UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AROMA360, LLC,

Petitioner,

v.

AIR ESSCENTIALS, INC.,

Patent Owner.

Case IPR 2025-00707
U.S. Patent No. 10,092,918

PATENT OWNER'S MOTION TO EXCLUDE EVIDENCE

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P.O. Box 1450
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I. INTRODUCTION

Pursuant to 37 C.F.R. §§ 42.62 and 42.64(c), and Federal Rules of Evidence ("FRE") 401–403, 611(b), 702, and 703, Patent Owner Air Esscentials, Inc. ("Patent Owner") respectfully moves to exclude the identified portions of Dr. Gerald J. Micklow's deposition testimony in Exhibit 1046 and Petitioner's corresponding reliance on that testimony in its Reply [Paper 21].

Petitioner presents isolated answers elicited through ambiguous or out-of-scope questions as affirmative concessions concerning claim construction, Dr. Micklow's consideration of the '918 Patent, and where the claimed fluid dispersion forms. *See* Paper 21, 1–3, 19. To be clear, Patent Owner does not challenge Dr. Micklow's qualifications, competence, or the methodology underlying the opinions disclosed in his direct testimony declaration [Ex. 2002]. Rather, Petitioner's questions were not tied to those opinions and instead assumed disputed propositions or sought matters he had not been retained to analyze independently, yet Petitioner now relies on the resulting answers as affirmative proof of new propositions. Their limited probative value is substantially outweighed by the danger of confusion and a misleading impression under FRE 403.

Patent Owner timely objected, but Petitioner did not cure the defects by identifying the disclosed opinion at issue, accurately framing the subject of its questions, or reformulating its compound and assumptive questions. Petitioner

should not now transform generalized and qualified answers into affirmative opinions Dr. Micklow was never asked to develop and did not opine on in his direct testimony declaration.

II. IDENTIFICATION AND PRESERVATION OF OBJECTIONS

Patent Owner moves to exclude the following portions of Exhibit 1046:

Challenged Testimony	Objection Preserved	Petitioner's Reliance
Ex. 1046, 200:14–16	Form and Scope	Paper 21, 1–2, as purported proof that Dr. Micklow did not consider Figure 6 or the complete disclosure of the '918 Patent and lacked an understanding of the limitations addressed in Patent Owner's Response
Ex. 1046, 115:15–18	Form	Paper 21, 2–3, as purported proof that Dr. Micklow disregarded the parties' claim constructions and applied his own understandings
Ex. 1046, 157:20–159:2, cited by Petitioner as "158:2–159:2"	Form and Scope	Paper 21, 19, as a purported admission that mixing necessarily occurs downstream of the mixing chamber and that the claimed fluid dispersion need not be present in the mixing chamber

Patent Owner identifies both Petitioner's citations and the precise transcript locations above. The complete exchange at Exhibit 1046, 157:20–159:2 is challenged because Petitioner's cited answer at 158:2–159:2 cannot be evaluated apart from the preceding discussion of the mixing-chamber boundary, reference numerals, and fluid-flow path.

Patent Owner timely objected to each challenged question. The objections were concise and nonargumentative, consistent with 37 C.F.R. § 42.53(f)(8). Petitioner's counsel acknowledged that he was affording Patent Owner "some leeway" regarding objections while requesting that counsel generally "stick[] to" objections based on form. Ex. 1046, 85:1–4. Against that backdrop, and in an effort to compromise with Petitioner's counsel, part way through the deposition counsel for Patent Owner ceased using the phrasing "Objection, scope" to avoid any argument that Patent Owner was coaching its witness, and instead generally limited its objections to the concise term "Objection, form" to identify the perceived defect without engaging in a speaking objection that might influence the witness's testimony. Petitioner neither requested clarification nor attempted to cure the defects by reformulating its questions or tying them to disclosed opinions. The objections were therefore preserved under 37 C.F.R. § 42.64(c).

The scope issue is substantive. Dr. Micklow's declaration identified specified technical disagreements with Dr. White's analysis. Ex. 2002, ¶ 17. It did not provide a freestanding claim-construction analysis, purport to sponsor every argument or figure reproduced in Patent Owner's Response, or independently map the complete internal flow path of the '918 Patent to determine the precise stage at which every aspect of droplet formation occurs. Petitioner's questions sought new opinions on

those subjects and now present the answers as though they had been developed and disclosed in Dr. Micklow's declaration.

