

**UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.**

In the Matter of

**CERTAIN BLOWERS AND
COMPONENTS THEREOF**

**Inv. No. 337-TA-1217
ENFORCEMENT PROCEEDING**

ORDER NO: 37 ENFORCEMENT INITIAL DETERMINATION

ADMINISTRATIVE LAW JUDGE MARYJOAN MCNAMARA

December 14, 2021

Pursuant to the Notice of Institution of a formal enforcement proceeding, this in the Enforcement Initial Determination in *Certain Blowers and Components Thereof*, Inv. No. 337-1217.

I have found that Respondents East West Manufacturing, LLC and East West Industries (“East West”) have not violated the Consent Order that terminated the underlying violation proceeding on November 12, 2020. East West’s Accused Product, i.e., a redesigned PDV blower, does not infringe any asserted claims of the sole asserted patent, U.S. Patent No. 8,079,834 (“the ’834 patent”). Therefore, I recommend that a civil penalty in not warranted.

If the Commission were to find that East West has violated the Consent Order, I recommend that the statutorily mandated civil penalty be a *de minimus* penalty, that is [REDACTED] times the profits East West made from the limited sales of its redesigned blower or about \$86,500.00. The evidence of East West’s good faith, proactive actions to avoid infringement by redesigning its originally Accused Product is well-documented and persuasive.

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ABBREVIATIONS AND REFERENCES

The following shorthand references are used in this Enforcement Initial Determination (“EID”).

Complainant or Regal	Complainant Regal Beloit America, Inc.
Respondents or East West	Respondents East West Manufacturing, LLC and East West Industries
Staff	Commission Investigative Staff or Office of Unfair Import Investigations
Underlying Proceeding	Violation Investigation that resulted in a Consent Order on November 12, 2020
'834 patent	U.S. Patent No. 8,079,834,
JX-0001	The '834 patent
JX-0009	Joint Technology Stipulation (“JTS”)
Accused Product or Accused Blower or Redesigned PDV Blower	East West’s redesigned PDV Blower
Original PDV Blower	East West’s accused product in the Underlying Proceeding
Violation Compl.	Complaint, underlying proceeding
Compl.	Enforcement Complaint
NOI	Notice of Investigation
CX	Complainant or Regal’s exhibit
CDX	Complainant or Regal’s demonstrative exhibit
CPX	Complainant or Regal’s physical exhibit
CPSt.	Complainant or Regal’s Pre-Hearing Statement

Public Version

CPBr.	Complainant or Regal's Pre-Hearing Brief
CBr.	Complainant or Regal's Initial Post-Hearing Brief
CRBr.	Complainant or Regal's Post-Hearing Reply Brief
CMBr.	Complainant or Regal's <i>Markman</i> Brief
JX	Joint exhibit
RX	Respondent or East West's exhibit
RDX	Respondent or East West's demonstrative exhibit
RPX	Respondent or East West's physical exhibit
RPSSt.	Respondent or East West's Pre-Hearing Statement
RPBr.	Respondent or East West's Pre-Hearing Brief
RBr.	Respondent or East West's Initial Post-Hearing Brief
RRBr.	Respondent or East West's Post-Hearing Reply Brief
RMBr.	Respondent or East West's <i>Markman</i> Brief
SX	Staff's exhibit
SPSt.	Staff's Pre-Hearing Statement
SPBr.	Staff's Pre-Hearing Brief
SBr.	Staff's Initial Post-Hearing Brief
SRBr.	Staff's Combined Post-Hearing Reply Brief
SMBr.	Staff's <i>Markman</i> Brief
Hr. Tr.	Evidentiary Hearing Transcript

Depo. Tr.	Deposition Transcript
Confidential Tr.	Confidential Transcript of Lawyer's Testimony (Sealed) on Sanctions Labeled "Sealed"
COMBr.	Complainant or Regal's Opening <i>Markman</i> Brief
ROMBr.	Respondent or East West's Opening <i>Markman</i> Brief
JCCCI	Joint Claim Construction Chart (April 16, 2021)
JCCCII	Joint, Final Claim Construction Chart (June 2, 2021)
MHr. Tr.	<i>Markman</i> Hearing Transcript
<i>Markman</i> Order I	Order No. 22
<i>Markman</i> Order II	Order No. 32

I. BACKGROUND

A. Overview

This investigation is an enforcement proceeding that was instituted on February 19, 2021 pursuant to 19 C.F.R. 210.75(a) which results from an alleged violation of a Consent Order that issued on November 12, 2020. The complainant is Regal Beloit America, Inc. (“Regal” or “Complainant”). The respondents are East West Manufacturing, LLC and East West Industries (“East West”) (collectively, “the Private Parties”). *See* 86 F.R. 10335 (Feb. 19, 2021). Commission Investigative Staff (“Staff,” and collectively with Regal and East West, “the Parties”) is a party. (*Id.*).

Regal has asserted claims 1, 2, 7, 8, 9, 10 and 15 (“Asserted Claims”) of U.S. Patent No. 8,079,834 (“the ’834 patent”). Claims 1 and 9 are the independent claims while claims 2, 7, 8, 10 and 15 are dependent claims. The ’834 patent is entitled “Exhaust Dilution Blower Housing with Remote Air Intake.” As the Joint Technology Stipulation (“JTS”) describes, the ’834 patent’s independent claims:

are directed to a blower housing intended to be mounted over the flue of a gas-operated heater (e.g. tank water heater.). The blower housing includes a motor and fan. The purpose of the motor and fan is to draw ambient air and exhaust gases into a dilution compartment, where the ambient air and exhaust gases are mixed. The accused product...is intended to be mounted over the flue of a gas-operated tank water heater.

(Doc. ID No. 742821; JTS at 1.).

B. Summary Findings

Four (4) primary questions are addressed in this enforcement initial determination (“EID”). First, whether East West’s accused, redesigned PDV blower (“Accused Blower” or “Redesigned PDV Blower”) “reads on” or infringes the asserted claims 1, 2, 7-10 and 15 of the

'834 patent under the standard two-step infringement analysis. ('834 patent, JX-0001.). The finding is that East West's Accused Blower does not literally infringe the '834 patent. *Markman* Order Nos. I and II squarely rejected Regal's proposed claim constructions as contrary to the '834 claim language, the specification, the prosecution history and Regal's own arguments, including its attempts at times to ignore the purpose and structure of the gasket as it is part and integrated into East West's Redesigned PDV blower. Regardless, there are a variety of bases for the non-infringement of East West's Redesigned PDV blower.¹

The Parties extensively briefed and argued during a *Markman* hearing on May 26, 2021, their respective positions on nine (9) (or eleven (11) depending on claim term combinations) hotly disputed claim terms. (*Markman* Hearing Tr. ("M Hr. Tr.")). Not only is the '834 specification explanatory and clear in certain respects, where it is not, there is an extensive, vigorous patent prosecution history, which for most claims, is clear on the arguments that the patentee made to distinguish the '834 patent from prior art. (Appx. A to Compl. (Certified File History); *see also* JX-0003.). In this case, the prior art matters for infringement as it did for the disputed *Markman* claim terms. The disputed claim terms, set forth in the Parties' Joint Claim Construction Charts I and II, have been construed in *Markman* Order I and in *Markman* Order II. (*See* Order No. 22 (June 29, 2021) and *Markman* Order II (Oct. 29, 2021); *see* Joint Claim Construction Chart ("JCCC," Doc. ID. No. 740156 (Apr. 16, 2021)).

¹ There appeared to be an attempt by Regal to introduce or describe arguments as invalidity arguments through attorney argument even though East West never raised the invalidity of the '834 patent at any time in its briefs or during the Hearing, consistent with the Consent Order. (*See* Hr. Tr. at 726: 1-4.).

The second question is: whether East West violated the Consent Order Stipulation that East West executed on October 14, 2020² or the Consent Order that then issued. (Consent Order, Doc. ID No. 724816 (Nov. 12, 2020).). The finding is that East West did not violate the Consent Order because its Accused Blower in the Underlying Proceeding (i.e., violation proceeding), was redesigned (“Redesigned PDV Blower”) so that it does not infringe the ’834 patent.

The third question is: if the Commission were to find that East West’s Accused Blower infringes the ’834 patent, and that East West violated the Consent Order, whether a civil penalty should be imposed. A civil penalty for breach of a Consent Order is mandatory. However, the amount of a civil penalty is subject to a six-factor analysis. Here, the weight of the evidence supports a finding that East West had a good faith belief that its Redesigned PDV Blower did not infringe the ’834 patent. East West’s actions complied with most of the factors of the six-factor test the Commission uses to evaluate the amount of the penalty for violation of a Consent Order. *Certain Erasable Programmable Read Only Memories (EPROMs)*, Inv. No. 337-TA-276 (Enforcement), Comm’n Op. at 29 (July 19, 1991).

Although this decision finds that East West did not violate the Consent Order, in the event the Commission were to find to the contrary, an imposed civil penalty should be *de minimus* and not the maximum civil penalty that Regal has proposed. To that end, the recommendation is that East West disgorge its profits plus an additional [REDACTED] of its profits

² (See Motion to Terminate the Investigation Based on Consent Order Stipulation and to Stay the Procedural Schedule, Ex. A (Motion Docket No. 1217-001 (Oct. 14, 2020).).

from any sales that violated the Consent Order. The recommendation falls between East West's proposal that no civil penalty be imposed and Staff's proposal.³

³ Before East West imported and sold its "Original PDV Blower" that is the subject of the Underlying Proceeding ("Underlying Proceeding") that lead to the November 12, 2020 Consent Order, East West obtained a legal opinion dated from an attorney, Mr. Dale Lischer ("Lischer Letter") and exchanged correspondence with Regal on whether the Original PDV Blower violated the '834 patent. (See RX-0136C and CX-0059C; RX-0178C; RX-0179 C; RX-0182C; RX-0183C). The Lischer Letter advised East West that the Original PDV Blower did not infringe the '834 patent. (RX-0136C). East West relied on the Lischer Letter. (Hr. Tr. (Sweeney) at 131:2-133:6; *id.* at 328:18-329:11.). However, Regal has argued repeatedly that East West's Original PDV Blower and the Redesigned PDV Blower are the same and even "identical," or they are so minimally different that East West's redesign does not avoid infringement. (See, e.g. Compl. at ¶¶ 9-11; Compl. at Exs. 3-5; CPBr. at 94-97, 108; CBr. at 10, 11; Hr. Tr. at 70:1-13.). Throughout this proceeding, Regal has compared the Original PDV Blower to the Accused Blower. (See e.g. *id.*; see also CBr. at 24-25.).

For its "Accused Product" or the "Redesigned PDV Blower" in this proceeding, East West obtained a legal opinion from a different lawyer/engineer, Mr. Christopher Kelly. On August 25, 2020, Mr. Kelly offered an informal opinion to East West (RX-0127C; CX-0059C) that East West's Redesigned PDV blower does not infringe the Asserted Claims of the '834 patent. (*Id.*; see also Hr. Tr. (Sweeney) at 327-328.). Mr. Kelly then provided East West (Mr. Jeffrey Sweeney (East West's Executive Vice President and Chief Marketing Officer) and Mr. Scott Ellyson (East West's CEO) with a "formal" opinion letter dated September 25, 2020 (RX-0121C)) that the blower that East West redesigned also did not infringe the '834 patent ("Kelly Opinion."). (See also RX-0126C; Hr. Tr. (Kelly) at 452:19-453:10, 457:22-458:5.). East West did not start production of the Redesigned PDV Blower until it received Mr. Kelly's opinion and had his legal input. (Hr. Tr. (Sweeney) at 325:13-24:324:10.). Mr. Kelly's opinion did not change between the informal and formal letters he provided to East West. (Hr. Tr. (Sweeney) at 328; Hr. Tr. (Kelly) at 452:19-453:10.). Mr. Kelly performed a claim-by-claim infringement analysis of the '834 patent and the Redesigned PDV Blower. (RX-0121C; Hr. Tr. (Kelly) at 460:6-461:5, 461:11-462:20.). Mr. Kelly testified during the Hearing on July 21, 2021 that he evaluated CAD drawings of the Redesigned PDV Blower that he received from East West. (*Id.* at 462:21-465:9; RX-0121C.). He also considered prosecution history in his infringement analysis. (Hr. Tr. (Sweeney) at 329:6-8; *id.* at 329:18-25; see also Hr. Tr. (Kelly) at 458:22-460:5; RX-0121C).

Regal argued that East West should have relied on the Lischer Letter and not the Kelly Opinion. (CPBr. at 100-102; CBr. at 25-26, 93.). Regal noted that the Lischer Letter described only one claim limitation, i.e., with respect to the "circuitry compartment" of claims 1 and 9 that did not infringe with respect to the Original PDV Blower. (See, e.g., CPBr. at 101, 111-112.). However, as this EID finds, Regal made certain changes to the Original PDV Blower that Regal has minimized or not acknowledged, and certainly views differently. The Lischer Letter analysis made different arguments based on East West's Original PDV Blower, not the Accused PDV Blower that is accused in this proceeding. What is important is that Regal acknowledges that Mr. Lischer informed Regal's Counsel in a letter dated July 2, 2019 that even East West's Original PDV Blower did not infringe the '834 patent. (See CPBr. 110-111.). However, because East West argued that the Lischer Letter was not relevant to the Redesigned PDV Blower and sought to keep the Lischer Letter out of evidence, and because Mr. Kelly did not see or rely on the Lischer Letter for his own opinions of the Redesigned PDV Blower, Regal argued that the litigation position East West took, and its reliance on Mr. Kelly's opinion is evidence that the Lischer

The fourth question is: whether Regal and its Counsel or East West and its Counsel should be sanctioned pursuant to Commission Rule 210.4(d)(2), or for violation of any other Commission Rules that are equivalent to Fed. R. Civ. P. 11, that hold parties to the duty of candor and good faith during a Commission proceeding. A separate Order has been issued that explains the outcome and why. While neither Regal nor East West is being sanctioned with monetary sanctions, the outcome hinged, at least in part, on listening to the testimony of the lawyers with respect to their interactions before and after the enforcement complaint was filed, and an analysis of the strict legal application of Commission Rule 210.4(d)(2).

One of the actions that was scrutinized is Regal's Counsel's removal of a "Blower Base Gasket" from the blower housing of East West's Redesigned PDV Blower. That gasket was instrumental in infringement/non-infringement arguments. Regal knew that before it filed its Enforcement Complaint based upon its communications with East West. Whether Regal agreed or disagreed with East West's non-infringement arguments, nonetheless, Regal did not represent accurately Regal's Redesigned PDV Blower either in its narrative or in certain photographs attached to its Complaint; Regal represented its point of view.

Letter undermines the Kelly Opinion and is "unreliable." (CPBr. at 93, 100-101.). Regal's argument is without much merit. Moreover, East West had the right to choose any lawyer to represent it.

I have determined, consistent with East West's argument and Fed. R. Evid. 401, that the Lischer Opinion and any correspondence regarding the Original PDV Blower, and whether or not it infringed is not relevant to infringement (or probative) by East West's Redesigned PDV Blower. This finding is contrary to Regal's assertions. (RBr. at 30, 31 (citing CX-033-CX-038); CPBr. at 25; CBr. at 25-26 and other citations above). The Accused Product in this proceeding is East West's Redesigned PDV Blower, not the Original PDV Blower. Nonetheless, the Lischer Letter and attorney-related correspondence from 2019 were admitted into evidence to ensure a complete record. (*See* CPBr. at 109-115 (internal exhibit citations omitted.)). If anything, the Lischer Letter with the more recent Kelly Opinion suggest the steps East West began taking in 2019 to avoid infringement of the '834 patent. Moreover, I found that Mr. Kelly's claim-by-claim infringement analysis in the Kelly Opinion and in his evidentiary hearing testimony, which is cited throughout this document, to be credible and supported. (*See infra.*)

It should be clear: Regal's removal of the "gaskets" (two of them) from the Redesigned Blower was not the issue *per se*. It is not uncommon, and probably to be expected, that competitors routinely de-construct others' products to see how they are made or work. However, given every opportunity to explain why Regal's Counsel did not correct a misleading, or at the very least, a possibly misleading record or some of its photographs and statements despite having months to do so, the answer is in part, that they simply did not. There is another issue: that of statements that were made that East West admitted infringement. The Sanctions Order filed today explains the outcome, and why.

II. THE PARTIES AND BRIEF PROCEDURAL HISTORY

A. The Parties

Complainant Regal Beloit America, Inc. ("Regal") is a Wisconsin corporation with a principal place of business in Beloit, Wisconsin. (Compl. at ¶ 14.). Regal is a wholly owned subsidiary of Regal Beloit Corporation. (*Id.* at 15.). Regal has global sales. It designs and manufactures blowers for use with furnaces and hot water heaters among other applications and sells primarily to original equipment manufacturers. (*Id.* at ¶¶ 16-17; *see also* Hr. Tr. (Galligos) at 117: 5-17.).⁴ In 2019, Regal generated annual sales revenue in excess of \$3 billion and employs more than 20,000 individuals. (*See* RPBr. at 3.).

⁴ When he testified during the Hearing on July 21, 2021, Mr. Timothy Galligos was employed as a Product Manager for Regal. (Hr. Tr. (Galligos) at 117:25-118:1, 18-19; *id.* at 119:1-12.). He was the only fact witness that Regal called to testify during the Hearing. Mr. Galligos was called to testify generally about PV blowers and PDV blowers and Regal's role in manufacturing and selling its two types of PDV blowers: the Aquavent PDV blower (CX-0025C) and a "Jakle-style" PDV blower (CX-0022C). (Hr. Tr. (Galligos) at 120:1-121:25.). Both of Regal's PDV blowers require a gasket. (*Id.* at 123:7-20; *id.* at 125:1-25; *see also* CPX-0001 and CDX-0003). Both of those Regal PDV blowers are covered by the '834 patent. Mr. Galligos testified about the PDV blower business that Regal lost to East West from 2018-2020, from one of its prime customers, A.O. Smith, a major water heater manufacturer and distributor. Regal's sales of its PDV blowers to A.O. Smith dropped from [REDACTED] per year to 0 sales in 2020. (Hr. Tr. (Galligos) at 132:17-133:13.). Regal's loss of A.O. Smith's business and Regal's perception that East West violated Regal's patent to do so clearly has influenced the negative narratives.

East West Manufacturing is a Georgia corporation with a principal place of business in Atlanta, Georgia. East West Industries is a Vietnamese company with a principal place of business in Thu Dau Mot City, Vietnam. (Doc. ID No. 36392, Response (“Resp.”) at ¶ 21). East West Industries manufactures and sells the Accused Blowers. East West Industries transfers title in Asia to East West Manufacturing. East West Manufacturing imports and sells the Accused Blowers after importation. (Hr. Tr. at 430:7-23.). East West is a private company founded in 2001. As measured by its revenues, East West is 1/10 the size of Regal since in 2020 it generated annual sales revenue of approximately \$300 million. (See RPBr. at 2-3.). East West is now a major competitor of Regal’s in the market for PDV blowers. (*Id.*).

The Office of Unfair Import Investigations (“Staff”) has participated in the Enforcement Proceeding.

B. Procedural History

1. Underlying Proceeding

On July 30, 2020, Regal filed its complaint in the original or underlying violation proceeding (“Underlying Proceeding”). Regal asserted infringement of claims 1, 2, 7-10 and 15 of U.S. Patent No. 8,079,834 (“the ’834 patent”). (See Doc. ID No. 716055.). The Commission instituted that investigation on September 8, 2020. (See 85 Fed. Reg. 55491). Staff was not named as a party to the Underlying Proceeding. On September 28, 2020, a procedural schedule was issued which included among its deadlines January 22, 2021 as the fact discovery deadline and March 19, 2021 as the expert discovery deadline. The Initial Determination on Violation (“ID”) was scheduled to issue on November 22, 2021. The Target Date was March 22, 2022.

On October 14, 2020, shortly after entry of the procedural schedule, East West filed a motion to terminate (“Motion to Terminate”) the Underlying Proceeding based on a Consent

Order Stipulation (“Consent Order Stipulation”). (See Consent Order Stipulation, Ex. A to Motion to Terminate, Doc. ID No. 722091 (Oct. 14, 2021)). East West also moved to stay the procedural schedule. (*Id.*). Regal did not oppose East West’s motion. (See Regal Response to Respondents’ Motion to Terminate and Stay, Doc. ID No. 722153 (Oct. 15, 2020)). On October 22, 2020, East West’s unopposed Motion to Terminate and to stay the Underlying Proceeding issued. (Doc. ID No. 722950 (Oct. 22, 2020)). The Commission issued a Consent Order on November 12, 2020. (See Doc. ID No. 724816 (Consent Order)). The Consent Order ended the Underlying Proceeding before there were *Markman* arguments or *Markman* claim construction.

In pertinent part, the Consent Order requires that East West “not sell for importation, import or sell after importation the Subject Articles ... except under consent or license from Complainant.” (Consent Order at ¶ 5.). The Consent Order Stipulation states that East West “shall not seek to challenge the validity or enforceability of any asserted claim of the Asserted Patent in any administrative or judicial proceeding to enforce the Consent Order.” (Consent Order Stipulation at ¶ 10.). The Subject Articles are defined as “certain blowers and components thereof that infringe claims 1, 2, 7-10, and 15 of the ’834 Patent.” (See *id.* ¶ 3.). The Consent Order Stipulation states that “East West’s signing of this Stipulation is for settlement purposes only and does not constitute admission by East West that an unfair act has been committed.” (*Id.* at ¶ 6.).

2. Enforcement Proceeding

On January 15, 2021, Regal filed its enforcement complaint (“Complaint”) in which it alleges that East West’s Redesigned Blower infringes claims 1, 2, 7-10, and 15 (“Asserted Claims”) of the ’834 patent. (Compl., Doc. ID No. 730683.).

On February 19, 2020, the Commission instituted this Enforcement Proceeding. (*See* Notice of Institution of Formal Enforcement Proceeding, Doc. ID No. 734105); 86 Fed. Reg. 10335.).

On March 1, 2021, East West filed a Motion for Sanctions Against Regal Beloit America, Inc. (“Sanctions Motion”) in which it alleges that Regal and its attorneys tampered with and misrepresented the Accused Product/Redesigned PDV Blower that is depicted in the Complaint. (*See* Doc. ID No. 735551.).

On March 8, 2021, a procedural schedule issued. (*See* Doc. ID No. 736179.). Pursuant to the procedural schedule, fact discovery closed on April 22, 2021. Expert discovery closed on May 18, 2021.

On March 9, 2021, East West filed Respondents’ Response to the Enforcement Complaint and Institution of Formal Enforcement Proceeding. (“Resp.,” Doc. ID No. 736392.).

On March 9, 2021, a Management Conference was held in which the Parties were advised that the Sanctions Motion would not be addressed without a complete record, including the interactions between the Private Parties that lead to the filing of the Enforcement Complaint. (Management Conference Transcript (“Mgt. Tr.”), Doc. ID No. 737532 (Mar. 19, 2021)).

On March 11, 2021, Regal filed its Memorandum in Opposition to East West’s Motion for Sanctions (“Sanctions Opposition”). (Doc. ID No. 736736.).

On March 18, 2021, Staff filed Commission Investigative Staff Response to Motion for Sanctions Against Regal Beloit America, Inc. (“Staff Sanctions Response”). (Doc. ID No. 734479.). Thereafter, the Private Parties also filed reply and sur-reply briefs in support of their respective positions on the Sanctions Motion, which were allowed. (*See* Doc. ID Nos. 736736 (Regal Opposition), 737862 (East West Reply), 738368 (Regal Sur-Reply)).

On May 5, 2021, the Parties submitted their respective *Markman* briefs. On May 25, 2021, a *Markman* hearing was held. (See *Markman* Transcript (“MHR. Tr.”), Doc. ID No. 743366 (May 25, 2021); see also Regal Beloit’s Initial Claim Construction Brief, Doc. ID. No. 741702 (May 5, 2021) (“CMBr.”); Regal Beloit’s Corrected Initial Claim Construction Brief, Doc. ID No. 742290 (May 12, 2021) (“CMBr.”); Respondents’ Opening Claim Construction Brief, Doc. ID No. 742224 (May 12, 2021) (“RMBr.”); Commission Investigative Staff Claim Construction Brief, Doc. ID No. 741701 (May 5, 2021) (“SMBr.”).).

On May 19, 2021, East West moved for summary determination of non-infringement. (See Doc. ID No. 742948.). On June 1, 2021, East West filed its response opposing summary determination, and Staff filed its response supporting summary determination. (Doc. ID Nos. 743730 (East West), 743727 (Staff).). Given the mixed questions of law and fact contained in the briefing on the motion for summary determination on infringement, infringement and all other issues were left for an evidentiary hearing (“Hearing”) and a supplemental hearing.

On June 29, 2021, a *Markman* Order, i.e., “*Markman* Claim Constructions With Abbreviated Rationales” (“*Markman* Order I”). Order No. 23 that clarified Order No. 22 issued on July 13, 2021. (Doc. ID No. 746641 (July 13, 2021).). On October 29, 2021, *Markman* Order II, Order No. 32, issued which contains more extensive explanations than are contained in *Markman* Order I.⁵ *Markman* Order II did not change the adopted claim constructions of

⁵ *Markman* Order I was not “interim” in the sense that it was provisional as Regal seems to regard it. (CBr. at 16.). *Markman* Order I, Order No. 22, was designed to advise the Parties of the constructions of the disputed claim terms before Hearing, but without the complete rationales. Order No. 23 clearly informed the Parties that the “Adopted Claim Constructions” were considered based on the requirements of *Phillips*, 415 F.3d at 1303, 1305, and on the arguments that had been made in *Markman* briefs and during the May 25, 2021 *Markman* hearing. (See MHR. Tr., Doc. ID No. 743366 (May 26, 2021).). All figures contained in the ’834 patent, JX-0001, were considered before *Markman* Order I issued. No “preferred embodiments” were relied upon or excluded. *Markman* Order II did not change the Adopted Constructions of the disputed claim terms that were adopted in *Markman* Order I. (Cf. *Markman* Order Nos. I and II, Appx. A.). Regal has argued consistently that the Adopted *Markman*

Markman Order I; it contains expanded rationales as opposed to the “abbreviated” rationales contained in *Markman* Order I, Order No. 22. *Markman* Order II, Appx. A to Order No. 32, is attached hereto as Exhibit A (“Ex. A”) and is incorporated by reference.

While the Parties separately or together requested that the Hearing be stayed or “cancelled,” their requests all were denied. (See Order No. 24 (July 13, 2021); Order No. 28 (July 19, 2021)).⁶ The evidentiary hearing was held July 20-23, 2021. (See Hearing Transcript (“Hr. Tr.”)).

Regal’s Motions *in Limine* were denied. (Order No. 25 (denying Motion Docket Nos. 1217-009 and 1217-010) (July 17, 2021)). East West’s motion to strike certain exhibits and testimony (“Motion to Strike”) and Regal’s motion to supplement the hearing record were denied. (Order No. 30 (denying Motion Docket Nos. 1217-014 and 1217-015), Doc. ID No. 750905 (Sept. 3, 2021)).

On September 22, 2021, a closed supplemental hearing with limited attorney participation was held on East West’s Sanctions Motion and on Regal’s counter-requests for the

Constructions are wrong, while East West and Staff have argued that all of the adopted *Markman* constructions are correct.

⁶ The last of the efforts to stay or postpone the Hearing was on July 18, 2021, in a “Joint Stipulation and Submission by East West, Regal and the Staff Regarding Respondents’ Motion for Summary Determination of Non-Infringement and Scope of Evidentiary Hearing” (“Joint Pre-Hearing Stipulation”). (Doc. ID. No. 747166 (July 18, 2021)). The Parties’ Joint Pre-Hearing Stipulation was their agreement. The Commission disfavors stays. (See Order No. 24 at 2 (July 13, 2021)). By the date the Hearing started, discovery had been completed, the Pre-Hearing Briefs had been filed, and *Markman* Order I had issued (Order No. 22) and had been clarified (Order No. 23). All factors concerning a stay (and other requested delays) were considered. (Order No. 27 (July 16, 2021)). Order No. 27 states: “East West, Complainant Regal Beloit America, Inc. ... and Commission Investigative Staff ... are free to use the Hearing Time as they believe they need in order to protect their own clients’ interests and to create a complete record for appeal. If a record is to be complete, that may include, but may not be limited to: evidence and testimony (expert and fact) with respect to infringement, the measure of damages and other remedy as it would relate to an alleged violation of a Consent Order, and sanctions, in addition to any other issues the Parties wish to include and upon which they wish to offer evidence/testimony.” (*Id.* at 1.).

imposition of sanctions on East West. (Supplemental Hearing Transcript (“Supp. Tr.”), Doc. ID No. 752757 (Sept. 22, 2021).).

On October 26, 2021, a Notice to Show Cause (“Notice to Show Cause”) that asks why sanctions should not be imposed on Regal specifically because of Regal’s failure to correct certain photographs, and to correct certain statements Regal made in its Complaint issued. (Doc. ID 755090, Order No. 31 (Oct. 26, 2021).). Regal filed its response to the Notice to Show Cause on October 27, 2021. (Doc. ID No. 755248 (Oct. 27, 2021).)

