JUUL system and the JUUL2 system do not literally practice the “pressure sensor” limitations 27[d] and 27[e] of claim 27 of the '123 patent under the Commission's construction requiring at least one “pressure sensor” that has both “a first side . . . exposed to a sealed air flow path” and “a second side . . . exposed to a device air path open to ambient pressure.” *See supra* at Section V.B.2. Accordingly, the Commission has determined to reverse the ID's conclusion that these products literally practice the two asserted DI claims (independent claim 27 and dependent claim 32) of the '123 patent.

The record evidence demonstrates, and JLI does not dispute, that the JAGWAR and JUUL2 devices both employ [REDACTED]

For example, as reproduced below, JLI's internal documentation shows [REDACTED] in the JAGWAR and JUUL2 devices: (1) JLI's Bill of Materials for the JAGWAR device (JX-

0140C.0003) [REDACTED];

and (2) JLI's PMTA for the JUUL2 device (JX-0050C.0013) [REDACTED]

[REDACTED].

[REDACTED]	
JX-0140C.0003 (JUUL Jagwar BOM) (annotated)	JX-0050C.0013 (JUUL2 PMTA) (annotated)

JX-0140C.0003 (annotated); JX-0050C.0013 (annotated); *see* CDX-0004C.167 (annotated JX-0024C.0015 at Fig. 5); CDX-0004.168 (annotated CPX-0011); JX-0024C.0014; JX-0023C.0017 (JUUL Device Improvement Plan (JAGWAR), Slide 17 titled [REDACTED]

[REDACTED]) ([REDACTED])

[REDACTED]

[REDACTED]; SX-0001C.00024-25 (JLI correspondence to the FDA) (JLI's "Project Jagwar"

addresses, inter alia, [REDACTED]

[REDACTED] and that [REDACTED]

[REDACTED]

[REDACTED]) (emphases added); JX-0050C.30 (describing JUUL2's [REDACTED]).

²⁸ The same Bill of Materials [REDACTED]

[REDACTED] JX-0140C.0002.

In addition, JLI's expert and NJOY's expert agreed that the JAGWAR and JUUL2 devices each [REDACTED]. Tr. (Alarcon) at 466:21-23 (describing CDX-0004C.167 (annotated JX-0024C.0015 (JAGWAR PMTA), Fig. 5): "Then to the right of that are two smaller boxes. [REDACTED] [REDACTED]), 469:2-10, 547:24-548:5 (describing CDX-0004C.198 (annotated JX-0050C.0020 (JUUL2 PMTA), Fig. 4): "[T]his the JUUL2 version . . . [REDACTED] [REDACTED]); Tr. (McAlexander) at 958:19-959:5 (describing RDX-0003.018 (JX-0140C.0003): [REDACTED] [REDACTED] [REDACTED]), 959:6-16 (describing RDX-0003.018 (annotated JX-0024C.0014)), 1030:24-1036:12 (The JAGWAR and JUUL2 devices [REDACTED] [REDACTED]) (emphases added).

The evidence also shows, and JLI does not dispute, that [REDACTED] in the JAGWAR and JUUL2 devices has [REDACTED]. Tr. (McAlexander) at 966:11-14 [REDACTED] [REDACTED]), 960:19-961:16 (similar), 974:22-975:13 (describing RDX-0003.038 (describing CDX-0004C.197 (annotated JX-0050C.013 (JUUL2 PMTA))) as showing that [REDACTED] [REDACTED] and that [REDACTED]).

JLI does not assert that [REDACTED] in the JAGWAR and JUUL2 devices *individually* literally practices limitations 27[d] and 27[e] under the Commission's

construction. *See* CIBr. at 26-29; CRBr. at 5-8. Instead, JLI argues that both devices literally practice those limitations because [REDACTED] “[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]” CIBr. at 26

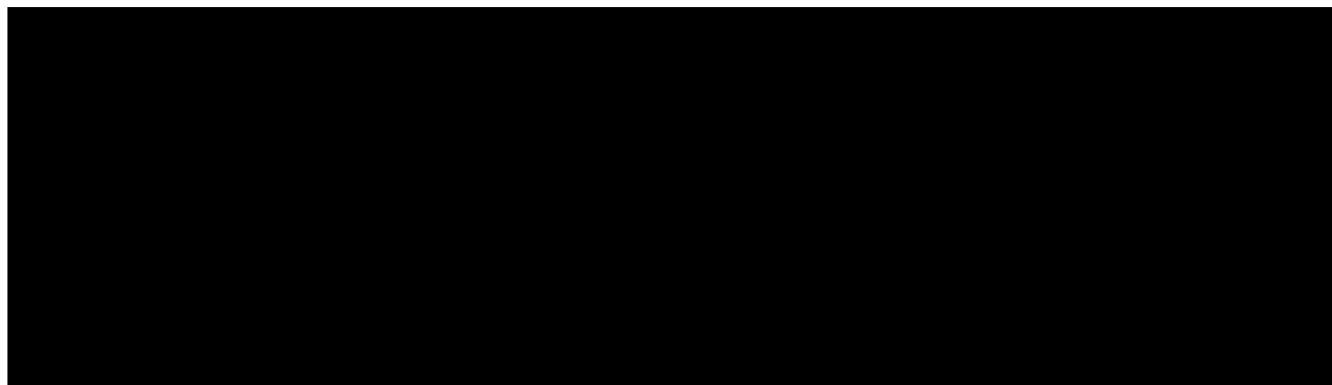
(emphasis in CIBr.); *see id.* at 27 (asserting that, in both devices, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]). JLI draws a red box around [REDACTED]

[REDACTED] in the annotated figures below:



JX-0140C.0003 (JUUL Jagwar BOM)
(annotated)

JX-0050C.0013 (JUUL2 PMTA)
(annotated)

CRBr. at 7 (further annotating NJOY’s annotated versions of JX-0140C.003 and JX-0050C.0013 appearing at RIBr. at 4). Because JLI cannot point to a single pressure sensor within these configurations that has both the claimed “first side” and “second side,” JLI essentially concedes that it cannot establish literal infringement with respect to either the JAGWAR or JUUL2 device.