III. LEGAL STANDARD

The Federal Rules of Evidence apply in this proceeding. 37 C.F.R. § 42.62(a). Irrelevant evidence is inadmissible, and relevant evidence may be excluded when its probative value is substantially outweighed by the danger of confusion or misleading the factfinder. FRE 401–403. Expert opinion offered as substantive proof must be based on sufficient facts or data and reliably apply appropriate principles to the facts presented. FRE 702–703.

Cross-examination is limited to the subject matter of the direct examination and matters affecting credibility. FRE 611(b); 37 C.F.R. § 42.53(d)(5)(ii). Cross-examination should not be used to elicit materially new opinions outside the direct testimony and then present them as affirmative proof. An answer to an ambiguous or incomplete question must therefore be evaluated in light of both the scope of the disclosed opinions and the facts supplied in the question.

IV. ARGUMENT

A. The Claim-Construction Question Does Not Establish That Dr. Micklow Disregarded the Governing Constructions

Petitioner cites Exhibit 1046, 115:15–18 as an admission that Dr. Micklow did not consider the parties' constructions and instead applied his own

understanding. Paper 21, 2–3. Dr. Micklow's assignment, however, was to identify specified technical disagreements with Dr. White's analysis, not to provide a freestanding legal claim-construction analysis. Ex. 2002, ¶ 17; Ex. 1046, 277:1–280:18.

The cited testimony arose after Petitioner asked whether Dr. Micklow "appl[ied] any claim constructions to the terms in the claims beyond the plain and ordinary meaning." Ex. 1046, 115:11–13. Patent Owner objected to the question's form. *Id.* at 115:14.

The question identified no particular term, stipulated or proposed construction, difference from a POSITA's ordinary understanding, or disclosed opinion allegedly affected by that difference. It also conflated independently formulating a legal construction with applying engineering principles. Dr. Micklow responded that he did not know whether he "would even apply claim construction" and had instead "applied engineering principles." *Id.* at 115:15–18. That answer reflects his role as a technical expert; it does not establish that he rejected or disregarded any governing construction.

The surrounding testimony confirms that Dr. Micklow approached the terms as an engineer and recalled nothing "out of the ordinary" in the applicable constructions. *Id.* at 115:1–9, 115:19–116:4. His declaration likewise identified his

assignment as responding to specified technical points in Dr. White's analysis, rather than independently construing the claims. Ex. 2002, ¶ 17.

Petitioner nevertheless presents the isolated answer as a blanket admission that all of Dr. Micklow's opinions applied an incorrect claim scope. Because the question identified neither a particular construction nor a disclosed opinion affected by it, the answer does not support Petitioner's proposition and risks confusing Dr. Micklow's technical role with the separate task of independently construing claims. FRE 401–403. Exhibit 1046, 115:15–18 should therefore be excluded.

B. The Figure 6 Testimony Does Not Establish That Dr. Micklow Failed to Consider the '918 Patent's Disclosure

Petitioner cites Exhibit 1046, 200:14–16 for the proposition that Dr. Micklow "did not consider" Figure 6 of the '918 Patent when forming his opinions. Paper 21, 1–2. Petitioner then relies on that characterization to assert that Dr. Micklow did not consider the embodiment supporting the challenged limitations, could not articulate his understanding of those limitations, and left Patent Owner's Figure 6 arguments as unsupported attorney argument. *Id.* The cited testimony does not establish those broad propositions.

The question Petitioner actually asked was: "So you didn't base your opinions on Figure 6, correct?" Ex. 1046, 200:14–15. Dr. Micklow answered: "No, I did not." *Id.* at 200:16. Patent Owner objected based on form and scope. *Id.* at 200:17.

Petitioner did not ask whether Dr. Micklow reviewed Figure 6, whether he considered it in evaluating the patent's disclosure, or whether he understood the limitations Petitioner now claims he could not articulate.

The distinction is material. An expert may review or consider a patent figure without making that figure the basis of a particular disclosed opinion. Dr. Micklow's declaration addressed specified disagreements with Dr. White's analysis and did not purport to sponsor every argument or figure reproduced in Patent Owner's Response. Ex. 2002, ¶ 17. The fact that Figure 6 was not the basis of his disclosed opinions therefore does not establish that he never considered the figure, failed to review the complete patent disclosure, or lacked an understanding of the challenged limitations.