III. JURISDICTION AND IMPORTATION

A. Subject Matter Jurisdiction

The Commission has subject matter jurisdiction over this Enforcement Proceeding. (*See* 19 U.S.C. § 1337(f)(2); *VastFame Camera, Ltd. v. Int’l Trade Comm’n*, 386 F.3d 1108, 1111-13 (Fed. Cir. 2004); *San Huan New Materials High Tech, Inc. v. Int’l Trade Comm’n*, 161 F.3d 1347, 1357 (Fed. Cir. 1998). Regal and East West agree that the Commission has subject matter, *in personam* and *in rem* jurisdiction pursuant to the Consent Order. (Consent Order at ¶ 13.). Accordingly, East West has not contested the Commission’s subject matter jurisdiction and cannot do so by the terms of the Consent Order. (*See* RPBr. at 33.).

B. In Personam Jurisdiction

East West has not disputed that the Commission has personal jurisdiction over East West. (*See* RPBr. at 33; Consent Order at ¶ 13.). East West has responded to the enforcement complaint and NOI (“Compl.”). East West has participated fully in discovery and the Hearing, and by filing motions. Thus, the Commission has personal jurisdiction over East West. (*See, e.g., Certain Windshield Wiper Devices and Components Thereof (“Wiper Devices”),* Inv. No. 337-TA-881, Initial Determination at 5 (May 8, 2014) (unrev’d in relevant-part) (Doc. ID No. 534255); *see*

also Certain Ink Cartridges and Components Thereof, Inv. No. 337-TA-565, Enforcement Initial Determination at 30-31 (Apr. 17, 2009) (unreviewed).

C. *In Rem* Jurisdiction

The Commission has *in rem* jurisdiction pursuant to Consent Order ¶ 13, and also when infringing articles are imported, sold for importation, or sold within the United States after importation by the owner, importer or consignee. 19 U.S.C § 1337(a)(1)(B). Regal and East West executed a “Joint Stipulation on Importation and Sales” that describes the number of units of the Accused or Redesigned Blower that East West imported and sold. (Doc. ID No. 747660 (July 23, 2021) (“Import Stipulation”).

D. Sales of Imported Re-Designed PDV Blowers

The Parties, including Regal’s expert, Dr. Kimberly K. Cameron,⁷ agree that there is only one Accused Redesigned PDV blower at issue for purposes of infringement in this Enforcement Proceeding notwithstanding the various model numbers, identified below. (See CBr. at 19; CX-

⁷ When she testified during the Hearing on July 20 and July 21, 2021, Dr. Kimberly Cameron was a principal in the firm of ESi, an engineering consulting group located in California. (See Ex. A to Complainant Regal Beloit’s Pre-Hearing Statement (Doc. ID No.743928 (June 3, 2021)); see also Hr. Tr. (Cameron) at 148:1-3.). Dr. Cameron focuses on “Mechanics and Materials practice.” (Ex. A to CPSt. at 1.). Regal called Dr. Cameron to testify as its expert on East West’s Redesigned Blower’s infringement of the ’834 patent through importation, sale for importation, and/or sale after importation. Additionally, Dr. Cameron was called to testify with respect to “the reasonableness of East West’s reliance on the September 25, 2020 non-infringement opinion of Christopher Kelly.” (See CPSt. at 2; see also Hr. Tr. (Cameron) at 148:4-6.). Dr. Cameron has a B.S.E. from Princeton University and an M.S. and a Ph.D. in Mechanical Engineering (with a minor in Materials Science and Engineering) from Stanford University. (Ex. A to CPSt. at 2; see also Hr. Tr. (Cameron) at 151:7-15.). Dr. Cameron is a registered patent agent. (Hr. Tr. (Cameron) at 153:1-3.). Dr. Cameron was accepted as an expert on the matters for which she was called to testify.

Dr. Cameron testified that she did not have or read the Enforcement Complaint. (Hr. Tr. (Cameron) at 259:9-260:8.). Moreover, Dr. Cameron did not see or inspect the East West Redesigned PDV Blower housing mounted on top of a water heater. (*Id.* at 260:6-261:15, 264:16-25.). She did not provide a claim-by-claim analysis of infringement during the Hearing. She did not perform an “independent” *Markman* claim construction analysis but opined only on what she was provided. (See *infra.*).

0014C; CX-0017C; SPBr. at 7; RPB at 37; Hr. Tr. (Cameron) at 166:19-168:9 (the same infringement analysis applies to the various model numbers because there are only “small differences” that “do not have any relevance to the claims”); *see also* Hr. Tr. (Sweeney) at 316:8-16;⁸ *id.* (Brown) at 542:3-10).⁹

East West has acknowledged in the Import Stipulation that it sold the Accused or Redesigned PDV Blower in the United States, with several item numbers. The item numbers of the Accused or Redesigned PDV Blower include Model (or Item) Nos. 100338630, 100338701, 100338702, 10038703, 10038704, and 10038705. (Import Stipulation at 1.). East West has stipulated that between December 20, 2020 and April 13, 2021, East West imported, or sold in

⁸ When he testified during the Hearing on July 21, 2021, Mr. Jeffrey Sweeney was East West’s Executive Vice President and Chief Marketing Officer. Mr. Sweeney was one of the two (2) fact witnesses East West called to testify. At the time he testified, Mr. Sweeney had worked some 20 years for East West, or since its inception. (Hr. Tr. at 315: 14-20.). Mr. Sweeney has a B.S. degree in engineering, science and mechanics from Georgia Institute of Technology. (*Id.* at 315:1-5.). Mr. Sweeney has worked with engineering design, including blower design. (*Id.* at 315:10-15.). Mr. Sweeney testified on a variety of factual matters including the Redesigned PDV Blower, the steps East West took to redesign the Original PDV blower at issue in the Underlying Proceeding, and East West’s customer base. Mr. Sweeney lead the engineering of East West’s Redesigned PDV Blower. (*Id.* at 316:20-25.). Mr. Sweeney’s un rebutted testimony (except for attorney argument) is that the Original PDV blower has “been discontinued.” (*Id.* at 316:20-22.).

⁹ When he testified during the Hearing on July 22, 2021, Dr. Stuart Brown was employed by Veryst Engineering LLC as a principal. (Hr. Tr. (Brown) at 537:21-24; *see also* RX-0158.). Veryst Engineering is a consulting firm that works predominately with companies on product design “in the areas of mechanical engineering and material science.” (*Id.* at 538:1-3.). East West called Dr. Brown to testify as its technical expert and on the non-infringement of the ’834 patent by East West’s Redesigned PDV blower. He also was called to testify on whether the Accused PDV Blower met each of the claims of the ’834 patent using both claim construction and the patent prosecution history. Dr. Brown holds two undergraduate degrees in Mechanical Engineering and in English literature from Washington University in St. Louis and an M.S. in mechanical engineering and an MBA from Stanford University. (RX-0158.). He has a PhD. in mechanical engineering from MIT. (Hr. Tr. (Brown) at 538:14-539: 24.). Dr. Brown was accepted as an expert on the matters for which he was called to testify. Dr. Brown reviewed the ’834 patent, the prosecution history, the prior art discussed during the patent prosecution history, the technical documents and the CAD files pertaining to the Redesigned PDV blower, and *Markman* Order I. (Hr. Tr. (Brown) at 542:25-544:25; *id.* at 543:19-544:2; 544:10-16.). Dr. Brown examined samples of the Redesigned PDV Blower which were both mounted and not mounted to an A.O. Smith water heater. (RPBr. at 36 (citing RX-0348C (Brown Reb. Rept.) at ¶¶ 88-95); Hr. Tr. (Brown) at 542:25-544:25.).

the United States after importation, some [REDACTED] units of the East West Accused PDV Blower on [REDACTED] days. (*Id.*). As of April 22, 2021, East West had invoiced customers for its re-designed PDV blowers on [REDACTED] days, which it details in its Import Stipulation. (*Id.* at 2.). East West has stipulated that that each of the [REDACTED] Accused PDV Blowers had a unit price of [REDACTED] and a unit cost at the time of importation of [REDACTED]. (*Id.*). East West realized revenue from the sales of these Accused PDV Blowers in the amount of [REDACTED]. (*Id.*). East West realized profits on the [REDACTED] Accused PDV Blowers in an approximate amount of [REDACTED].¹⁰

E. Standing

Regal and East West agree that Regal has standing to bring the enforcement action. (*See* 19 C.F.R. § 210.75; CPBr. at 16-17; RPBr. at 33.).

IV. U.S. PATENT NO. 8,079,834 (“The ’834 Patent”)

A. The ’834 Patent

U.S. Patent Application Serial No. 10/830,695 was filed on April 23, 2004 and claims priority to applications filed as early as April 4, 2002. On December 20, 2011, U.S. Patent No. 8,079,834 (“the ’834 patent”), which is entitled “Exhaust Dilution Blower Housing with Remote Air Intake,” issued. (Compl. at ¶¶ 25, 26, 28; Ex. 1 to Compl., JXM-0001; JX-0003 (File History)). The priority date has not been contested.

The named inventors of the ’834 patent are William Stewart Gatley, Jr.¹¹ and Michael Lynn Kennedy. (Ex. 1 to Compl.; JXM-0001.). Regal owns all rights, title and interest in the ’834 patent. which it obtained through assignment. (Ex. 2 to Compl.; JX-0002.).

¹⁰ The profit that East West realized is the price of units sold at [REDACTED], less cost of each unit at [REDACTED] in profit. (*See* Import Stipulation.). There is a difference in calculations with respect to East West’s precise profits from its sales.

¹¹ At the time of the filing of the Enforcement Complaint, Mr. Stuart Gatley was not only an inventor of the ’834 patent but also Regal’s Vice President of Engineering. (RX-0061C, Depo. Tr.

Regal avers that it has not expressly licensed the '834 patent and that there is no foreign counterpart. (Compl. at ¶¶ 31 and 32.).

B. Technology Overview

1. Water Heaters and Blowers

The sole accused product or device (“Accused Blower” or “Redesigned PDV Blower”) is a redesigned power direct vent or “PDV” blower that is typically used with hot water tanks/hot water heaters or furnaces. The Parties have agreed that there is only one such Accused Product but with different model numbers. (See CBr. at 20, 21; CX-0014C; SBr. at 7; Hr. Tr. (Sweeney) at 316:8-16; Hr. Tr. (Cameron) at 167:11-23 (the same infringement analysis applies to the various model numbers because there are only “small differences” that “do not have any relevance to the claims”).).

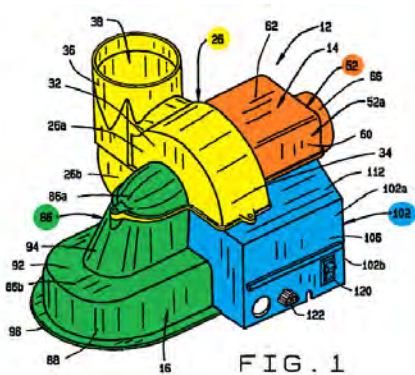
As is well-described in pre-hearing, post-hearing and *Markman* briefs and the demonstratives, there are typically two (2) types of blowers that are used with water heaters, a “power vent” or “PV-style blower” that “draws air from local ambient air (i.e. air in the same room as the water heater) through opening in the blower housing”; and a “power direct vent” or a “PDV style blower” that “draws air via a controlled path from a remote location.” (See JTS.).

Depicted below in Figure 1 is a color-coded picture of a “Blower housing” that in the original (without color coding) is taken from Figure 1 of the '834 patent with the typical parts, or compartments that comprise a blower housing. (SPBr. at 13.). The various components and compartments of a blower housing, as depicted in the two (2) embodiments contained in the '834

(Gatley) at 147:5-20.). Mr. Gatley did not testify during the Hearing although his testimony from his deposition was important to certain *Markman* claim constructions in which he did not support all of Regal’s claim constructions, such as on whether a gasket is an “adhesive.” Regal argued that a gasket is an “adhesive or other intervening structure.” (See JCCCI and II; JX-0001 at 6:65-7:3, 9:19-23; CMBr. at 12; *Markman* Order No. II, Appx. A at 7, 9, 25-27, 31, 34, 35.).

patent, and *where and how they are located* in the blower housing and attached to a water heater are integral to the explanations contained in *Markman* Order Nos. I and II. They are also integral to certain infringement arguments. The claim language, the specification and the patent prosecution history are all essential to the explanation of non-infringement that is the finding here. *Phillips* at 415 F.3d 1303, 1305.

Figure 1. Blower, Annotated/Colored Figure 1 of the '834 Patent



As shown in Figure 1, the claimed blower housing contains four (4) general compartments:

- (1) "motor compartment" (52) (shown in orange)
- (2) "fan compartment" (76) (shown in yellow)
- (3) "dilution compartment" (86) (shown in green)
- (4) "circuitry compartment" (102) (shown in blue)

(See Staff *Markman* Demonstrative Slides, SMDX.4 (Annotated/Colored Fig. 1).).

Each of the component parts of a blower housing is shown in Figure 1 of the '834 patent. The structure and location of each compartment and its overall location within the blower housing comes into play as part of the infringement analyses, below. East West changed some of the structures and locations of the model blower housing shown in Figure 1 of the '834 patent. There are different views of the blower housing and its components throughout this document. The component parts of the blower housing of Figure 1 consists of the following components:

The motor compartment (orange) houses the blower motor, which is connected to the blower fan to rotate inside the fan compartment. (See JX-0001 at 3:16-17

(“The motor is supported in the motor compartment & claim 9[d](the motor is operatively connected to the fan for rotating the fan inside the fan compartment.”).

The fan compartment (yellow) houses the rotating fan, which draws air through the blower to both (1) cool the motor, and (2) dilute and cool exhaust gases and fumes entering the blower. (See JX-0001 at 1:34-38 & 338-42 (“Thus, rotation of the fan in the fan housing draws exhaust gases through the dilution compartment and also draws cooling air through the motor compartment and mixes the cooling air with the exhaust gases in the dilution compartment.”).

The dilution compartment (green) is where the exhaust gases exiting the heater and entering the blower are diluted and mixed with cooling air drawn in by the rotating fan. (See JX-0001 at 3:55-57 (“ambient air is mixed with and cools exhaust gases drawn into the compartment of operation of the blower fan”).

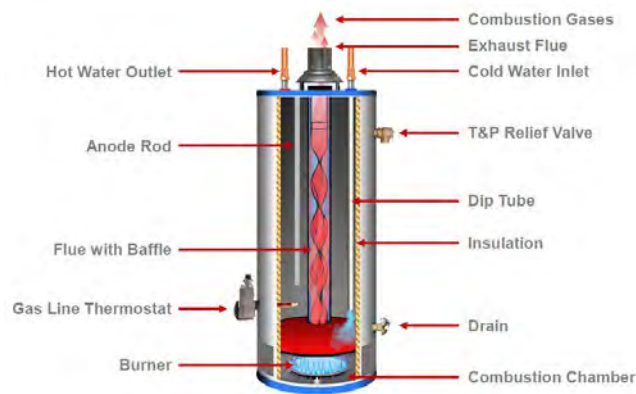
The circuitry compartment (blue) houses the electronic circuitry associated with the blower motor. (See JX-0001 at 4:1-3 & 7:24-29.).

(Staff *Markman* Demonstrative Slides, SMDX.4.).

Depicted below as Figures 2 and 3 are pictures of a typical gas hot water tank or heater, and a gas hot water tank¹² that has a dilution “blower” of a type shown in Figure 1 of the ’834 patent (that would include the housing and the parts identified above) resting on top. (See JTS.).

Clearly, Figure 3, below, is a conceptual picture that is not designed to give explicit detail on how a blower housing is mounted to a water heater, or where the component parts are in relation to one another. (See JTS; see, e.g., SBr. at 6 (citing Hr. Tr. at 557:18-558:4); see also CMDX.5.).

¹² “Hot water tank” and “hot water heater” are used interchangeably.

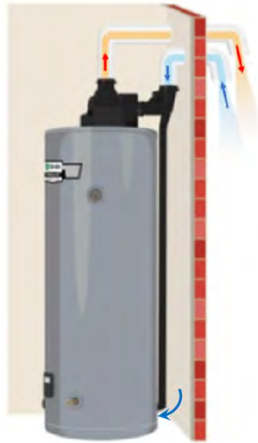
Figure 2. Representative Gas Hot Water Tank

(See, e.g., JTS; see also SBr. at 6 (citing Hr. Tr. at 557:18-558:4); see also CMDX.5; RPBr. at 12-13.).

As shown below in Figure 3 below, and as East West describes, “at the time of the earliest effective filing date of the ’834 Patent, it was known that gas-operated tank water heaters often include a blower mounted to the top of the water heater.” (See, e.g., JTS; JXM-0001 at Abstract; *id.* at 1:63-16; *id.* at 1:22-26, *id.* at 1:53-62; JXM-0002 (File History); SBr. at 2.). The blower draws high-temperature exhaust gases from the flue. (*Id.*). In blowers that also draw in dilution air, ambient (“dilution”) air is pulled in through at least one air inlet. (*Id.*). This dilution air mixes with the high-temperature exhaust gases, allowing for the gas expelled from the blower to be at a lower temperature than the high-temperature exhaust gases. An image illustrating this process and configuration is shown below by the cooled exhaust gases identified in orange/red and the dilution air identified with blue. (*Id.*).

Again, Figure 3, below, is a conceptual image that does not depict the specific components of a blower, or the details of how a blower might be “attached” or “mounted to” a hot water heater.

Figure 3. Gas Hot Water Tank with Standard Dilution Blower on Top



(See JTS; see also RMDX.3.).

As all Parties describe in their briefs, and as described in the '834 patent, gas-operated tank water heaters generally consist of a tank, a heat exchanger, a flue and a burner. The tank component parts are then typically surrounded by an outer shell, “normally constructed of sheet metal.” (JTS; CPBr. at 9.). There is a cavity between the outer shell of a hot water tank and the inner components that is typically filled with foam insulation that can cause the top surface of the water tank to bulge. (CPBr. at 9.).

A hot water tank generates heated water by burning fuel in a “combustion chamber” located at the bottom of the water heater. The resulting combustion gases and fumes flow upward through a vertically oriented duct or pipe (“flue”), and then pass through a “heat exchanger” to heat the water contained in the water heater. The combustion gases and fumes are then drawn from the heat exchanger and exit through the top of the water heater. (JTS; see generally CBr. at 9; JX-0001; CMBr.; RMBr.; SMBr.;CPBr.; RBr.; SBr.).

2. The '834 Patent Blower

A “blower,” the type of device at issue here, often is mounted on top of a gas water heater

or furnace to: (1) draw air into a combustion chamber; and (2) to expel the combustion gases and fumes from the water heater (or furnace or other applications), typically through an exhaust pipe or chimney. (*See* SPBr. at 6 (citing '834 patent (JX-0001) at 1:22-26, 1:53-62).).

The two (2) embodiments, 18 Figures of the '834 patent, consistently show a blower that is mounted on a water heater. (*See* JX-0001 at Figs. 3, 4 (below); *id* at Figs. 18, 19 (below); *see also* *Markman* Order 1 and *Markman* Order II, Appx. A at 1-31, Ex. A hereto.). Whether a blower is “mounted” or “engaged” “directly” as opposed to “indirectly” on top of a water heater was a dispute (among others) during the *Markman* claim constructions and during the *Markman* Hearing that was resolved mostly in East West’s and Staff’s favor. (*See* *Markman* Order I and *Markman* Order II, Appx. A, 1-36.). Similarly, the “positioned” and “on one side in a single plane” are equally important to why East West’s Redesigned PDV Blower does not infringe.

The patent prosecution history is particularly helpful and important both to the adopted *Markman* claim constructions and to the infringement analyses and determinations in this EID. The important prior art references are Yetman (U.S. Patent No. 5,697,330, JX-0006, RX-0125 (“Yetman”)); Stewart (U.S. Patent No. 6,398,512, JX-0003 (“Stewart”));¹³ Windon (U.S. Patent No. 5,255,655, JX-0005 (“Widon”)); and Suffron (U.S. Patent No. 3,403,962, JX-0004 (“Suffron”)).¹⁴ *Markman* Order II, Appx. A includes additional detail about the prosecution

¹³ Stewart is a Regal patent. (*See* RX-0122; *see also* Hr. Tr. (Brown) at 8-12.).

¹⁴ While Regal argued in its Initial Post Hearing Brief to the effect that East West improperly used prior art as part of its non-infringement defense, Federal Circuit law suggests otherwise. (*See* CBr. at 64; *contra* RRBr. at 49-51.). As East West has noted, since at least 2003, Federal Circuit law has held that claims must be “construed the same way for both invalidity and infringement.” *See Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330 (Fed. Cir. 2003). East West also argued, correctly, that in a more recent Federal Circuit decision, the Federal Circuit upheld the alleged infringer’s argument “that it is permissible to argue that ‘if a claim term must be broadly interpreted to read on an accused device, then this same broad construction will read on the prior art.’” (RRBr. at 50 (citing *01 Communique Lab., Inc. v. Citrix Sys.*, 889 F.3d 735, 742-43 (Fed. Cir. 2018) (“*01 Communique*”). In *01 Communique*, as East West noted, “if the patent holder ‘relied upon an “overbroad application” of its

history, and specifically Stewart (and particularly Fig. 2 of Stewart), Yetman (and particularly Fig. 2), Windon and Suffron, and their applications to the disputed claim constructions that are also at issue for infringement. As this EID notes, Regal did not address the importance of the prior art to infringement either during the Hearing or in post-hearing briefing while East West, Staff and East West's expert, Dr. Brown, did. (*See, e.g.*, RPBr. at 17-20, 23-31, 72, 93, 104-114, 145; SPBr. at 17, 19-21, 21, 26, 40; Hr. Tr. (Brown) (discussing Stewart) at 572:1-13; *id.* at 574; *id.* at 574-577; *id.* (discussing Yetman) at 700:3-9; *id.* (discussing Windon and Suffron) at 572-573; SBr. at 17-19, 20-21, 30, 55; RRBr. at 8-10, 45-49, 51, 98; *Markman* Order II, Appx. A.).

claims to ensnare' an accused product, then the asserted claims would also cover the prior art." (RRBr. at 50 (citing *01 Communique*, 889 F3d. at 743.). As Staff and East West have observed (and discussed below), and Regal confirmed, Regal did not specifically mention *any* prior art during the Hearing in order to rebut East West's infringement arguments and evidence. Regal confirmed that it purposely did not mention any prior art during the Hearing and confirmed that it chose not to do so. (Hr. Tr. (Jenkins) at 697:6-7 ("Respectfully, ... I don't think I referenced any prior art"), at 698:5-11 ("... I was not indirectly referencing prior art. I talked about the accused product and I talked about our product. I do not know any reference to prior art. I did not reference any of those [Stewart, Yetman, Windon, Suffron] you're talking about, directly or indirectly, and I did not want to respond to any prior art.")).

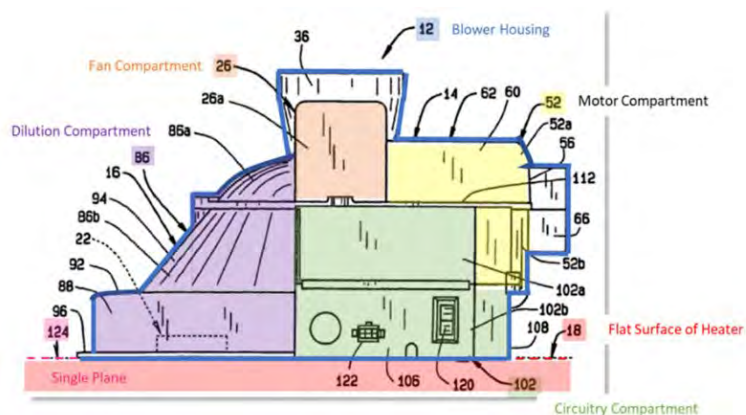
Regal did not ask Dr. Cameron about *Markman* constructions or prior art for purposes of rebutting East West's infringement arguments, claim-by-claim. Regal did not cross-examine East West's expert, Dr. Brown, when he used prior art to explain his infringement analyses. Regal argued that the specification was the "single best guide to the meaning of the disputed term." (CBr. at 64 (relying on *Phillips*, 415 F.3 at 1315).). That is not necessarily so. As noted elsewhere in this EID and in *Markman* Order Nos. I and II, Appx. A, and as Staff and East West have argued, Regal tried to recapture claim scope as part of its *Markman* constructions it ceded, or at least tried to argue for scope that was antithetical to or very broad in comparison with patent prosecution arguments the patentee made which are discussed at length in *Markman* Order II, Appx. A. (*See Markman* Order Nos. I and II, Appx. A.). As East West noted with page citations to Regal's Pre-Hearing Brief, Regal did not argue the Stewart prior art reference to rebut East West's and Staff's infringement analyses for claims 1 and 9 until its Post Hearing Brief. As East West argued, properly, pursuant to Ground Rule 7.2, Regal waived the right to raise on appeal, or even in its Post-Hearing Brief, the Stewart prior art reference, and any of the prior art references, that it did not discuss in its Pre-Hearing Brief or for which it did not adduce evidence during the Hearing. The Parties were advised in the Proposed Scheduling Order that the Ground Rules issued in the Underlying Proceeding also apply to the Enforcement Proceeding. (*See* Proposed Scheduling Order, Doc. ID No. 734764 (Feb. 22, 2021); *see also* Notice of Ground Rules, Attachment A, Order No. 2 (Nov. 11, 2020).). Ground Rule 7.2 states: "Any contentions not set forth in detail [in the Pre-Hearing Brief] shall be deemed abandoned or withdrawn...").

Components of a typical blower, as depicted in the '834 patent, implicated here, and described above, are the motor compartment, fan compartment, the dilution compartment and the circuitry compartment, all of which are shown in Figure 1, above.

As *Markman* Order II, Appx. A notes: there are two (2) embodiments. (*Markman* Order II, Appx. A at 1.). The first embodiment is depicted in Figures 1-14 of the '834 patent. (JX-0001 at 4:33-34.). Figure 4, below, is an annotated version of Figure 4 of the '834 patent that shows the key compartments of the '834 “blower housing (12)” which consists of “a first, top piece (14) and a second, bottom piece (16).” (*Id.* at 5:41-43.). The blower housing’s top piece (14) and bottom piece (16) are combined to define a fan compartment (26) motor compartment (52), dilution compartment (86) and circuitry compartment (102).

Of particular note are the placement of lines 18 and 124 (shown as red or pink broken lines) which show the bottom surface of a blower as it would interface “in a single plane” to a water heater or furnace. (*See Markman* Order II, Appx. A at 36-54, Ex. A hereto; and Figures below.).

Figure 4. Annotated/Colored Figure 4 from the '834 Patent



(*See* JX-0001 at Fig. 4 (here Annotated/Colored and Labeled taken from RPB. at 14.)).

The second embodiment, described in the second half of the specification, is shown in Figures 15-18 of the '834 patent. (JX-0001 at 8:15-16.). Figure 18 from the patent, as annotated and colored in Figure 5, below, by East West, depicts the “five housing pieces” of the '834 patent that are similarly described above.

In Figure 4 of the '834 patent, shown above, the motor compartment is yellow, the dilution compartment is purple, the fan compartment is brownish/pinkish, the circuitry compartment is green, the blue outline shows the entirety of the blower housing, while the red/pink depicts the flat surface of the blower lying on a “single plane.”

The main difference between the two (2) embodiments of the '834 patent is that circuitry compartment's top compartment is “removable from both the blower housing top piece (14) and the blower housing bottom piece (16).” (*Id.* at 8:45-48; *see also Markman Order II*, Appx. A., Ex. A hereto.).

As annotated and colored in Figure 18 from the '834 patent, Figure 5, below, the motor compartment is brown, the dilution compartment is green, the fan compartment is yellow, the circuitry compartment is blue, while the bright red depicts the flat surface of the blower lying on a “single plane.” (JX-0001 at 5:43-45.).