Thus, the Commission finds that both the JAGWAR device and the JUUL2 device lack at least one “pressure sensor” that has both “a first side . . . exposed to a sealed air flow path” and

“a second side . . . exposed to a device air path open to ambient pressure” as required by the Commission’s construction of limitations 27[d] and 27[e] of claim 27 of the ’123 patent and, therefore, neither the JAGWAR system nor the JUUL2 system literally practices claim 27 (or claim 32, which depends from claim 27). *Bayer AG*, 212 F.3d at 1247 (“If any claim limitation is absent, there is no literal infringement as a matter of law.”).

Accordingly, the Commission has determined to reverse the ID’s findings that the JAGWAR iteration of the JUUL system and the JUUL2 system literally practice independent claim 27 and dependent claim 32 of the ’123 patent (the only two asserted DI claims).

ii. Doctrine of Equivalents

(A) The Parties’ Submissions on Question #4

(1) JLI’s initial submission on Question #4

JLI argues that, if the Commission finds that the claimed “pressure sensor” and “first/second sides” of claim 27 are not literally present in the JAGWAR and JUUL2, the record evidence shows that the products practice those limitations under the DOE. CIBr. at 29-32.

As for the claimed “pressure sensor,” JLI presents two arguments. *First*, JLI argues that the JAGWAR’s “pressure sensing components (*i.e.*, [REDACTED] [REDACTED]) [REDACTED] (*i.e.*, [REDACTED] [REDACTED]) to perform the same or substantially the same function, in substantially the same way, achieving the same or substantially the same result as a single component differential pressure sensor that ‘directly measures’ pressure.” *Id.* at 29 (citing Tr. (Alarcon) at 476:19-486:15). More specifically, JLI argues:

The [REDACTED] perform the same or substantially the same **function**: [REDACTED]

[REDACTED] Tr. (Alarcon) 477:23-480:7. This function is performed in substantially the same **way**: [REDACTED]

[REDACTED] . This is substantially the same as [REDACTED]

Similarly, [REDACTED]

[REDACTED] (Tr. (McAlexander) 968:19-22, 1057:17-1058:17), [REDACTED]

[REDACTED] Tr. (Alarcon) 483:7-485:7. And the same or substantially the same **result** is achieved: a differential pressure from the ambient and airpath pressures, as required by the patent. Tr. (Alarcon) 485:9-16. Indeed, JLI's expert Mr. Alarcon explained [REDACTED]

[REDACTED] Tr. (Alarcon) 485:18-486:15.

Id. at 29-30 (emphases added).

Second, JLI argues that the JAGWAR's [REDACTED]

[REDACTED] *Id.* at 30

(citing Tr. (Alarcon) at 485:18-486:15). JLI submits that the [REDACTED]

[REDACTED] *Id.* JLI also contends that [REDACTED]

[REDACTED] *Id.* (citing Tr. (Alarcon) at 485:18-486:15); Tr. (White) at 238:2-242:10, 266:3-9; Tr. (Bowen) at 106:19-21; Tr. (Murillo) at 337:21-338:5; *see also* '123 patent, 42:1-4, 42:8-9, 4:49-60 (explaining that any differential pressure sensor may be used).

JLI asserts this is "further supported by express statements in the patent specification that "[a]ny of the methods (including user interfaces) **described herein** may be implemented as software, hardware or **firmware**" *Id.* at 30-31 (quoting '123 patent, 45:7-9) (emphases in CIBr.).

Thus, per JLI, “even the patent contemplates determining differential pressure in firmware.” *Id.* at 31. JLI submits that there is “no reasonable argument the [JAGWAR] functions or generates a substantially different result in a substantially different way.” *Id.*

Lastly, JLI asserts that the JUUL2 practices limitations 27[d] and 27[e] under the DOE “for the same reasons” as explained above for the JAGWAR. *Id.* (citing Tr. (Alarcon) at 550:21-551:4, 552:10-18).

(2) NJOY’s initial submission on Question #4

NJOY argues that the Commission should conclude from the record that “the JAGWAR and JUUL2 configuration using [REDACTED] is not equivalent to the claimed configuration that requires at least one pressure sensor that outputs a sensor reading and has two exposed sides.” RIBr. at 16.

NJOY asserts that “substantial differences” exist between the claimed two-sided pressure sensor and the JAGWAR/JUUL2 configuration of [REDACTED]. *Id.* NJOY explains that the claimed pressure sensor “has two sides, and therefore, can directly measure the pressure difference across the sensor, and output that differential pressure measurement.” *Id.* (citing RX-0155C (’123 patent inventor Nicholas Hatton), 56:18-57:1). In contrast, per NJOY, the JAGWAR’s and JUUL2’s [REDACTED]

[REDACTED] and

[REDACTED]

[REDACTED]

[REDACTED] *Id.* (citing Tr. (McAlexander) at 964:14-967:1).

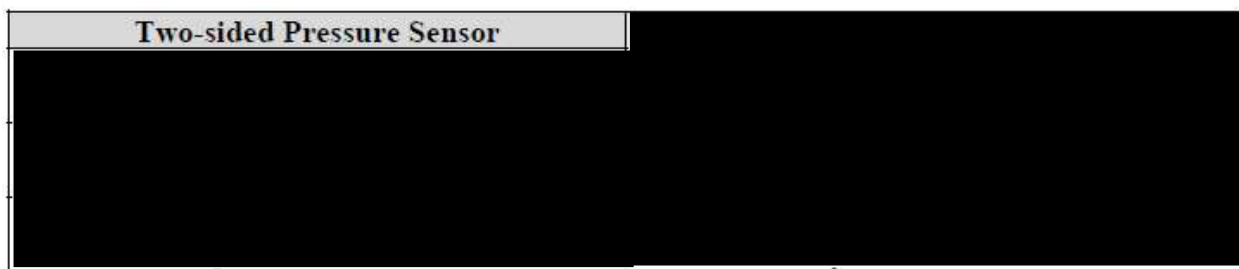
NJOY contends that JLI’s own documents [REDACTED]

[REDACTED]

[REDACTED] *Id.* For example, per NJOY, an email chain “described [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] *Id.* (citing Tr. (McAlexander) at 970:18-971:9; Tr. (White) at 261:5-262:23; RX-0958C.0001 (Email Re: Feature Prioritization)). NJOY asserts that JLI [REDACTED]

[REDACTED]
[REDACTED] *Id.* (citing Tr. (White) at 255:8-256:2; RX0958C.0001 (Email Re: Feature Prioritization); JX-0023C.0016-.0017, .0023 (JUUL Device Improvement Plan)). NJOY further notes that JLI’s “JUUL Device Improvement Plan” presentation “highlights additional substantial differences between the claimed two-sided pressure sensor design and the JAGWAR / JUUL2 design”:



Id. at 17 (quoting excerpts from JX-0023C.0017 (Slide 17 titled [REDACTED]
[REDACTED])).