The surrounding exchange further confirms why Petitioner's characterization is overbroad. Immediately before the challenged question, Dr. Micklow stated that he had looked "mostly at Figures 1 through 3" and that those were the figures on which he based his opinions. Ex. 1046, 200:5–9. Testimony that he looked "mostly" at certain figures does not establish that he never reviewed or considered the remaining figures. Nor did Petitioner tie its question to any specific paragraph or technical conclusion in Dr. Micklow's declaration.

Petitioner thus substitutes the materially broader concept of ***consideration*** for the narrower concept of what Dr. Micklow ***based his disclosed opinions upon***. That characterization risks causing the Board to attribute significance to testimony the

question did not elicit and to treat the answer as a concession regarding matters outside Dr. Micklow's disclosed assignment. FRE 401–403; FRE 611(b). Exhibit 1046, 200:14–16 should therefore be excluded.

At a minimum, FRE 106 requires that the answer be considered with the complete surrounding exchange at Exhibit 1046, 199:11–200:17, including Dr. Micklow's testimony that he looked "mostly" at Figures 1 through 3 rather than stating that he never reviewed Figure 6.

C. The Fluid-Flow-Path Exchange Was Based on Ambiguous Component Identifications and Does Not Establish That Fluid Dispersion Forms Only Downstream of the Mixing Chamber

Petitioner cites Exhibit 1046, 158:2–159:2 as an admission that mixing occurs downstream of the mixing chamber in the '918 Patent and that the claimed fluid dispersion need not be present in the mixing chamber. Paper 21, 19. Patent Owner moves to exclude the complete exchange at Exhibit 1046, 157:20–159:2, including the context and compound question that produced the answer on which Petitioner relies.

The exchange began while Dr. Micklow was attempting to identify the boundaries of the mixing chamber and trace the fluid-flow path shown in the patent figures. Dr. Micklow explained that he would call the mixing chamber the region where the fluid was coming out and mixing, after which the fluid exited through an opening and moved into a larger chamber where the fluid was diffusing. Ex. 1046,

157:20–25. Petitioner then asked whether the mixing chamber, "in [Dr. Micklow's] view," included reference numerals 226 and 232. *Id.* at 158:4–7. Dr. Micklow clarified the path as proceeding through "236 into 228 into 232." *Id.* at 158:8–12.

Petitioner next asserted that, after reference numeral 232, the fluid entered reference numeral 112, which counsel characterized as the "diffusion assembly." *Id.* at 158:13–15. Dr. Micklow did not adopt that characterization; he stated only that the fluid entered the area "where the fluid is diffusing." *Id.* at 158:16–17. Patent Owner objected based on scope. *Id.* at 158:18–19.

Against that unsettled factual and structural backdrop, Petitioner asked: "So as it exits the mixing chamber, as it exits 232, it continues to diffuse, which means that the droplets are becoming more uniform in size; is that correct?" *Id.* at 158:20–23. Patent Owner objected based on form and scope. *Id.* at 158:24. Dr. Micklow responded: "That's what you attempt to do in the diffusion chamber. Yes, uh-huh." *Id.* at 158:25–159:2.

The question was compound and embedded several disputed assumptions: that reference numeral 232 marked the exit of the claimed mixing chamber; that counsel had correctly identified the downstream components and flow path; that "continu[ing] to diffuse" necessarily meant the claimed fluid dispersion had not already formed in the mixing chamber; and that droplets becoming more uniform downstream was inconsistent with formation of a fluid dispersion upstream. Dr.

Micklow's qualified answer—stating what the system "attempt[s] to do" in the diffusion chamber—did not adopt those assumptions.

Nor does the answer support Petitioner's broader proposition. Claims 1 and 7 expressly recite that the compressed air and operative fluid mix together in the mixing chamber "to form the fluid dispersion," while claims 4 and 8 separately provide that the diffusion chamber "facilitates formation of the fluid dispersion" before discharge. Ex. 1001, claims 1, 4, 7, and 8. The specification similarly explains that compressed air and operative fluid are initially mixed in mixing chamber 226 to form a fluid dispersion and that diffusion chamber 112 further facilitates formation of substantially uniform droplets. *Id.* at 10:39–41. Initial formation in the mixing chamber and further downstream facilitation are not mutually exclusive.