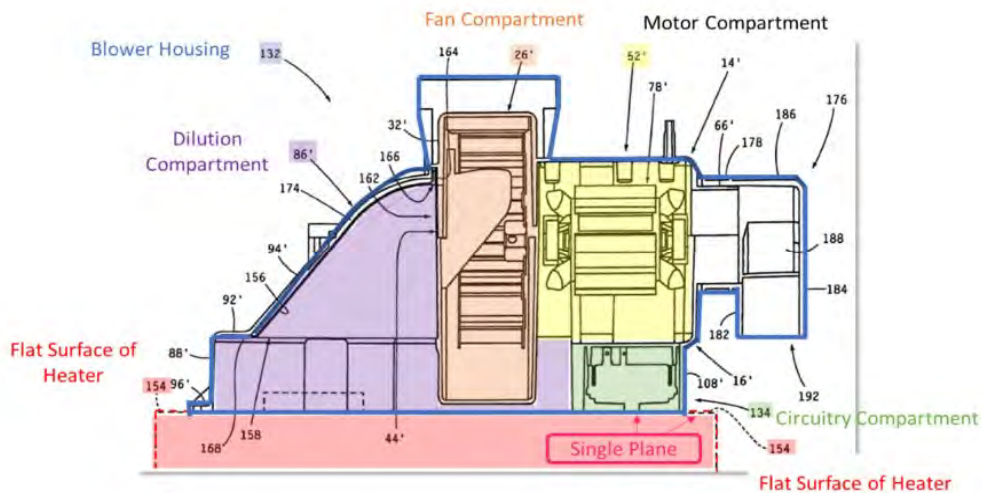
Figures 4 and 5, above and below as taken from the '834 patent, demonstrate that the blower housing is ‘directly’ ‘mounted to and is directly in “continuous engagement” with the flat surface of the water heater. (*See Markman Order I* and *Markman Order II*, Appx. A at 1-36; 12-17.). Similarly, the locations of the compartments, especially the fan compartment and the dilution compartment, according to claims 1 and 9 of the '834 patent, are located on the “one side” of the single plane. (JX-0001 at 8:29-34; *see RBr.* at 27.). The specification also explains that the configuration, as shown in Figures 4 and 5 reflect the invention specifically requires that

“much of the electronic circuitry that controls the operation of the blower motor is mounted on the exterior of the furnace or water heater.” (JX-0001 at 4:13-26.). As a result, the “circuitry compartment is located at the side of the blower housing that is positioned in a single plane.” (*Id.*). This “enables the blower housing to be mounted to a flat surface of a furnace or water heater with the circuitry compartment enclosing the circuitry components mounted to a flat surface...” (*Id.*).

As East West observed, Regal has conceded in its Complaint and in its contentions that the “circuitry compartment” must rest on the surface of a water heater. (RRBr. at 27-28 (citing Compl. at ¶ 36; RX-0142.10)). Because East West redesigned the circuitry compartment in its blower so that it does *not* rest on the flat surface of a water heater, by that change alone, East West’s Redesigned PDV blower does not infringe the ’834 patent.

These points and arguments are important to note for the infringement analyses, below.

Figure 5. Annotated/Colored Figure 18 From The ’834 Patent As Taken From RMDX.2 and RPBR at 15



(See JX-0001 at Fig. 18 (annotated by East West in RMDX-20 and RPBr. at 15).)

V. **MARKMAN ORDERS AND CLAIM CONSTRUCTION**

Chart 1, below, provides only the Adopted Constructions for the disputed claim terms without the “abbreviated” explanations found in *Markman* Order I and without the expanded explanations found in *Markman* Order II, Appx. A that is attached hereto as Ex. A. All of the disputed claim terms are taken from claims 1 and 9, the independent claims of the ’834 patent. The explanations contained in the *Markman* Order I and *Markman* Order II, Appx. A, Ex. A hereto, should be read in conjunction with the infringement analyses in this EID because of the important role that the patent prosecution, including the prior art references of Yetman, Stewart, Windon and Suffron, play in infringement. (*See Markman* Order II, Appx. A.).

Chart 1. Adopted Markman Constructions: *Markman* Order Nos. I and II

Claim Term/Terms	Regal’s Proposed Construction	East West’s Proposed Construction	Staff’s Proposed Construction	ADOPTED CONSTRUCTIONS
engagement/engages Claims 1, 9	direct contact with or contact through an intermediate component	East West joins Staff’s construction		coming into direct contact with
mounted/mounting Claims 1, 9	fastened affixed or joined, directly or indirectly	East West joins Staff’s construction	fastened, affixed, or joined so as to directly contact	fastened, fixed or adjoined so as to directly contact
Plane Claims 1, 9	A region that deviates from two dimensions by not more than the flat surface of a water heater	A flat or level two-dimensional surface, with an allowance for deviations within manufacturing capabilities or tolerances	A flat or level two-dimensional surface, with an allowance for deviations within manufacturing capabilities or tolerances	a flat or level two-dimensional surface

		viewed in the art as practical at the time of the invention.	viewed in the art as cost-effective and practical at the time of the invention	
one side of the blower housing positioned in a single plane Claims 1, 9	one side of the blower housing that is at least partially located in a single plane	East West joins Staff's proposed construction	the side of the blower housing that lies in the single plane that directly rests against the heater (i.e. no intermediate or intervening physical structures are located between the recited one side of the blower housing and the recited flat surface of the heater)	the side of the blower housing that lies in the single plane that directly rests against the heater
positioned on the one side of the blower housing Claims 1, 9	At least partially located on the one side of the blower housing	East West joins staff's proposed construction	The bottom of the recited compartment is located at the recited one side of the blower housing, i.e. cannot be positioned or spaced above it	The bottom of the recited compartment is located at the recited one side of the blower housing
extends around Claims 1, 9	at least partially encompasses	encompasses	Forms or defines substantially more than a single side or face of the	encompasses

			recited compartment, so as to encompass a significant portion of the interior volume of that compartment	
[a circuitry compartment] inside the blower housing Claims 1, 9	bounded by the blower housing	Plain and ordinary meaning	Within or integrated into	Plain and ordinary meaning
whereby ambient air can enter into the dilution compartment interior volume only through the one dilution air intake opening in the side wall Claims 1, 9	This is a non-limiting statement of intended effect/result. If limiting, plain and ordinary meaning	East West joins Staff's proposed construction	The whereby clause serves to limit claim scope for purposes of the infringement analysis. The language in the whereby clause should receive its plain and ordinary meaning (i.e. ambient air enters the blower housing only through the one dilution air intake opening in the side wall of the dilution compartment)	Plain and ordinary meaning that limits claim scope
stable support of the fan compartment	This is a non-limiting statement of	East West joins Staff's proposed construction.	This phrase serves to limit claim scope for purposes	Plain and ordinary meaning that limits claim scope

Claims 1, 9	intended effect/result. Firm support not likely to give way or allow substantial relative movement of the fan compartment		of the infringement analysis. The language in this phrase should receive its plain and ordinary meaning (i.e. firm support that is not likely to give way or allow substantial relative movement of the fan compartment).	
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VI LITERAL INFRINGEMENT

A. Legal Standards

“Determination of infringement is a two-step process which consists of determining the scope of the asserted claim (claim construction) and then comparing the accused product . . . to the claim as construed.” *Packet Intelligence LLC v. NetScout Sys.*, 965 F.3d 1299, 1306 (Fed. Cir. 2020) (“*Packet Intelligence*”) (citing *Clare v. Chrysler Grp. LLC*, 819 F.3d 1323, 1326 (Fed. Cir. 2016); *Certain Sucralose, Sweeteners Containing Sucralose, and Related Intermediate Compounds Thereof, Inv.* No. 337-TA-604, Comm’n Opinion at 36 (U.S.I.T.C., Apr. 28, 2009) (citing *Litton Sys., Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1454 (Fed. Cir. 1998))). The first step of the infringement analysis is claim construction. *Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1054 (Fed. Cir. 2009). The second step of the infringement analysis involves a comparison of the accused product to the construed claims, which is an issue of fact. *See Packet Intelligence*, 965 F.3d at 1305-06. The “colorable differences” test does not apply. *See Certain Road Construction Machines and*

Components Thereof, Inv. No. 337-TA-1088 (Modification), Comm'n Op. at 33 (Sept. 14, 2020) (“*Certain Road Machines*”).

Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, i.e., when the properly construed claim reads on the accused device exactly. *Arhhil Enters, Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996); *Southwall Tech. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed Cir. 1995). Each patent claim element or limitation is considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). If an accused device lacks a limitation of an independent claim, the device cannot infringe a dependent claim. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989) (“*Wahpeton*”).

For proof of direct infringement, “a patentee must either point to specific instances of direct infringement or show that the accused device necessarily infringes the patent in suit.” *Acco Brands, Inc. v. ABA Locks Mfrs. Co.*, 501 F.3d 1307, 1313 (Fed. Cir. 2007). “[A] device does not infringe simply because it is possible to alter it in a way that would satisfy all the limitations of a patent claim.” *High Tech Med. Instrumentation, Inc. v. New Image Indus., Inc.*, 49 F.3d 1551, 1555 (Fed. Cir. 1995.). “Tests of an accused device under unusual conditions are not necessarily relevant to an infringement analysis.” *Hilgrave Corp. v. Symantec Corp.*, 265 F.3d 1336, 1343 (Fed. Cir. 2001).

In a Section 337 investigation, the complainant bears the burden of proving infringement of the asserted patent claims by a preponderance of the evidence. *Enercon GmbH v. Int'l Trade Comm'n*, 151 F.3d 1376, 1384 (Fed. Cir. 1998). If any claim limitation is absent, there is no literal infringement of that claim as a matter of law. *Ultra-Tex Surfaces, Inc. v. Hill Bros. Chem., Co.*, 204 F.3d 1360, 1364 (Fed. Cir. 2000); *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000).

Even if several of the *Markman* constructions were overturned on appeal, such as “engagement/engages” and “mounted/mounting,” there are other infringement theories or opinions on which Regal failed to offer proof or for which there was a failure of proof. None of the “circuitry” compartment limitations are met by the East West Redesigned PDV Blower. Additionally, as explained below, Regal waived its right to argue the patent prosecution on appeal, which was integral to both *Markman* constructions and to the Parties’ infringement theories and arguments.

B. Overview: The East West’s Accused PDV Blower: Redesigned PDV Blower Does Not Infringe the ’834 Patent

1. The Changes East West Made That Became the Redesigned PDV Blower Are Relevant to Infringement

The single Accused Blower (or Redesigned PDV Blower) at issue is East West’s Redesigned PDV Blower whose model numbers and relevant parts are shown in CX-0014C. The Parties and their experts do not dispute that the infringement analysis is the same for the only Accused Blower that East West has manufactured outside the United States and then imported into the United States. (RPBr. at 21-22; RPBr. at 37; SBr. at 7; Hr. Tr. (Cameron) at 167:11-23 (the same infringement analysis applies to all six (6) model numbers because there are only “small differences...”) ¹⁵ see also Hr. Tr. (Brown) at 542:3-10.). All of the component parts that are identified in Figure 6, below, are part of East West’s Redesigned PDV Blower.

East West’s corporate witness, Mr. Jeffrey Sweeney, testified that East West redesigned its Original PDV Blower to “eliminate needless litigation costs and avoid any colorable claim of infringement.” (RBr. at 6 (citing Hr. Tr. (Sweeney) at 332-17-24.). Regal’s argument is that

¹⁵ The rest of Dr. Cameron’s statement was “that are not relevant to the claims.” This EID has reached at different conclusions about the “relevance” and materiality of the changes that East West made that became the Redesigned PDV Blower.

East West “gamed” the Consent Order because it was in the process of designing a new blower before it entered into the Consent Decree and did not disclose that fact to Regal. (CPBr. at 104-106; CBr. at 3, 97, 98; CRBr. at 2.).¹⁶

According to Mr. Sweeney, after Regal sued East West in the Underlying Proceeding, East West spent thousands of dollars and many engineering hours to redesign its Original PDV Blower so it would not infringe and so East West could continue to sell its PDV blowers. (RBr. at 8 (citations omitted); Hr. Tr. (Sweeney) at 323:8-326:5, 33:4-13, 338:7-13.). To that end, East West’s unrebutted evidence and testimony are that East West chose to develop a re-designed PDV blower that came closer to certain of the prior art, especially the Stewart prior art patent, and that it was designed and built away from the ’834 patent. (Hr. Tr. (Sweeney) at 325:13-326:19; *see also* RX-0078C (exploded view and bill of material describing the Redesigned PDV Blower).).¹⁷

Among other changes, according to East West and its unrebutted and corroborated testimony, the Redesigned PDV Blower was redesigned to suspend the “Electronics Enclosure” which includes the circuitry compartment, above the surface of the water heater.” (Hr. Tr. (Sweeney) at 338: 7-18.). This change distinguishes the East West Redesigned Blower from the ’834 patent and brings it closer to the Stewart and Yetman prior art, particularly as Regal distinguished those references to gain allowance of the ’834 patent. (*See, e.g.*, (Hr. Tr. (Brown) at 572; *id.* at 574:22-575:25; *id.* at 762:1-7; *id.* at 764:6-8.).

¹⁶ Neither Regal’s nor East West’s narrative arguments have been given weight in the infringement analysis.

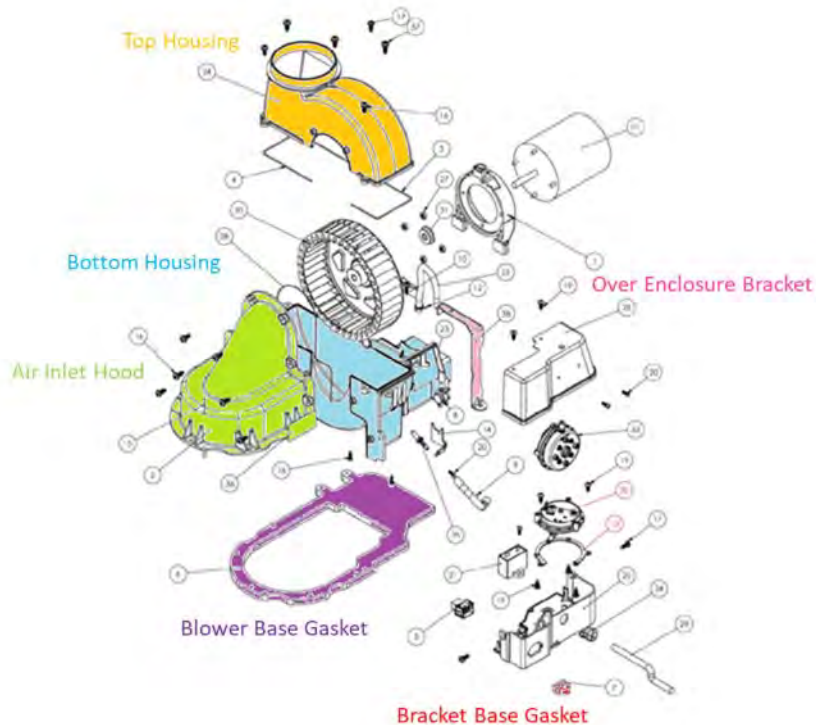
¹⁷ *See* n.13, *infra*.

East West made other changes to the Original PDV Blower that included changes that became the “Blower Base Gasket,” and a redesign that included an “Over-Enclosure Bracket” that was added to help stabilize the blower housing when it is mounted to a hot water tank and replaced a different, mounting bracket. (*Id.*; *see also* Hr. Tr. (Brown) at 540:4-552:8, 580:4-19; *id.* at 615:4-616:13 (describing components of East West Redesigned PDV Blower and which of those provide structural support/or guide the airflow).¹⁸ Unlike in the embodiments of the ’834 patent, together, the “Blower Base Gasket,” “Bracket Base Gasket,” and the “Over Enclosure Bracket” are the only parts that rest against the surface of a hot; water heater. (RX-0248C (Brown Reb. Report) at ¶ 112; Hr. Tr. (Brown) at 550:19-551; *id.* at 551:19-552:8, 615:5-15, 615:4-616:13.).

Figure 6, below, shows an “exploded view” of the parts of the East West Redesigned PDV Blower. (*See, e.g.*, RX-00078C; RX-0027C; RX-0248C (Brown Reb. Report); Hr. Tr. (Brown) at 548:12-16; *id.* at 549:25-550:3; RDX-0001.5; RDX.0001.23; RDX-0001.40.).

¹⁸ When he testified during the Hearing on July 22, 2021, Mr. Christopher Kelly was a partner in the law firm of Alston and Bird, the same law firm that has represented East West during the Underlying Proceeding, and again in the Enforcement Proceeding. (RPSt.). Mr. Kelly is also an engineer. Mr. Kelly provided East West with a “non-infringement” opinion, first in an “informal opinion” on August 25, 2020, and in a second “formal opinion” letter on September 25, 2020. (RX-0127C; RX-0121C; RX-0126C; RX-0135C; CX-0096C (Kelly Depo. Tr.); RPBr. at 130-138 (certain citations omitted).). East West sent Mr. Kelly CAD drawings of the Redesigned PDV Blower. He performed a claim-by-claim analysis that compared the Redesigned PDV Blower against the claim terms of the ’834 patent. (CX-0096C; *see also* Hr. Tr. (Kelly) at 460:6-461:5; *id.* at 462:21-465:9, 457:22-458:5; *see also* SBr. at 58.).

Figure 6. “Exploded” View of Component Parts of East West Redesigned PDV Blower



According to Mr. Sweeney:

“[T]he Redesigned PDV blower was changed from the Original PDV blower in several ways. East West redesigned the electronics enclosure base (PN 170920102) to remove the bottom ribs and the mounting tab connector. Compare RX-0256 (EASTWEST0000041-42) with RX-0024 (EASTWEST00000343-44). East West also created an Over-Enclosure Bracket (or “Mounting Bracket”) to provide support for the blower housing. RX-0036 (EASTWEST0000356). The Over-Enclosure Bracket was designed to contour, but never touch, the electronics enclosure. RX-0036C (EASTWEST0000356). East West additionally removed portions of the “Blower Base Gasket. RX-0257 (EASTWEST0000046). Finally, East West designed and added the “Bracket Base Gasket” to link the mounting bracket to the surface of the heater. RX-0028C (EASTWEST0000348).”

(RPBr. at 7; Hr. Tr. (Sweeney) at 334:11-337-3 (citing and describing RX-0078C (Redesigned PDV Blower)).

Regal was informed of the changes that East West made to its Original PDV Blower in November 2020 and in December 2020. At Regal’s request, East West provided Regal with

CAD drawings showing that the Redesigned PDV Blower included the “Bracket Base Gasket” and the “Blower Base Gasket,” and an explanation of how those components were incorporated into the blower housing and why they were material to non-infringement. (RX-0198C (Nov. 13, 2020 Letter); *see also* Hr. Tr. (Sweeney) at 352:16-353:9.). Additionally, at Regal’s request, on or about November 24, 2020, East West provided Regal with a sample of the Redesigned PDV Blower with the permanently attached “Blower Base” and “Bracket Base Gaskets” that East West imported from Vietnam. (*Id.*). According to a December 17, 2020 letter, Regal did not fully acknowledge the changes that East West made, including the “Over Enclosure Bracket.” (*See* RBr. at 8 (citing Hr. Tr. (Sweeney) at 355:6, 355:12-22, 355:23-356:11; RX-0204.)).

Regal’s expert, Dr. Cameron, did not fully acknowledge East West’s changes to the Redesigned PDV Blower housing despite the construction of East West’s Redesigned PDV Blower and the Kelly Opinion. Dr. Cameron argued in her expert report that she considered the Air Inlet Hood, the Bottom Housing, the Top Housing, the Electronic Enclosure Base and the Electronic Enclosure Cover but not the “Blower Base Gasket” or the “Bracket Base Gasket” to be part of the housing of the Redesigned PDV Blower. (*See* RX-0223C (Cameron Op. Rept.) at ¶ 44.). However, she did not elaborate or offer a fulsome explanation of her infringement positions.

Dr. Brown, East West’s expert, disagreed with Dr. Cameron’s view of the constituent parts of the Redesigned PDV blower and the blower housing, and the changes East West made to avoid infringement. Describing the parts of the Redesigned PDV Blower shown in Figure 6, above, Dr. Brown testified that the Redesigned PDV Blower housing is comprised of the Top Housing (yellow/orange), the Bottom Housing (blue), the Air Inlet Hood (green), the Over Enclosure Bracket (pink), the “Blower Base Gasket”(purple), and the “Bracket Base Gasket”

(red). In addition to being integral parts to the Redesigned PDV Blower housing, Dr. Brown testified that certain of the redesigned component parts give “structural integrity” to and “guide air flow” within the Redesigned PDV Blower. (RPBr. at 1-42 (citing RX-0248C (Brown Reb. Rept.) at ¶¶ 102-104).).

According to Regal, a gasket, and in this instance, the “Blower Base Gasket,” is not part of the blower housing, in part, because the housing in the Redesigned PDV Blower is comprised of a different material—the housing is rigid plastic while the East West gasket is made of an EPDM rubber.¹⁹ (RX-0023 (Cameron Op. Rept.) at ¶ 45). Moreover, Dr. Cameron contended in her Opening Report that because the gaskets in the Redesigned PDV Blower are not labeled “Housing,” they should not be and cannot be parts of it. (RX-0223C (Cameron Op. Rept.) at ¶ 45.). East West and Dr. Brown contested Dr. Cameron’s thinking and opinion by noting that Dr. Cameron’s Report identifies the “Air Inlet Hood,” the Electronic Enclosure Base and the “Electronic Enclosure Cover” as part of the “housing” but they are not labeled “housing.” (RPBr. at 43 (citing RX-0223C (Cameron Op. Rept.) at ¶ 44.). As East West pointed out, Dr. Cameron’s opinion was logically inconsistent. (RPBr. at 43-44.).

Regal also argued—an argument that is a *Markman* argument—that including a “gasket,” which here would be the “Blower Base Gasket” and the Bracket Base Gasket,” as part of the blower housing would be inconsistent with the disclosed embodiments and the *Markman* Orders would be inconsistent with the specification of the ’834 patent. (CBr. at 15-18.). As Staff and East West have argued, and for the reasons explained below and in *Markman* Order Nos. I and II and given the weight of the evidence, Regal’s argument is not supported.

¹⁹ Ultimately, the fact that different components of the Redesigned PDV Blower housing are manufactured from different materials is irrelevant to whether the Blower Base Gasket and Bracket Base Gasket are part of the assembled East West blower housing, or whether there is infringement.

2. The “Gaskets” Used on the East West PDV Redesigned Blower Create “Indirect” Contact Between the Redesigned PDV Blower and A Water Tank As a Matter of Claim Construction

This EID reconfirms, among others, the *Markman* findings that: (1) the “Blower Base Gasket” and the “Bracket Base Gasket” are attached to and are part of the East West Redesigned PDV Blower *housing*; and (2) the claimed “circuitry compartment” of the Redesigned PDV Blower does not meet the limitations of the ’834 patent. The claim constructions are the law of the case. *See ArcelorMittal Fr. v. AK Steel Corp.*, 786 F.3d 885, 888 (Fed. Cir. 2015). Regal failed to elicit testimony or evidence to rebut the evidence that East West provided through Dr. Brown on the prior art as it affects infringement or Staff’s and East West’s arguments on the same. (*See* n.14.).

Notwithstanding the changes to the Original PDV Blower that East West pointed out to Regal before the Enforcement Proceeding was filed, Regal has argued consistently that either East West did not make changes to the Original PDV Blower, or that that the modifications that East West made were either “minor modifications” (Hr. Tr. (Cameron) at 264:1-4) or so “minimal” that the Redesigned PDV Blower nonetheless infringes the ’834 patent. (CBr. at 94-95; Hr. Tr. at 70.). Regal also has called certain of the changes in the Redesigned PDV Blower as “irrelevant,” not only the gasket as structured but also the ANSI Z21.10 standard that applies to blowers. (CBr. at 26, 64-68.). However, as Dr. Brown testified, without the attached gasket, the Redesigned PDV blower would not work properly nor meet the ANSI Z21.10 standard.

Regal has not supported its theory that “minor modifications” do not count toward a re-design or to non-infringement or that East West did not make modifications to its Original PDV Blower.

One of Regal's key *Markman* arguments and infringement theories is focused on a "gasket"—how it is used, its purpose, and whether "gaskets," including East West's "Blower Base Gasket" (and East West's "Bracket Base Gasket") are intrinsically a part of the Redesigned PDV Blower housing. The *Markman* Orders have found that they are. (See *Markman* Order I and *Markman* Order II, Appx. A.).

Regal has argued that:

Contrary to any assertion by East West or the Staff, the specification of the '834 patent does not exclude indirect contact. Indeed, the expert testimony is unanimous that one of ordinary skill in the art, reading the '843 Patent, would understand that the '834 Patent's blower housing would be mounted on a water heater using a gasket. East West's own expert explained that while "the '834 Patent is silent on the issue," he "believe[s] that a person of ordinary skill would understand that a gasket would be used" with "the embodiments of the blower housing in the '834 Patent.

(CRBr. at 6.).

The Parties, the fact witnesses and experts who were engineers agree that a PDV blower housing would not be used without a "gasket" or some other form of sealant.²⁰ (CRBr. at 7

²⁰ Staff has argued that Regal's arguments are "internally incoherent" on whether a gasket that is found to be within the scope of a blower housing of the '834 patent (as *Markman* Order I held at that point), would exclude the '834 embodiments. (SRBr. at 12 n.4 (citing CBr. at 15-18)). That is because Regal has argued that a "gasket" provides both "direct" and "indirect" contact when mounted to a water heater. (See *Markman* Order I, and *Markman* Order II, Appx. A.). So, for some purposes, Regal seems to say that a "gasket" is always part of an "indirect" mounting, and then at different times that it is a "direct" mounting. Staff's additional argument, with which this EID agrees, is that a gasket is the typical method of creating a seal. (SBr. at 12.). A gasket is what is used on the Redesigned PDV Blower. Regal's own dilution PDV blower uses gaskets, but they are separate parts.

Regal has argued that a blower can be sealed to a surface of a water heater with "caulk adhesive." (*Id.* at 12 (citing CMBR. at 66 n.5 (which Staff calls COCC))). Staff argued that the '834 patent specification is silent or "agnostic" on how a "seal" is achieved. (SBr. at 12.). Regal has argued that a "gasket" is always used, and yet its own expert, Dr. Cameron, testified in a deposition that a "caulk" might be used, but she had no evidence that was the case with the East West Redesigned PDV Blower. (Ex. 1 C to Staff Resp. to Motion for Non-Infringement at 10 (citing Cameron Depo. Tr. at 230:12-23; *id.* at 254:16-255:10.). However, she also testified she had never seen caulk used to seal a blower with a hot water tank "in practice." (Cameron Depo. Tr. at 254:16-255:10.). She testified again during the Hearing that the East West Redesigned Blower does not use caulk, and that the typical way to install a blower is to

(citing Hr. Tr. (Brown) at 637:23-638:4; *see id.* at 638:5-14 (“...one would not use a PDV blower without a gasket,” because the blower housing “has to be sealed” to the water heater)); *see also* Hr. Tr. (Cameron) at 159:15-22 (“the ’834 patent doesn’t specifically talk about the gasket... a person of ordinary skill in the art would definitely understand that the blower housings are used with a gasket in order to seal it to the water heater or furnace”).). So that is not the issue.

However, there the Parties diverge. Regal has argued that the disputed *Markman* claim terms, especially those that involve “engagement/engages” or “mounted/mounting” a blower housing to a water tank, do not exclude an “indirect” contact, as in the passage quoted above.²¹ Regal also has argued, inconsistently, that the gasket is “irrelevant” to infringement. (CBr. at 26.). Ironically, the fact that Regal has argued so fervently, suggests just how relevant and material to the changes that East West made to its Original Blower Housing are to the

use a gasket. (Hr. Tr. (Cameron) at 279:22-283:25.). At one point, Dr. Cameron testified she had “memory” of use of caulk as a sealant between a dilution blower and a hot water tank (*id.* at 281:7-8) and she herself had never used caulk as a sealant (*id.* at 281:23-282:25.). The import of Dr. Cameron’s testimony as observed was that: (1) the East West Redesigned PDV Blower does not use caulk; (2) she herself has not used caulk as a sealant between a dilution blower and a hot water tank; and (3) caulk is a theoretical sealant that is not typically used. Dr. Cameron’s testimony was not straightforward. My impression was that Dr. Cameron is a fine engineer who knows a “stretch” of an argument and could not provide evidence or testimony with which she was not “100 percent sure.” (Hr. Tr. (Cameron) at 281:1-8.). There is no evidence that Regal would use “caulk” as a sealant between a blower housing and a hot water tank. Any argument that Regal has made about caulk being a “sealant,” an “intervening structure” or a method for “attaching” or “mounting” a dilution blower to a hot water tank is not well supported. A blower housing sealed to water tank with a gasket is within the scope of the ’834 patent.

²¹ As Staff noted in its Response to Respondents’ Motion for Summary Determination of Noninfringement (Doc. ID No. 746006 (July 2, 2021) (“Staff Resp. to MSD”) at 2), Regal made a number of *Markman* arguments that were often inconsistent. In addition to arguing that the claim language actually be “mounted” to a water heater as “irrelevant,” Regal nonetheless took positions on the disputed claim terms “mounted/mounting.” (*Id.* (citing CMBr. at 2, 18).). A critical inconsistency is that Regal argued that whether a blower housing is installed so that it is “directly” or “indirectly” mounted to the flat surface of a water heater is not “relevant” to claim terms. Yet, Regal argued for claim constructions that contradict its patent prosecution arguments and that clearly are necessary for infringement. (*See* CMBr. at 10, 19, 24, 55; *see also Markman* Order I and *Markman* Order II, Appx. A.).

infringement arguments and analyses, including whether there is “direct” or “indirect” contact between East West’s Redesigned PDV Blower Housing when it is “mounted” to a water tank.²²

Regal has described as a “red herring” the arguments that Staff and East West made that a “gasket” is not an “adhesive” or that an “adhesive” is not an “intervening component.” (*See* CRBr. at 6-7.). That is not so. (*See Markman* Briefs; *Markman* Order II, Appx. A.).

