IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

SLOAN VALVE COMPANY,	)	
	)	
Plaintiff,	)	
	)	Case No. 10-cv-00204
v.	)	
	)	
ZURN INDUSTRIES, INC., and	)	
ZURN INDUSTRIES, LLC,	)	
	)	
Defendants.	)	

MEMORANDUM OPINION AND ORDER

AMY J. ST. EVE, District Court Judge:

Zurn Industries, Inc. ("Zurn") has moved to exclude the testimony of Sloan Valve Company's ("Sloan") expert, Richard Bero. For the reasons discussed below, the Court grants Zurn's motion.

BACKGROUND

This is a patent infringement case involving U.S. Patent No. 7,607,635, entitled "Flush Valve Handle Assembly Providing Dual Mode Operation" (the "'635 Patent"). The '635 Patent "relates to flush valves for use with plumbing fixtures such as toilets, and more specifically to improvements in the bushing of the actuating handle assembly that will provide for user-selectable, dual mode operation of the flush valve." ('635 Patent, col. 1, ll. 6-10.) The improvement is a mechanism that allows a user to select one of two flush volumes based on the direction of actuation of the handle: a full flush volume to evacuate solid waste from the bowl or a reduced flush volume to remove liquid waste.

Sloan filed this lawsuit against Zurn Industries, Inc. and Zurn Industries, LLC alleging infringement. During expert discovery, Sloan disclosed Richard Bero as its expert on the issue of compensatory damages. Sloan asked Mr. Bero to "determine damages in the form of a reasonable royalty and to quantify price erosion damages." (R. 620-3, 4/5/2013 Bero Rebuttal Report, p. 3.) Mr. Bero opined that Sloan is entitled to a per-unit royalty rate of $106 per Accused Product for a total of $7.8 million. In his rebuttal report, he further opined that Sloan has incurred price erosion damages of approximately $2.3 million for the period beginning after the complaint was filed. (*Id*.) At his *Daubert* hearing, however, Mr. Bero presented re-calculated price erosion damages of $1.2 million. (3/11/14 Bero Hearing Tr. at 10:9-16.) Mr. Bero contends that Sloan is entitled to compensatory damages of $9 million before accounting for pre-judgment interest. Zurn now seeks to exclude Mr. Bero's opinions.

LEGAL STANDARD FOR *DAUBERT* MOTIONS

"The admissibility of expert testimony is governed by Federal Rule of Evidence 702 and the Supreme Court's opinion in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993)." *Lewis v. Citgo Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009). Rule 702 provides, in relevant part, that "[i]f scientific, technical or other specialized knowledge will assist the trier of fact[,] . . . a witness qualified as an expert by knowledge, skill, experience, training or education, may testify thereto in the form of an opinion. . . ." *Id.* *See also Happel v. Walmart Stores, Inc.*, 602 F.3d 820, 824 (7th Cir. 2010).

Under the expert-testimony framework, courts perform the gatekeeping function of determining whether the expert testimony is both relevant and reliable prior to its admission at trial. *See id.*; *Power Integrations, Inc. v. Fairchild Semiconductor Intern., Inc.*, 711 F.3d 1348, 1373 (Fed. Cir. 2013); *United States v. Pansier*, 576 F.3d 726, 737 (7th Cir. 2009) ("To

determine reliability, the court should consider the proposed expert's full range of experience and training, as well as the methodology used to arrive [at] a particular conclusion."). In doing so, courts "make the following inquiries before admitting expert testimony: first, the expert must be qualified as an expert by knowledge, skill, experience, training, or education; second, the proposed expert must assist the trier of fact in determining a relevant fact at issue in the case; third, the expert's testimony must be based on sufficient facts or data and reliable principles and methods; and fourth, the expert must have reliably applied the principles and methods to the facts of the case." *Lees v. Carthage College*, 714 F.3d 516, 521-22 (7th Cir. 2013); *see also Stollings v. Ryobi Tech., Inc.*, 725 F.3d 753, 765 (7th Cir. 2013); *Power Integrations*, 711 F.3d at 1373; *Pansier*, 576 F.3d at 737.

In assessing the admissibility of an expert's testimony, the Court's focus "must be solely on principles and methodology, not on the conclusions they generate.'" *Winters v. Fru-Con, Inc.*, 498 F.3d 734, 742 (7th Cir. 2007) (quoting *Chapman v. Maytag Corp.*, 297 F.3d 682, 687 (7th Cir. 2002)). *See also Stollings*, 725 F.3d at 765. "The goal of *Daubert* is to assure that experts employ the same 'intellectual rigor' in their courtroom testimony as would be employed by an expert in the relevant field." *Jenkins v. Bartlett*, 487 F.3d 482, 489 (7th Cir. 2007) (quoting *Kumho Tire*, 526 U.S. 137, 152, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999)). "A *Daubert* inquiry is not designed to have the district judge take the place of the jury to decide ultimate issues of credibility and accuracy." *Lapsley v. Xtek*, Inc., 689 F.3d 802, 805 (7th Cir. 2012).

ANALYSIS

I. Mr. Bero is Qualified to Testify as an Expert in This Case

Zurn does not challenge Mr. Bero's qualifications to testify as an expert in this case, but the Court nevertheless summarizes them. Mr. Bero is a certified public accountant, a certified valuation analyst, and the President and Managing Director of The BERO Group. (R. 620-1, 1/28/2013 Bero Report at 4.) Mr. Bero received a bachelor's of business administration in accounting and finance from the University of Wisconsin-Madison. (R. 620-2, Bero CV, p.1.) Mr. Bero has "analyzed economic damages and accounting and financial issues in a variety of litigation matters concerning areas such as patent infringement, trademark infringement, copyright infringement, trade secrets, breach of contract, dealership disputes and construction disputes" and has testified as an expert more than 100 times. (Bero Rep. at 4-5.) Mr. Bero has also given presentations and published articles on reasonable royalty damages, the entire market value rule, and other patent damages issues through various organizations and publications. (Bero CV, p. 2-6.)