NJOY asserts that the [REDACTED] “also does not perform substantially the same function, in substantially the same way, to achieve substantially the same result as the claimed [REDACTED] *Id.* First, NJOY argues that the claimed two-sided pressure sensor “directly measures the pressure differential between the paths exposed to the two claimed sides (and does not measure either the air path absolute pressure or ambient absolute pressure).” *Id.* In contrast, per NJOY, the JAGWAR/JUUL2 configuration [REDACTED]
[REDACTED]

[REDACTED]

Id. (citing Tr. (McAlexander) at 968:4-969:4).

Second, NJOY argues that the [REDACTED] “also performs the function in a substantially different way than the [REDACTED].” *Id.* (citing Tr. (McAlexander) at 969:5-24). According to NJOY, while the claimed pressure sensor “directly measures a pressure differential using different exposed sides of a pressure sensor,” the

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *Id.* at 17-18 (citing JX-0023C.0017 (JUUL Device Improvement Plan) [REDACTED]

[REDACTED]);

Tr. (McAlexander) at 967:22-968:3, 970:9-12).

Third, NJOY argues that the [REDACTED] configuration “does not achieve substantially the same result as the claimed [REDACTED]” *Id.* at 18 (citing Tr. (McAlexander) at 970:1-12). NJOY explains:

The claimed two-sided pressure sensor can output a differential pressure reading while the [REDACTED] in JAGWAR and JUUL2 output [REDACTED]

Moreover, JLI’s documents confess that

[REDACTED]

[REDACTED] SX-0001C.00024; *see also* JX-0023C.0017. In contrast, JLI’s documents described that the [REDACTED]

[REDACTED] SX-0001C.00025.

Id.

NJOY contends that the Commission should reject the function-way-result test presented by JLI’s expert Mr. Alarcon who, as shown in his demonstrative below, “testified that the function, way, and result are all effectively the same—calculate or determine differential pressure.” *Id.*

		Substantially the Same?
Function		✓
Way		✓
Result		✓

CDX-0004C.174

Id. (reproducing CDX-0004C.174).

In NJOY’s view, Mr. Alarcon’s analysis “eviscerates the three prongs of the function-way-result test, and collapses the test into a single question of whether JAGWAR and JUUL2 perform substantially the same function as the claimed pressure sensor.” *Id.* NJOY also argues that Mr. Alarcon’s position “is particularly problematic, because the ‘way’ in which the claimed invention works is significantly different than the ‘way’ in which JAGWAR and JUUL2 work.” *Id.* NJOY explains that, while the JAGWAR and JUUL2 [REDACTED]

[REDACTED]

[REDACTED] claim 27 [REDACTED]

[REDACTED] *Id.* at 18-19. NJOY points out that, as the Federal Circuit has noted, “the ‘way’ requirement [is] of particular importance, as a

practical matter, in keeping the doctrine properly limited.” *Id.* at 19 (quoting *VLSI Tech. LLC v. Intel Corp.*, 87 F.4th 1332, 1342 (Fed. Cir. 2023)). NJOY submits that, “[e]ven assuming JAGWAR and JUUL2 achieve a similar result of calculating a differential pressure, they do so by [REDACTED] [REDACTED].” *Id.* (citing *Sage Prods. v. Devon Indus.*, 126 F.3d 1420, 1426 (Fed. Cir. 1997) (“[The] patent claims a precise arrangement of structural elements that cooperate in a particular way to achieve a certain result. Devon achieves a similar result . . . but it does so by a different arrangement of elements. Because this issued patent contains clear structural limitations, the public has a right to rely on those limits . . . [and] this court affirms the judgment of the district court that Devon does not infringe . . . under the [DOE].”).

NJOY thus argues that the Commission should find that the JAGWAR/JUUL2 configuration “is not equivalent to the claimed [REDACTED], and therefore, JAGWAR and JUUL2 fail to meet the DI technical prong for the ’123 patent, literally or under the [DOE].” *Id.* at 19-20.

(3) OUI's initial submission on Question #4

OUII notes that JLI’s post-hearing brief addresses “satisfaction of the ‘sides’ limitation under the [DOE] where [REDACTED] are used”:

Accordingly, the JUUL literally practices 27[e]. To the extent the ALJ finds otherwise, the JUUL nevertheless practices under DOE for the same reasons as explained above with respect to limitation 27[d]. Moreover, the JUUL [REDACTED] perform the same or substantially the same function as a single component differential pressure sensor with opposite sides. [REDACTED]

[REDACTED]
Tr. (Alarcon) 476:19-486:15; Tr.
(White) 238:2-242:10, 266:3-9; Tr. (Bowen) 106:19-21; Tr. (Murillo)
337:21-338:5.

OIBr. at 29-30 (quoting CIPHB at 79-88; citing CIPHB at 88). Thus, in OUII’s view,
“satisfaction of the ‘sides’ limitation may be found under the [DOE] where the claim requires
two ‘sides’ of the same pressure sensing device.” *Id.* at 30.