As *Markman* Order II explains in some detail, Regal appears to have argued quite consistently and specifically during patent prosecution that contact between a blower housing and a hot water tank on which it is “mounted” must be “direct” rather than “indirect” in order to gain the allowance of the ’834 patent, particularly over Yetman (particularly Figure 2), Stewart (particularly Figure 2), Windon and Suffron. The prior art is discussed at length in *Markman* Order II Appx. A, and on which *Markman* Order I constructions were premised. (*Markman* Order I; *Markman* Order II, Appx. A, Ex. A hereto.).

Staff and East West also argued from the outset that the cited prior art is important to an infringement analysis precisely because the Redesigned PDV Blower cannot infringe as it is constructed based upon Regal’s arguments to gain allowance of the ’834 patent. (*See, e.g.,* RPBr. at 17-20, 23-31, 72, 93, 104-114, 145; SPBr. at 17, 19-21, 21, 26, 40; Hr. Tr. (Brown) (discussing Stewart) at 572:1-13; *id.* at 574-577; *id.* (discussing Yetman) at 700:3-9; *id.* (discussing Windon and Suffron) at 572-573; SBr. at 17-19, 20-21, 30, 55; RRBr. at 8-10, 45-49, 51, 98.).

²² Regal did not argue in its Pre-Hearing Brief that when a blower housing contacts a water heater when it is mounted (via an adhesive or gasket), there is “indirect” contact only. (*See* CPBr. at 34.). In its Pre-Hearing Brief, Regal appears to have abandoned its *Markman* argument that “mounted/mounting” and “engagement/engages” do not mean “direct” contact, which Regal/the patentee argued during patent prosecution. (*See Markman* Order Nos. I and II.). Regal cannot have it both ways given its arguments during prosecution to gain allowance of the ’834 that there was “direct” only contact when a blower housing is “mounted.” (*See* all *Markman* briefing and *Markman* Order II, Appx. A.).

Dr. Brown analyzed infringement in part based upon the prior art and the positions that Regal took during prosecution. (Hr. Tr. (Brown) (discussing Stewart) at 572:1-13 *id.* at 574-577; *id.* (discussing Yetman) at 700:3-9; and *id.* (discussing Windon and Suffron) at 572-573). Regal failed to rebut Dr. Brown's testimony or Staff's and East West's arguments on this point. either during the Hearing through Dr. Cameron (or anyone else) or in its Post-Hearing Brief.

As the Redesigned PDV Blower is constructed, the changes to the "Blower Base Gasket" together with the "Bracket Base Gasket" and the Electronics Enclosure/circuitry compartment, *prevent* East West's Redesigned PDV blower housing from being "mounted" or "engaged" with "directly" onto a water tank. It appears that, belatedly, Regal has sought to reject its own claim scope disavowals for the sake of infringement. (*See Markman* Order II, Appx. A; *see infra.*).

Regal's sole Hearing fact witness, Mr. Galligos, testified that a gasket generally follows "the outline of the blower," that it typically is made of "rubber," and that "all" dilution blowers must have a gasket that "sits between the water heater and the blower." (Hr. Tr. (Galligos): 121:4-9; *id.* at 7-12; *see also* Regal's Aquavent PDV Blower, CX-0025.). As noted above, with that simple proposition, even Regal's expert on infringement, Dr. Cameron, agreed. (Hr. Tr. (Cameron) at 270:1-3.). Mr. Gatley, the inventor, and Dr. Cameron also agreed, that a "gasket" is typically a component that is used as "a sealant" between a blower housing and hot water tank. (Hr. Tr. (Cameron) 270:1-25, 271:7-11, and generally at 273:23-275:13; *see also Markman* Order No. II, Appx. A.). As *Markman* Order Nos. I and II at Appx. A find, a gasket is not itself an "adhesive." (*Markman* Order No. I; *Markman* Order II, Appx. A at 26.).

Mr. Sweeney described and Dr. Brown confirmed, that on the Redesigned PDV Blower, the "Blower Base Gasket" is made of a "an EPDM foam. EPDM being an acronym for ethylene propylene diene monomer." (Hr. Tr. (Brown) at 627: 5-10.). The bottom of the East West

Redesigned blower housing (before application of the gasket) is made of glass-filled polycarbonate. (*Id.* at 627:4-5.).

Dr. Brown offered his opinion that because of the redesign to East West's Original PDV blower, if the Blower Base Gasket is *not attached* to the housing, the blower would not operate correctly by maintaining pressure above a certain threshold, as required to meet the industry's ANSI Z21.10 certification standard pertaining to air leakage. (*See* RPBr. at 43-45; RRBr. at 22 (citing Hr. Tr. (Brown) at 550:4-552:8).). Regal does not appear to dispute this point or Dr. Brown's testimony about the role that the Blower Base Gasket and Bracket Base Gasket play, at least with respect to the industry's ANSI standard (even though Regal described it as "irrelevant." (CBr. at 26.). Moreover, as Dr. Brown testified, without the "Blower Base Gasket," the Redesigned PDV Blower would not be configured to seal against the surface of a water heater. (RRBr. at 70 (citing Hr. Tr. (Brown) 612:7-613:8).). Without a seal, and in this instance East West's "Blower Base Gasket," there would not be a "continuous engagement" between the dilution compartment and the East West Redesigned PDV Blower and the flat surface of the water heater as claims 1 and 9 require, and as the *Markman* Order Nos. I and II construe the words "continuous engagement." (*See Markman* Order Nos. I and II at Appx. A.). These points are discussed in the infringement sections, below.

As noted above, Regal has argued that the East West Blower Base Gasket is *not* attached to the bottom of the East West Redesigned Blower, and therefore, when the blower housing comes in contact with a water tank, it is "direct" contact, and therefore infringes the '834 patent. (CRBr. at 1-2, 10.). This is a restatement of Regal's *Markman* argument that has been rejected.

To support its point that East West's "Blower Base Gasket" is *not* part of the housing assembly in East West's Redesigned PDV Blower, Regal has insisted that East West maintains a

“Serviceable Parts” list that includes the “Blower Base Gasket” and are sold separately to A.O. Smith. (CBr. at 24-25.).²³ If that were the case, that would undermine East West’s argument that its Blower Base Gasket is a pre-assembled part of the Redesigned PDV Blower housing.

Regal did not prove its point. Mr. Sweeney’s unrebutted testimony is that East West’s “Serviceable Parts” list refers only to a list of parts that is used for an internal process that occurs during manufacturing of the Redesigned PDV Blower. (Hr. Tr. (Sweeney) at 345:12-346:11.). Mr. Sweeney explained that the “Serviceable Parts” list enables East West to examine and, if necessary, reject components “before they get to the assembly line to be integrated into a finished product.” (*Id.*).

In contrast, the evidence Regal produced during the Hearing, which had not been produced to East West before the Hearing, was a screenshot of a purported A.O. Smith website, www.hotwater.com, that contains gaskets for sale that Regal contended are East West gaskets. However, while the A.O. Smith website screenshot was allowed provisionally, Regal did not call an A.O. Smith witness to testify that it purchases “gasket parts” from East West. Regal did not offer any other direct proof to support its point during the Hearing.²⁴

²³ Part of Regal’s narrative is that East West enticed A.O. Smith, a top, world-wide, water heater manufacturer to whom East West began selling PDV blowers in 2019 thereby diminishing Regal’s sales to A.O. Smith to 0 by 2020. (*See* Hr. Tr. (Galligos) at 133:4-135:15, 136:2-21; CPX-0009C.).

²⁴ In a motion filed on July 23, 2021, East West sought to strike the two exhibits that Regal offered belatedly and for the first time during the Hearing, i.e., CX-0152 and CX-0153, that are the screenshot of the A.O. Smith website, and of a parts list that A.O. Smith apparently also offers on the website www.hotwater.com that Regal argued are the same as the East West gaskets that East West says are part of its pre-assembled Redesigned PDV blower housing. (*See* Motion Docket No. 014 (“Motion to Strike”). There was extensive argument on the admissibility, authenticity, and foundation for information about A.O. Smith and the parts it sells. (*See* Hr. Tr. at 525:1-532:25.). The documents were admitted provisionally, albeit with my express reservations. Order No. 30 denied East West’s Motion to Strike. (Order No. 30 (Sept. 3, 2021); *see also* Motion Docket No. 1217-014.). However, despite being admitted into evidence, the two exhibits were not given any weight. They did not meet the requirements of Fed. R. Evid. Rule 403. Regal belatedly tried to authenticate parts it claimed it ordered from A.O. Smith some two (2) weeks *after* the Hearing that it tried to link to East West’s gaskets. (*See* Order No. 30; *see also*

According to Mr. Sweeney's unrebutted testimony, East West's Redesigned PDV Blower is not sold without a Blower Base Gasket as part of the housing assembly. (Hr. Tr. (Sweeney) at 342: 4-6.). The Blower Base Gasket is not designed to be removable. (Hr. Tr. (Sweeney) at 343:7-8 ("Q. Is the gasket designed to be removable? A. No, it's not.")). Mr. Sweeney, Mr. Kelly and Dr. Brown all testified that the "Blower Base Gasket" is "attached" as part of a blower housing assembly. (Hr. Tr. (Sweeney) at 339:19-342:2 (describing also RX-0078C and RX-0027C); *id.*). Moreover, according to Mr. Sweeney, the Redesigned PDV Blower has not "ever" been mounted to a water heater without a gasket (i.e., the Blower Base Gasket). (Hr. Tr. (Sweeney) at 342: 9-12 ("Q. Has the redesigned PDV blower ever mounted on a water heater without the gasket? A. Not to my knowledge. And, if it were, it wouldn't function as intended.")). Dr. Brown, who examined the Redesigned PDV Blower both unmounted and mounted on an A.O. water heater, corroborated Mr. Sweeney's testimony. Dr. Brown testified that the Blower Base Gasket is "attached" to the blower housing and the air inlet hood: "[i]t is permanently glued using a pressure-sensitive adhesive." (Hr. Tr. (Brown) at 552:13-15.). When mounted, the "Blower Base Gasket" "sets directly in contact with that top surface of the water heater." (Hr. Tr. (Brown) at 552: 17-20.). Finally, Mr. Sweeney testified that East West

Motion Docket No. 1217-015.). While that may be allowable under some circumstances, not here. Regal failed to provide an authentication of A.O. Smith's parts before the Hearing when it knew months before that it had raised the issue but did not obtain discovery from A.O. Smith. (*Id.*). The evidence Regal offered or attempted to offer during the Hearing was not strong enough to overcome Mr. Sweeney's direct testimonial evidence that East West does not sell gaskets separately as parts to anyone. (Hr. Tr. (Sweeney) at 342:4-20.). Mr. Sweeney also testified that if a gasket becomes damaged, "we view the entire blower as defective" and then East West advises its customer "to field scrap which means literally throw the product away, and we would give them a refund or credit for the full value of the blower." (*Id.* at 342:21-343: 25; *see also* RX-0129C.). Regal did not make the necessary evidentiary link to prove that the A.O. Smith gaskets are East West gaskets and that East West sells gaskets separately from its PDV Blower to A.O. Smith. Without direct testimony from either an East West witness to support Regal's assertions, or from an A.O. Smith witness, Regal did not make the necessary evidentiary link. Regal did not even provide enough evidence for an inference that would affirm Regal's argument.

“Blower Base Gasket” and “Bracket Base Gasket” are not “replaceable.” (Hr. Tr. (Sweeney) at 342-18-20.). Moreover, according to testimony and pre-Hearing documentary evidence, when East West’s customer, A.O. Smith, receives an East West Redesigned Blower with a damaged or missing gasket, A.O. Smith’s practice is to reject and then scrap the entire blower. (RRBr. at 24 (citing Hr. Tr. (Sweeney) at 342:21-345:2 and RX-0129C).). East West then credits A.O. Smith for the damaged blower. (*Id.*). Contrary to Regal’s challenge of “bias” to Mr. Sweeney’s testimony, it was unrebutted and it was credible. (*See* CBr. at 26-27.).

Other than its failed proof on whether A.O. Smith’s purported gaskets are East West’s gaskets, Regal’s remaining arguments to refute East West’s and Staff’s arguments that the “Blower Base Gasket” is part of the Redesigned PDV Blower *housing* were a re-argument of Regal’s *Markman* constructions. (CRBr. at 10; SBr. at 19-20; CRBr. at 8, 10-11, 12-14, 15.)). Regal did not offer compelling evidence of infringement.

Regal has acknowledged and agreed that the changes East West made to its Original PDV Blower are those that East West described, as quoted above—with the exception of whether the “Blower Base Gasket” (and the “Bracket Base Gasket”) are “attached” as part of the blower assembly, or whether it is sold as a detached, separate part. (CPBr. at 7 (citing CX-0059C at 66:14-67:8; CX-0014C; CX-0103C at 16-18).). On that issue, however, Regal was unable to rebut with creditable evidence that East West sells its Redesigned Blower Housing without the pre-assembled Blower Base Gasket.

East West made the point in its Pre-Hearing Brief that Regal treated its own gaskets as part of its blower housing for purposes of calculating domestic industry investments. (*See* RPBr. at 46 (citing Regal’s Violation Complaint at ¶¶ 56-60 (Doc. ID 716059) (July 30, 2020)); Regal’s Violation Complaint, Confidential Exhibit 11 (Declaration of T. Galligos), Appendix 2 at 1-3

(Doc. ID 716055) (Jul. 30, 2020)). East West's point is that if Regal included "gaskets" as part of its domestic industry, then Regal's gaskets are necessary to its own exploitation of its '834 patent. (See RRBBr. at 23; *contra* CBr. at 27.).

Thus gaskets, and specifically East West's "Blower Base Gasket" and its "Bracket Base Gasket," are relevant and material. East West had the better arguments and evidence.

3. The Redesigned PDV Blower Whether With or Without the Blower Base Gasket Does Not Infringe Any of "Circuitry Compartment" Limitations

Figures 7 and 8, below, depict East West's Redesigned PDV Blower as they would be mounted. Of particular note is the change in the elevation or suspension of the Electronics Enclosure that elevates the Electronics Enclosure *with the circuitry compartment* in East West's Redesigned PDV Blower from the bottom of the blower housing.

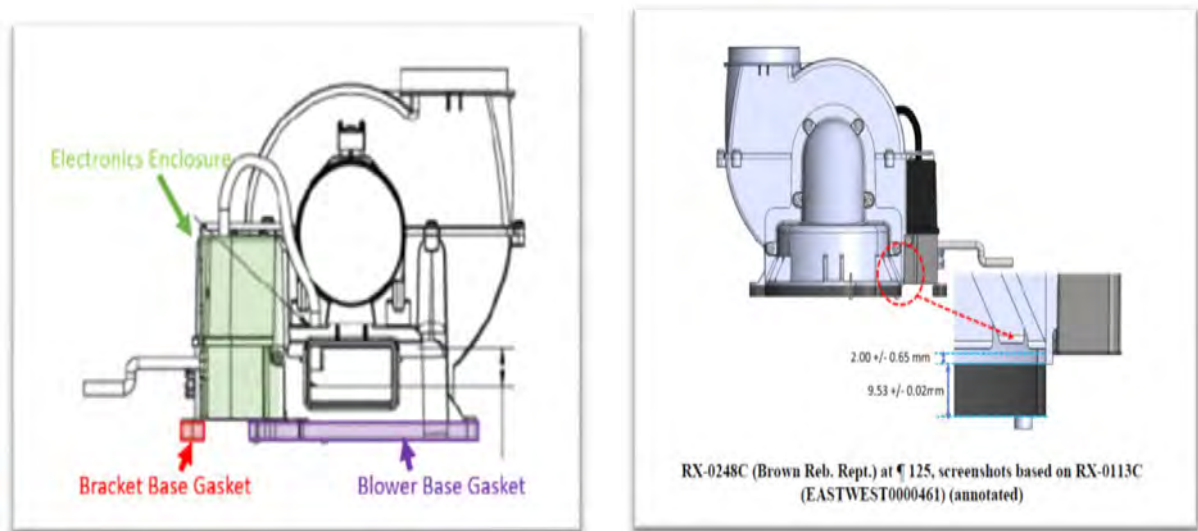
Dr. Brown measured the depth of the Blower Base Gasket unassembled, and its effect on the blower housing when it is attached. Mr. Sweeny testified, and Dr. Brown confirmed, that with the Blower Base Gasket attached to the bottom of the Redesigned Blower Housing, as shown in Figures 7 and 8, below, the Electronics Enclosure/circuitry compartment *is suspended some 11.53 millimeters (mm) above the bottom of the recited one side of the blower housing.* (See SPBr. at 8 (citing CDX-00017/RX-0248C; RX-0078C; Hr. Tr. (Cameron) at 302:2-303:7; SBr. at 8, 36-37 (citing Hr. Tr. (Brown) at 570:16-25); SBr. at 39-41 (citing Hr. Tr. (Brown) at 547:19-548:2, 569:4-570:2; RDX-0001C.25); RBr. at 39-40, 44-45, 57 (citing Hr. Tr. (Brown) at 589:24-592:5; *id.* at 594: 2-13; *id.* at 581:17-23; RDX-0001.40; RBr. at 57 (citing Hr. Tr. (Brown) at 590:2-592:4).).

That 11.53 centimeters is essential because the measurement supports East West's arguments and evidence that its Redesigned PDV Blower does not infringe the '834 patent, for several reasons, discussed below. A simple, incomplete summary explanation is that: (1) the

Electronics Enclosure with the circuitry compartment in not “positioned on” and does not sit in the same “single” “plane” as claims 1 and 9 require.

Figure 7, below, provides one perspective of the Redesigned PDV Blower housing but with the modifications East West made to *include* the “Bracket Base Gasket” and “Blower Base Gasket,” as annotated and the elevated or suspended Electronics Enclosure/circuitry compartment.

Figure 7. Redesigned PDV Blower with Bracket Base Blower and Blower Base Gasket and Suspended Electronics Enclosure



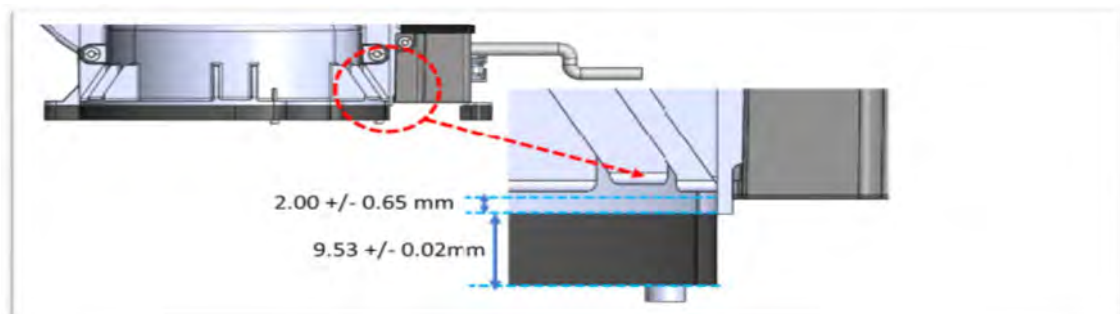
(See SBr. at 8, (citing RX-0248C (Brown Reb. Report at ¶ 125(screenshots))); *see also* East West Redesigned Blower with Dr. Brown’s measurements of the depth of the gaskets, with or without being mounted to a water tank; *see also* RRB. at 37-41 (citing RDX-0001.23; RDX-0001.39; RDX-0001.40 (other citations omitted)); *see* SBr. at 37-39; *see* Sanctions Motion 127-001).

Even if some of the *Markman* constructions were to be overturned on appeal, particularly the “direct” and “indirect” contact constructions, when all of the changes East West made to the Original PDV Blower are considered, the Redesigned PDV blower cannot infringe the ’834 patent. Or, to state this another way, even if the “Blower Base Gasket” and the “Bracket Base Gasket” are removed from the bottom of the Redesigned PDV Bower housing, and even if those

East West gaskets or “gasket material” are not considered to be part of East West’s Redesigned PDV Blower housing (as Regal has argued), the Electronics Enclosure/with the circulation compartment of East West’s Redesigned PDV blower are constructed so that they are not “positioned” “on the one side of the blower housing that lies in a single plane.” (See, e.g., SBr. at 8, 35-42-46; RRBr. at 62-107.).

Figure 8, below, depicts another shot of the bottom of the East West Redesigned PDV Blower with the measurement of the thickness of the “Blower Base Gasket” as 9.53+/-0.0 mm. If the “Blower Base Gasket” were removed, there would still be a remaining 2.00 +/-0.065 mm between the Electronics Housing/circuitry compartment and the bottom of East West’s Redesigned PDV Blower housing.

Figure 8. Dr. Brown’s Measurements of Depth of Blower Base Gasket and Suspension of Electronics Enclosure/ Circuitry Compartment Above Bottom of Blower Housing



(See SBr. at 8 (citing RX-0248C (Brown Reb. Report at ¶ 125), Screenshot taken of East West Redesigned Blower with Dr. Brown’s measurements of the depth of the gaskets, with or without being mounted to a water tank); see also Fig. 7, above (citations omitted).).

Regal conceded in its Complaint that the ’834 patent “blower housing” has a side that is configured to rest against the flat side of a water heater.” (Compl. at ¶ 36; see also RX-0137.12; RX-0142.10.). Regal also acknowledged in infringement contentions that the circuitry compartment of the ’834 patent, unlike Regal’s Redesigned PDV Blower circuitry compartment, “also rests on the flat side (18) of the heater, just like the rest of the portions of the lower housing

that are positioned in the ‘one side’ of the housing.” (*See* RX-0142.10; *see also* JX-0001 at Figs. 4, 18, 5:43-45, 9:19-20.).

Dr. Cameron confirmed during the Hearing that she did not review the Enforcement Complaint. (Hr. Tr. (Cameron) at 252: 2-253:7.). Dr. Cameron testified that Regal did not send to her, and therefore, she did not inspect East West’s Redesigned PDV blower mounted on top of a water tank or furnace. (Hr. Tr. (Cameron) at 260:6-18.). Dr. Cameron did not take measurements of the thickness of the Blower Base Gasket, or the space that is left between the blower housing and the Electronics Enclosure/circuitry compartment. Without seeing or inspecting East West’s Redesigned PDV Blower “mounted” on top of a water heater, Dr. Cameron, as a person of ordinary skill in the art, conceded during the Hearing and agreed with Dr. Brown’s measurements, that even with the “Blower Base Gasket” and “Bracket Base Gasket” removed, the Electronics Enclosure/circuitry compartment would be suspended by 2 mm above the bottom of the blower housing and the surface of a water tank to which it would be mounted.

Importantly, Dr. Cameron also conceded that the distance between the Electronics Enclosure/circuitry compartment and the bottom of the Redesigned PDV Blower housing, in turn, would exceed the manufacturing tolerances for the blower housing that existed in 2004, when the ’834 patent application was filed. (Hr. Tr. (Cameron) at 89:17-90-17; *id.* at 302:2-303:7, 304:20-21, 547:19-548:2; *id.* at 569:4-570:2; *see also* CX-0006C (Opening Cameron Expert Report) at ¶¶ 56, 57; RDX-0001C.25; SBr. at 8, 36-41 (other citations omitted).).

Mr. Kelly examined and provided a supported legal (and engineering) opinion and testimony that East West’s Redesigned PDV Blower, does not infringe the ’834 patent. (Hr. Tr. (Sweeney) at 326:22-327:2-329:11.). Unlike Dr. Cameron, Mr. Kelly testified that as part of his

non-infringement analysis, he compared the East West Redesigned Blower to the claims of the '834 patent. (Hr. Tr. (Kelly) at 453:2-5; *see also* RX-0121C; RX-0126C; RX-0127C; *see also* RX-0078C (Exploded View of Redesigned Blower) and RX-027C (Drawing of the Blower Base Gasket used in the Redesigned PDV Blower; *see also* Hr. Tr. (Sweeney) at 339: 1-24.). Mr. Kelly also considered the patent prosecution history and specifically Yetman, Stewart, Windon and Suffron. (Hr. Tr. (Kelly) at 459:1-460:5; RX-0121C, Ex.-C-F).).

Dr. Cameron did not provide a claim-by-claim infringement analysis during the Hearing, nor did she perform her own claim constructions for the disputed claims. She considered only the Parties' prepared constructions. (Hr. Tr. (Cameron) at 266:1-11.). She was not provided with and did not examine an East West Redesigned PDV Blower on top of a water heater. (*See* SBr. at 28 (citing Hr. Tr. (Cameron) at 270:4-20).). Consistent with the structure of Regal's presentation, Dr. Cameron did not testify about the patent prosecution or mention the prior art that is so important to the *Markman* constructions and to a claim-by-claim infringement analysis. Dr. Cameron did not credibly dispute with evidence Mr. Sweeney's fact testimony that the Redesigned PDV Blower is part of an assembly of the blower housing. Dr. Cameron did not refute any of Dr. Brown's infringement analysis that depended upon the arguments Regal/the patentee made during prosecution, and specifically Yetman, Stewart, Windon and Suffron.

Generally, Dr. Brown's opinions were more thorough and supported and given great weight. Dr. Cameron's opinions on infringement have been given less weight in part because of the limited, often conclusory nature of her analyses. *See SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1210 (Fed. Cir. 2013).

One of the reasons Dr. Cameron was called to testify was to explain that Mr. Kelly, also an engineer and patent agent, did not seem to understand where the Blower Base Gasket is

located on the Redesigned PDV Blower, or that it should not be considered part of the blower housing. (Hr. Tr. (Cameron) at 294:1-295:25.). To that end, Regal argued that Mr. Kelly's opinion of non-infringement was "not reasonable." (CBr. at 90-92.). Mr. Kelly's testimony about his own claim-by-claim infringement analysis of the Redesigned PDV Blower, and his explanation of the CAD drawings he had and examined of the Redesigned PDV Blower included an understanding that the bottom of the Redesigned PDV Blower housing was the "Blower Base Gasket." (Hr. Tr. (Kelly) at 462:21-463:2; *id.* at 464:19-465:9.). In his letter to Mr. Sweeney in which he conveyed his non-infringement opinion, he specifically identified the "Blower Base Gasket.x_t" and "Bracket Base Gasket.x_t" with the additional component parts. (*See* RRBBr. at 87 (citing RX-0121C).). Mr. Kelly's testimony of how he examined East West's Redesigned PDV Blower including CAD drawings of the same, and of his claim-by-claim analysis of the Redesigned PDV Blower, was the more persuasive and supported testimony. It was given great weight.

VII INFRINGEMENT AND THE CLAIM LIMITATIONS

A. Asserted Claims

Of the Asserted Claims 1, 2, 7, 8, 9, 10 and 15 of the '834 patent, the two independent claims 1 and 9 are the focus of dispute among the Parties. The findings are that there is no infringement of claims 1 and 9. If there is no infringement of the independent claims, there can be no infringement of dependent claims 2, 7, 8, 10 and 15. *Ferring B.V. v. Watson Labs., Inc.*, 764 F.3d 1401, 1411 (Fed. Cir. 2014) ("Because we hold that the asserted independent claims of [the asserted] patents are not infringed, the asserted dependent claims are likewise not infringed."); *Monsanto Co. v. Syngenta Seeds, Inc.*, 503 F.3d 1352, 1359 (Fed. Cir. 2007) ("One who does not infringe an independent claim cannot infringe a claim dependent on (and thus

containing all the limitations of) that claim.”); *Wahpeton*, 870 F.2d at 1553 (“It is axiomatic that dependent claims cannot be found infringed unless the claims from which they depend have been found to have been infringed.”). As also noted above, it is axiomatic in claim construction that “[i]f any claim limitation is absent from the accused devices, there is no literal infringement as a matter of law.” *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000.).

Claims 1 and 9 of the ’834 patent are recited below. For purposes of both the *Markman* constructions and infringement, the Parties have agreed that the disputed claim terms that are repeated in claims 1 and 9 have the same meaning. (Hr. Tr. (Brown) at 604: 7:10; Hr. Tr. (Cameron) at 217:21.). Specifically, dependent claims 2 and 10 recite a “flange” positioned in a single plane, while claims 7 and 15 provide additional detail on motor and fan compartment configurations. (JX-0001).²⁵

Before the Hearing, Regal conceded in a stipulation, that if the *Markman* rulings (fact and law) are correct that the “Blower Base Gasket” is part of the blower housing, (which does not include the Bottom Housing and the Air Inlet Hood), and which forms “one side of the blower housing that is positioned in a single plane,” then it has “no infringement contentions” with respect that *Markman* ruling. (Pre-Hearing Stipulation at ¶ 6; *see also* Order Nos. 23 and 24.). As is described below, the “circuitry compartment” and the “dilution compartment” in East West’s Redesigned PDV Blower do not meet a number of the required claim limitations. (*See* Infringement Sections, below; *see also* Hr. Tr. (Brown) at 545:8-548:15.).

Claims 1 and 9 of the ’834 Patent

²⁵ Dr. Cameron did not offer specific testimony on the Redesigned PDV Blower’s infringement of the dependent claims of the ’834 patent. Any such attempted argument on appeal has been waived pursuant to Ground Rule 10.1.