II. Mr. Bero's Opinions Regarding a Reasonable Royalty Rate

A. Reasonable Royalty Standard

By statute, the "court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." 35 U.S.C. § 284. "Awarding damages through litigation attempts to assess 'the difference between [the patentee's] pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred.'" *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009) (citing *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 552, 6 S. Ct. 934, 29

L. Ed. 954 (1886)). The patentee bears the burden of proving its damages. *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 26 (Fed. Cir. 2012); *Crystal Semiconductor Corp. v. Tritech Microelectronics Int.'l, Inc., et al.*, 246 F.3d 1336, 1353 (Fed. Cir. 2001). "Two alternative categories of infringement compensation are the patentee's lost profits and the reasonable royalty he would have received through arms-length bargaining." *Lucent*, 580 F.3d at 1324.

Several ways exist to calculate a reasonable royalty. One method is known as the analytical method, which focuses on the infringer's projections of profit for the infringing product. *Id*. (citing *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 899 (Fed. Cir. 1986)). Another method is to base the calculation on an established royalty, if there is one. *Versata Software, Inc. v. SAP America, Inc.*, 717 F.3d 1255, 1267 (Fed. Cir. 2013). If there is not an established royalty, a reasonably royalty may be calculated based on the supposed result of hypothetical negotiations between the plaintiff and defendant. *Id*. The hypothetical negotiation "attempts to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began." *Lucent*, 580 F.3d at 1324. One type of royalty resulting from the hypothetical negotiation is the running royalty license, in which "the amount of money payable by the licensee to the patentee is tied directly to how often the licensed invention is later used." *Id*. at 1326. "When a hypothetical negotiation would have yielded a running royalty, the classic way to determine the reasonable royalty amount is to multiply the royalty base, which represents the revenue generated by the infringement, by the royalty rate, which represents the percentage of revenue owed to the patentee." *Whitserve*, 694 F.3d at 27. Although a reasonable royalty calculation includes some approximation, "the Federal Circuit requires 'sound economic and factual predicates' for that analysis." *IP Innovation LLC v. Red*

Hat, Inc., 705 F. Supp. 2d 687, 689 (E.D. Tex. 2010) (citing *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302 (Fed. Cir. 2002)).

Reasonable royalty damages "must be awarded 'for the use made of the invention by the infringer.'" *Laserdynamics v. Quanta Computer Inc.*, 694 F.3d 51, 66-67 (Fed. Cir. 2012) (quoting 35 U.S.C. § 284). "Where small elements of multi-component products are accused of infringement, calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product." *Id.* Thus, courts generally require "that royalties be based not on the entire product, but instead on the 'smallest salable patent-practicing unit.'" *Id.* (citing *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 283, 287-88 (N.D.N.Y. 2009)).

The entire market value rule is an exception to the rule requiring apportionment. The entire market value rule applies if the patentee proves that the "patented feature creates the 'basis for customer demand' or 'substantially create[s] the value of the component parts.'" *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011) (citing *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009) and *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1549-50 (Fed. Cir. 1995)). Put another way, the patentee may assess damages based on the entire market value of the patented product if it can show that "the patented feature drives the demand for an entire multi-component product." *Laserdynamics*, 694 F.3d at 67 (citing *Rite-Hite*, 56 F.3d at 1549).

B. Mr. Bero's Reasonable Royalty Analysis

Mr. Bero based his reasonable royalty analysis on a hypothetical negotiation between Sloan and Zurn based on the fifteen factors set forth in *Georgia-Pacific Corp. v. The U.S.*

Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970.). (Bero Rep. at 41.)[1] These factors "are meant to provide a reasoned economic framework" for the hypothetical negotiation. *Whitserve*, 694 F.3d at 27. Mr. Bero asserts that he "opines on damages in the form of a running royalty." (Bero Rebuttal Rep. at 12.)

Mr. Bero acknowledges that "royalty amounts are typically determined by starting with a royalty base and multiplying the base by a royalty rate." (Bero Rep. at 43.) Mr. Bero asserts that to determine the royalty base in this case, the entire market value rule applies, because "Sloan's patented technology has driven the market for the Accused Products, whether the dual-flush manual valves or replacement handles, and is the basis for customer demand." (*Id.*) Mr. Bero asserts that "customers specifically chose to purchase the manual dual flush valves or handles as opposed to other products without the patented technology such as manual single-flush valves, more expensive automatic flush valves, or lower volume 1.28 gpf flush valves without the dual-flush capability and the larger water volume flush option." (*Id.*) Mr. Bero then claims that although the entire market value rule applies, the total revenue from the sale of the accused products does not represent the full value of the patented product because it does not account for the value of sales of collateral goods and of Sloan's pricing considerations. Thus, Mr. Bero

[1] These factors are: (1) royalties the patentee has received for licensing the patent to others; (2) rates paid by the licensee for the use of comparable patents; (3) the nature and scope of the license (exclusive or nonexclusive, restricted or nonrestricted by territory or product type); (4) any established policies or marketing programs by the licensor to maintain its patent monopoly by not licensing others to use the invention or granting licenses under special conditions to maintain the monopoly; (5) the commercial relationship between the licensor and licensee, such as whether they are competitors; (6) the effect of selling the patented specialty in promoting sales of other products of the licensee; (7) the duration of the patent and license term; (8) the established profitability of the product made under the patent, including its commercial success and current popularity; (9) the utility and advantages of the patent property over old modes or devices; (10) the nature of the patented invention and the benefits to those who have used the invention; (11) the extent to which the infringer has used the invention and the value of that use; (12) the portion of profit or of the selling price that may be customary in that particular business to allow for use of the invention or analogous inventions; (13) the portion of the realizable profit that should be credited to the invention as opposed to its non-patented elements; (14) the opinion testimony of qualified experts; and (15) the results of a hypothetical negotiation between the licensor and licensee. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

contends, the proper royalty base is not the revenue that the accused product generated, but rather the number of infringing products sold by Zurn. (*Id*., at 43-44.)