(B) Analysis

The Commission finds, based on the evidence, that the JUUL2 device practices, under the DOE, limitations 27[d] and 27[e] of claim 27 of the ’123 patent, which require at least one “pressure sensor” that has both “a first side . . . exposed to a sealed air flow path” and “a second side . . . exposed to a device air path open to ambient pressure” under the Commission’s construction of “pressure sensor” discussed *supra* at Section V.B.2. Accordingly, the Commission finds that the JUUL2 system practices claim 27 (and claim 32, which depends from claim 27) under the DOE. Thus, the Commission affirms with modified reasoning the ID’s ultimate finding that JLI has satisfied the technical prong of the DI requirement as to the ’123 patent based on this product.²⁹

“The ‘essential inquiry’ in determining whether there has been infringement under [the DOE] is whether ‘the accused product or process contains elements identical or equivalent to each claimed element of the patented invention.’” *Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1338 (Fed. Cir. 2011) (quoting *Warner-Jenkinson*, 520 U.S. at 40). “[P]roof of

²⁹ The Commission takes no position on whether the JAGWAR iteration of the JUUL system also practices claims 27 and 32 under the DOE. *Beloit*, 742 F.3d at 1423.

equivalents must be limitation specific, not focused only on the claim as a whole, though the limitation-specific inquiry of equivalence may be informed by the ‘role played by each element in the context of the specific patent claim.’” *VLSI Tech.*, 87 F.4th at 1343 (quoting *Warner-Jenkinson*, 520 U.S. at 40). The patentee must provide “particularized testimony and linking argument as to the insubstantiality of the differences between the claimed invention and the accused device.” *Akzo Nobel Coatings, Inc. v. Dow Chemical Co.*, 811 F.3d 1334, 1342 (Fed. Cir. 2016) (internal quotation marks omitted).

The Federal Circuit applies two articulations of the test for equivalence. *See Warner-Jenkinson*, 520 U.S. at 40 (explaining that different phrasings of the test for equivalence may be “more suitable to different cases, depending on their particular facts”). Under the “function-way-result” test, an element in the accused device is equivalent to a claim limitation if it “performs substantially the same function in substantially the same way to obtain substantially the same result.” *Schoell v. Regal Marine Indus., Inc.*, 247 F.3d 1202, 1209-10 (Fed. Cir. 2001). Alternatively, under the “insubstantial differences” test, “[a]n element in the accused device is equivalent to a claim limitation if the only differences between the two are insubstantial.” *Honeywell Int’l Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1139 (Fed. Cir. 2004).

JLI argues that the JUUL2 device practices the “pressure sensor” limitations under both tests. CIBr. at 29-32. As for the “function-way-result” test, JLI argues that the JUUL2’s “pressure sensing components ([REDACTED]

[REDACTED]

to perform the same or substantially the same function, in substantially the same way, achieving

the same or substantially the same result as a single-component differential³⁰ pressure sensor.”

CIBr. at 29 (citing Tr. (Alarcon) at 476:19-486:15); CRBr. at 12 (“[T]he role of the claimed pressure sensor is to determine the differential pressure between a user’s puff and ambient air pressure. . . . [T]hat is precisely the function performed by [REDACTED]

[REDACTED] perform the function in at least substantially the same way to achieve at least substantially the same result.”).³¹

As discussed below, JLI’s expert, Mr. Alarcon (and, at times, JLI in its submissions), compares the [REDACTED] configuration of the JUUL2 device not to the “pressure sensor” limitations as defined by the Commission’s construction, but to a narrower construction that ostensibly arises from NJOY’s arguments below that the claimed “pressure sensor” must “directly measure” the pressure difference between the two air paths, by using, *e.g.*, a conductive diaphragm or membrane, with two opposing sides, as depicted in the embodiment shown in Figure 25 of the ’123 patent and [REDACTED]. For example, Mr. Alarcon testifies:

Q. Now, the thing that you’re comparing this to, this is the diaphragm differential pressure sensor, this is the single membrane-style sensor; is that right?

³⁰ JLI and NJOY agree that the claimed “pressure sensor” is a “differential pressure sensor,” which is supported by the specification. Tr. (Alarcon) at 486:17-487:4; Tr. (McAlexander) at 965:12-966:4, 1057:24-1058:2; *see* ’123 patent, 4:49-50 (“In general, the pressure sensors described herein may be any differential pressure sensor.”).

³¹ JLI argues that the JAGWAR and JUUL2 devices practice the “pressure sensor” limitations under the DOE “for the same reasons.” *Id.* at 31 (citing Tr. (Alarcon) at 550:21-551:4, 552:10-18). NJOY does not dispute that whether those devices practice the “pressure sensor” limitations under the DOE rise and fall together. *See* Tr. (McAlexander) at 972:17-974:1.

A. Yes, yeah. I'm adopting the – the position [*i.e.*, NJOY's position] of the single membrane diaphragm differential pressure sensor.

Q. Okay. How does that type of pressure sensor operate, if we're going to look at equivalents?

A. Yeah. So that particular style, for example, that one typically does have, you know, just two opposing sides of the geometric. Configuration is two opposing sides, more or less. And it has a membrane, so when the pressure changes, there's a change in capacitance. There's an IC inside, and it will output a reading based on this differential pressure. And the differential between that membrane side and the opposite side of the sensor.

Tr. (Alarcon) at 477:17-478:7.³² The Commission finds that, because the Commission's construction of the "pressure sensor" limitations is **broader** than the construction Mr. Alarcon relied on in his DOE analysis, Mr. Alarcon's testimony qualifies as "particularized testimony and linking argument as to the insubstantiality of the differences between ***the claimed invention*** and the accused device" as required by *Akzo*, because any DOE analysis under a construction narrower than the one adopted is necessarily subsumed by an analysis under the broader construction. *See Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1328-29 (Fed. Cir. 2002) ("In this case, the claim construction error by the district court had the effect of narrowing the scope of asserted claim 1. Thus, under the correct construction, claim 1 encompasses a broader scope of subject matter. If a reasonable juror could have found literal infringement under a more narrow reading of claim 1, then the same reasonable juror could not have avoided finding literal infringement under the correct, broader construction of the claim.").

³² The Commission finds that the ID correctly does not limit the "pressure sensor" limitations such that it "directly measures" or has a diaphragm or membrane with two opposing sides, which is consistent with the claim language and the specification's teaching that "the pressure sensors described herein may be any differential pressure sensor, such as MEMS, capacitive pressure sensors (*e.g.*, including a capacitive membrane), or any force collector type pressure sensors that use a transducer to measure pressure or pressure differences (*e.g.*, diaphragm, piston, etc.)" '123 patent, 4:49-54 (listing several additional examples).

