EXHIBIT 5
(PUBLIC)

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

SECOND SUPPLEMENTAL OPENING EXPERT REPORT OF JOSEPH C. McALEXANDER III REGARDING U.S. PATENT NUMBERS 6,803,545 AND 10,420,374

RJR STRATEGIC HOLDINGS, INC. AND R.J. REYNOLDS VAPOR COMPANY
vs.
ALTRIA CLIENT SERVICES LLC; PHILIP MORRIS USA INC.; and PHILIP MORRIS PRODUCTS S.A.,

Civil Action No. 1:20-cv-00393-LO-TCB

CONFIDENTIAL SOURCE CODE – ATTORNEYS' EYES ONLY INFORMATION

12.14.1 Summary Of Analyses

695. In forming my opinions, I applied the legal standards discussed above in the Legal Standards section of this Report.[712] As stated in **Section 7** above, I understand that a loose or vague comparability between different technologies or licenses is not sufficient to support a conclusion that two technologies are comparable. Instead, to be sufficiently comparable, the licensed technology must be of the same subject matter as claimed in the asserted patents. In addition, a conclusion of comparability must be guided by reasonable technical considerations, and any differences in the technologies must be accounted for.

696. In forming my opinions, I considered different factors that inform technical comparability, including the following exemplary factors. For example, I considered the technology described and claimed in the various patents. I also considered whether the technology claimed in the patents licensed in a certain agreement were the same or similar to the technology claimed in the Asserted Patents. I evaluated the differences between technology claimed in the patents licensed in the various agreements and the technology claimed in the Asserted Patents, and I considered the advantages, benefits, and drawbacks of the technology claimed in the patents licensed in the various agreements compared with the technology claimed in the Asserted Patents. I considered the scope of the claims in the patents licensed in the various agreements and the technology claimed in the Asserted Patents, and assessed the likelihood that a competitor would

[712] *See supra* at 7.

(or would not) be able to design around the claims. Finally, I considered other objective indicators of technical comparability and value. I describe my analyses in further detail below.

697. First, for my comparability analysis, I considered the specific technical aspects of the technology claimed in the patents licensed in the various agreements, and assessed how that technology would cover similar products. While I considered the technology described in the specification, I focused on analyzing the technology claimed in the licensed patents compared to the technology claimed in the Asserted Patents. To determine the degree of comparability, I also considered the U.S. Classification identified on the face of each licensed patent and the Asserted Patents, and analyzed the degree of overlap (if any) between the patents.

698. Second, when determining the degree of comparability, I considered how the technology claimed in the licensed patents compared to the technology claimed in the Asserted Patents. For example, when assessing whether a licensed patent was comparable to the technology claimed in the '545 Patent, I considered whether the technology described in the licensed patent(s) was directed to the same or similar subject matter, such as improvements that could relate to or be used with a lithium ion battery power control through modulating pulses, specifically as it related to control of power demand to prevent damage to the battery, which would include thermal runaway conditions. For the '374 Patent, I considered whether the technology described in the licensed patent(s) was directed to the same or similar subject matter, such as improvements that could relate to detecting a draw and puff actions that would arbitrate heating element actuation.

699. Third, in my apportionment analysis, I considered the stated goals, advantages, benefits, and drawbacks of the technology claimed in the licensed patents and Asserted Patents. I

considered the improvements and ease of implementing the technology claimed in the licensed patent(s) as compared to the technology claimed in the '545 and '374 Patents. I also considered the technical value (both perceived and real) of the technology claimed in the licensed patent(s) compared to the technology claimed in the Asserted Patents. For example, I considered whether a device practicing the licensed patent or Asserted Patent would be able to provide benefits to the user—and the extent of those benefits— such as improving safety, increasing reliability, extending battery life, or improving the overall smoking experience. I also considered whether implementing the claimed technology would significantly increase the cost of the overall device or be feasible. I also considered whether the technology claimed in the licensed patent(s) or asserted patents are relevant to the factors discussed in the FDA guidance I have reviewed and discussed with Stacy Ehrlich,[713] who I understand based on my conversation is an expert on FDA regulatory review of e-vapor products, and the extent of such relevance, as I discuss elsewhere in this report.

700. For my apportionment analysis, in addition to all of the factors discussed above, I considered the relative value of the technology claimed in the patents in the licensed patent families. To do so, I considered the likelihood that one could feasibly and successfully design around the claims recited in the licensed patent(s).

12.14.2 Fontem Agreements

701. I was asked to opine on the technological comparability between the technology claimed in the '545 Patent and the technology claimed at issue in certain patents licensed in the

[713] Conversation with S. Ehrlich on or around Feb. 18, 2021.