In determining his royalty rate, Mr. Bero does not apply a percentage of the revenues generated by infringement. Rather, he applies a dollar figure to multiply by the number of infringing products sold by Zurn. (*Id*. at 44.) Mr. Bero explains that in reaching this figure, he considers the *Georgia-Pacific* factors both quantitatively and qualitatively. (*Id*.) He asserts that his quantitative analysis is based upon "the income valuation approach" which "considers the amount of profit that is attributable to the invention and/or the increased profits derived from the invention." (*Id*.) Mr. Bero adds that in considering the income approach, the "overriding consideration is that Sloan would be directly licensing away its profits on its Patented Products and collateral sales as well as subjecting itself to ongoing pricing pressure on its Patented Products from Zurn that otherwise would not exist." (*Id*. at 45.)

Mr. Bero calculates that at the time of the hypothetical negotiation, $141 per Accused Product unit was Sloan's floor – that is, the lowest price it was willing to accept – for its expected royalty rate per unit. (Bero Rebuttal Rep. at 56-57.) This price includes the profits Sloan would have made on (1) the sale of the patented manual dual flush valve packages and handles; (2) the sale of collateral products (*i.e*., replacement diaphragm kits, urinal valves, and faucets); and (3) additional profits Sloan would have made by increasing its prices without Zurn's presence in the market, which Bero calls the "price effect." (Bero Rep. at 47-50; Bero Rebuttal Rep. at 55-57.) The table below breaks down the amount that Bero attributes to each category in reaching his $141 price.

Component	2006 weighted profit	2006-2012 weighted profit
Product profit	$35	$28
Collateral profit	$35	$40
Price effect	$71	$92
Total	**$141**	**$160**
Note: Any minor differences are due to rounding.		

(Bero Rebuttal Rep. at 57.)

Mr. Bero bases his inclusion of the profit from collateral goods on *Georgia-Pacific* Factor #6, which considers "the effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of its non-patented items; and the extent of such derivative or convoyed sales." (Bero Rep. at 46.) Mr. Bero cites his conversations with Sloan executives in support of his statement that "Sloan knew its manual dual-flush valves were specified, were sold with other collateral products, and also drove the sales of those other products." (*Id*.)

Mr. Bero bases his inclusion of the "price effect" on *Georgia-Pacific* Factor #5, which considers "the commercial relationship between the licensor and the licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter." (*Id*. at 47.) Mr. Bero asserts that this "pricing effect is based on Sloan's initial and subsequent pricing being lower than its intended pricing." (*Id*. at 48.)

Conversely, Mr. Bero found that Zurn's ceiling – the most it would be willing to pay – for a royalty payment entering the hypothetical negotiation was $60 per Accused Product unit. (Bero Rebuttal Rep. at 57-58.) Mr. Bero opined that in entering into such a license, "Zurn would be unwilling to pay a royalty amount more than the profits it would expect to make if no license was entered into." (Bero Rep. at 50.)

Mr. Bero identified the difference in Sloan's floor of $141 and Zurn's ceiling of $60 as the "negotiation gap." (*Id*. at 53.) Mr. Bero then identified the midpoint of this range, $100 per Accused Product, as the starting point for the hypothetical negotiation. (Bero Rebuttal Rep, p. 58.) Mr. Bero opined that this "mid-point represents a quantitative starting point to which the qualitative factors can apply." (Bero Rep. at 54.) Mr. Bero then addressed "the qualitative factors within the *Georgia-Pacific* framework," and concluded that $106 per Accused Product more accurately reflects the reasonable royalty rate due to the competitive relationship between Sloan and Zurn (*Georgia-Pacific* Factor #5) and Sloan's intent on maintaining its Patented Technology for its own use rather than licensing to a direct competitor (*Georgia-Pacific* Factor #4). (Bero Rebuttal Rep. at 59.)

Based on his $106 per-unit royalty rate, Mr. Bero ultimately concludes that Sloan's reasonable royalty damages from October 16, 2006 through October 2013 are approximately $7.8 million. (*Id*.)

C. Mr. Bero's Methodology Is Flawed

There are several problems with Mr. Bero's analysis and methodology in determining his reasonable royalty damages amount. The Court addresses them in turn.

1. Patented Invention

Zurn argues that Mr. Bero fails to limit his per-unit royalty rate to the value attributable to the patented invention. (R. 558, Zurn Mem. at 7.) Zurn specifically contends that Mr. Bero fails to apportion the profits earned on the accused product between the patented and unpatented features and that this oversight renders his analysis flawed as a matter of law. (*Id.*) In support, Zurn notes that Sloan's patented products and Zurn's accused products include features that are not covered by the '635 Patent, including toilet bowls and related accessories. (*Id*. at 8.) Mr.

Bero acknowledges that the patented and accused products "are comprised of manual dual-flush flushometer toilet valves, 'packages' (comprising toilet valves, bowls, and related accessories), and handles." (Bero Rep. at 7.) He reports that Sloan's patented sales are represented by the following shares: valves (71%), packages (1%), and handles (28%). (*Id*., p. 15-16.) The following percentages represent Zurn's accused sales: valves (61%), packages (16%), and handles (23%). (*Id.* at 23.)

(i) Valves

Sloan asserts that the patented invention is the entire flush valve, and that the manual dual flush valve is the "smallest salable patent-practicing unit." (R. 618, Resp. at 10-11; '635 Patent, claims 1-5, 29-30, 31.) Thus, Sloan contends, the proper damages calculation includes Zurn's sales of such dual mode flush valves. (Resp. at 11.) Sloan has presented credible evidence that the manual dual flush valve is the patented product and the "smallest salable patent-practicing unit." Indeed, the '635 Patent is entitled "Flush Valve Handle Assembly Providing Dual Mode Operation." ('635 Patent.) Further, Zurn has not introduced any evidence that the patented product was marketed in a smaller unit.

Zurn argues that consumers purchase manual dual flush valves for many general reasons, not just because of the dual flush capability. (Mem. at 12.) Zurn, for example, contends that consumers care about factors such as price, brand, loyalty to the manufacturer's representative, and the ability of the valve to evacuate the bowl. (Mem. at 11-12.) More specifically, Zurn asserts that consumers purchase manual dual flush valves because they are sold with an antimicrobial handle. In support, Zurn cites testimony from John Aykroyd, Sloan's Vice President of Business Development and 30(b)(6) witness, that Sloan advertises that its dual flush

product has an antimicrobial handle and that a customer has told him that he considered the antimicrobial handle to be an important element of the product. (Mem. at 12-13.)