(1) Function

JLI submits that the function of the claimed “pressure sensor” limitations is “sensing pressure at the sealed air flow path and at the device air path open to ambient pressure for the purpose of obtaining a differential pressure from those measurements,” and that [REDACTED] within [REDACTED] the JAGWAR and JUUL2 devices] perform the same or substantially the same function.” CIBr. at 29 (citing Tr. (Alarcon) at 477:23-480:7); CRBr. at 12-13. Mr. Alarcon presented the following demonstrative at the evidentiary hearing in support of JLI’s DOE argument:

		Substantially the Same?
Function	[REDACTED]	✓
Way		✓
Result		✓

CDX-0004C.174

CDX-0004C.174; *see* Tr. (Alarcon) at 477:7-16. As can be seen, the stated “functions” (as well as the “ways” and “results,” as addressed below) differ from the “function” submitted by JLI in its briefing. *See* CIBr. at 29; CRBr. at 12-13. The Commission notes, however, that Mr. Alarcon agreed that these positions reflected his DOE opinion “at a high level.” Tr. (Alarcon) at 477:8-10. Moreover, Mr. Alarcon’s further testimony supports the position JLI presented in its briefing. For example, as cited in JLI’s brief (CIBr. at 29), Mr. Alarcon further explained:

Q. Now, in the function that you looked at in your analysis, here on the slide, you say “calculating differential pressure from ambient and device

air path,” but the claim says “sealed air path.” So what are you referring to there in terms of the function?

A. In the function, what it’s doing is it’s calculating the difference between the ambient pressure. That’s the second side of – that’s the device path and the device air path pressure.

So what’s happening is ***both sides of the sensor are seeing changes in pressure***. For example, remember, I talked about ambient. That can change. That changes when you go up and down an elevator, for example. Then, of course, when the user inhales, the pressure on that side changes.

So we’re seeing a difference in pressure experienced by both sides, regardless of if we’re talking about a diaphragm differential or a MEMS differential pressure sensor.

Q. I just raised it because I think that might be a typo on your slide, device air path pressure, which the claim calls is ambient.

So I wasn’t sure if you meant it’s calculating a difference between ambient and ambient or something else.

A. It’s – the difference – yeah. That’s a good clarification.

The calculation is the difference in pressure between the sealed air flow path – remember, it’s exposed to the sealed air flow path, and ambient, which is the device air path.

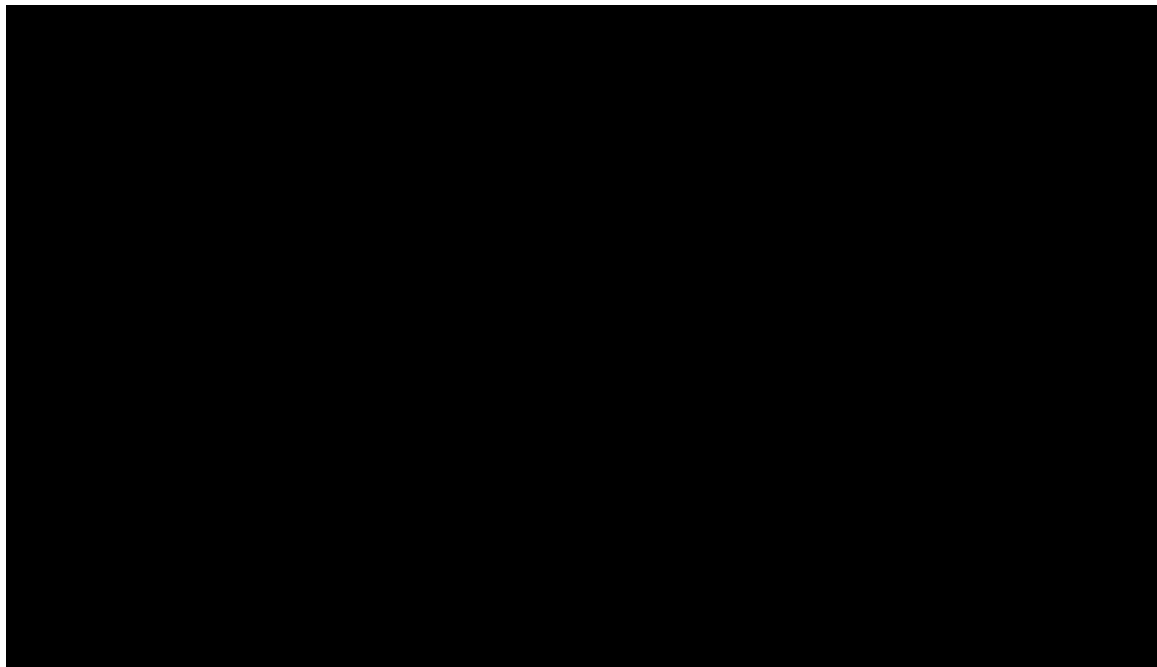
Q. Okay. ***Now, in the JUUL system, we’ve been talking about these two MEMS-based absolute pressure sensing components working together to form a differential pressure sensor. In your opinion, is that pressure sensor performing a different function?***

A. ***No. It’s doing the same thing. Like I said, it’s both sides are seeing difference – are seeing pressures. Those pressures change. They’re exposed to different pressures, and both pressures move, you know, somewhat independently, certainly when the user inhales.***

The difference is calculated – the difference is the important part to determine there’s a threshold as well that’s calculated, which, you know, above a threshold we’re talking negative values, so below a threshold, it activates. That’s how you know someone’s puffing. If it’s above that threshold, it does not activate. So it’s the same function.

Tr. (Alarcon) at 478:8-480:7 (emphases added).³³

The Commission finds that the “function” of the claimed “pressure sensor” limitations is “to sense pressure at the sealed air flow path and at the device air path open to ambient pressure for the purpose of obtaining differential pressure readings between the pressures sensed in the two paths.” The Commission disagrees with NJOY that the claimed function is to “directly measure[] the pressure differential between the paths exposed to the two claimed sides (and [] not measure either the air path absolute pressure or ambient absolute pressure).” RIBr. at 17; *see* Tr. (McAlexander) 968:13-22; *see also* RDX-0003.32 (NJOY’s annotated version of CDX-0004C.174), reproduced below.



RDX-0003.032

³³ In light of this testimony further explaining Mr. Alarcon’s position, as well as his testimony regarding the “way” and “result” elements discussed below, the Commission disagrees with NJOY’s argument that, based on Mr. Alarcon’s “high level” demonstrative CDX-0004C.174, his DOE theory “eviscerates the three prongs of the function-way-result test, and collapses the test into a single question of whether JAGWAR and JUUL2 perform substantially the same function as the claimed pressure sensor.” RIBr. at 18.