1. A blower housing comprising:

[a] one side of the blower housing that is positioned in a single plane, the single plane of the one side of the blower housing facilitating mounting the one side of the blower housing on a flat surface having a flue opening of a heater with which the blower housing is used;

[b] a fan compartment inside the blower housing and positioned directly above the one side of the blower housing for stable support of the fan compartment when the one side of the blower housing is attached to the flat surface of the heater, the fan compartment having an enclosed interior volume;

[c] a fan inside the fan compartment interior volume;

[d] a motor on the blower housing, the motor being operatively connected to the fan for rotating the fan inside the fan compartment;

[e] a dilution compartment inside the blower housing and positioned on the one side of the blower housing, the dilution compartment having an interior volume that communicates with the fan compartment interior volume, the dilution compartment having a side wall that extends around the dilution compartment interior volume and forms a part of the one side of the blower housing, the side wall having a single dilution air intake opening through the side wall communicating the interior volume of the dilution compartment with an exterior environment of the blower housing, the side wall being dimensioned to extend around and be spaced outwardly from the flue opening of the heater when the one side of the blower housing is mounted on the flat surface of the heater whereby the dilution compartment interior volume is dimensioned sufficiently large to enable mixing of exhaust gas received in the dilution compartment interior volume from the flue opening with ambient air received in the dilution compartment interior volume through the dilution air intake opening, the side wall and the one side of the blower housing providing a continuous engagement with the flat surface of the heater around the flue opening when the one side of the blower housing is mounted on the flat surface of the heater whereby ambient air can enter into the dilution compartment interior volume only through the one dilution air intake opening in the side wall; and

[f] a circuitry compartment inside the blower housing and positioned on the one side of the blower housing, the circuitry compartment having at least one wall that extends around an interior volume of the circuitry compartment and forms a part of the one side of the blower housing that is positioned in the single plane.

9. A blower housing comprising:

[a] one side of the blower housing that is positioned in a single plane, the single plane of the one side of the blower housing facilitating mounting the one side of the blower housing on a flat surface having a flue opening of a heater with which the blower housing is used;

[b] a fan compartment inside the blower housing and positioned directly above the one side of the blower housing for stable support of the fan compartment when the one side of

the blower housing is attached to the flat surface of the heater, the fan compartment having an enclosed interior volume;

[c] a fan inside the fan compartment interior volume;

[d] a motor on the blower housing, the motor being operatively connected to the fan for rotating the fan inside the fan compartment;

[e] a circuitry compartment inside the blower housing and positioned on the one side of the blower housing, the circuitry compartment having an interior volume and at least one wall that extends around the interior volume and forms a part of the one side of the blower housing that is positioned in the single plane and engages with the flat surface of the heater when the one side of the blower housing is mounted on the flat surface of the heater;

[f] a dilution compartment inside the blower housing and positioned on the one side of the blower housing, the dilution compartment having an interior volume that communicates with the fan compartment interior volume, the dilution compartment having a side wall that extends around the dilution compartment interior volume and forms a part of the one side of the blower housing, the side wall having a single dilution air intake opening through the side wall, the side wall being dimensioned to extend around and be spaced outwardly from the flue opening of the heater when the one side of the blower housing is mounted on the flat surface of the heater whereby the dilution compartment interior volume is dimensioned sufficiently large to enable mixing of exhaust gas received in the dilution compartment interior volume from the flue opening with ambient air received in the dilution compartment interior volume through the dilution air intake opening, the side wall and the one side of the blower housing providing a continuous engagement with the flat surface of the heater around the flue opening when the one side of the blower housing is mounted on the flat surface of the heater whereby ambient air can enter into the dilution compartment interior volume only through the one dilution air intake opening in the side wall.

B. The Claim Limitation “a blower housing comprising”

It has been accepted for *Markman* purposes that the East West Redesigned PDV Blower Housing includes a “Blower Base Gasket” and a “Bracket Base Gasket.”

Regal has claimed that the word “comprising” in the preambles of claims 1 and 9 is sufficiently broad that it allows for infringement even if a gasket is not “claimed” in the patent or recited in the claims. (CPBr. at 23-24.).

In contrast, Staff has argued that pursuant to Federal Circuit law, “even unrecited components may be considered part of a claimed device, because patent claims need all recite all

components of an accused device—even those for proper operation, such as a gasket.” (*See* SPBr. at 37 (citing *Rambus Inc. v. Infineon Techs. Ag.*, 318 F.3d 1081, 1093 (Fed. Cir. 2003) (“[C]laims need not recite every component necessary to enable operation of a working device”)); *see also* SPBr. at 37 n.8 (citing *Spectrum Int’l Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1380 (Fed. Cir. 1998) (“‘Comprising’ is not a weasel word with which to abrogate claim limitations”)); *Kustom Signals Inc. v. Applied Concepts, Inc.*, 264 F.3d 1326, 1332 (Fed. Cir. 2001) (“‘Comprising’ does not free the claim term from its own limitations” and “cannot restore subject matter otherwise excluded”); *In re Varma*, 816 F.3d 1352, 1362 (Fed. Cir. 2016) (“‘Comprising’ means that the claim can be met by a system that contains features over and above those specially required by the claim element, but only if [it] still satisfied the specific claim-element requirements; the claim does not cover systems whose unclaimed features make the claim elements no longer satisfied.”).

In the ’834 patent, the claim language of claims 1 and 9 require that the “one” side of the blower housing” is “positioned” in a single plane,” to “facilitate [] mounting on the one side of the blower housing” onto the water heater surface. According to both Regal’s and East West’s fact and expert witnesses, a gasket may facilitate “mounting” and the “engagement” of a blower to hot water tank because of its use as a “sealant.” It is not used for “attachment.” (*See Markman* Order II, Appx. A. at 25-26 (citing RXM-0009C (Gatley Depo. Tr.) at 42:13-16).). As noted, Regal’s own expert agreed that a “gasket” is used to “seal” the claimed blower to a water heater. (*See* CMBr. at 15; *Markman* Order II, Appx. A at 81-82; Hr. Tr. (Cameron) at 278:1-2.) Significantly, Dr. Cameron also testified that she has not seen a blower housing sealed to a water tank *without* a gasket. (Hr. Tr. (Cameron) at 278:1-2.). A “gasket is a typical installation.” (*Id.*

at 270:1-13.). Dr. Brown, East West's technical expert including for infringement, agreed that a gasket is a "seal." (Hr. Tr. (Brown) at 551:19-552:8.).

Dr. Brown provided a more thorough explanation, at least for this case, of the roles of the "Blower Base Gasket" and the "Bracket Base Gasket" to the structure, operation and stability of a blower housing. (RBr. at 22-23 (citing Hr. Tr. (Cameron) at 165:9-166:5, 178-21:179-13, 180:18-181:21); RRB. at 27.) Dr. Brown explained during the Hearing that the Blower Base Gasket and the Bracket Base Gasket provide structural integrity and/or guide the passage of airflow. (*See, e.g.*, Hr. Tr. (Brown) at 550:4-552:8.). Dr. Brown also elaborated on how the "Blower Base Gasket" performs both of these functions:

Q. You mentioned structural stability and guidance of airflow. Which of those does the blower base gasket do?

A. It does both. In terms of structural contributions, it acts to dampen vibration between the blower and the water heater, but also evens the pressure between the blower and the top of the water heater by being compressible. And by that compressibility, it generates a uniform pressure over that surface.

And then, in terms of guidance of airflow, it does two things. One, it performs part of the passage of the cool air entering in through the air intake on one side of the blower, and then it also serves to seal the surface of the water heater to prevent ingress or gas escape from around the blower.

(RRBr. at 20 (citing Hr. Tr. (Brown) at 551:19-552:8; *accord* Hr. Tr. (Cameron) at 277:14-18, 273:11-15; *id.* at 274:8:275:12 (there must be a "seal" with continuous engagement between a blower and a water heater and a gasket is a means of sealing); *see also* RDX-0001.49.).

By contrast, other than to testify about the "Blower Base Gasket's" use as a "sealant," and conclusory statements that the "Blower Base Gasket" and Bracket Base Gasket" are not part of the East West Redesigned PDV Blower *housing*, Dr. Cameron did not specifically address other roles that East West's gaskets play to provide any "housing" functionality, except that there needs to be "continuous engagement" with a seal between the dilution compartment of

the Redesigned PDV Blower and a water tank. (RBr. at 24 (citing Hr. Tr. (Cameron) at 159:12-22, 165:9-166-5; *see also* Hr. Tr. (Brown) at 612:7-613: 18; *accord* Hr. Tr. (Cameron) at 277:14-18.). Therefore, while a gasket may not be “claimed” specifically in the ’834 patent, based upon the undisputed expert testimony that Dr. Cameron and Dr. Brown provided, a person of ordinary skill would have understood in 2004 that a blower housing might not be operable without a gasket, and that a gasket is a typical means of sealing a blower housing to a water heater. (*Supra.*)

Additionally, according to the weight of the evidence, the “Blower Base Gasket” and “Bracket Base Gasket” perform additional functions as Dr. Brown described.

Therefore, a gasket, including East West’s “Blower Base Gasket” and “Bracket Base Gasket,” are not “irrelevant” to the ’834 patent or to infringement as Regal has argued. It is a finding, consistent with Staff’s argument and Federal Circuit law that a “gasket,” although perhaps “unclaimed” may be a necessary component as part of the “comprising” claim limitation.

C. The Redesigned PDV Blower Does Not Meet the Claim Limitation “*a circuitry compartment inside the blower housing*”

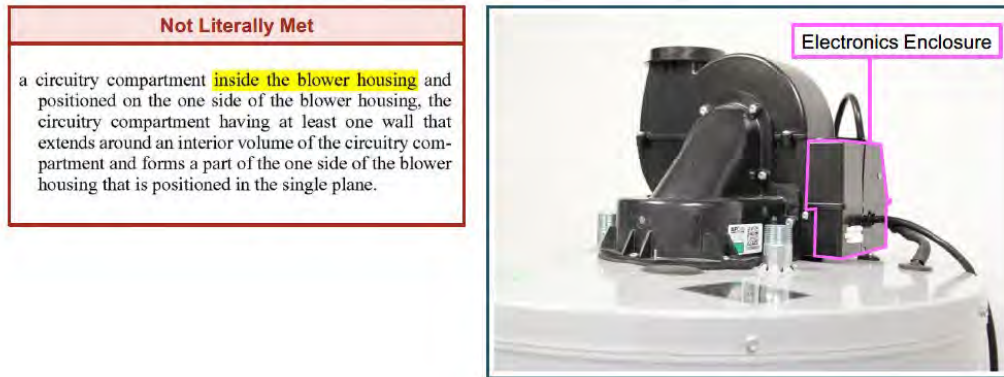
Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes the claim limitations of limitation [f] of claim 1 and limitation [e] of claim 9 as italicized: “*a circuitry compartment inside the blower housing.*” *Markman* Order Nos. I and II construed “inside the blower housing” as having a “plain and ordinary” meaning, which “cannot by itself, mean ‘affixed to.’” (*See Markman* Order I at 7-8; *Markman* Order II, Appx. A at 71-75.). East West has argued that this claim limitation involves the Stewart patent and Regal’s/the patentee’s prosecution argument that Stewart did not disclose a “[circuitry compartment] inside the blower housing.” (RRBr. at 58 (citing JX-0003, RGL-000265; RGL-000321; RGL-000364;

RGL-000402)). Regal has argued that East West's and Staff's explanation of the patent prosecution was wrong. (CBr. at 58; *see also* CMBr.; *Markman* Order II, Appx. A.). However, Regal did not provide expert testimony during the Hearing on this point. By contrast, Figure 9, below, depicts the Electronics Enclosure, outlined in pink, as East West annotated it. (*See* RRBr. at 67-68 (citing RDX-0001.41; RX-0078.1)). Dr. Brown testified during the Hearing that the Electronics Compartment *is* affixed to the East West Redesigned PDV Blower using removable screws. (RRBr. at 58 (citing Hr. Tr. (Brown) at 579:8-580:3.). Dr. Brown also testified that he had removed the screws and that the "Electronics Enclosure" is removable. (Hr. Tr. (Brown) at 580:4-10.).

However, Regal argued that the "Electronics Enclosure" in East West's Redesigned PDV Blower is "inside the blower housing" because the bottom housing serves as a "wall" of the compartment. (CBr. at 57-58.). To that end, East West has argued that Regal's argument wrongly assumes that if a "circuitry compartment" shares a "wall" with the dilution compartment," then the circuitry compartment is not inside the blower housing. (RRBr. at 60). East West says that Regal's argument contradicts the prosecution history in which "Regal, the Examiner and the PBAI all understood that Stewart disclosed a "circuitry compartment" that shared a wall with the " dilution compartment." (*Id.* (citing CBr. at 67.). Additionally, Dr. Brown testified that to be part of the "blower housing," a *component* must provide structural integrity and/or guide the passage of airflow. (RRBr. at 61 (citing Hr. Tr. (Brown) at 550:4-552:8)). Dr. Brown testified that the "Electronics Enclosure" on the Redesigned PDV Blower does not provide those functions. (*Id.*). Instead, the "Over Enclosure Bracket," a separate part, performs those functions by extending over and around the "Electronics Enclosure and is not

“inside” the blower housing. (See RRBr. at 61-62 (citing RX-0078.1 annotated).). Dr. Brown’s testimony was un rebutted. His opinion and testimony were persuasive and credible.

Figure 9. Depiction of an Electronics Enclosure With Circuitry Compartment



JX-0001 (834 patent) at Cl. 1; RX-0170.5

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(RRBr. at 58 (citing RDX.0001; JX-0001 at Cl. 1; RX-0170.5).

D. The Redesigned PDV Blower Does Not Meet the Claim Limitation of “a circuitry compartment” and “positioned on the one side of the blower housing” “that is positioned in the single plane”

Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes the claim limitations [a] and [f] of claim 1 and [a] and [e] of claim 9 as italicized: that “*a circuitry compartment inside the blower housing and positioned on the one side of the blower housing ...that is positioned in a single plane.*” (See *Markman* Order Nos. I and II, Appx. A at 55-61.). While Regal has offered only attorney re-argument that the *Markman* constructions of the disputed, recited limitations are wrong, Regal did not offer expert engineering evidence, or other testimony from an engineering perspective on why the Redesigned PDV Blower housing infringes the cited claim limitations. (CBr. at 64-68; CRBr. at 11-15.). Neither Regal nor Dr. Cameron presented evidence during the Hearing on the reason

that the Redesigned PDV Blower would infringe. Regal specifically ignored the patent prosecution history and specifically the Stewart patent, which is germane to infringement.

According to the inventors, the blower housing of the '834 patent, by the language of claims 1 and 9, was designed so that one side of the claimed blower housing is “positioned in a single plane that facilitates mounting of the one side of the housing on a flat surface of the furnace or hot water heater with which the blower is used.” (JX-0001 at 2:44-48; *id.* at 4:13-26.).

East West and Staff argued that Figure 3 of the '834 patent and the language of the claims provide that the circuitry compartment and the dilution compartment must be “located at” the same side, and on the side of the blower housing that directly contacts the flat surface of a water heater. (JX-0001 at Figs. 3 at 7:36-51; *id.* at 2:44-48; *id.* at 4:3-26; SPBr. at 14-15; RPBr. at 14-16; RRBr. at 14, 38, 39; *see also Markman* Order II, Appx. A at 5-7, 46-47.). The '834 patent claim language states that the circuitry compartment *and* the dilution compartment are each “located at” the “one side of the blower housing that is located in a single plane.” (JX-0001 at Cl. 1 and 9 [e] and [f].). The positioning of both compartments enables the blower housing to be “mounted” to the surface of a water heater. (*Id.* at 4:13-26.). The *Markman* Orders take that same literal and practical view based on Figure 3 and the other Figures of the '834 patent's two (2) embodiments and language. (*See also Markman* Order I, *Markman* Order II, Appx A.).

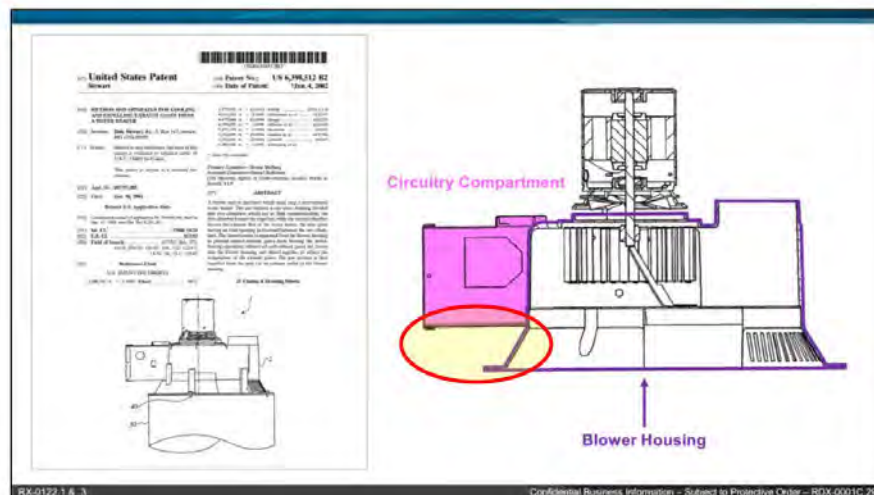
As *Markman* Order Nos. I and II explain, “positioned on” with respect to the location of the circuitry and dilution compartments does not mean positioned “above” the one side of the blower housing.²⁶ The cited claim language does not state that the dilution and circuitry

²⁶ Regal's constructions of “positioned on the one side of the blower housing” and “one side of the blower housing that is positioned in a single plane” were rejected. (*Markman* Order I, and *Markman* Order II, Appx. A. at 40-65.).

compartments are “partially” “positioned on.” As *Markman* Orders I and II explain, there is no such modifying language in the ’834 patent or in the specification upon which Regal has relied. (See *Markman* Order I; *Markman* Order II, Ex. A at 55, 61 (and patentee’s distinguishing of Stewart). The reason traces back to patent prosecution, which Regal has ignored.

During patent prosecution, the original claim 47 that recited a “circuitry compartment” was dependent on claim 39. (See RRB. at 45-46 (citing JX-0003 (’834 File History) at RGL-0000265).). Claim 49 was an independent claim that included the “circuitry compartment” limitation. (*Id.* at RGL-0000266.). As Staff and East West explained, the patent examiner rejected claims 47 and 49 because the Stewart reference disclosed the “circuitry compartment limitation.” (JX-0003 at RGL0000281-82; RRB. at 46; SBr. at 21.). As Staff and East West have noted and argued during *Markman*, and again as part of their infringement analysis, Stewart’s blower housing had a circuitry compartment that was suspended above the blower housing’s bottom plane, which is depicted in Figure 10, below. East West has annotated and colored Figure 2 from the Stewart patent. As with the Redesigned PDV Blower, the Stewart “circuitry compartment” (that is part of the purple compartment) is suspended above the base of the blower housing (circled in red). (RRB. at 46-47.).

Figure 10. Circuitry Compartment. Fig. 2 from Stewart Prior Art Patent



(RRBr. at 46 (citing RDX-0001.29, and RX-0122.1, 3)).

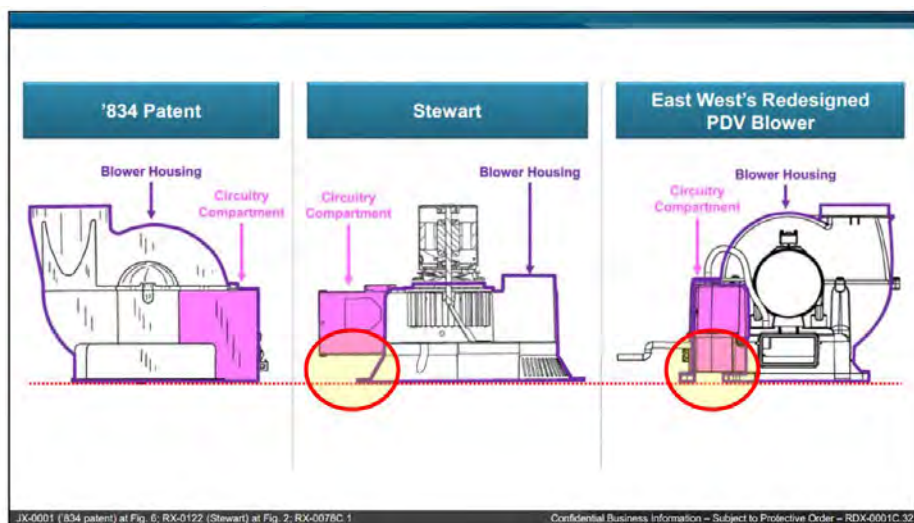
Regal/the patentee disputed the examiner’s rejection by claiming that Stewart did not disclose the claimed circuitry compartment. (*Id.*; *see also* JX-0003 at RGL-0000293-94.). There were other arguments Regal/the patentee made to distinguish Stewart. (*See* RRBr. at 46-47; SMBr.; CMBr.; RMBr.; JX-0003 at RGL-0000293; *see also* *Markman* Order II, Appx. A.). The conclusion of the examiner was that Stewart did not disclose claims 47 or 49 which recited the circuitry compartment. (*Id.* at JX-0003 at RGL-0000431, RGL 0000409-10.). Therefore, as East West and Staff have argued, if a circuitry compartment, for example, in the Redesigned PDV Blower housing, is positioned above “one side of the blower housing,” and if it is “affixed” to the side of a blower housing, among other limitations, it does not meet the “positioned on” limitation. (SBr. at 35-36; *see e.g.* RRBr. at 39-40, 43-45; *see also* *Markman* Order Nos. I and II, Appx. A at 55-56 (other citations omitted)).

Dr. Brown testified during the Hearing that the accused circuitry compartment that is part of the “Electronics Enclosure” in the Redesigned PDV Blower is “suspended above,” or “positioned above” the recited one side of the blower housing, similar to Stewart. (Hr. Tr. (Brown) at 547:19-548:2, 569:4-570:2; *see* RDX-0001C.25; *see also* Figures 7 and 8, above.).

The Electronics Enclosure, and therefore, the circuitry and dilution compartments, are not “positioned on”—as the claim limitation requires—“the one side of the blower housing”—another claim limitation, that is located “in a single plane”—another claim limitation—as the claim language requires and as *Markman* Order Nos. I and II construed. (Hr. Tr. (Brown) at 572:1-575:13; *id.* at 764:6-8; RDX.1; *see also* RRBBr. at 47; SBr. at 35-42; *see also Markman* Order Nos. I and II, Appx. A.).

Depicted below, as Figure 11 is a pictorial representation that compares the circuitry compartment of the '834 patent, the Stewart prior art patent, and East West's Redesigned PDV Blower. As is apparent, the East West Redesigned PDV Blower with its “Blower Base Gasket” and “Bracket Base Gasket” is clearly not “a part of the one side of the blower housing that is positioned in a single plane.” (JX-0001 at Cls. 1 and 9.).

Figure 11. Comparison of '834 Blower with Stewart & Redesigned PDV Blower



(RRBr. at 48 (citing RDX-0001.32; JX-0001 at Fig. 6; RX-0122 (Stewart) at Fig. 2; RX-0078C.1).).

The circuitry compartment is in pink, and shows that there is an at least 2 mm gap between the bottom of the circuitry compartment and bottom of the blower housing circled in red. (*Id.* (Figures 7 and 8, below, should be examined with Figures 10 and 11, below; *see also* SBr. at 40-41.).

As noted above, the Redesigned PDV Blower has an “Electronics Enclosure” (including the circuitry compartment) that is “affixed” to a shared wall of the blower housing. (*See* Hr. Tr. (Brown) at 579:9-576:9, 577:5-10; CBr. at 67.).

Even if Regal is correct that because of the wide-spread use of gaskets with blower housings and water tanks, or that a gasket is “irrelevant” to the ’834 patent, in the Redesigned PDV Blower with the attached Blower Base Gasket, as Staff has noted and East West’s expert, Dr. Brown testified, *the bottom of the circuitry compartment in the Redesigned PDV Blower is still suspended 2-mm above the bottom of what Regal has defined as a blower housing.* (*Id.* (citing (CDX-00017/RX-248C, RX-0078C.)). Dr. Cameron and Regal did not dispute this. (Hr. Tr. (Cameron) at 302:2-303:7). Dr. Cameron agreed that the Electronics Enclosure does not touch the surface of a water heater. (Hr. Tr. (Cameron) at 288:1-25.). Moreover, Dr. Cameron acknowledged in her Hearing testimony that she did not apply the *Markman* construction for “positioned on.” (*Id.* at 206:7-207:8.).

Dr. Cameron also testified that when an East West Redesigned Blower is “mounted” to a water heater with a Blower Base Gasket, which would constitute “indirect” contact—not “direct” contact as Regal has tried to argue. (*See* Depo. Tr. (Cameron) at 128:6-21; Hr. Tr. (Cameron) at 206:7-207:8; *id.* at 270:4-25.). On that point, perhaps knowing or realizing it, Dr. Cameron disagreed with Regal’s patent prosecution arguments. (*See Markman* Order II, Appx. A at 1-

36.). Moreover, although Regal finally mentioned Stewart in its Post-Hearing Reply Brief, previously, Regal had described Stewart as “legally irrelevant.” (CBr. at 64-68; CPBr. at 113.).

To the extent that Regal failed to refute East West’s and Dr. Brown’s testimony during the Hearing, or even answer the testimony that Dr. Brown provided to show how the Redesigned PDV Blower’s Electronics Enclosure with the circuitry compartment are “suspended” above a hot water tank when the housing of the Redesigned PDV blower is mounted on top, Regal has waived such an argument for appeal purposes under Ground Rule 10.1. To the extent that Regal argued that the Stewart patent is “legal irrelevant,” it has waived the right to raise the Stewart patent on appeal as part of an infringement analysis under Ground Rule 10.1.

Additionally, as East West has noted, Regal did not contend in its Post-Hearing Brief that the *Markman* Order’s construction of the “*positioned on*” limitation is incorrect or requires modification. (*See* RRBr. at 36 n.18 (citing CBr. at 14-19)). Dr. Cameron did not offer an opinion of the meaning of the claim limitation term “*positioned on*” such that it would support Regal’s theory. Therefore, pursuant to Ground Rule 10.1, Regal has waived any argument for appeal purposes on this claim term limitation pursuant to Ground Rule 10.1.²⁷

²⁷ Even if a different conclusion is reached about the adopted *Markman* constructions, certain of Regal’s Enforcement Complaint pictures do not accurately reflect East West’s Redesigned PDV Blower. They reflect Regal’s view that the claims of the ’834 patent do not include a gasket. Regal’s pictures both in its Enforcement Complaint text and in the Exhibits to the Enforcement Complaint failed to mention or show East West’s Blower Base Gasket and Bracket Base Gasket. (*See* Compl. at pp. 4, 5, 7, 9, 11, 13, 16, 17, 21, 22, 24, 25, 28, 29, 32; *see id.* at Exs. 3, 5, 6, 7.). Regal acknowledged it removed both the “Blower Base Gasket” and the “Bracket Base Gasket” and then portrayed East West’s Redesigned Blower as infringing the ’834 patent using only Regal’s interpretation of “mounted”/ “mounting” and “engagement”/ “engages,” as meaning “*direct*” contact as it argued in the Claim Chart that Regal included as Ex. 3 to its Enforcement Complaint. (*See also* Sanctions Mot. and Regal’s Opposition.).

If Regal sought to preserve its later argument that those terms also can mean “indirect contact,” Regal failed to preserve that argument through its early depictions of the East West Redesigned Blower housing. Regal’s failures to depict all of the parts of East West’s Redesigned Blower and Blower Housing are a problem for Regal’s infringement argument. (*See infra.*).

E. The Redesigned PDV Blower Does Not Meet the Claim Limitation of “a dilution compartment” that is “positioned on the one side of the blower housing” ... “that is positioned in a single plane”

Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes the claim limitation [e] of claim 1 and [f] of claim 9 as italicized: that “a dilution compartment inside the blower housing and positioned on the one side of the blower housing ... that is positioned in a single plane.” (See *Markman* Order Nos. I and II, Appx. A, e.g., at 2, 4-7, 26, 32 (other citations omitted).). For the same reasons that Regal has failed to prove infringement for the circuitry compartment claim limitations [f] of claim 1 and [e] of claim 9, Regal has failed to prove infringement of the claim limitations 1[e] and 9 [f]. (See also *Markman* Order Nos. I and II.). The dilution compartment, like the circuitry compartment, is “not positioned” on the same one side.” It, too, like the circuitry compartment, is suspended above the base of the Redesigned PDV Blower housing. (See SBr. at 36-37; RRBr. at 13 (citing Hr. Tr. (Brown) at 683:15); *id.* at 67.). The additional limitations that are also not met by the dilution compartment are explained below.

F. The Redesigned PDV Blower Does Not Meet the Claim Limitations “a circuitry compartment ... having a side wall that extends around the interior volume ... that forms one side of the blower housing that is positioned in the single plane”²⁸

Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes the claim limitations of subpart [f] of claim 1 and [e] of claim 9: “the compartment having *a side wall that extends around the interior volume* and forms a part of the

²⁸ Regal’s proposed construction for the term “plane” was rejected. (*Markman* Order I; *Markman* Order II, Appx. A at 36-42.).

one side of the blower housing *that is positioned in a single plane.*” (See *Markman* Order II, Appx. A at 58-60, 61-71.). The “positioned on” claim limitation is explained, in part, above.