In response, Sloan contends that Mr. Bero relies on credible evidence to conclude that the patented technology forms the basis for purchasers' demand for manual dual flush products. (Resp. at 16.) Specifically, Sloan identifies testimony that the manual dual flush valve has succeeded in the market due to its patented water-saving technology and that Zurn's advertising for its manual dual flush valve highlights the importance of the dual flush capability. (*Id*.) Sloan further cites testimony that the sole difference between a manual single flush valve and a manual dual flush valve is the patented technology. (*Id*.) Sloan asserts that its antimicrobial handle is not an essential or primary feature, and that it is optional on all of Sloan's dual flush products. (*Id*. at 17.) In addition, Sloan points out that the Aykroyd testimony Zurn cites pertains to a single sale to a school and that it merely states that the antimicrobial handle feature was "important." (*Id*.)

Zurn argues that the evidence upon which Mr. Bero relies fails to satisfy the entire market value rule. It asserts that "patentees must prove the basis for customer demand through econometric studies, admissible customer surveys, regression analyses, or other fact-based evidence of demand sensitivities." (Mem. at 11.) This, however, is not the standard for satisfying the entire market value rule. The Federal Circuit requires "sound economic proof of the nature of the market and likely outcomes" in all damages calculations. *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341, 1350 (Fed. Cir. 1999). The Federal Circuit also instructs that the evidence "must be reliable and tangible, and not conjectural or speculative." *Uniloc* 632 F.3d at 1319 (quoting *Garretson*, 111 U.S. at 121). The entire market value rule does not require the specific studies that Zurn suggests. Further, the Federal Circuit

case that Zurn cites in support, *Laserdynamics*, is distinguishable and does not establish a bright-line evidentiary standard that requires more than what *Uniloc* instructs. In *Laserdynamics*, the plaintiff's royalty calculation was as a percentage of revenues from a laptop computer that included many other patents, and the court found that the expert's methodology "appears to have been plucked out of thin air…" *Laserdynamics*, 694 F.3d at 69.

Zurn also contends that because the patented invention is "merely an improvement over manual single flush valves," the rule of apportionment required Mr. Bero to "limit his reasonable royalty rate to the portion of the total profits on sales of MDF valves that is properly attributable to the value of the *improvement* the patented invention has added to the usefulness of the manual single flush valve." (Mem. at 8-9.) Zurn asserts that the "value of the improvement" is the increased amount that a consumer would be willing to pay for a MDF valve over a manual single flush valve. (*Id*. at 9.) Thus, rather than the $35 per unit that Sloan attributes to its patented product profit, Zurn argues that the maximum per unit royalty rate is the difference in price between an MDF valve and a manual single flush valve – approximately $9 in this case. (*Id*. at 9.) The only case Zurn cites in support is *Garretson v. Clark*, 111 U.S. 120, 121 (1884). In that case, the patent was for an improvement on an existing product, "and not an entirely new machine or contrivance." *Id*. Here, the '635 Patent is for "a dual mode flush valve." ('635 Patent, abstract.) Although a consumer might consider this dual mode flush valve an improved product compared to prior art flush valves, it is an entirely new product that Sloan marketed to the public. Further, as the Federal Circuit has explained, *Garretson* was decided "before a contemporary appreciation of the economics of infringement damages" and the case was really about the entire market value rule. *Lucent Techs.*, 580 F.3d at 1336-37. Zurn's unsupported "premium paid" damages argument is unpersuasive.

Sloan presents a credible argument and evidence that the patented technology is the basis for a consumer's willingness to pay a premium for a manual dual flush valve over the manual single flush valve, because in all respects other than the patented technology, the single flush valve is identical to the dual flush valve. Sloan contends that a customer would have no reason to pay a $12 premium for the manual dual flush valve unless it sought the benefits of the patented technology. (Resp. at 17-18.) The Court finds that Mr. Bero's analysis regarding manual dual flush valves to be sufficiently reliable.

(ii) Packages & Handles

Mr. Bero's analysis with respect to "packages" and "handles" is not as straightforward. Mr. Bero acknowledges that the "packages include "toilets and related accessories." Sloan argues that the entire market value rule does not apply and that it was not required to apportion damages because Mr. Bero bases his royalty on the number of units the defendant sold, and not Zurn's revenues. (Resp. at 13, n. 10.) The only case Sloan cites in support of this position is *Ericsson, Inc. v. D-Link Corp., et al.*, 2013 WL 2242444 (E.D. Tex., May 21, 2013.) What *Ericsson* actually says is that the expert's analysis did not implicate the entire market value rule because he limited his revenue base to "the contribution of the asserted patents to the end products" rather than simply the "market value of the end products." *Ericsson*, 2013 WL 2242444 at *3. Mr. Bero makes no such distinction. Instead, he opines that Sloan is entitled to a reasonable royalty for each sale of Zurn's accused "packages" and "handles."

Sloan also contends that "only a small portion of Sloan's and Zurn's sales of dual flush valves (1% and 16%, respectively) were made as part of such "packages." (Resp. at 13.) This argument is unpersuasive. It does not matter that only a small portion of Sloan's and Zurn's sales of manual dual flush valves were made as part of "packages." If Sloan and Mr. Bero

cannot identify supporting evidence that the manual dual flush valve drove the demand for the "packages" it cannot seek to recover damages for the full value of the packages.

Finally, Sloan argues that Bero does not base his damages calculation on the revenues from the sale of packages, but rather on the number of packages sold, and that he attributes a lower profit to the sales of packages than he does to the sales of dual flush valves alone. (Resp. at 13 n.10.) This, however, is indistinguishable from Sloan's argument that it was not required to apportion damages because Mr. Bero bases his royalty on the number of units the defendant sold, and not Zurn's revenues. The Court has already dismissed that argument.