As noted above, the “pressure sensor” limitations impose no “directly measuring” requirement. *See* ’123 patent, cl. 27; Tr. (McAlexander) at 1034:6-1035:11 (admitting that “directly measuring” does not appear in claim 27); *see also supra* at p. 58 n.32. The Commission also agrees with JLI that because the specification expressly contemplates that “[a]ny of the methods (including user interfaces) described herein may be implemented as **software, hardware or firmware**” (’123 patent, 45:7-9 (emphasis added)), the specification does not limit the claimed pressure sensor to one that “directly measures” a pressure differential, but allows for calculating that pressure differential in software or firmware. *See also* ’123 patent, 4:49-60 (teaching that “the pressure sensors described herein may be any differential pressure sensor”), 42:1-9 (“Although the examples described herein refer to a capacitive pressure sensor having a capacitive membrane . . . any other differential pressure sensor may be used instead with the methods and apparatuses described herein . . . Thus, any pressure sensor that can distinguish positive and negative pressure may be used.”); Tr. (McAlexander) at 944:4-12 (NJOY’s expert agreeing that “[t]his part of the patent [*i.e.*, 4:49-60] describes the pressure sensor as a differential pressure sensor and it can be any type of differential pressure sensor”).

The Commission credits Mr. Alarcon’s testimony and finds that the [REDACTED] [REDACTED] in the JUUL2 device— [REDACTED] [REDACTED]—performs the same or substantially the same function as “sensing pressure at the sealed air flow path and at the device air path open to ambient pressure for the purpose of obtaining differential pressure readings between the pressures sensed in the two paths.” In particular, Mr. Alarcon testified that (i) the “two MEMS-based absolute pressure sensing components work[] together to form a differential pressure sensor,” (ii) “both sides [one side of each MEMS component] are seeing difference – are seeing pressures,” and (iii) “[t]he

difference [between the two pressures] is calculated – the difference is the important part to determine there's a threshold as well that's calculated, which, you know, above a threshold we're talking negative values, so below a threshold, it activates. That's how you know someone's puffing. If it's above that threshold, it does not activate. So it's the same function." Tr. (Alarcon) at 479:14-480:7. The Commission is not persuaded by the testimony of NJOY's expert, Mr. McAlexander, that the [REDACTED] of the JUUL2 device is *not* substantially the same as the claimed function, because Mr. McAlexander's position is based on the configuration's [REDACTED]. See Tr. (McAlexander) at 968:23-969:4 [REDACTED]. [REDACTED]. [REDACTED]. [REDACTED].

(2) Way

JLI submits that, in the [REDACTED] of the JUUL2 device, [REDACTED] [REDACTED] in the same way that two sides of a unitary microphone-style pressure sensor would deflect to generate changes in the electrical characteristics of the sensor that are then used to determine pressure, and these readings are used by an [IC] to determine differential pressure just as in the type of pressure sensor used by RevB.” CRBr. at 13. This somewhat clarifies JLI’s position in its initial submission, where it suggests that the claimed “pressure sensor” has two sensing components:

³⁴ As noted above, there are no relevant differences between [REDACTED] [REDACTED] the JAGWAR and JUUL2 devices for purposes of determining whether those devices practice the “pressure sensor” limitations under the DOE. *See supra* n.31.

[O] [REDACTED] This is substantially the same as [REDACTED]
[REDACTED]
Similarly, [REDACTED] (Tr. (McAlexander) 968:19-22, 1057:17-1058:17), [REDACTED]
[REDACTED] Tr. (Alarcon) 483:7-485:7.

CIBr. at 29-30.

The Commission finds that, as properly construed, the “way” that the claimed “pressure sensor” limitations perform the function of “sensing pressure at the sealed air flow path and at the device air path open to ambient pressure for the purpose of obtaining differential pressure readings between the pressures sensed in the two paths” is by “using at least one pressure sensor that has both a first side exposed to the sealed air flow path and a second side exposed to the device air path open to ambient pressure, and to determine differential pressure readings between the pressures sensed at the two exposed sides.” The Commission disagrees with JLI’s view of the claimed “way” because it is limited to a particular embodiment disclosed in the specification and “used by [the] RevB.” CRBr. at 13 (“a unitary microphone-style pressure sensor” that “deflect[s] to generate changes in the electrical characteristics of the sensor that are then used to determine pressure, and these readings are used by an [IC] to determine differential pressure”). The Commission also disagrees with NJOY’s view of the claimed “way” insofar as it imposes a “directly measuring” requirement that is not supported by the patent, as addressed above. CIBr. at 17; *see* ’123 patent, cl. 27; Tr. (McAlexander) at 1034:6-1035:11; ’123 patent, 45:7-9, 4:49-60, 42:1-9; *see supra* at p. 58 n.32.

Regarding the “way” element of the test, Mr. Alarcon testified as follows:

Q. Mr. Alarcon, *does the fact that the two MEMS-based pressure sensing components, the fact that they’re taking – each taking an absolute pressure value*, one on one side of a gasket, one on the other side of a gasket, and that they’re not diametrically opposite, *does that difference matter* for purposes of your function-way-result analysis?

A. *No, it does not.*

Q. Why is that?

A. Because regardless of the – you know, how the particular geometric arrangement of the difference in the geometric arrangements between the gasket, *what you have is one side is experiencing that one pressure that we have talked about. That’s the ambient, that’s the device air path* that, again, *the gasket is sealing the device air path from the sealed air flow path. That’s the other side that’s also experiencing pressure.* So – *and the way it’s doing it is, you know, both of those are experiencing those changes in pressure, and it’s determining a difference.*

Q. Does the fact that they are *taking two separate readings and using that to compute a differential pressure reading*, does that difference factor into your function-way-result analysis?

A. I mean, I consider it, but I don’t believe it means it’s a different way.

I think again, *you’re effectively seeing – experiencing different pressures, and – or, you know, pressure on the one side of the gasket, pressure on the other side, or – of the pressure sensor, and the gasket is involved in creating those differences, so it’s done the same way.*

Q. Well, you would agree that it’s a different way, wouldn’t you?

A. I mean, I’m not saying there’s – I’m saying while the way may be different, it’s not substantial.

Q. . . . Are you saying that it’s the same way, or are you saying that it’s substantially similar way?

A. *I’m saying it’s substantially similar. Because it’s – you know, with the dual MEMS, it is outputting, for example, digital – you know, values are coming out, and they’re absolute pressure sensors. And in the case of the diaphragm differential pressure sensor, it’s a capacitive sensor that’s, you know, based on – you know, different, you know – the capacitance values, and you’ve got the base plate that’s staying at – that’s at a different value, if you will.*

So yeah, there's a difference there, but what I'm saying is that difference is not substantial.