Markman Order Nos. I and II construed the “positioned on” limitation so that the “bottom of the recited compartment is located at the recited one side of the blower housing.” (See *Markman* Order I at 5; *Markman* Order II, Appx. A.). That means that the Electronics Housing with the circuitry and dilution compartments must be located at the same “one side of the blower housing that lies in a single plane.” (*Markman* Order Nos. I and II, Appx. A at 55-61; see also Hr. Tr. (Brown) at 573-575.).

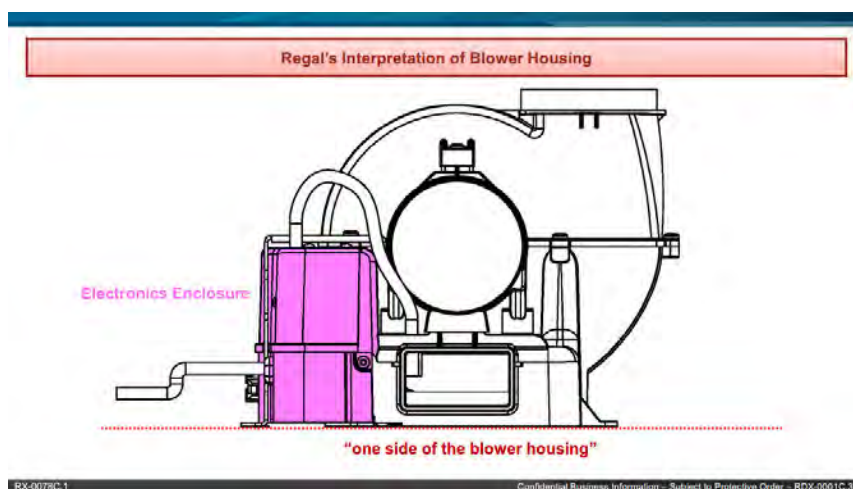
A second aspect of the recited claim limitation, i.e., “plane,” was construed, consistent with its plain and ordinary geometry meaning, to be “a flat or level two-dimensional surface.” (*Markman* Order I at 4, 6-7; *Markman* Order II Appx. A at 36-42.). With respect to “plane,” the adopted construction was “plain and ordinary” but with an explicit meaning from geometry from which Regal strayed.²⁹ Depicted below is a comparative view of two (2) views of the East West Redesigned Blower housing that shows both the claim limitations “positioned on” “the one side,” and the “plane” as they would apply.

Figure 12, below, is an interpretation of Regal’s view of the Redesigned PDV Blower, with the “Blower Base Gasket” and the “Bracket Base Gasket” removed from the Electronics Enclosure/circuitry compartment and the bottom of the blower housing. (See SBr. at 39-41; see also, e.g., RRB. at 14, 31-33, 43.). The Electronics Enclosure/circuitry compartment/dilution compartment are partially correctly shown as “positioned on the one side.” However, this Figure

²⁹ The adopted “plain and ordinary” meaning was given an explicit meaning from geometry that did not comport with Regal’s proposed construction or with Dr. Cameron’s Hearing testimony that she applied “plain and ordinary meaning.” (Hr. Tr. (Cameron) at 304:1-21.). She could not have. Regal’s “plain and ordinary meaning” of “plane” is contrary to basic geometry. (See *Markman* Order II, Appx. A at 36-42.).

12 also reflects how Regal represented the East West Redesigned PDV Blower in the Enforcement Complaint to “prove” that East West’s Redesigned PDV Blower infringes the ’834 patent. With Regal’s removal of the “Blower Base Gasket” and the “Bracket Base Gasket” from East West’s Redesigned PDV Blower, the Electronics Compartment/circuitry compartment and bottom of the blower housing *seemingly* were resting “directly” on the flat side of a water heater or tank in a “single plane.” (See *Markman* Order Nos. I and II, Appx. A; see also CMBr.). The depiction in Figure 12, below, does not comport with the actual construction of the East West Redesigned Blower and it does not show how the “Electronics Enclosure” with the circuitry compartment are elevated at least 2 mm above the bottom of the blower housing.

Figure 12. Regal’s Interpretation of “Positioned On” “One Side” of Blower Housing That Does Not Comport with *Markman* Order Claim Constructions

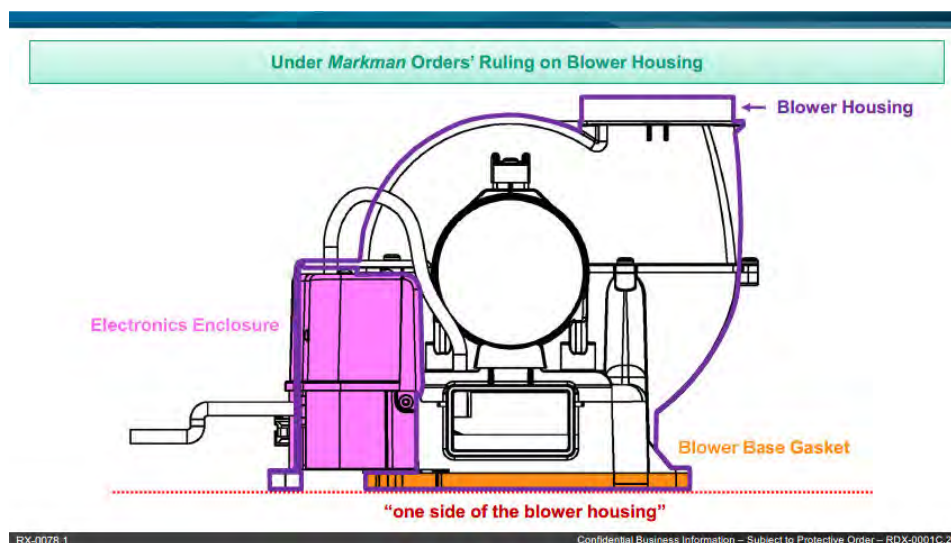


(See RRB. at 37 (citing RDX.0001.39 and RX-00078.1; RBr. at 43 (citing RX-0078:1); see SBr. at 40-43; see also Sanctions Motion.)

The next Figure 13, below, depicts East West’s Redesigned PDV Blower Base housing/circuitry compartment with East West’s “Blower Base Gasket” and “Bracket Base Gasket” attached on the Redesigned PDV Blower housing, as it is actually built. (See SBr. at 40-42; RRB. at 41-44; RDX-0001.41 (cl.); RX-0078.1 (annotated).). The Electronics

Enclosure/circuitry compartment are correctly shown as suspended above the flat surface of the bottom of the blower housing, and the flat surface of a water heater to which the blower would be “mounted.” (SBr. at 40-42; RPBr. at 66-67, 71, 82; RRBr. at 41-45; RDX-0001.41 (cl.); RX-0078.1 (annotated); Hr. Tr. (Brown) at 594:2-599:1.). As Staff and East West have observed, the differences between the claimed circuitry compartment of the ’834 patent and the Accused PDV Blower is reflected, at least in part, by the Stewart prior art reference and the arguments the patentee/Regal made to get around Stewart. (See SBr. at 40; RPBr. at 82; RRBr. at 47-49; Hr. Tr. (Brown) at 577:22-578:5.). Dr. Brown testified that Regal (the patentee) argued during prosecution that Stewart failed to disclose the “positioned on” limitation and explained the engineering that differentiated Stewart from the ’834 patent. (Hr. Tr. (Brown) at 574:22-575:16.). Dr. Brown contended that the limitations describe above were not literally met for the same reasons that Stewart did not disclose the cited limitations.

Figure 13. Depiction of One Side of the Blower Housing in a Single Plane with Blower Base Gasket and Bracket Base Gasket As Part of Blower Housing



(See RRBr. at 38 (citing RX-0078); see also RRBr. at 44 (citing RDX-0001.41 and RX-00780)).

Dr. Brown explained during the Hearing, that in the Redesigned PDV Blower, “there is not a wall that both (1) extends around the circuitry compartment’s interior volume, *and* also (2) forms a part of the one side of the blower housing that is positioned in a single plane.” (RBr. at 37) (emphasis in original); RBr. at 37-47; Hr. Tr. (Brown) at 547:19-548;2, 569:4-570:2, 594:2-599:15; RDX-0001C.25 (other citations omitted).). From Figure 13 (and Figures 7 and 8) and as Dr. Brown testified, the walls of the accused circuitry compartment (within “electronic enclosure”) are suspended above the one side of the blower housing positioned in the single plane.” (See Hr. Tr. (Brown) at 547:22-548:15 (“Q. And briefly, can you explain why the at least one wall limitation is not literally met by East West’s accused blower? A. Well, that section requires that at least one wall that extends around the interior volume of the circuitry compartment form part of the one side of the blower housing that is positioned in a single plane. As we have just seen, the circuitry compartment is suspended above that single plane, and therefore it does not meet that requirement.”); *id.* at 570:16-25; RDX-0001C. at .3, .4, .26; RX-0078C.).

Moreover, addressing claims 1[a] and 9[a], Dr. Brown testified: “Q. When the accused blower is properly mounted, is there any contact between the electronics enclosure and the surface of the water heater? A. No, there is no contact. The electronics enclosure is suspended above that surface. Q. Does any part of the electronics enclosure touch the surface of the water heater? A. No.” (Hr. Tr. (Brown) at 565: 1-13; *see also* RDX-1.15, -1.17; RDX-1.18, 1- 27; RX-0078.1 (annotated).).

As reflected in Figures 7, 8 and 13, above, and in Dr. Brown’s testimony, the Redesigned PDV Blower is not in contact with the “single plane.” (Hr. Tr. (Brown) at 565:1-570-25.).

Additionally, Dr. Brown testified that his opinions are supported by the Stewart patent that Regal

distinguished during patent prosecution. (*Id.* at 571:1-25; RX-0122; JX-0003.). As Dr. Brown noted, Stewart also shows a blower, that when mounted above a water tank, is suspended above it and “[t]here’s no contact between the two.” (Hr. Tr. (Brown) at 574:15-575:8.). As shown in Figure 13, and as Dr. Brown also testified, the Redesigned PDV Blower cannot meet the claim limitation because the “Electronics Enclosure” is suspended 2 millimeters above the “one side of the blower housing” and therefore, is also suspended above a water heater or tank to which it might be attached, the enclosed circuitry compartment is also suspended above the “single plane” and is not in direct contact. (Hr. Tr. (Brown) at 589:2-592:9).

Dr. Cameron did not see or inspect a Redesigned PDV Blower let alone as it sits atop a water tank or water heater. (Hr. Tr. (Cameron) at 162:2-5.). She was only shown the Original PDV Blower that was the subject of the Underlying Proceeding. (*Id.* at 164:21-25.). In comparison with Dr. Brown’s testimony, Dr. Cameron’s testimony about the construction of the Redesigned PDV Blower as it would be “mounted” or in “engagement with” a hot water tank was lacking and has been given little weight.

With respect to the narrow question of the 2 mm offset between the Electronics Enclosure, which contains the circuitry and dilution compartments, and the bottom of the Redesigned PDV blower housing, Dr. Cameron appeared to refute Regal’s infringement arguments. (Hr. Tr. (Cameron) at 300:1-25.). Dr. Cameron also agreed that the 2 mm offset described did not exceed the manufacturing tolerances that would have existed in 2004. (*Id.* at 304:20-21; *see also* CX-0006C (Opening Cameron Expert Report) at ¶¶ 56, 57.).³⁰

³⁰ If through Dr. Cameron’s testimony, Regal has tried to keep open its arguments on just what the “manufacturing tolerances” might have been in 2004 that might have affected the distance between the Electronics Enclosure/circuitry compartment, and the bottom of the Redesigned PDV Blower housing, that attempt is rejected. For appellate purposes, Regal has waived such an argument under Ground Rule 10.1.

For all of the foregoing reasons described, the Accused or Redesigned PDV Blower does not infringe the recited claim limitations of claims 1 and 9.

G. The Redesigned PDV Blower Does Not Meet the Claim Limitations “a circuitry compartment ...the circuitry compartment having an interior compartment and at least one wall that extends around the interior volume of the circuitry compartment” and “forms a part of the one side of the blower housing that is positioned in the single plane”

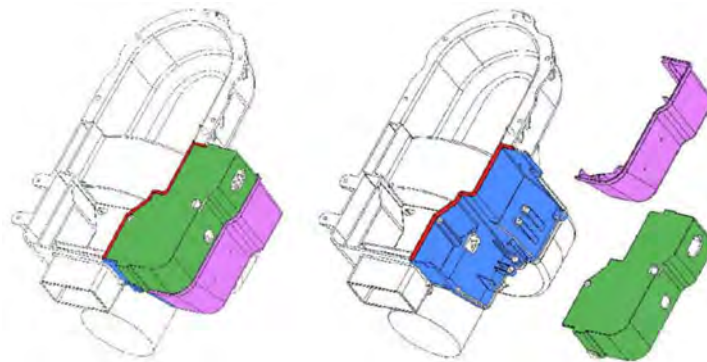
Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes that part of the claim limitations of claim 1[f] and claim 9[e], i.e., “*a circuitry compartment ... having at least one wall that extends around the interior volume of the circuitry compartment ... and forms one side of the blower housing that is positioned in the single plane.*” (See Markman Order Nos. I and II, Appx. A at 54, 67, 70,). The “and” is conjunctive. The “positioned on” claim limitation has been addressed above.

Regal addressed the “one wall” limitation by arguing that there is a wall extension below the Electronics Enclosure that is actually part of the circuitry compartment. (CBr. at 60-61 (citing CDX-0002C at 70; CPX-0007C).). That is not so in the Redesigned PDV Blower.

Depicted below as Figure 14 is an annotated colored view of the interior of the Redesigned PDV Blower that shows the Electronics Enclosure with the structure of the dilution compartment and the circuitry compartment in relation to one another. (See SBr. at 41 (part of Figure 14; RRBr. at 40-41; CBr. at 61, 63, 76, 84.). As East West has described the figure on the left in Figure 14, below depicts the Redesigned PDV Blower when the “Electronics Enclosure” is assembled, while the figure on the right depicts the East West Redesigned PDV Blower when the “Electronics Enclosure” is removed. As Dr. Brown testified, only one wall that actually forms a part of one side of the Redesigned PDV blower (purple, below) does not extend around any interior volume of the blower housing. (Hr. Tr. (Brown) at 594:2-599:15; RDX-0001C.41-

42.). Or to state this another way, the 2 mm extension (shown in Figures 7, 8 and 13, above) does not “extend around” or encompass any interior volume of the “Electronics Enclosure.” (See RRBr. at 45 (citing Hr. Tr. (Brown) at 581: 17-23.). The 2 mm extension cannot be a wall of the circuitry compartment. (*Id.*). Dr. Brown testified at length, also, with respect to how the Redesigned PDV Blower is similar to the Stewart patent, and explicitly Figure 5 of Stewart, which had a single, shared wall between the circuitry compartment and the blower housing. (See RRBr. at 51-57 (citing Hr. Tr. (Brown) at 575:9-576:9; *see also Markman Order II*, Appx. A at 54, 67, 70.).

Figure 14. Assembled Electronics Enclosure and With the Electronics Enclosure Removed



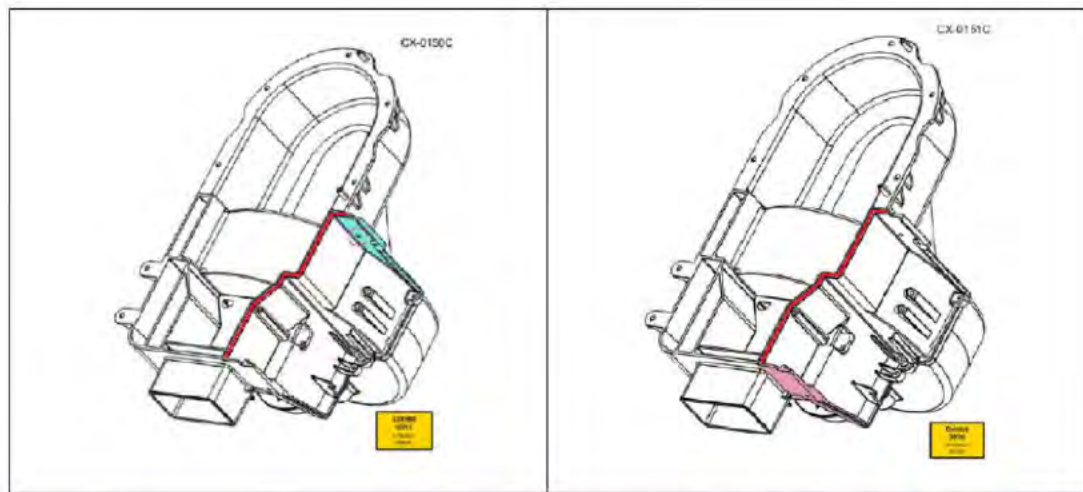
(CBr. at 61 (citing CDX-0002C at 70; CPX-007C); *see also* RRBr. at 41.).

The Private Parties agree that the blue wall in Figure 14 is a “shared” wall between the alleged “dilution compartment” and the Electronics Enclosure.” (See CBr. at 63, 67, 76, 84; RRBr. at 41, 42; RRBr. at 40, 41, 55, 60.). Additionally, as East West has noted, there is no dispute that the when the “Electronics Enclosure” is assembled, the blue wall portion faces the interior volume of the “Electronics Enclosure.” (CB at 61, 63, 67, 76, 84; RRBr. at 41-42.). However, contrary to Regal’s argument, and as East West has argued correctly, the protruding wall that extends 2 mm cannot be a “wall” of the claimed “circuitry compartment” because it

does not enclose any of the “Electronics Enclosure.” (RRBr. at 41; *contra* CBr. at 61; *see also* Hr. Tr. (Brown) at 597:20-23.).

Figure 15, below, depicts the erroneous Regal depictions of where the 2 mm suspension is in relation to the dilution and circuitry compartments.

Figure 15. Erroneous Depictions of 2 mm Suspension in Relation to Circuitry And Dilution Compartments



(CBr. at 56-57 (annotated), CX-0150C and CX-0151C; *see also* RRBr. at 42-43.).

The annotated red line in Figure 15, above, is supposedly the 2 mm extension. However, as East West has noted, Regal has extended that red line to part of the teal wall (barely seeable). However, the entire teal wall that Regal shows does not face the circuitry compartment; only part of it does. (CBr. at 56-57; *contra* RRBr. at 42.). According to East West and Dr. Brown, the rest of the teal wall is part of the 2 mm extension and when the 2 mm gap is properly explained, it is evident that does enclose any of the electronics and cannot be part of the circuitry compartment. (*Id.* at 43.). Even if the “pink wall” is considered to be part of the circuitry compartment as Regal has argued, East West has demonstrated that the pink wall does not include any part of the 2 mm extension, and therefore, the “pink wall” is not “positioned on the one side of the blower

housing.” (*Id.*). Dr. Brown testified that the red 2 mm extension is entirely exterior to the “Electronics Enclosure”; it forms a part of an outside wall. “[T]here’s no portion of the electronics enclosure that mates with that.” (Hr. Tr. (Brown) at 597:20-23, *id.* at 598:13-20; *id.* at 589:7-16; *id.* at 589:24-592:5; *id.* at 591:8-18; *see also* RDX-00001.39 (citing RX-0078.1)).

Dr. Brown described the 2 mm gap as “significant.” He testified that the 2 mm gap cannot be overcome even if there is a “tolerance stackup” of additional manufacturing variances of other parts which are part of the blower housing. (*See* Hr. Tr. (Brown) at 592:20-593:14.). Neither Regal nor Dr. Cameron addressed this point. Therefore, for appeal purposes, Regal has waived the right to waive such an argument pursuant to Ground Rule 10.1.

**H. The Redesigned PDV Blower Does Not Meet the Claim Limitations
“a circuitry compartment ... having at least one wall” and “forms one side of the
blower housing that is positioned *in the single plane*”**

Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes that part of the cited claim limitations [a] and [f] of claim 1 and [a] and [e] of claim 9 italicized above. (*See Markman* Order Nos. I and II, Appx. A, e.g., at 5-6, 20, 23, 29, 34, 35-39, 43; JX-0001 at 2:44-48.).

Markman Order Nos. I and II construed the word “plane” as having a plain and ordinary meaning. However, as the *Markman* Orders necessarily explain and went so much further, the word “plane” has to be tethered to context, which in this context is “a simple matter of geometry, and as given meaning by the claim language and specification.” The *Markman* Orders explain that the language of the claims requires a “single” plane, or one (1) plane, not multiple planes, or any other surfaces other than that which is part of a “single plane.” (*See Markman* Order I and *Markman* Order II, Appx. A.). A plane “is a flat or level two-dimensional surface.” (*See*

Markman Order I at 4, 6-7; *Markman* Order II, Appx. A at 36-38.). Regal’s proposed construction was, in a word, nonsensical. (*See Markman* Order II, Appx. A at 36-38).

The adopted constructions of the claim limitations cited were based in part on the applicant’s attempt to gain allowance of the ’834 patent over Yetman, which the applicant contended did not disclose a blower housing that “facilitate[es] mounting the one side of the blower housing on a flat surface” as well as other arguments the applicant made during prosecution. (*Markman* Order II at 44, 45; *see also* JX-0003 at RGL-0000270.). The applicant also distinguished Windon, Suffron, and Stewart in order to gain allowance of the claim terms at issue. (*See Markman* Order II, Appx. A.).

East West’s Redesigned PDV Blower does not infringe the recited claim limitation even if Regal’s arguments that the Redesigned PDV Blower excludes the Blower Base Gasket is adopted. Specifically, Figure 3 of the ’834 patent shows “a single plane as one side” of the blower housing that is in direct contact with the water tank. . (*See* JX-0001 at Fig. 3 (showing how lines (124) and (18) are part of single plane), 7:36-51; *id.* at 4:13-26.). Dr. Cameron acknowledged that even with Regal’s view of a blower housing, the circuitry compartment in the Redesigned PDV blower is offset from one side of the blower housing. Dr. Cameron explicitly testified that the distance exceeds the existing manufacturing tolerances as of the date of the invention. (Hr. Tr. (Cameron) at 303:16-304:20.). Dr. Brown offered a similar opinion. (Hr. Tr. (Brown) at 569:4-7, 592:9-593:14.).

Because Dr. Cameron did not dispute the 2mm offset between the Electronics Enclosure and the bottom of the blower housing, Regal, necessarily, has not proven that the Electronics Enclosure with the circuitry compartment, is or can be located in the “one side of the blower

housing that is positioned in the single plane” even under Regal’s incorrect interpretation. (*See* RDX-0001.1; JX-0001 at Cls. 1 and 9; RX-0078.1 (as annotated.).

I. The Redesigned PDV Blower Does Not Have a “*dilution compartment*” with “*the side wall having a single dilution air intake opening through the side wall ... whereby*”

Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes the claim limitations [e] and [f] of claims 1 and 9, respectively. East West and Staff argued that the East West Redesigned PDV Blower PDV Blower does not literally include “a dilution compartment” with a “*side wall having a single dilution air intake opening*” and “*the side wall and the one side of the blower housing providing a continuous engagement with the flat surface of the heater around the flue opening . . . whereby ambient air can enter into the dilution compartment interior volume only through the one dilution air intake opening in the side wall*” (as required by claims 1 and 9). (SBr. at 12, 43-45; RRBr. at 70-71.). The more expansive claim limitation language as recited does not infringe the limitations even if the *Markman* Orders are wrong as Regal has argued persistently. (CBr. at 14.). Under Regal’s rejected interpretation of “blower housing,” the “one side of the blower housing” is illustrated with a dotted red line in RDX-0001.47, which is shown below in Figure 16. (*See also, e.g.,* Hr. Tr. (Brown) at 601:19-602:14).

If the “Blower Base Gasket” were removed as Regal has argued it should be, the Redesigned PDV Blower housing would not be able to “provide a continuous engagement with the flat surface of the water heater” as claims 1 and 9 also require. (RRBr. at 71 (citing Hr. Tr. (Brown) at 613:2-18.). This is because the accused “blower housing” in the PDV Redesigned Blower would be missing the designed (or re-designed) sealing mechanism between the blower housing and a water tank. (RRBr. at 71 (citing Hr. Tr. (Brown) at 613:2-18.).). Moreover, as

Staff and East West, as supported by Dr. Brown, have argued compellingly, the accused “blower housing” would not be configured to have “a single dilution air intake opening” that allows ambient air to “enter into the dilution compartment interior volume only through the one dilution air intake,” which claims 1 and 9 also require. (RRBr. at 70 (citing Hr. Tr. (Brown) at 613:2-18, 614:4-15).). The “dilution compartment” limitation in claim 9 is not literally met if the “Blower Base Gasket” in East West’s Redesigned PDV Blower Housing is removed.

Figure 16, below, depicts conceptually what would happen if the “Blower Base Gasket” on East West’s Redesigned PDV Blower were removed. Instead of a “single dilution air intake opening” that claims 1 and 9 require, there would be multiple openings through which ambient air could enter. Figure 16 depicts the multiple air intake openings with arrows.

Figure 16. Dilution Compartment with Multiple Air Intake Opening If Gasket Is Removed



(See RRBr. at 67, RDX-0001.47 (citing JX-0001 at cl. 1 and 9; RX-0078.1).)

Dr. Cameron did not rebut Dr. Brown’s testimony on this claim limitation language.

Regal’s arguments were largely limited to attorney argument that the *Markman* construction of the “whereby” claim limitation language was wrong. (CBr. at 14-19.). Other

than attorney argument, Regal also tried to compare East West's Redesigned PDV Blower to only the figures of the '834 patent, as it did throughout its post-hearing briefing and limitedly during the Hearing. (See CBr. at 41-42, 47, 50, 54.). This is legally incorrect. (See RRBr. at 28 (citing *Star Tech. Grp., Inc.*, 99-1168, 1999 U.S. App. LEXIS 21389, at *16; *Catalina Lighting*, 295 F.3d at 1286).). For the foregoing reasons, Regal has not proven that the Redesigned PDV Blower infringes the cited claim limitation.

J. Regal Waived a “Capability-Based” Claim Construction Argument

Staff argued:

any attempt by Regal to immunize itself from an adverse claim construction by belatedly injecting a “capability” caveat into any construction ... is untimely and waived. Under well-settled Federal Circuit law, disputes over “what the claims require are matters of claim construction”

(SBr. at 29 (citing *Microsoft Corp. v. ITC*, 731 F.3d 1354, 1366 (Fed. Cir. 2013).).

Regal did not argue either in its Post-Hearing Brief or during the Hearing that the East West Accused Blower is “capable” of infringing any of the Asserted Claims of the '834 patent. Dr. Cameron did not testify with respect to that theory of infringement during the Hearing. Claim construction was complete long before the Hearing. As Staff has argued, Regal cannot “retroactively revise its proposed construction to require only ‘capability’ of contact.” (SBr. at 23 (citing *Dow Corning Wright Corp. v. Osteonics Corp.*, 57 F.3d 108, at *1 (Fed. Cir. 1995) (“capability is simply the issue of claim construction in a different form”) (“*Dow Corning*”))).

There is a second, substantive reason why any attempt by Regal to make a “capable of” argument is rejected. As Staff argued, any argument Regal may make, or attempts to make in the future that the Redesigned PDV Blower is “capable of” infringing the '834 patent would have to be based on Regal's removal of the “Blower Base Gasket” that is part of the assembly of the Redesigned PDV Blower housing, and removal of the “Over Enclosure Bracket.” (See SBr. at

27-29 (citations omitted).). To prove that East West’s Redesigned PDV Blower infringes the ’834 patent, at least under Regal’s original prosecution theory that the contact between the ’834 blower housing and a hot water tank or furnace must be “*direct*,” Regal had to alter, and did alter, the East West Redesigned PDV Blower so that East West’s Redesigned PDV Blower would be “mounted” on or “positioned” “directly” on a water tank or water heater. (SBr. at 27-29, 31-34; *see* n.27, *infra*.).

Regal removed the “Blower Base Gasket” and “Bracket Base Gasket” from East West’s Redesigned PDV Blower in order to show in its Complaint that East West’s Redesigned PDV Blower contained only “minor” modifications that nonetheless infringed the ’834 patent. (*Id.*). However, as Staff noted, Federal Circuit law prohibits a finding of infringement when there has been a material alteration of an accused product in order to meet infringement. (SBr. at 31 (citing *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1217 (Fed. Cir. 2017)).).

In order to prove infringement that there is “direct” contact between the East West Redesigned PDV Blower housing and a hot water tank as shown in the ’834 patent, Regal would be attempting to re-capture claim scope that it gave up when it distinguished Yetman, Stewart, Windon and Suffron to gain allowance of the ’834 patent. (*See Markman* Order II, Appx. A.).