Thus, Sloan's last opportunity to include the full value of the "packages" is by way of the entire market value rule. Although Sloan contends that the entire market value rule does not apply[2], it argues that if it did apply, "the evidence would amply support a jury finding that the patented dual flush technology was the basis for customer demand for the MDFVs and handles Zurn sold." (Resp. at 14.) Sloan, however, does not address packages and handles in its analysis of customer demand, it only addresses dual flush valves as the basis for customer demand. (*Id.* at 14-18.) This omission may have been for good reason, because the entire market value rule does not apply to packages and handles.

"The entire market value rule allows a patentee to assess damages based on the entire market value of the accused product only where the patented feature creates the 'basis for customer demand' or 'substantially creates the value of the component parts.'" *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011). Here, Sloan concedes that "the patented invention is the entire flush valve." (Resp. at 10.) This does not include toilet bowls,

[2] On this point, Sloan's position conflicts with Mr. Bero's, who opines that "in the matter at hand, the Entire Market Value Rule would apply." (Bero Rep. at 43.)

handles[3], or other related accessories. Further, the Federal Circuit advises that for the entire market value rule to apply, "all the components must be analogous to components of a single assembly or be parts of a complete machine, or they must constitute a functional unit." *Rite-Hite*, 56 F.3d at 1550. That is not the case here. Sloan's and Zurn's MDF valves are clearly individual products that do not constitute a functional unit in combination with toilets, handles, and "related accessories." This is evidenced by the fact that Sloan and Zurn sold 71% and 61% of their MDF valves, respectively, independent of packages and handles. (Bero Rep. at 23.) Although neither party provides an explanation for why they sold MDF valves as part of "packages," it is not enough that they did so for business reasons. The Federal Circuit does not extend liability to include items that were sold with the infringing device "only as a matter of convenience or business advantage." *Rite-Hite*, 56 F.3d at 1550.

Sloan has not presented any evidence that entitles it to the full value of the accused packages and handles that Zurn sold. It must apportion the value of the MDF valves sold as part of such packages and handles – a task that should not be too onerous considering that the majority of the MDF valves were sold individually.

2. Collateral Products

Zurn argues that Mr. Bero improperly includes profits from the sale of non-patented collateral products (*i.e.*, replacement diaphragm kits, urinal valves, and faucets) in his reasonable royalty calculation. Mr. Bero relies on the testimony of Sloan executives Jim Allen (Co-CEO), John Aykroyd (Vice-President, Business Development), and Bill Madison (National Sales Manager) for his assumption that Sloan's MDF valves drove the sales of these other products and opines that Sloan could have reasonably estimated these collateral sales. (Bero Rep. at 46.)

[3] With respect to handles, Bero states only "the handle is a retrofit product that can be sold for, and used on, existing toilet valves and sells for lower prices than the valves and packages." (Bero Rep. at 15.)

Mr. Bero bases his inclusion of the value of "non-patented items" on *Georgia-Pacific* Factor #6, which advises consideration of: "the effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales." *Georgia-Pacific*, 318 F. Supp. at 1120. Mr. Bero estimated Sloan's additional collateral product profits based on his analysis of the investigation of Quest Consultants International, Ltd. (Bero Rep. at 48.) Mr. Bero states that this investigation "appears to be consistent with Sloan and reasonable industry expectations in 2006 and subsequent years." (*Id.*)

Mr. Bero calculated the value of these collateral goods at $35 per accused product unit – an amount that equals the value of his calculation for the sale of the patented product. Zurn argues that Mr. Bero improperly applies *Georgia-Pacific* by including the entire amount of his estimate of Sloan's lost sales on collateral goods in his reasonable royalty rate. Zurn contends that although the *Georgia-Pacific* factors apply qualitatively – meaning that experts analyze whether each factor supports a higher or lower royalty rate – they do not apply quantitatively to add a specific figure to the royalty base. (Mem. at 17; R. 642, Reply at 9.) The Court agrees. The Federal Circuit explains that the proper application of the *Georgia-Pacific* methodology is to explain "the effect each factor would have on a negotiated royalty." *Micro Chem., Inc. v. Lextron*, 317 F.3d 1387, 1393 (Fed. Cir. 2003). In *Micro Chem.*, the Federal Circuit upheld the trial court's ruling that the patentee "could not include sales of non-patented items in the royalty base but could demonstrate that those sales were relevant in determining a reasonable royalty," and found that the proper application by the expert was to opine that the factor would "increase" the reasonably royalty. *Id*.; *see also Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co. Ltd.*, No. Civ. A. 88-1814-MA, 1993 WL 1510657 (D. Mass. Apr. 27, 1993) ("Convoyed sales are a

factor to be considered in determining a reasonable royalty. They do not create a separate sum on which the royalty is calculated.") (citations omitted). The Committee Comments to the Seventh Circuit's jury instruction on determining a reasonable royalty also indicate that this is the proper application of the *Georgia-Pacific* factors. Comment 2 states, "[t]ypically, patent damages experts will review each of the *Georgia-Pacific* factors and testify as to whether each factor supports a higher royalty rate, a lower rate or is neutral." Seventh Circuit Civil Jury Instruction No. 11.4.4, n. 2. Further, Mr. Bero's own scholarship indicates that his "quantitative" calculation of the collateral goods is improper. In a paper that Mr. Bero co-authored, he wrote, "the [*Georgia-Pacific*] factors are essentially comprised of both quantitative and qualitative elements. Quantitative factors essentially are those that provide a quantified royalty rate to consider, and the qualitative factors are the remainder, although they do in some instances incorporate sales and profit figures." (Zurn Hearing Ex. 14 at 7.) Mr. Bero then identified Factor #6 as "qualitative" and explained, "the process logically starts by considering the quantitative factors. The qualitative factors, then, can be considered in refining the royalty rate and damages analysis." (*Id.* at 8.)