Tr. (Alarcon) at 483:7-485:7 (emphases added).

Mr. Alarcon provided the following additional testimony relevant to the “way” element:

Q: . . . The fact that there's *specialized software running on the MCU that computes the differential pressure value in the case of the MEMS pressure sensor* you've identified, does that factor in any way in your analysis?

A. Yeah, it kind of – it supports my analysis in that these – for example, *in the diaphragm differential, there's an IC inside, and that's doing – what it's doing is it's putting out this output signal, that 1 [one] and 0 [zero] I mentioned before, based on the sensor, so – based on the differential pressure.*

So that's the differential pressure calculation. Whether or not the silicon from that IC that's in the diaphragm differential pressure sensor is in that one single package or it's distributed into, you know, the PCB into the MCU in the case of the JUUL system, I don't see that being a substantial – I see that being substantially the same result.

Q. Okay. Substantially the same result for purposes of your DOE analysis or for any other type of analysis?

A. I mean, certainly for this type of analysis, but also, it's the same result for the literal analysis as well.

Id. at 485:18-486:15 (emphases added).

The Commission credits Mr. Alarcon's testimony and finds that the JUUL2 device's pressure sensing components ([REDACTED]

[REDACTED]
[REDACTED] to perform substantially the same function of the claimed “pressure sensor” in substantially the same way. Specifically, as Mr. Alarcon explained, the difference between determining pressure differential readings using a single pressure sensor

with two sides and [REDACTED] as found in the JUUL2 device, is insubstantial. *See* Tr. (Alarcon) at 483:7-485:7, 485:18-486:15.³⁵

The Commission finds each of NJOY's arguments to the contrary unpersuasive. NJOY argues that, while the claimed pressure sensor "directly measures a pressure differential using different exposed sides of a pressure sensor," the JUUL2 device includes [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] RIBr. at 17-18 (citing JX-0023C.0017; Tr. (McAlexander) at 967:22-968:3, 970:9-12). As discussed above, this argument is based on an improper narrowing of the claimed "pressure sensor" to a particular embodiment that requires the "directly measuring" of a pressure differential. *See supra* at p. 58 n.32. In addition, as noted, the specification teaches that "[a]ny of the methods (including user interfaces) described herein may be implemented as software, hardware or firmware" ('123 patent, 45:7-9), and thus does not limit the "pressure sensor" in that manner but allows for a calculating step such as that performed in the JUUL2 device.

The Commission also finds that the JUUL2 device performs the "function" of the claimed "pressure sensor" in substantially the same "way" despite the device's use of [REDACTED]

[REDACTED]

[REDACTED] NJOY relies on *Sage Products* to argue that "[e]ven assuming JAGWAR and JUUL2 achieve a similar result of calculating a differential pressure, they do so

³⁵ Moreover, the parties identify no disclosure in the '123 patent's specification indicating that using a single-component pressure sensor provides any particular type of benefit.

by [REDACTED]

[REDACTED]).” RIBr. at 19 (citing *Sage Prods.*, 126 F.3d at 1426 (“[The] patent claims a precise arrangement of structural elements that cooperate in a particular way to achieve a certain result. Devon achieves a similar result . . . but it does so by a different arrangement of elements. Because this issued patent contains clear structural limitations, the public has a right to rely on those limits . . . [and] this court affirms the judgment of the district court that Devon does not infringe . . . under the [DOE].”)).

The Commission finds *Sage Products* distinguishable here. In a later decision, the Federal Circuit summarized the finding in *Sage Products* as follows:

In *Sage Products*, this [C]ourt noted that the claim limitations “top of the container” and “over said slot” constituted “a precise arrangement of structural elements” and a “clear structural limitation” in a “relatively simple structural device.” *Sage Prods.*, 126 F.3d at 1425. Finding that Sage’s theory of equivalence—*i.e.*, a container having two constrictions below its top was equivalent to the claimed container having a constriction above and a constriction below—would “remove entirely the ‘top of the container’ and ‘over said slot’ limitations from the claim,” this [C]ourt affirmed the district court’s grant of summary judgment of non-infringement. *Id.* at 1423-24. Thus, the proposed application of the doctrine in *Sage Products* would have utterly written out of the claim not one, but at least two (maybe more) express limitations of the claim. Indeed under *Sage Products*’ equivalents theory, a finding of equivalents for one limitation (“at the top”) would necessarily require writing out of the claim another limitation (“over said slot”). No matter how the patentee purported to apply the claim to the accused device under the doctrine, the device was always missing at least one limitation. Thus, the claim language specifically negated the patentee’s equivalence theory. Moreover, this [C]ourt in *Sage Products* noted that “any subsequent change in the state of the art, such as later developed technology” would have been eligible for coverage under the doctrine of equivalents, thus clearly defining at least one type of expanded claim coverage under the doctrine. *Id.* at 1425.

Overhead Door Corp. v. Chamberlain Group, Inc., 194 F.3d 1261, 1271 (Fed. Cir. 1999).

In contrast to *Sage Products*, applying JLI’s equivalency theory does not result in writing out one or more clear structural limitations from claim 27. *Sage Prods.*, 126 F.3d at 1424

(“[T]he [DOE] does not grant Sage license to remove entirely the ‘top of the container’ and ‘over said slot’ limitations from the claim.”). That is, although the literal meaning of the “pressure sensor” limitations under the Commission’s construction does not cover a multi-component pressure sensor configuration with two absolute pressure sensor components (each having one of the two claimed exposed sides), applying the DOE here “would not leave some aspect of the claim missing from the accused device.” *Overhead Door*, 194 F.3d at 1271 (“By definition, an equivalent does not fall literally within the claim language.”). Rather, here, the sole difference between the claimed “pressure sensor” and the pressure sensor configuration in the JUUL2 device is that [REDACTED]

[REDACTED] Otherwise, the claim limitation is undisturbed.