Regal tried to preserve its argument that “engages/engagement” and “mounted/mounted” means both “direct” and “indirect” contact. (*See* Joint Claim Construction Chart; *Markman* Order II.). However, Regal’s “direct” contact claim constructions were rejected for all claim terms in which such constructions were offered. (*See Markman* Order Nos. I and II.). For Regal to attempt to argue “direct” contact as part of an appeal would be allowing Regal to re-capture claim scope for each of the disputed claim terms at issue. That would fly in the face of Federal Circuit precedent that does not permit a patentee to recapture claim scope it has surrendered in

order to gain allowance of a claim or patent. *See In re Clement*, 131 F. 3d 1464, 1468 (Fed. Cir. 1997); *see also In re Mostafazadeh*, 643 F. 3d 1353, 1358 (Fed. Cir. 2011); *Hester Industries, Inc. v. Stein, Inc.*, 142 F. 3d 1472, 1481 (1998) (citing *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 137 L.Ed.2d 146 1040 (1997)) (“[T]he recapture rule is based on principles of equity and therefore embodies the notion of estoppel. . . Indeed, the recapture rule is quite similar to prosecution history estoppel, which prevents the application of the doctrine of equivalents in a manner contrary to the patent’s prosecution history. Like the recapture rule, prosecution history estoppel prevents a patentee from regaining subject matter surrendered during prosecution in support of patentability.”).

Therefore, for the reasons stated, and based on the principles discussed, it is finding of both fact, law and timing pursuant to Ground Rule 10.1 and Commission and Federal Circuit precedent, that Regal has waived the right to raise on appeal an argument for the “capability” of the East West’s Redesigned PDV Blower to practice the described claim limitations of the Asserted Claims of the ’834 patent with a focus on the cited claim limitations of claims 1 and 9. *See Dow Corning*; *see also Certain Digital Models*, Inv. No. 337-TA-833, Initial Determination on Violation (May 6, 2013).

K. Regal Cannot Recapture Claim Scope Through Alternative Claim Constructions, One of Which Was Rejected in *Markman* Constructions: Gaskets are Neither “Adhesives” Nor Means of “Attaching”

The ’834 patent specification has one (1) line which states that there has to be some means for “attaching” or “mounted” a blower housing to a water heater or a furnace. The patent specification only states that the “means for attaching the blower housing assembly” include “threaded fasteners,” “adhesives” and “other equivalent means....” (JXM-0001 at 6:65-7:3, 9:19-23.). Mr. Gatley testified during his deposition that a gasket is *not* a means for “attaching”

a blower house assembly to the surface of a water heater. (Depo. Tr. (Gatley), RXM-0009C at 42:13-16 (Apr. 9, 2021) (Q. “Does the gasket attach to the water heater? A. No.”)).

A second issue is whether a “gasket” is an “adhesive,” “or other equivalent means.” Regal has taken the position since its initial *Markman* proposal that if a “gasket” is even considered, it should be considered to be either an “adhesive,” or an “other equivalent means.” (CMBr.; *Markman* Order I and *Markman* Order II, Appx. A at, e.g., 7, 9, 25-26, 28, 31.). However, as explained in *Markman* Order II, “gaskets” are not equivalent to adhesives, as even Mr. Gatley, one of the inventors testified. They are not a means for “attaching” a blower to a hot water tank, as Regal has argued. Therefore, gaskets are “not” intervening structures, also as Regal has argued. (See *Markman* Order No. II, Appx. A; and cited Gatley testimony.)

L. The Redesigned PDV Blower Does Not Meet the Limitation of a blower housing that is “mounted” or “engaged” with the surface of a water heater

Regal has not proven by a preponderance of evidence that East West’s Redesigned PDV Blower infringes the claim limitations of subpart [a] of claims 1 and 9: “*the single plane of the one side of the blower housing facilitating mounting the one side of the blower housing on a flat surface.*” (See *Markman* Order II, Appx. A at 1-36.). The focus in the cited, italicized claim limitation language is on the words “mounted” or “engaged.” The words “mounted/mounting” and “engaged/engagement” were construed to mean “fastened, affixed, or joined, so as to directly contact.” (*Markman* Order I, *Markman* Order II, Appx. A.). East West’s Redesigned Blower does not infringe the cited claim limitation language. With the Blower Base Gasket and the Bracket Base Gasket included as part of East West’s Redesigned PDV blower housing, the blower housing is *indirectly* mounted to the heater surface. (*Accord*, SBr. at 42 (citing Hr. Tr. at 602:10-603:8; 610:5-611:10; RDX-0001C.46-47)).

Dr. Cameron, Regal's expert, did not dispute this. Dr. Cameron acknowledged during the Hearing that she did not apply the adopted *Markman* construction of *Markman* Order I, Order No. 22, because the accused "blower housing" that Regal identified and relied upon does not "directly" contact the surface of a water heater. (Hr. Tr. (Cameron) at 178:8-20; 182:19-183:11; 207:3-14; *see also* Pre-Hearing Stipulation.).

VIII Regal Waived Indirect Infringement and Doctrine of Equivalent Arguments

Regal asserted in its Complaint that East West's Redesigned Blower infringes the Asserted Claims under the Doctrine of Equivalents ("DOE"). (Compl. at ¶¶ 10, 43.). Regal did not assert indirect infringement in its Complaint.

Regal did not argue for the application of the DOE in its Pre-Hearing Brief. Regal did not adduce evidence/information or testimony with respect to the DOE from its sole expert, Dr. Cameron, during the Hearing. Regal did not argue the DOE as a basis for infringement in its Initial Post-Hearing Brief.

Thus, Regal has waived its right to raise DOE and indirect infringement arguments on appeal pursuant to Ground Rule 10.1. (*Id.*).

IX Regal Waived Its Right to Rely on Prosecution History and on Prior Art It Distinguished to Gain Allowance of the '834 Patent

In virtually every document Regal has filed since its opening *Markman* Brief and in almost every argument Regal has made in its pre-hearing and post-hearing briefing, Regal has argued that a gasket is irrelevant to and not "claimed" as part of the blower of the '834 patent and claimed blower housing. (CBr. at 16, 18 22.). Yet, inconsistently, Regal also has argued, as has its expert, Dr. Cameron, that a gasket is "presumed" and is used as a "sealant" between the interface of a blower housing and the top surface of a water heater. (CPBr. at 124; CBr. at 1, 5

(citing Hr. Tr. (Cameron) at 178:21-179:13, 180:18-181:9). East West’s expert, Dr. Brown, has agreed that a gasket is a “sealant.” (Hr. Tr. (Brown) at 665:6-8.).

When its arguments are traced, Regal moved from an argument that a gasket is *not* important to *Markman* claim construction or to infringement, to an argument that “the blower housings described in the ’834 patent and other blower housings in the field are **always** mounted to the water heater with a gasket.” (CBr. at 16 (citing Hr. Tr. (Galligos) at 125:6-126-128:2-5; Tr. Hr. (Cameron) at 159:12-160:10; Tr. Hr. (Sweeney) at 343:4-12; Tr. Hr. (Brown) at 633:14-17; 638:5-639:1). (emphasis in original).).

In order to cover its position whether there must be or must not be the presence or absence of a gasket, and whether there is “indirect” or “direct” contact between East West’s Redesigned Blower and a hot water tank or furnace (especially given that a gasket is an attached part of East West’s Redesigned Blower Housing that enables East West to escape infringement), Regal used much of its post-hearing briefing to argue *why* the *Markman* constructions are wrong. (CBr. at 15-18, 22-59.).

As Staff has noted with respect to Regal’s inconsistent positions: “[A]s noted, Regal’s[sic] maintains that (1) the gasket **cannot** be considered part of the claimed blower housing, (2) that using a gasket is **required** for a functional blower housing, and (3) mounting via a gasket is considered **indirect** contact.” (SBr. at 5 (citing CBr. at 15; Joint Claim Construction Chart at Ex. A, Terms 1 & 2; CMBr. at 11).). Regal has not reconciled its conflicting positions. Clearly, if a “gasket” is required, and since the uncontroverted evidence is that East West only sells its Redesigned Blower with an attached gasket (Hr. Tr. (Sweeney), *supra*) then at least one of Regal’s arguments/positions must be wrong and internally

inconsistent. The lack of consistency in its arguments have undermined the weight of Regal's arguments throughout the Enforcement Proceeding.

Regal has an additional appeal problem. Regal's Post-Hearing Brief appears almost exclusively to be a re-argument of its *Markman* arguments and proposed claim constructions, or on the patent specification to the exclusion of the patent prosecution history. (See RRBr. at 1-2; SRBr. at 2.). There was no expert rebuttal to Dr. Brown's testimony about how the prosecution history helped to frame and substantiate East West's arguments that its Redesigned PDV Blower does not infringe the '834 patent. (See n.14 *infra.*).

Staff and East West argued in pre-hearing briefing, during the Hearing, and in post-hearing briefing the importance of the patent prosecution history and of Stewart, Yetman, Windon and Suffron to demonstrate Regal's/applicant's intention to surrender subject matter related to *indirect* contact between a blower housing and the surface of a water heater and why Regal's infringement arguments are incorrect. (See, e.g., RPBr. at 17-23, 145; RBr. at 16, 18; RRBr. at 7-10, 11, SPBr.). East West and Staff also addressed each of the prior art references in the post-hearing briefing on *infringement*. Dr. Brown addressed each of the prior art references during the Hearing, not for *invalidity*, but for his explanations of *infringement*. (See *infra.*).

Explicitly, *intentionally*, Regal did not address Staff's and East West's arguments, or the prosecution history during the Hearing and only once (Stewart) belatedly and without effect in Regal's Post-Hearing Reply Brief. (See n.14, *infra.*).

To the extent that Regal attempts to suggest in future arguments that East West used the prior art references of Yetman, Stewart, Windon, or Suffron for *invalidity*, it is a finding that East West did not mention invalidity even once in its use or reference to those prior art references. It

is also a finding that East West and Staff only used the cited prior art references in support of their arguments that the East West Redesigned Blower does not infringe the '834 patent.³¹

Based upon the foregoing, Regal has waived its right to use the Yetman, Stewart, Suffron and Windon references on appeal for infringement purposes, or to cite to the patent prosecution, except with respect to its *Markman* arguments, pursuant to Ground Rule 10.1.

X. REMEDY: CIVIL PENALTY

A. Civil Penalty Law and Recommendation

Civil penalties are mandatory for violation of the Commission's Cease and Desist Orders and Consent Orders issued pursuant to Section 337. 19 U.S.C. § (f)(2); *see, e.g., Certain Two-Way Global Satellite Commc'ns Devices, Systems, & Components Thereof*, Inv. No. 337 TA-854, Commission Op. at 26 (Nov. 1, 2018) ("*Two-Way Global Satellites*"). The statutory requirement is that a civil penalty be imposed "for each day on which an importation of articles, or their sale, occurs in violation of the order of not more than the greater of \$100,000 or twice the domestic value of the articles entered or sold on such day in violation of the order." 19 U.S.C. § 1337(f)(2); *see, e.g., San Huan New Material High Tech, Inc. v. ITC*, 16 F.3d 1347, 1357 (Fed. Cir. 1998) ("*San Huan*"). However, the Commission has the discretion to impose a civil penalty that "is appropriate to the circumstances." *Two-Way Global Satellite Devices*, Comm'n Op. at 27 (citing *Certain Erasable Programmable Read Only Memories, Components Thereof, Products Containing Such Memories, and Processes for Making Such Memories*, Inv. No. 337-TA-276 (Enforcement), Comm'n Op. at 29 (July 19, 1991) ("*EPROMs*").

³¹ Regal's counsel was the only individual who mentioned the word "invalidity" during the Hearing. (Hr. Tr. (Jenkins) at 622:14-19.).

It has been determined that East West has not violated the Consent Order, and that its Redesigned PDV Blower does not infringe the '834 patent. Therefore, it also is recommended that a civil penalty is not warranted.

B. The Parties' Arguments on Application of a Civil Penalty

If the Commission determines that East West violated the Consent Order, it is recommended that the remedy should be the disgorgement of East West's realized profits for the sales of its Redesigned Blower between December 20, 2020 and April 13, 2021, of [REDACTED], or [REDACTED] times East-West's profits, as explained below or an amount of \$86,500.00 (rounded up.) (*See* Import Stipulation.).

Pursuant to the Private Parties' Import Stipulation, and as explained above, as of April 22, 2021, between December 20, 2020 and April 13, 2021, East West imported or sold after importation some [REDACTED] Redesigned Blower units at a cost of [REDACTED] per unit for total revenue of [REDACTED]. (Import Stipulation; *see also* SBr. at 48.). The Private Parties disagree on the total number of days that East West either imported or sold after importation the Accused Product. Regal has argued that East West cumulatively sold its Accused Product on 19 days while East West has argued it sold or imported on 11 days. (Import Stipulation at 1, 2; CX-0103C; CBr. at 81,82; RRBr. at 3; SBr. at 48.).

Regal has argued that a statutory maximum penalty ("SMP") of \$1.9 million should be imposed on Regal if there is a Consent Order violation, that is \$100,000.00 per day for 19 days. (*See* Import Stipulation; CPBr. at 105; CBr. at 82.). Alternatively, Regal has argued for a penalty to be imposed on East West of \$262,263.00 which is based upon East West's unit costs of [REDACTED], East West realized profits of [REDACTED]. (Import Stipulation at 1, 2.).

East West has argued that the statutory maximum penalty should be \$1.1 million dollars, for 11 days of violation, but has argued alternatively that no penalty should be assessed because of the good faith steps it took in mitigation. East West objects to Staff's proposed civil penalty if a violation is found because it is [REDACTED] times the amount of East West's profits after entry of the Consent Order. (RRBr. at 94.).

Staff argued that importation and sale after importation constitute separate acts pursuant to 19 U.S.C. § 1337 (a)(1)(B), and therefore, East West imported or sold its Redesigned PDV Blowers on 19 days. Staff does not support East-West's argument that no penalty is warranted if a violation is found. Instead, Staff has recommended a penalty of \$158,824.00 as a "range" between the midpoint of [REDACTED] [REDACTED]. (SBr. at 59; cf. RBr. at 82-83.).

Staff has argued that the amount of its proposed penalty would take into consideration East-West's "good faith" actions before it imported and sold the Redesigned Blowers, and the requirement, as Staff has argued, of the necessity to vindicate the Commission's authority and the public interest. (SBr. at 58, 59 (citing *Certain Magnetic Data Storage Tapes & Cartridges Containing the Same*, Inv. No. 337-TA-1012, Enforcement ID at 59 (July 3, 2019) (imposing a penalty of profits in addition to an amount that vindicates the Commission and the public interest) ("*Certain Magnetic Tapes*"); see also *Certain Network Devices, Related Software and Components Thereof*, Inv. No.-TA-944 (Enforcement), Initial Enforcement Decision at 98 (June 20, 2017) ("*944 Certain Network Devices*").).

The recommendation here falls between Staff's and East West's positions because of the various "good faith" steps East West took to ensure its Redesigned Blower did not infringe the '834 patent. Additionally, East West clearly attempted to engage and negotiate with Regal

before it imported or sold its Redesigned PDV Blower.³² East West disclosed the Kelly Opinion to Regal in November 2020. The disgorgement of East West's profits earned on 19 separate occasions at [REDACTED] its profits or an amount of \$86,500.00 should be sufficient to vindicate the Commission and the public interest when the evidence and the circumstances of this case, and mitigation are considered.

C. Amount of Penalty Factors

When calculating an appropriate civil penalty as a result of a Consent Order violation, the Commission may consider a number of factors: “(1) the good or bad faith of the respondent; (2) any injury due to the violation; (3) the respondent's ability to pay the assessed penalty; (4) the extent to which the respondent benefitted from its violations; (5) the need to vindicate the authority of the Commission; and (6) the public interest” (hereafter, “the ‘penalty factors’”). *See Ninestar Tech, Co. Ltd. v. Int'l Trade Comm'n*, 667 F.3d 1373, 1379 (Fed. Cir. 2012) (citation omitted); *see also Global Satellite Devices, Comm'n Op.* at 27 (citing *EPROMs, Comm'n Op.* at 23-24, 26.).

The Commission's six-factor test considers: “the three overarching considerations

³² According to the admitted evidence, after the November 12, 2020 Consent Order issued East West reached out to Regal on November 13, 2020 and broached the settlement of Federal District Court litigation. In a series of exchanges, starting on November 13, 2020, East West advised Regal that it had redesigned the Original PDV Blower. To that end, East West provided Regal with the Kelly Opinion, CAD drawings, and by November 24, 2020, a sample of the Redesigned PDV Blower that East West imported from Vietnam. The Parties then started what might be called loosely a process of negotiation, (*See* Sanctions Order, Order No. 36.). After Regal received the Kelly Opinion of non-infringement, on or about December 15, 2020, Regal advised East West that the Redesigned PDV Blower was the same as the Original PDV Blower and mentioned an enforcement complaint. (Ex. RX-202.) On January 6, 2021, Regal served East West with a draft copy of the Enforcement Complaint. (*See* Order No. 36; *see infra.*) East West did not respond to the draft Enforcement Complaint. On January 14, 2021, Regal then filed the Enforcement Complaint. On February 18, 2021, East West served Regal with a draft Sanctions Motion, which it then modified to accommodate Regal's objections before East West filed the Sanctions Motion on March 1, 2021. East West did not provide Regal with the edited, final Sanctions Motion before it was filed. (*See infra.*; *see also* Order No. 36.)

enumerated by Congress in the legislative history [of section 337(f)(2)], viz., the desire to deter violations, the intentional or unintentional nature of any violations, and the public interest.” *See San Huan*, 161 F.3d at 1362 (affirming *Certain Neodymium-Iron-Boron Magnets, Magnet Alloys, and Articles Containing the Same*, Inv. No. 337-TA-372, Comm’n Op. on Violation of Consent Order (May 6, 1997)). Moreover, the Federal Circuit has affirmed the Commission’s evaluation that considers “[t]he degree to which a respondent takes steps on its own initiative to assure compliance affects the judgment as to what penalty is necessary to induce a sufficiently vigilant posture.” *See San Huan*, 161 F.3d at 1362 (quoting *EPROMs Enforcement Comm’n Op.* at 28-29)).

Each of the six (6) penalty mitigation factors is discussed below.

1. The Commission’s “Good Faith” Standard and the Parties’ Positions

The Parties agree on the standard that the Commission uses to evaluate the good or bad faith of a respondent. The Commission considers whether the respondent “(1) had a reasonable basis to believe that the violating product was not within the scope of the Commission’s order, (2) requested an advisory opinion or clarification from the Commission, (3) provided any opinion of counsel indicating that it obtained legal advice before engaging in the acts that lead to the charge of violation, (4) decided which products were subject to the order based on the decisions of management and technical personnel, without legal advice, and (5) satisfied its reporting requirements under the relevant Commission order.” (*See Certain Network Devices, Enforcement ID* at 56 (July 3, 2019). Respondents have “an affirmative duty to take energetic steps to do everything in their power to assure compliance, and . . . this duty not only means not to cross the line of infringement, but to stay several healthy steps away.” *See Certain Ink Cartridges, Comm’n Op.* at 14; *see also EPROMs, Comm’n Op.* at 28-29.

While the Parties may agree on a standard for evaluation of a Consent Order breach, their agreement ends there. The Private Parties not only deeply disagree on whether the evidence supports East West's "good faith" or "bad faith," they have irreconcilable views of the evidence.

(a) East West's Reasonable Belief vs. Regal's Bad Faith Allegations

(1) East West's Actions in Informing Regal of its Redesign Blower

The evidence of the steps East West took pursuant to factors 1, 3 and 4 is linked. The totality of the evidence is persuasive that East West took numerous steps voluntarily and "with vigilance" to comply with the Consent Order and to avoid infringing the '834 patent. Regal's arguments that East West engaged in "subterfuge" or that it "used the ITC's consent order to delay investigation of its conduct" are not supported by the weight of the evidence. Beyond attorney argument, as described below, there is no such evidence. (CBr. 83, 87-88.).

The evidence of *what transpired and when* is clearly laid out in communications between the Private Parties and on the record. As corroborated by East West's fact witness, Mr. Jeffrey Sweeney, on October 14, 2020, in an effort to avoid litigation in the Underlying Proceeding, East West moved to stay the Underlying Proceeding and agreed to a Consent Order Stipulation. (*See* Hr. Tr. (Sweeney) at 3:23-16:18, 326:22-327:2.).

According to Mr. Sweeney, by the time the Consent Order was entered on November 12, 2020, East West had already been investing in re-designing a blower that it believed would not infringe the '834 patent. By August 25, 2020, East West had received the results that formed Mr. Kelly's evaluation (an engineer and patent prosecution attorney from Alston and Bird) of the non-infringement of the Redesign PDV Blower. (RX-0127C (E-Mail from C. Kelly to J. Sweeney)). By September 25, 2020, Regal had obtained a formal opinion on its proposed Redesign PDV Blower, also from Mr. Kelly. (RBr. at 6; Hr. Tr. (Sweeney) at 323:16-18,

325:13-326:19, 326:22-327:2; *see* RX-0121C (Kelly Opinion); RX-0126C (E-Mail from C. Kelly to J. Sweeney).).

According to Mr. Sweeney, East West's intention was in part to build a design-around blower that came closer in design to prior art and to move away from the '834 patent. (Hr. Tr. (Sweeney) at 325:13-326:19.). Mr. Kelly concluded that East West's Redesigned PDV Blower did not infringe any claim of the '834 patent. East West relied on Mr. Kelly's opinion and began the manufacturing process for its Redesigned PDV Blower. (RX-0121C; RX-0126C; RX0127C; Hr. Tr. (Kelly) at 453:2-5; Hr. Tr. (Sweeney) at 327:3-329:11.). As required for a non-infringement analysis, Mr. Kelly analyzed each limitation of both the dependent and independent claims of the '834 patent and offered his opinion that the Redesigned Blower did not infringe the '834 patent. Mr. Kelly's credible Hearing testimony corroborated and explained his opinion. (*Id.*; *see also* Hr. Tr. (Kelly) at 460:6-461:5; 461:11-462:20.). The Kelly Opinion was based, in part also, on 3D CAD drawings of the Redesigned Blower that East West provided to East West's Mr. Jeffrey Sweeney. (RBr. at 86.). The 3D CAD drawings Mr. Kelly reviewed explicitly show a "Blower Base Gasket" and "Bracket Base Gasket" among the other changes that Mr. Kelly reviewed as part of East West's Redesigned PDV Blower. (*See* Hr. Tr. (Kelly) at 458:22-461:11-23; *id.* at 464:23-465:1-9; *id.* at 506:1-11; RX-0121C; *see also infra.*).

On November 13, 2021, after the entry of the Consent Order, East West sent correspondence to Regal which informed Regal of the Redesigned Blower and sought to negotiate settlement of a parallel district court proceeding. (RBr. at 6 (citing Hr. Tr. (Sweeney) at 346:12-347:3, 349:3-350:9; RX-0198C.)). As East West has noted and evidence supports, with its November 13, 2020 correspondence, East West provided CAD drawing screenshots and an accompanying explanation why East West's Redesigned PDV Blower's bottom portion and

gasket, which East West's schematics call the "Blower Base Gasket" and "Bracket Base Gasket" (RX-0078 (EASTWEST0000423-26) at EASTWEST0000424)) were part of the blower housing and material to the non-infringement of the '834 patent. (*See* RX-0198C.2.3; Hr.Tr. (Sweeny) at 350:24-351:6.). On November 18, 2020, Regal requested a physical sample of East West's Redesigned PDV Blower. (RX-0199.1.2.). East West then sent Regal a sample of East West's Redesigned Blower. (RBr. at 8-9, 12; RX-0199.1-2; Hr. Tr. (Sweeny) at 351:14-20, 352:16-353:9, 351:14-20; RX-0202.1.)

In reply correspondence dated December 15, 2021, Regal stated that "[w]hat [East West] describe[s] as 'redesigned' blower is little more than a narrow modification to the gasket adhered to the bottom surface of the blower housing." (RX-0202; *see also* Hr. Tr. (Sweeny) at 353:13-355:5.). East West again sent correspondence to Regal on December 17, 2020, in which it again emphasized differences between the Original Blower and the Redesigned Blower. (RX-0204). On January 6, 2021, Regal sent correspondence to which was attached a draft Enforcement Complaint. (RX-02006.1). Mr. Sweeney interpreted Regal's letter as an ultimatum. (*See* Hr. Tr. (Sweeny) at 356:22-357:5.). On January 15, 2021, Regal filed the Enforcement Complaint.

(b) Regal's Bad Faith Allegations

Regal's narrative and charges against East West are unfortunately symptomatic and East West's Sanction Motion reflect just how contentious this Enforcement Proceeding has been. However, Regal's interpretations of the chronology of East West's development of the Redesigned Blower in relation to the entry of the Consent Order is largely unsupported. Staff also reached a conclusion that Regal's charges against East West that "it gamed" the Consent Order Process, and other claims Regal has made about East West's allegedly "bad faith" conduct are not supported. (SRBr. at 2-7; SRBr. 7-10; *see also* SBR. at 35-46.).

For example, Regal consistently has accused East West of “bad faith” in making merely “minor” changes to the Redesigned PDV Blower in efforts to circumvent the Consent Order. (CPBr. at 95; CBr. at 12, 85.). To that end, Regal has argued that none of East West’s non-infringement arguments for the Redesigned Blower should be credited because there are no differences or, at best, “minimal” differences between the Original Accused Blower and the Redesigned Blower. (CBr. at 85-86.).

On that issue, Regal apparently has refused to recognize the two-step infringement analysis that applies here and instead appears to mis-apply the standard that would apply to contempt proceedings. (See CBr. at 85-86; *contra*, SRBr. at 8 (citing *Certain Road Machines*, Comm’n Op. at 33 (Sept. 14, 2020) (“Because contempt is not at issue in the present investigation, neither is a colorable-differences test that underlies a contempt finding.”)).³³ Given that claim constructions were issued for the first time in this proceeding, and given the analyses of the *Markman* Orders and East West’s consistent comparisons of the Redesigned Blower to the claim limitations of the ’834 patent, Regal’s arguments about the minimal differences between the Original and Redesigned Blowers are merely a re-argument of its arguments that have been rejected. (CX-0136 (Kelly Opinion); CPBr. at 94-95.).

Another example of “bad faith” Regal accused East West of having is:

a plan of misdirection and/or delay in place long before the entry of the Consent Order; agreeing to the Consent Order was just one step in attempting to avoid an investigation on the merits.

³³ There is an instructive analysis of the precedent that is used for “colorable differences” and when that applies as opposed to the two-step analysis for infringement that the Commission would apply to an infringement case. The two-step infringement analysis applies here, and not what appears to be Regal’s colorable differences analysis. (See *Certain Road Construction Machines and Components Thereof*, Inv. No. 337-TA-1088 (Modification), Comm’n Op. at 33 (Sept. 14, 2020) (colorable-differences test applies to contempt); see also Judge Shaw’s Enforcement Initial Determination, *Certain Network Devices, Related Software and Components Thereof*, Inv. No. 337-TA-944 (June 20, 2017).).

(CPBr. at 90, 102; CBr. at 83; *contra* SBr. at 51; SRBr. at 9.).

Regal has argued, without either documentary or testimonial support that East West should have relied on the Lischer Letter of non-infringement that Mr. Lischer provided on the Original PDV Blower (*see* n.3, *infra*). Instead, according to Regal, East West turned to a different attorney, Mr. Kelly, who provided a non-infringement opinion of the Redesigned Blower on which East West could not have relied in good faith because, again according to Regal, the East West Original PDV Blower and its Redesigned PDV Blowers are essentially the same. (CBr. at 88-89.). Regal has argued that Mr. Kelly's legal opinion with respect to the Redesigned Blower was designed to give East West a non-infringement opinion to give cover for its "minimal" and "minor" design-around. Then, according to Regal's theory, East West commenced with its plan to start importing infringing blowers in order to take business from one of Regal's major customers, A.O. Smith with whom Regal had had for years, a virtual monopoly of sales of its own PDV blowers. Regal argued that East West's reliance on Mr. Kelly's opinion was "not reasonable" because "Mr. Kelly did not understand that the part he identifies as the bottom of the blower housing is actually a gasket." (CBr. at 90; *contra* SBr. at 58).

Staff rightly describes Regal's theory as a "far-fetched and illogical conspiracy theory." (SBr. at 51.). Staff also has a compelling explanation for its own observation of Regal's theory:

no rational or competent actor would voluntarily and significantly hamper their own ability to challenge the patent in an enforcement proceeding, and then openly invite scrutiny of a re-designed product by their sole competitor shortly after terminating a violation proceeding by Consent Order.

(SBr. at 51.).

It certainly is true, as Mr. Sweeney described, that the Redesigned Blower is a "version" of the Original Blower. (CBr. at 85 (citing Hr.Tr. (Sweeney) at 332:17-333:2, 364:23-365:1)).

It also is true in the chronology, and East West has acknowledged, that East West began to look for a redesign in 2019 that East West then only implemented in 2020 as it began to negotiate for a Consent Order. (*See* RBr. at 6-7; RRB. at 81-83; CBr. at 83-85 (citing Hr. Tr. (Sweeney) at 325:13-327:2; CX-085C; RX-0024; CX-0014C at EASTWEST000423).).

However, a critical question, which Staff essentially answers is: why would a competitor such as East West *not* look for a redesign that would both satisfy customers while avoiding infringement and the high costs of litigation, including the appeals, which might follow? East West also expressly answered that question through Mr. Sweeney, who clearly testified that East West began its redesign in response to earlier Regal threats of litigation that started well before the Complaint in this Enforcement Proceeding began. East West only began to carry out the modifications to its Original PDV blower after the ITC and District Court actions were filed. (RRB. at 83 (citing Hr. Tr. (Sweeney) at 326:10-327:2).).