What Mr. Bero deems as Sloan's "royalty rate" is actually a royalty base. Chief Judge Rader has explained that "[c]alculation of a reasonably royalty … requires determination of two separate quantities – a royalty base, or the revenue pool implicated by the infringement, and a royalty rate, the percentage of that pool 'adequate to compensate' the plaintiff for that infringement." *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 286 (S.D.N.Y. 2009). Further, "these quantities, though related, are distinct. An over-inclusive royalty base including revenues from the sale of non-infringing components is not permissible simply because the royalty rate is adjustable." *Id.* Mr. Bero has done exactly that – he has created an over-

inclusive royalty base by including all revenues from the estimated sales of non-infringing components.

Sloan contends that this is not a lost profits calculation, but Mr. Bero's deposition testimony concedes that it essentially is:

> Q: [I]f you included 100 percent of the profit from the sale of collateral products in your lost profit – I mean in your reasonable royalty analysis, how is that any different from seeking lost profits on the collateral sales?
>
> A: How is it different?
>
> Q: Correct.
>
> A: It's from a – I mean the numbers would be the same.
>
> Q: Correct.
>
> A: But it's a royalty analysis as opposed to a lost profits analysis.

(R. 558-5, 3/1/13 Bero Dep. Tr. at 73:23-74:11.) Sloan is not able to recover lost profits on the sale of collateral goods by way of the entire market value rule either. When determining royalties, the entire market value rule "requires adequate proof of three conditions: (1) the infringing components must be the basis for customer demand for the entire machine including the parts beyond the claimed invention; (2) the individual infringing and non-infringing components must be sold together so that they constitute a functional unit or are parts of a complete machine or single assembly of parts; and (3) the individual infringing and non-infringing components must be analogous to a single functioning unit." *Cornell*, 609 F. Supp. 2d at 286-87 (internal citations omitted). Although Sloan cites evidence that the manual dual flush valve generates demand for the non-infringing collateral goods, it fails to cite any evidence that the infringing products and non-infringing products constituted a single functioning unit. Sloan argues that the entire market value rule does not apply here because Mr. Bero uses the number of

infringing products as his base, rather than the revenue pool. (Resp. at 13.) As described above, Sloan's legal argument is unpersuasive (*supra*, p. 14) and the Court finds that Mr. Bero did in fact use a revenue pool as his royalty base (*supra*, p. 17). Mr. Bero, therefore, cannot include the value of lost sales of collateral goods in his reasonable royalty rate.

3. "Price Effect"

Mr. Bero attributes more than half of his reasonable royalty rate, $71, to what he calls the "price effect." (Bero Rebuttal Rep. at 57.) As Mr. Bero describes it, "the pricing effect is based on Sloan's initial and subsequent pricing being lower than its intended pricing. In the event Sloan could have sold its valves at the intended higher prices, and Sloan expected higher prices without Zurn in the market, these otherwise higher prices are additional profits Sloan would have been licensing out and are attributable to the Accused Products." (Bero Rep. at 48.) Mr. Bero bases his understanding that "Sloan believes it would have been selling its Patented Products (valves) at higher prices at the same volumes if Zurn had not been in the market" on the opinions of Sloan executives, John Aykroyd and Jim Allen, and Sloan expert Julius Ballanco. (*Id*. at 19-20; 48.)

Zurn's challenge to Mr. Bero's "price effect" is intertwined with its challenge to Mr. Bero's price erosion analysis. (Mem. at 19-20; Reply at 15-20.) Zurn argues that to include the "price effect" in his royalty rate calculation, Mr. Bero "was obligated, as a matter of law, to conduct a scientific analysis of price elasticity." (Mem. at 19 (citing *Crystal Semiconductor*, 246 F.3d at 1359-60).) Zurn also contends that these price erosion damages are a form of lost profits and that Sloan bears the burden of proving that but for infringement (1) it would have sold its product at higher prices and (2) the quantity it would have sold at the higher prices. (*Id.*) Zurn contends that Mr. Bero did not satisfy this burden.

The first problem with Mr. Bero's inclusion of the "price effect" in his reasonably royalty analysis is that he does not have the proper foundation to conclude that Sloan would have made every sale that Zurn did at its intended higher price. The Court previously excluded Mr. Ballanco's, Mr. Aykroyd's and Mr. Allen's opinions on price erosion. (R. 663, R. 719.) At his *Daubert* hearing, Mr. Bero recognized this and tried to opine that Sloan would not have suffered any reduction in sales at its intended price. He tried to base this opinion on the following factors: (1) the customers who purchased Zurn's accused product did so for its water saving benefit, (2) Zurn's customers were already willing to pay a premium for the dual flush valve; (3) there were not acceptable alternatives to the dual flush valve; and (4) the water savings would be significantly higher than Sloan's intended premium. (Hrg. Tr. at 101-103.) In support, Mr. Bero referred to a newsletter he cited in a footnote in his original expert report. (Bero Rep. at 14.) The newsletter noted that Purdue University installed Sloan MDF valves in two of its bathrooms and found that the valves paid for themselves within a year. Mr. Bero's reliance on this article to support the assumption that Sloan would not have suffered any loss in sales volume at its intended higher price fails. Mr. Bero did not include any of this analysis in either of his two reports and he has not performed any economic or market studies on the effect of water savings on consumer price sensitivity. Further, the lone reference to this newsletter in Mr. Bero's report came in the introductory section that provided general background information on Sloan's patented product. (Bero Rep. at 13-14.) Mr. Bero did not cite it at all when he addressed the "price effect."

In addition, Mr. Bero's inclusion of the "price effect" in the reasonable royalty calculation suffers from the same flaw as his inclusion of the lost profits from collateral goods. Bero bases his inclusion of the price effect in his reasonable royalty calculation on *Georgia-*

Pacific Factor #5, which considers "the commercial relationship between the licensor and licensee, such as whether they are competitors." As he did in his collateral goods estimate, Mr. Bero misapplies this factor by applying it quantitatively rather than qualitatively. (*Supra*, pp. 15-18.)

Finally, in addition to comprising approximately half of the royalty price that Mr. Bero calculates Sloan would be willing to accept, the "price effect" is twice as large as the value that Mr. Bero attributes to the patented product. Mr. Bero is attempting to use the label "price effect" to cover what appears to be lost profits. Mr. Bero states, "[t]he pricing effect is based on Sloan's initial and subsequent pricing being lower than its intended pricing . . . these otherwise higher prices are additional profits Sloan would have been licensing out and are attributable to the Accused Products." (Bero Rep. at 48.) As Mr. Bero acknowledged, Sloan is not able to recover lost profits during the time period before the patent issued. (Hrg. Tr. at 29:1-16.)