Lastly, NJOY criticizes JLI’s citation of Mr. Alarcon’s cross-examination (Tr. at 483:7-485:7), asserting that Mr. Alarcon “did not testify that a single differential sensor includes [REDACTED] [REDACTED] nor could he have because in a “two-sided differential sensor, there is a single membrane ([REDACTED]) that flexes in response to a pressure differential” and the “deflection of the membrane changes a capacitance, which is a measurement of differential pressure (not [REDACTED]) without [REDACTED] [REDACTED] RRB. at 22-23 (citing Tr. (Alarcon) at 483:7-485:7, 477:20-478:7). JLI appears to have noted NJOY’s criticism by clarifying in its reply submission that the claimed “pressure sensor” has “two sides of a unitary microphone-style pressure sensor,” rather than two “components.” *Compare* CRBr. at 13, *with* CIBr. at 29-30. In any event, the Commission finds this criticism moot because the “way” the claimed “pressure sensor” performs the function is by “using at least one pressure sensor that has both a first side exposed to the sealed air flow path

and a second side exposed to the device air path open to ambient pressure, and to determine differential pressure readings between the pressures sensed at the two exposed sides.”

(3) Result

JLI argues:

[T]he same or substantially the same result is achieved: a differential pressure from the ambient and airpath pressures, as required by the patent. Tr. (Alarcon) 485:9-16. Indeed, JLI’s expert Mr. Alarcon explained [REDACTED]

[REDACTED] Tr. (Alarcon) 485:18-486:15.

CIBr. at 30; *see* CRBr. at 13. Specifically, Mr. Alarcon testified that there is no difference “in the result between what [NJOY says] is required by the pressure sensor” and [REDACTED] of the JUUL2 device: the “result is the same . . . [i]t’s a differential pressure calculation,” which “determines whether or not the puff is initiated.” Tr. (Alarcon) at 485:9-16; *see id.* at 485:18-486:15.

The Commission finds that the “result” of the claimed “pressure sensor” limitations is to “output differential pressure readings derived from the ambient and sealed air flow path pressures.” The Commission credits Mr. Alarcon’s testimony and finds that [REDACTED] of the JUUL2 device yields the same or substantially the same result as the claimed “pressure sensor.” The Commission finds unpersuasive NJOY’s criticism that JLI “fails to address that the result in the claimed two-sided pressure sensor is a direct measurement of differential pressure, while the result in JAGWAR / JUUL2 is [REDACTED] [REDACTED] RRB. at 23; *see* RIBr. at 18. NJOY’s concern as to *how* the differential pressure measurement is obtained goes to the “way” element, not the “result” element.

Moreover, as noted previously, the claim language is silent as to whether the pressure differential measure is direct or calculated. *See* '123 patent, cl. 27; *supra* at p. 58 n.32.

The Commission also finds unpersuasive NJOY's argument that "JLI cited no expert testimony addressing the significantly different results outlined in its own documents (*e.g.*, [REDACTED])" achieved by replacing the [REDACTED] in the RevB iteration of the JUUL system with [REDACTED] in the JAGWAR iteration and JUUL2 device. RRB. at 23 (citing JX-0023C.0017; SX-0001C.00024); *see* RIBr. at 17-18 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]) (citing same). Claim 27 is silent as to whether the claimed "pressure sensor" achieves a particular level of reliability, variability, or sensitivity. *See* '123 patent, cl. 27. As such, it is inappropriate to rely upon differences resulting from such unclaimed features in the DOE analysis. *See AquaTex Indus., Inc. v. Techniche Solutions*, 479 F.3d 1320 (Fed. Cir. 2007) (holding that the district court "erred . . . in relying on unclaimed features to find a lack of equivalents"). It is also inappropriate to rely upon differences in commercial embodiments to assess equivalency. *See Johnson & Johnston Assocs. Inc. v. R.E. Serv. Co.*, 285 F.3d 1046, 1052 (Fed. Cir. 2002) (*en banc*) ("Infringement, either literally or under the doctrine of equivalents, does not arise by comparing the accused product . . . with a commercialized embodiment of the patentee."). NJOY also fails to tie these alleged improvements in the functionality of [REDACTED]
[REDACTED] the JUUL2 device to the "result" of the claimed "pressure sensor," *i.e.*, to "output differential pressure readings derived from the ambient and sealed air flow path pressures." *See Am. Calcar*, 651 F.3d at 1338 ("The 'essential inquiry' [in a

DOE analysis] is whether ‘the accused product or process contains elements identical or equivalent to each claimed element of the patented invention.’”) (citation omitted).

(4) Conclusion

Accordingly, the Commission finds that the evidence shows that the JUUL2 device includes, under the function-way-result test, the equivalent of at least one “pressure sensor” that has both “a first side . . . exposed to a sealed air flow path” and “a second side . . . exposed to a device air path open to ambient pressure” as required by the Commission’s construction of limitations 27[d] and 27[e] of claim 27 of the ’123 patent. Therefore, the Commission finds that the JUUL2 system practices claim 27 (and claim 32, which depends from claim 27) under the DOE.³⁶ Thus, the Commission has determined to affirm with modified reasoning the ID’s ultimate finding that JLI has satisfied the technical prong of the DI requirement as to the ’123 patent based on this product.

D. ’123 Patent Issue #3: Reconsideration of the Commission’s previous finding that JLI has satisfied the economic prong of the DI requirement with respect to the ’123 patent based on investments related to each of the JUUL and JUUL2 DI systems.

The Commission determined to “reconsider its previous finding that JLI has satisfied the economic prong of the DI requirement with respect to the ’123 patent.” 89 Fed. Reg. at 89042-

³⁶ Based on this determination, the Commission has determined not to consider JLI’s arguments under the insubstantial differences test. CIBr. at 30-31. Also, based on the Commission’s determination to adopt the ID’s construction of the “pressure sensor” limitations insofar as it finds that the “claim does not require that the first side is *opposite to* the second side,” *see supra* at Section V.B.2, the Commission has determined that JLI’s argument that the geospatial configuration of the [REDACTED] within the [REDACTED] of the JUUL2 (*i.e.*, [REDACTED]) practices the “first side”/“second side” limitation under the function-way-result test is moot. *Id.* at 31-32.