An acknowledgment that additional diffusion or refinement is attempted downstream is therefore not an opinion that no fluid dispersion forms when compressed air and operative fluid mix in the mixing chamber. Petitioner's characterization removes the assumptions embedded in the question and converts a qualified acknowledgment of continued downstream processing into a claim-scope concession that the claimed dispersion need not be present in the mixing chamber.

Moreover, Dr. Micklow's declaration did not independently map the complete internal flow path of the '918 Patent or provide a freestanding claim-construction opinion identifying the precise stage at which every characteristic of the fluid

dispersion develops. Petitioner's questions therefore sought a new opinion through an ambiguous and assumptive description of the patent's structures and now present the resulting qualified answer as affirmative technical proof.

The complete exchange at Exhibit 1046, 157:20–159:2 should therefore be excluded under FRE 401–403, 611(b), and 702–703. At minimum, Petitioner should not be permitted to rely on its selected portion at 158:2–159:2 without the full context beginning at 157:20.

D. Petitioner Cannot Convert Generalized, Out-of-Scope, or Qualified Answers into Affirmative Expert Opinions

Petitioner cannot transform generalized, qualified, or out-of-scope cross-examination answers into affirmative opinions that Dr. Micklow neither disclosed nor was asked to develop through a properly framed analysis.

Dr. Micklow's declaration identified specified technical disagreements with Dr. White. Ex. 2002, ¶ 17. It did not independently construe the claims, sponsor every argument or figure in Patent Owner's Response, or map the '918 Patent's complete internal flow path. Petitioner nevertheless relies on the resulting excerpts to support substantive propositions concerning claim scope, Dr. Micklow's consideration of the challenged patent, and the location at which the claimed fluid dispersion forms. Paper 21, 1–3, 19.

The absence of those additional analyses is not a criticism of Dr. Micklow's competence or of the opinions disclosed in his direct testimony declaration; it results from the scope and form of Petitioner's questions. The challenged excerpts should not be admitted as affirmative expert proof of propositions the questions did not fairly present.

V. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board exclude Exhibit 1046 at 115:15–18, 157:20–159:2, and 200:14–16. Patent Owner further requests that the Board disregard the portions of Petitioner's Reply [Paper 21] at pages 1–3 and 19 that rely upon or characterize the excluded testimony.

Alternatively, should the Board decline to exclude any excerpt in its entirety, Patent Owner respectfully requests that the Board consider the complete surrounding testimony and disregard Petitioner's materially incomplete or misleading characterizations of the challenged exchanges.

Dated: July 9, 2026

Respectfully submitted,

/W. John Eagan/
W. John Eagan
Lead Counsel
johneagan@malloylaw.com
PTO Registration No.: 80,479
Peter A. Matos
pmatos@malloylaw.com

PTO Registration No.: 37,884
Victor A. Bruzos
vbruzos@malloylaw.com
PTO Registration No.: 82,370
Rafay M. Asrar
rasrar@malloylaw.com
PTO Registration No.: 76,683

MALLOY & MALLOY, P.L.
2800 SW 3rd Ave
Historic Coral Way
Miami, Florida 33129
Telephone: 305-858-8000

Counsel for PO

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Patent Owner's Motion To Exclude Evidence has been served in its entirety on July 9, 2026, via email directed to the following attorneys of record for Petitioner:

James P. Murphy
jpmurphy@polsinelli.com
William A. Di Bianca
bdibianca@polsinelli.com
Jordan T. Riviello
jriviello@polsinelli.com
Joshua L. Rayes
jrayes@polsinelli.com

Dated: July 9, 2026

Respectfully submitted,

/W. John Eagan/
W. John Eagan
Lead Counsel
johneagan@malloylaw.com
PTO Registration No.: 80,479
Peter A. Matos
pmatos@malloylaw.com
PTO Registration No.: 37,884
Victor A. Bruzos
vbruzos@malloylaw.com
PTO Registration No.: 82,370
Rafay M. Asrar
rasrar@malloylaw.com
PTO Registration No.: 76,683

MALLOY & MALLOY, P.L.
2800 SW 3rd Ave
Historic Coral Way
Miami, Florida 33129
Telephone: 305-858-8000

Counsel for PO