As with Mr. Bero's inclusion of collateral goods in his reasonable royalty analysis, the Court finds that Mr. Bero's methodology for including a price effect of $71 per accused unit in what he calls his royalty rate is unreliable. For these reasons, Mr. Bero cannot include the "price effect" in his reasonable royalty analysis.

4. Negotiation Gap

Zurn next challenges Mr. Bero's starting point for the hypothetical negotiation at $100 -- the midpoint between Mr. Bero's estimate of Sloan's price floor and Zurn's price ceiling -- as improperly and arbitrarily splitting the difference between the two parties' assumed positions. (Mot. At 17-18.) In *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011), the Federal Circuit rejected an expert's opinion regarding a reasonable royalty because it found

that his starting point for the hypothetical negotiation was based on an "arbitrary, general rule, unrelated to the facts of th[e] case."

Neither Sloan nor Mr. Bero provides a credible response to Zurn's argument that Mr. Bero's midpoint calculation is arbitrary and unreliable. Sloan asserts that Mr. Bero's calculation of Sloan's floor of $141 was his "quantitative analysis" and that he then "qualitatively determined that the fair starting point of a hypothetical negotiation was the midpoint of $100." (Resp. at 24-25.) This argument, however, is at odds with Mr. Bero's own statement that "the mid-point represents a quantitative starting point to which the qualitative factors can apply." (Bero Rep. at 54.) Regardless, how Sloan and Mr. Bero choose to characterize his determination is inconsequential. Neither Sloan nor Mr. Bero offer any justification for why $100 is a fair, reasonable, or economically sound starting point, especially considering that Mr. Bero also determined that $60 was the maximum price Zurn would be willing to pay for such a license. Mr. Bero's sole basis for using $100 as the starting point is that it is the midpoint between his estimates of Sloan's and Zurn's positions. (Bero Hearing Tr. at 218:18-21.) Although Mr. Bero maintains that his methodology was not arbitrary, his explanation is lacking: "what I'm doing is – I'm analyzing the data $141 versus $60. And this number is right in between. And if you're going to start a negotiation, why wouldn't you use the midpoint as a reasonable starting point? It's not arbitrary." (*Id*. at 219:10-15.) Zurn is correct that Mr. Bero does not provide any economic analysis tied to the relevant facts to support this determination, and this failure is fatal to this element of Mr. Bero's calculation. *See Laserdynamics*, 694 F.3d at 69 ("This complete lack of economic analysis to quantitatively support the one-third apportionment echoes the kind of arbitrariness of the '25% Rule' that we recently and emphatically rejected from damages experts, and would alone justify excluding Mr. Murtha's opinions in the first trial.").

5. Mr. Bero's Methodology

In addition to the problems with the underlying elements of his analysis, Mr. Bero's methodology, in general, is flawed and unreliable. Mr. Bero asserts that he "opines on royalty damages in the form of a running royalty." (Bero Rebuttal Rep. at 12.) Mr. Bero, however, does not invoke the "classic way to determine" the running reasonable royalty amount, which is to "multiply the royalty base, which represents the revenue generated by the infringement, by the royalty rate, which represents the percentage of revenue owed to the patentee." *Whitserve*, 694 F.3d at 27. Rather than using the revenue generated by infringement as his base, Bero simply used the number of infringing units that Zurn sold. Further, he does not actually apply a royalty rate, or a percentage of the revenue generated by the infringing units. By identifying the base as the number of infringing units and the rate as a dollar figure, Bero's royalty amount incorporates: (1) the full value of Sloan's lost profits based on the number of infringing products that Zurn sold; (2) the full value of collateral goods that Mr. Bero asserts would have been sold with the patented product; and (3) additional lost profits that Mr. Bero opines Sloan would have made if Zurn had not sold a competing product in the marketplace. Despite acknowledging that lost profits were not available to Sloan during the entire time that Sloan was entitled to damages (Bero Hearing Tr. at 29:5-7), Bero still attempts to include lost profits by incorporating them in his reasonable royalty calculation.

In contrast to the Federal Circuit's guidance in *Whitserve*, Mr. Bero asserts that the first "prevalent basic form[] of a running royalty … uses the number of units for a royalty base and a dollar amount per unit as the royalty rate." (Bero Rebuttal Rep. at 12.) Mr. Bero, however, does not cite to any case law or precedent in support of this assertion. In his rebuttal report, Mr. Bero cites only one case, *Multimedia Patent Trust v. Apple, Inc., et al.*, 2012 WL 5873711 (S.D. Cal.,

Nov. 20, 2012), that calculates a running royalty from a base of the number of infringing units and a rate of a certain number of dollars per unit. (Bero Rebuttal Rep. at 12.) This case, however, does not support Mr. Bero's analysis. In *Multimedia,* the plaintiff's running royalty rate was $1.50 per unit. *Multimedia*, 2012 WL 5873711 at *3. Although the running royalty rate in this case was a dollar figure per unit, the plaintiff's expert testified that $1.50 per unit would be approximately 0.25% of one defendant's accused product revenue and approximately 0.78% of the other defendant's accused product revenue. *Id*. Thus, Sloan could still calculate the running royalty rate based on the defendant's infringing revenue – and only a small fraction of that revenue. In addition, as described above, Mr. Bero's inclusion of collateral goods and the "price effect" in his royalty base is improper and unreliable. (*Supra*, pp. 16-17.) He does not identify any case law to support his methodology and his own scholarship contradicts it.