Another Regal argument that Staff found lacking, as does this EID, is that East West's preference to redesign its blower rather than to pursue litigation, is an admission that East West's Original Blower infringed the '834 patent. That is not a persuasive argument. The Consent Order explicitly states: "East West's signing of this Stipulation is for settlement purposes only and does not constitute admission by East West that an unfair act has been committed." (Consent Stipulation, Doc. ID No. 722091 at ¶ 6.).

East West has argued, factually, that based on the Consent Stipulation, it did not "acknowledge it infringed the '834 Patent by consenting out." (RBr. at 83.). Additionally, East West observes that it gave up arguments related to unenforceability and lack of domestic industry. (RBr. at 84; *accord* SBr. at 56.).

Finally, Regal's arguments do not make sense because both the Lischer and Kelly opinions advised East West that neither the Original PDV Blower nor the Redesigned PDV Blower infringed Regal's '834 patent. (*See infra.*). Regardless, East West had a right to choose whomever it wanted to represent it in the Underlying Proceeding and this Enforcement Proceeding. Ultimately, Mr. Kelly's September 2020 Opinion, and his Hearing testimony were thorough, and credible.

(c) No Basis for an Adverse Inference

Regal has argued that East West's reliance on Mr. Kelly's Opinion was "not reasonable and has asked for an "adverse inference" that East West destroyed evidence of a voicemail message that Mr. Kelly left for Mr. Sweeney. (CPBr. at 99-100; CBr. at 92-93.). The substance of Regal's charge is that Mr. Sweeney purposely deleted evidence of a voicemail message that Mr. Kelly left for Mr. Sweeney at about the time that Mr. Kelly was providing an opinion of non-infringement to East West/Mr. Sweeney. The date the voice mail that Mr. Kelly left for Mr. Sweeney was not given. Regal contends that the contents of voicemail would have "undermined East West's alleged reliance on Mr. Kelly's opinion." (CBr. at 92.). In this instance, the inference of "spoliation" or the purposeful destruction of evidence is not being made and it is not warranted.

In addition to rule and statute, the Commission "possesses the inherent authority in section 337 investigations to redress spoliation through non-monetary sanctions, including default." *Certain Lithium Ion Batteries*, Inv. No. 337-TA-1159, Comm'n Op. at 21 ("*Certain Lithium Batteries*"). To show that sanctions are warranted for spoliation of evidence, a party must show (1) that the party having control over the evidence had an obligation to preserve it at the time it was destroyed or materially altered; (2) that the records were destroyed or materially

altered with a “culpable state of mind”; and (3) that the destroyed or materially altered evidence was “relevant” to a claim or defense of the party that sought the discovery of the spoliated evidence, to the extent that a reasonable fact finder could conclude that it would support that claim or defense. *Certain Stainless Steel Prods.*, Inv. No. 337-TA-933, Comm’n Op. at 14 (quoting *Certain Opaque Polymers*, Inv. No. 337-TA-883, ID at 7-8 (Oct. 30, 2014), *aff’d in relevant part by* Comm’n Op. at 12-19 (Apr. 30, 2015)). A case-dispositive sanction such as dismissal or default should be imposed only in “particularly egregious situations where a party has engaged deliberately in deceptive practices that undermine the integrity of judicial proceedings.” *Certain Lithium Batteries* Comm’n Op. at 22 (citing *Micron Tech., Inc. v. Rambus Inc.*, 645 F.3d 1311, 1328 (Fed. Cir. 2011)).

A determination of bad faith occurs when “the spoliating party ‘intended to impair the ability of the potential defendant to defend itself.’” *Micron*, 645 F.3d at 1326 (citations omitted); *see also Faas v. Sears, Roebuck & Co.*, 532 F.3d 633, 644 (7th Cir. 2008) (“A document is destroyed in bad faith if it is destroyed ‘for the purpose of hiding adverse information.’”). “The fundamental element of bad faith spoliation is advantage-seeking behavior by the party with superior access to information necessary for the proper administration of justice.” *Micron*, 645 F.3d at 1326. The proper sanction for spoliation, it is “within the sound discretion of the district court in exercising its inherent authority and in assuring the fairness of the proceedings before it.” *Id.* at 1326. A dispositive sanction such as dismissal or default, however, “should not be imposed unless there is clear and convincing evidence of both bad-faith spoliation and prejudice to the opposing party.” *Id.* at 1328-29 (citations omitted). The presence of bad faith and prejudice, without more, do not justify dispositive sanctions. *Id.* at 1329. “In gauging the propriety of the sanction, the district court must take into account (1) the *degree* of fault of the

party who altered or destroyed the evidence; (2) the degree of prejudice suffered by the opposing party; and (3) whether there is a lesser sanction that will avoid substantial unfairness to the opposing party and, the document destruction was intentional.” *Id.* at 1327 (citing *Mathis v. John Morden Buick, Inc.*, 136 F.3d 1153, 1155 (7th Cir. 1998)).

There is no reason to draw an adverse inference as Regal has requested. Regal’s argument is attorney argument that is based on the circumstantial evidence of what appears to have been Mr. Sweeney’s accidental deletion of a voicemail from Mr. Kelly. Regal’s argument is a long stretch based on suspicion and speculation. There is no evidence that anyone at East West had “culpable state of mind.” There is nothing “egregious” about Mr. Sweeney’s apparently accidental deletion of a voicemail that most likely was inconsequential. Regal’s suggestion that somehow a single voicemail message between Mr. Sweeney and Mr. Kelly requires a finding of default or another remedy is hyperbolic.

The two (2) participants to the voicemail message at issue offered little other than a characterization that Mr. Kelly’s phone message was not significant. Mr. Sweeney testified that he did not “remember any details of the voicemail other than a vague recollection that he [Mr. Kelly] was calling to alert me that there was—the opinion was in my in box.” (Hr. Tr. (Sweeney) at 428:5-8.). Mr. Sweeney confirmed that he had not previously received any oral opinions from Mr. Kelly. (*Id.* at 429:14-17.).

Mr. Kelly testified that the voicemail message he left for Mr. Kelly did not contain “any substantive opinions.” Mr. Kelly testified that if he had wanted to “communicate to Jeff, I would have put that in writing. So I’m sure the voicemail wouldn’t have contained anything of that nature.” (Hr. Tr. (Kelly) at 454:22-455:11, 456-16-20.). While neither the communicator nor the recipient of the voicemail message could remember the content of the telephone message, it

seems highly unlikely that Mr. Kelly would have left a message advising Mr. Sweeney that the non-infringement opinion he provided to East West both on August 25, 2020 and again on September 25, 2020 had suddenly changed. (See RX-0127C (E-Mail from C. Kelly to J. Sweeney); see also Kelly Opinion, RX-0121; see also RX-0126C (E-mail from C. Kelly to J. Sweeney)). There was nothing in their demeanor or testimony that would have discredited their testimonies. Moreover, Regal did not offer evidence that there was a nefarious purpose behind East West's choice to hire a different attorney, Mr. Kelly, to provide a legal opinion on the Redesigned Blower.

(d) No Commission Opinion or Clarification

East West acknowledges that it did not seek an advisory opinion or clarification from the Commission. (RRBr. at 89.). East West has argued that it was not possible to seek an advisory opinion from the Commission given the timing of the Consent Order and ensuing Enforcement Proceeding. (*Id.*). East West has argued that the fact it did not seek an advisory opinion from the Commission does not preclude a finding of good faith. (RRBr. at 89 (citing *Certain Network Devices*, Enforcement ID at 90).). East West has argued that this factor is neutral given the other good faith steps it took to avoid infringement. (*Id.*). Staff agrees with East West on this point. So do I.

(e) East West Sought Outside Counsel Opinion

Regal has argued, without evidence, that East West sought an un-objective, and unreliable non-infringement opinion from Mr. Kelly because East West did not provide the Violation Complaint or *Regal's* infringement positions (claim charts) to Mr. Kelly. According to Regal, the Kelly Opinion, therefore, is unreliable and evidence of East West's bad faith. (CPBr.

at 96; CBr. at 88-90.). In a similar vein, Regal has argued that East West should have relied on the Lischer Letter but not on the Kelly Opinion. (CBr. at 94; n.3, *infra*.).

East West's answer to Regal is both that the Lischer Opinion focused on the Original PDV blower while the Kelly Opinion focused on the Redesigned Blower. (RBr. at 6, 31; RRBr. at 89.). Moreover, as Mr. Kelly testified, the Kelly Opinion relied on the CAD drawings of the Redesigned Blower to compare it against each and every claim limitation of the '834 patent. (RRBr. at 86 (citing Hr. Tr. (Kelly) at 457:22-458:5, 458:22-460:5, 460:6-461:5, 461:11-462:20; RX-0121(C)). Mr. Kelly clearly identified that the bottom of the Redesigned Blower was a gasket ("Blower Base Gasket") and that there was a Bracket Base Gasket. (Hr. Tr. (Kelly) at 462:21-465:9; RX-0121C (including that CAD drawings show and include "Blower Base Gasket.x_t" and Bracket Base Gasekt.x_t.)). (See RRBr. at 87). Mr. Kelly also relied on the '834 patent prosecution file history. (Hr. Tr. (Kelly) at 458:22-460:5; RX-0121C).

Regal does not have a strong evidentiary basis for Regal's arguments. (See CBr. at 94-95). Regal has its opinion; but Mr. Kelly testified to the contrary. The Kelly Opinion supports his testimony.

That East West sought an opinion based on the Redesigned Blower reflects a good-faith attempt to avoid infringement. (*Accord* SBr. at 59.).

Additionally, Mr. Kelly did not need to read Regal's Complaint in the Underlying Proceeding, or necessarily, the Enforcement Complaint, in order to compare the limitations of the '834 patent to the Redesigned Blower. (See CBr. at 89-90; Hr. Tr. (Kelly) at 485:8-486:6.).

As it did throughout its Pre-Hearing Brief, during the Hearing, and in its Post-Hearing Brief, Regal unaccountably appears to misstate how an infringement analysis is conducted. Literal infringement of a claim occurs when every limitation recited in the claim appears in the

accused device, i.e., when the properly construed claim reads on the accused device exactly. *Amhil Enters, Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996); *Southwall Tech. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed Cir. 1995).).

As a final attempt at swaying a conclusion on that issue, Regal argued, unsuccessfully, that even though Mr. Kelly is an engineer and a lawyer, he “did not understand” the detailed CAD drawings and schematics he was given of the Redesigned Blower. In order to undermine support its argument, Regal offered Dr. Cameron’s testimony and her evaluation of the Kelly Opinion that Mr. Kelly did not seem to understand the CAD drawings of the Redesigned Blower. (*See infra.*) Regal particularly argued that Mr. Kelly did not “understand” the structure of the bottom housing of the Redesigned Blower or that it contains a “Blower Base Gasket” and “Bracket Base Gasket.” (RBr. at 89-90; *contra* Hr. Tr. (Kelly) at 327:3-329:11; *see also, infra.*) Regal called East West’s reliance on the Kelly Opinion as “not reasonable.” (CBr. at 90; *contra* SBr. at 58.).

Whether Dr. Cameron believed or did not believe that Mr. Kelly understood the parts of the Redesigned Blower has no merit against Mr. Kelly’s explanation of how he analyzed the Redesigned Blower (correctly as it has been determined), or of his own understanding and why he used the language he used to describe the components of the Redesigned PDV Blower. (*See* Hr. Tr. (Kelly) at 464:23-25, 465:1-9, 506:1-11, 461:11-23.).

Explicitly, Mr. Kelly testified that when he rendered his noninfringement opinion, he knew that the bottom of the Redesigned PDV Blower was a gasket. (*See* Hr. Tr. (Kelly) at 462:21-463:2, 464:19-465:9.). Indeed, the components identified in the CAD drawings of the Redesigned PDV Blower (*see* Figure 6, above) also were specifically listed as part of the CAD drawings that Mr. Kelly evaluated and incorporated into the Kelly Opinion. (*Id.*) Mr. Sweeney

testified that he had no reason to doubt Mr. Kelly's opinion or his understanding of the CAD drawings. (Hr. Tr. (Sweeney) at 330:25-332:4.).

Mr. Kelly's Hearing testimony was clear and credible. Staff appears to agree. (See SBr. at 87.). I gave Mr. Kelly's testimony great weight. By contrast, it was difficult to credit Dr. Cameron's testimony when she herself did not conduct or testify to a claim-by-claim analysis of the Redesigned Blower Housing. Finally, as Staff notes, Federal Circuit precedent draws distinctions about whether an attorney's opinion is utterly correct and a potential infringer's reliance on it. (See SBr. at 54, n. 2 (citing *In re EchoStar Commc'ns Corp.*, 448 F.3d 1294, 1303 (Fed. Cir. 2006) (other citations omitted).).

(f) Determining Which Products Are Covered

The unrebutted evidence is that despite its belief that its Original PDV Blower did not infringe the '834 patent, East West sought to redesign the Original PDV Blower to avoid litigation. (Hr. Tr. (Sweeney) at 325:13-24-334:10.). As East West has explained and as Mr. Sweeny testified, "the design of the Redesigned PDV Blower took place over several months and required the time of East West's engineers and technicians as well as the input of outside legal counsel." (RRBr. at 77 (citing Hr. Tr. (Sweeney) at 325:13-24-334:10).). East West claims it "invested thousands of dollars and hundreds of hours to redesign the Original PDV Blower and arrive at the Redesigned PDV Blower. (RRBr. at 77 (citing Hr. Tr. (Sweeny) at 337:4-7).).

All of the testimony and evidence suggests that East West appropriately consulted outside counsel, and that its managers and technical employees did not take it upon themselves to decide which products were subject to the Consent Order without seeking legal advice. *See Certain Network Devices*, Enforcement ID at 88 (citing *Ink Cartridges*, Enforcement ID, 2009

WL2122014 at *40 (Apr. 17, 2009) (finding that Ninestar’s management decided which products were subject to the cease-and-desist order without consulting their attorneys)).

2. Injury Due to Violation

The principle applied to this factor is that “[s]ignificant importation and sales of infringing products by enforcement respondents can harm a complainant, and by extension can also harm the public.” *See Certain Magnetic Tapes*, Enforcement ID at 56. As Staff has noted, the focus of this *EPROMs* factor is injury to the domestic industry which can be measured in terms of a respondent’s unlicensed sales. Injury to the public need not be quantified because the patentee has a monopoly for which exclusion is a remedy for its patent violation. (*See* SBr. at 56 (citing *Certain Network Devices*, Enforcement ID at 90-91).).

Regal has argued that the harm to Regal equates to harm to the public. (*See* CBr. at 95.). Regal has explained that it had been a major supplier of PDV blowers to A.O. Smith, one of the largest if not largest, of hot water tanks and treatment systems, at least through 2019. (*Id.*). According to Regal, because of East West’s “displacement” of Regal from the A.O. Smith account, Regal’s sales to A.O. Smith declined from annual sales of some [REDACTED] PDV blower units per year, valued at [REDACTED] dollars, to no sales in 2020 and 2021. (CBr. at 95 (citing Hr. Tr. (Galligos) at 133:4-135:15; 136:2-21; CPX-0009C).). Regal says that because of its lost sales, the suppliers who work with Regal on this contract lost their sales on the PDV blowers. (CBr. at 95.). Regal calls East West’s sales a “continued violation.” The loss to suppliers may be true. However, Regal did not quantify the loss to its suppliers.

Regal and Staff both note, that based upon the sales and revenues East West agreed upon in the Import Stipulation, East West made “significant sales” of the Redesigned Blower after the entry of the Consent Order, and therefore, a significant penalty would apply. (SBr. at 56; CBr. at 95.).

In contrast, East West has argued that any “injury” that Regal suffered, and any “benefit” that East West received are both minimal because there is a minimal overlap in their customers, and “the accused product generates a relatively small amount of revenue each year.” (RRBr. at 75 (emphasis in original.)). East West did not offer a quantification of its assertion.

East West also has argued that legitimate competition benefits the public. While the latter statement may be true, the application of a penalty is focused on the violation, and then the mitigating steps taken by a respondent. There is no explicit link between *why* a civil penalty should or should not be imposed and whether the proposition is true that competition is beneficial.

3. East West’s Ability to Pay a Civil Penalty

The Commission has looked to a party’s income and revenue as an appropriate measure of its ability to pay a penalty. *See Certain Network Devices*, Enforcement ID at 92 (citing *Certain Ink Cartridges and Components Thereof*, Inv. No. 337-TA-565 (Enforcement Proceeding), Comm’n Op. at 30 n.12 (Sept. 25, 2009)). Mr. Sweeney testified that East West generates some \$300 million dollars in revenues per year. (Hr. Tr. (Sweeney) at 390:3-7). The Parties do not dispute that East West’s annual revenues support East West’s ability to pay a significant penalty. (CBr. at 96.). Staff has argued that the penalty factor described does not weigh against a reduced penalty and neither does it weigh in favor of an increased penalty. (SBr. at 57 (citing *Certain Magnetic Tapes*, Enforcement ID at 57)). On balance, this factor is neutral and should not be factored in either to increase or reduce a penalty. Clearly, however, based upon its overall revenues, East West is able to pay a civil penalty that would be appropriate to the circumstances.

4. East West’s Benefits from a Violation

The fourth penalty factor is the extent to which the respondent benefitted from its violation of the Consent Order. The Commission has explained that “the benefit to a

violating party can be measured in a number of ways, including revenues received from infringing sales, profits from those sales, or even revenues from sales of related product those sales would not have -occurred but for the sales of the infringing goods.” See *Certain Network Devices*, Enforcement Decision 93 (citing *Certain Agricultural Tractors Under 50 Power Take-Off Horsepower*, Inv. No. 337-TA-380 (Enforcement), Comm’n Op. at 42, USITC Pub. 3227 (Aug. 1999) (“*Tractors*”). The benefits to a respondent may also include intangible benefits, such as customer retention. See *Ink Cartridges*, Comm’n Op. at 32. Moreover, the Commission has explained that “[w]e do not believe that this factor requires the Commission to establish with precision the amount of benefit derived by respondents. Rather, we have considered this factor with a view to determine the general order of magnitude of the infringing conduct.” See *Magnets*, Comm’n Op. at 28.

5. Vindication of the Commission’s Authority

“The need to vindicate the Commission’s authority is an aggravating factor in cases where a respondent has acted in bad faith or has deliberately evaded the Commission’s orders.” (See SBr. at 58 (citing *Certain Network Devices*, Enforcement ID at 95).). Staff has argued that East West did not deliberately evade the Consent Order, and therefore, this factor should not be applied as an aggravating factor added to the mandatory penalty. (*Id.*).

Regal has argued that there is a “compelling need” for the Commission to “vindicate its authority regarding consent orders, particularly where, as here, respondents unilaterally moved for termination of the underlying investigation based on a proposed consent order. (CBr. at 97 (quoting *Certain Neodymium-Iron-Boron Magnets, Magnet Alloys, and Articles Containing Same*, Inv. No. 337-TA-372, Comm’n Op., 1997 WL 857227, at *7, 13 (Nov. 1, 1997).). Regal has argued that East West’s “gamesmanship with the Consent Order enabled it to transition from

the Original East West Blower to the Accused East West Blower without interrupting the supply to its domestic customer and shielding its activities from discovery.” (CBr. at 97.). Regal contends that as part of its “gamesmanship,” East West did not notify either the Commission or Regal “that it was going to modify its product.” (*Id.*). Regal did not cite to any discovery requests in which it asked East West about redesigns.

East West has challenged Regal’s characterization that it tried to “game the system.” (RBr. at 92.). East West has argued that it intentionally redesigned its Original PDV Blower with the confidence that it did not infringe the ’834 patent. East West has argued that there is no need to “vindicate” the Commission’s authority because East West complied with virtually all of the six factors the Commission applies to determine “good faith.” (*Id.*).

Staff has argued that East West did not have a “general obligation” to disclose its redesigns absent a specific discovery request. (SRBr. at 9.).

The recommendation based on the timing and the weight of the evidence is that East West’s actions were taken in good faith. Clearly, East West did not wish to contend with the costs of prolonged litigation. Its design-around changes, although relatively simple, nonetheless qualify as sufficient to escape infringement of the ’834 patent.

6. Public Interest

The public interest at issue in this case, as in most section 337 investigations, is the protection of intellectual property rights. The public interest is not served if intellectual property rights are not respected, and the imposition of a penalty that is substantial enough to deter future violations is in the public interest.

Certain Ink Cartridges, Comm’n Op. at 38; *see also Certain Magnetic Storage Tapes*, Enforcement ID at 58.

Regal says that it is unaware of any adverse effect that the relief it seeks would have on the public interest. (CBr. at 97.). Regal says it is “ready, willing and able” to supply any PDV

blowers that A.O. Smith “requires to support its product lines.” (*Id.*). Regal has argued that disruption should be “minimal” if it were to start re-supplying A.O. Smith as it had previously before it lost A.O. Smith’s PDV blower business to East West. (*Id.* at 98 (citing Hr. Tr. (Galligos) at 132:17-133:3; CPX-0009C).).

East West has argued that “it is in the public interest to encourage competition among America-based companies in the water heater blower market” and that “[p]ushing East West off the market would result in Regal regaining their monopoly in the water heater blower market where their products are priced much higher.” (RPBr. at 134, 138-139; RBr. at 92 (citing Hr. Tr. (Galligos) at 140:10-24; 141: 16-20).).

Staff has argued that East West’s “appeal to the consumer prices as a paramount public interest consideration is contrary to Commission precedent.” (SBr. at 58 (quoting *Certain Ink Cartridges*, Comm’n Op. at 27 (Sept. 24, 2009) (“The Commission has consistently held that the benefit of lower prices to consumers does not outweigh the benefit of providing complainants with an effective remedy for an intellectual property-based section 337 violation.”)).

East West did not offer evidence that it would be pushed out of the market for blowers let alone out of any market, especially given its revenues of \$300 million per year, and a potential maximum penalty of \$1.9 million dollars. That it would be “pushed off the market” would appear unlikely given East West’s revenues and the relatively small fraction of the A.O. Smith revenues that contribute to East West’s overall revenues. If East West is found to have violated the Consent Order, it may lose A.O. Smith as a customer for the Redesigned PDV Blowers it had provided A.O. Smith in 2020 and 2021 (*infra*). Similarly, it may be that Regal will again be the sole supplier of A.O. Smith. Both assertions are speculative. However, since Regal was the

monopolistic supplier of PDV blowers to A.O. Smith before East West entered that market, it is likely that Regal might once more become a supplier of its PDV blowers to A.O. Smith.

XI. OTHER REMEDIES

A. Legal Standard

Pursuant to Commission Rule 210.42, an Administrative Law Judge (“ALJ”) must issue a recommended determination on: (i) an appropriate remedy if the Commission finds a violation of Section 337, and (ii) an amount, if any, of the bond to be posted. 19 C.F.R. § 210.42(a)(1)(ii). When a Section 337 violation has been found, “the Commission has the authority to enter an exclusion order, a cease-and-desist order, or both.” *Certain Flash Memory Circuits and Prods. Containing the Same*, Inv. No. 337-TA-382, Comm’n Op. on the Issues Under Review and on Remedy, the Public Interest and Bonding, at 26 (June 9, 1997).

B. Limited Exclusion Order (“LEO”)

Pursuant to Commission Rule 210.75(b)(4) the Commission has the authority to modify or terminate a Consent Order. Regal has argued that because East West has infringed at least one claim of the ’834 patent, and therefore has violated the Consent Order, the Commission should issue a limited exclusion order (“LEO”) that would exclude all of the East West PDV blowers. (CPBr. at 106; CBr. at 98-99.). Regal has also requested that the Consent Order remain in place until a LEO issues. (*Id.*). East West has argued that there no demonstrated need for an exclusion order. (RPBr. at 140). Staff’s view is that an exclusion order is neither required nor necessary because East West has acted in good faith. The Consent Order and any civil penalty would be sufficient to deter future violations. (SPBr. at 64 (citing *Two-Way Global Satellites*, Comm’n Op. at 42).).

It is recommended that a LEO is not necessary.

C. Cease and Desist Order (“CDO”)

Regal has argued that a cease-and-desist Order (“CDO”) is necessary if East West is found to have infringed the ’834 patent and to have violated the Consent Order. (CPBr. at 106). Regal suggests that East West maintains “commercially significant” inventory in the United States. (*Id.* (citing CX-0046C, at EASTWEST001018.)). Staff has argued that a CDO is unnecessary for the same reasons a LEO is unnecessary. (SPBr. at 64; SBr. at 60.). Staff has relied upon the evidence to which Regal cited that East West may maintain commercially significant inventories of the Accused Blowers in the United States. (*Id.* (citing RPBr. at 139; CPBr. at 106-107).).

A CDO is not necessary. However, if the Commission decides to impose a CDO, then before doing so, the Commission will need updated information on East West’s U.S. inventory of the Accused PDV Blowers.

D. Bond

A bond is neither warranted nor recommended. (*See Certain Neodymium-Iron Boron Magnets, Magnet Alloys and Articles Containing Same*, Inv. No. 337-TA-372, Comm’n Determination on Violation, Comm’n Op., 1997 WL 857227, at *21 (Nov. 1997 (finding no need for a bond where a consent order is in place until imposition of an exclusion order)).

The Parties agree. (*See* SPBr. at 65; CPBr. at 107; RPBr. at 140; SBr. at 60; CBr at 99 RBr. at). East West notes that it is prohibited from importing blower housings that infringe the ’834 patent. Additionally, East West notes that it cannot challenge the validity of such a limitation regardless of whether the Commission enters an exclusion order. (RBr. at 99 (citing JX-0004)). Regal has asked that the Consent Order be terminated when a LEO takes effect. (CBr. at 99.). Regal did not explicitly ask for a bond in its Complaint.

XII. CONCLUSIONS OF FACT AND LAW

1. The Commission has personal jurisdiction in this proceeding.
2. The Commission has subject matter jurisdiction in this proceeding.
3. The Commission has *in rem* jurisdiction in this investigation.
4. Since at least November 12, 2020, the date of the Consent Order, East West imported or sold its Redesigned PDV Blowers on 19 days. Therefore, the statutory maximum penalty (“SMP”) is \$1.9 million dollars.
5. The Accused Products are East West’s Redesigned PDV Blowers that contain item or model numbers 100338630, 100338701, 100338702, 10038703, 10038704, and 10038705.
6. The Accused Products, i.e., the Redesigned PDV Blowers, do not literally infringe the Asserted Claims 1, 2, 7, 8, 9, 10 and 15 of U.S. Patent No. 8,079,834 (“the ’834 patent”).
7. Regal did not prove by a preponderance of evidence that East West infringed the ’834 patent.
8. Regal did not provide evidence on either indirect infringement or on the doctrine of equivalents. Therefore, Regal has waived the right to raise these theories of infringement on appeal.
9. Regal did not produce persuasive evidence that the modifications East West made to its Redesigned PDV Blower were not so minor as to infringe the ’834 patent. Regal did not provide legal support that “minor” modifications are unacceptable to prove non-infringement.
10. Regal did not prove that East West violated the Consent Order.
11. East West met five of the six “good-faith” factors the Commission considers when it evaluates the penalty to impose as a civil penalty.
12. There is no basis to draw an “adverse inference” about any of East West’s actions or conduct since the entry of the November 12, 2020 Consent Order.
13. In the event that the Commission finds that Regal violated the Consent Order, the recommended civil penalty is \$85,600.00

XIII. ORDER

This recommended Enforcement Initial Determination is certified to the Commission. All orders and documents filed with the Secretary, including the record exhibits in this proceeding, as defined in 19 C.F.R. § 210.38(a), are not certified, since they are already in the Commission's possession in accordance with Commission Rules. *See* 19 C.F.R. § 210.38(a). In accordance with 19 C.F.R. § 210.39(c), all material found to be confidential under 19 C.F.R. § 210.5 or that was filed as "Confidential: Under Seal" is to be given *in camera* treatment.

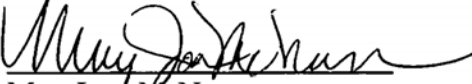
After the Parties have provided proposed redactions of confidential business information ("CBI") that have been evaluated and accepted, the Secretary shall serve a public version of this ID upon the Parties and Staff together with a confidential version.

Pursuant to 19 C.F.R. § 210.42(h), this Enforcement Initial Determination shall become the determination of the Commission unless a party files a petition for review pursuant to 19 C.F.R. § 210.43(a), or the Commission, pursuant to 19 C.F.R. § 210.44, orders on its own motion a review of the Initial Determination or certain issues herein.

Within fourteen (14) business days of the date of this document, each party shall submit to the Office of the Administrative Law Judges through McNamara337@usitc.gov a statement whether it seeks to have any confidential portion of this document. That is the courtesy copy pursuant to Ground Rule 1.3.2. Any party seeking redactions to the public version must submit to this office through McNamara337@usitc.gov a copy of a proposed public version of this document pursuant to Ground Rule 1.10 with yellow highlighting clearly indicating any portion

asserted to contain confidential business information.

SO ORDERED.


MaryJoan McNamara
Administrative Law Judge