The Court is cognizant that "an infringer's net profit margin is not the ceiling by which a reasonable royalty is capped." *Douglas Dynamics, LLC v. Buyers Products Co.*, 717 F.3d 1336, 1346 (Fed. Cir. 2013). Further, the Court is aware that the Federal Circuit has stated that the royalty amount need not be less than the price of the infringing unit. *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1555 (Fed. Cir. 1995) (citing *Stickle v. Heublein, Inc.* 716 F.2d 1550, 1563 (Fed. Cir. 1983)). But here, Mr. Bero's methodology is unreliable and it bears no resemblance to a reasonable royalty analysis. What Mr. Bero effectively did is create an expansive royalty base without applying a royalty rate to that base.

For the foregoing reasons, the Court finds Mr. Bero's reasonable royalty analysis unreliable.

D. Price Erosion Damages

In his report, Mr. Bero stated, "I understand that Sloan may be entitled to price erosion damages beginning the date the complaint was filed, January 13, 2010. To the extent that Sloan is entitled to such price erosion damages, I have quantified the amount of price erosion damages over and above the amount of the pricing effect already included in the royalty rate." (Bero Rep. at 59.) Mr. Bero initially determined that the total amount of Sloan's price erosion damages was $4.3 million. (*Id*. at 61.) After adjusting for the amount already included in the "price effect," Mr. Bero initially calculated that the remaining price erosion damages were approximately $2.1 million (Bero Rep. at 59), but subsequently amended his calculation and concluded that Sloan's price erosion damages were $2.3 million. (Bero Rebuttal Rep. at 60.) At his *Daubert* hearing, Mr. Bero further reduced his price erosion figure to $1.22 million after accounting for the competition from 1.28 gpf valves on new construction projects. (Bero Hearing Tr. at 133-134.)

Zurn's challenge to Mr. Bero's price erosion damages calculation is the same as its challenge to Mr. Bero's "price effect" calculation. Zurn argues that Mr. Bero was "obligated, as a matter of law, to conduct a scientific analysis of price elasticity." (Mem. at 19, citing *Crystal Semiconductor*, 246 F.3d at 1359-60. Zurn also contends that a patentee who seeks price erosion damages bears the burden of proving that (1) but for infringement it would have sold its product at higher prices and (2) the quantity it would have sold at the higher prices. (*Id.*) Zurn overstates the Federal Circuit's instruction in *Crystal Semiconductor* and *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369 (Fed. Cir. 2003). The Federal Circuit has not created a *per se* rule requiring "a scientific analysis of price elasticity." Instead, the Federal Circuit requires "credible economic analysis" or "sound economic proof" to prove price erosion damages. *Crystal Semiconductor*,

246 F.3d at 1357; *Ericsson*, 352 F.3d at 1378. In *Crystal*, the Federal Circuit acknowledged that, although rare, there are inelastic markets where consumers would purchase a product at identical rates even when the price increases. 246 F.3d at 1359. In *Ericsson*, the court affirmed a damages award of price erosion even though the patentee's expert did not conduct an "elasticity calculation" because he had established barriers to entry into the market. 352 F.3d at 1378.

According to Sloan, the relevant market here is a two-supplier market – Sloan and Zurn – and that no non-infringing alternatives exist. (Resp. at 28.) Sloan contends, therefore, that if Sloan had followed its initial plan and charged a higher price for its manual dual flush valves, customers would have had no acceptable non-infringing alternatives, and would have purchased Sloan's manual dual flush valves at Sloan's higher price. (*Id*.) Sloan argues that in such a market, it does not need to present any economic analysis of consumer price sensitivity. (*Id*.) In its briefing and in Mr. Bero's reports, the only basis that Sloan identified as proof that customers would have paid Sloan's intended higher price was the now-excluded opinion testimony of Mr. Ballanco, Mr. Aykroyd, and Mr. Allen.

There are numerous problems with Sloan's arguments. Foremost, is its reliance on the excluded opinion testimony that Sloan would have sold its MDF valves at its intended higher price without suffering any reduction in sales volume. As described above (*Supra*, pp. 19-21), Mr. Bero's attempt at his *Daubert* hearing to get around this foundation problem by citing to the water savings associated with MDF valves fails because he never previously discussed this in his price erosion analysis and because he never presents any "credible economic analysis" or "sound economic proof" that consumers would have purchased Sloan's MDF valves at its intended higher price as the Federal Circuit requires. Such a task would have been made more difficult by Mr. Bero's admission that MDF valves are not a necessity and that there is a price point at which

the customers who bought the MDF valve would forego it for an alternative product. (Bero Hearing Tr. at 178:25-179-5.)

Another problem with Mr. Bero's price erosion analysis is his contradictory opinions regarding the 1.28 gpf manual valves. Bero asserted in his reports and Sloan argued in its response brief that the 1.28 gpf manual valve was not an acceptable alternative product to the MDF valve. But at his *Daubert* hearing, Mr. Bero conceded that the 1.28 gpf manual valve is an acceptable alternative, at least on new construction projects. (*Id*. at 134-137.) Mr. Bero's explanation for why he made this concession and amended his price erosion analysis is puzzling to say the least. He explained that he changed his analysis because of the Court's rulings excluding the testimony of Mr. Ballanco, Mr. Aykroyd, and Mr. Allen. (*Id*. at 134:3-16.) As Zurn alludes in its post-hearing submission, the 1.28 gpf valve is unrelated to that excluded opinion testimony. (R. 727, Zurn Post-Hearing Brief at 2.) Although Sloan does not present any explanation for why the Court should consider this very late amendment to Mr. Bero's analysis, the Court does note that his concession regarding 1.28 gpf valves further weakens Sloan's argument that price erosion damages apply here because it was a two-supplier market with no acceptable alternative non-infringing products. While this contradiction alone might raise only an issue for cross-examination, given the foundational problems, the Court grants this aspect of the Daubert motion.

For these reasons, Mr. Bero may not testify regarding his price erosion analysis.

CONCLUSION

For the reasons discussed above, the Court grants Zurn's Motion to Exclude Testimony of Richard Bero.

Dated: March 26, 2014

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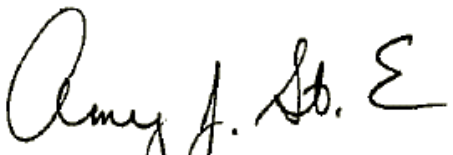

AMY J. ST. EVE
United States District Court Judge