

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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U.S. PHILIPS CORPORATION,

Plaintiff,

03 Civ. 0172 (PKC)

-against-

MEMORANDUM
AND ORDER ON
POST-VERDICT
MOTIONS

IWASAKI ELECTRIC COMPANY, LTD.,

Defendant.
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P. KEVIN CASTEL, District Judge:

These are the Court's rulings on post-verdict motions in an action by plaintiff U.S. Philips Corporation ("Philips") against defendant Iwasaki Electric Company, Ltd. ("Iwasaki") asserting infringement of a patent in the field of high-pressure mercury-vapor discharge lamps used in laptop projectors and rear-screen televisions. The jury found that Philips had proven by a preponderance of the evidence that Iwasaki's accused lamps infringe claim 1 of U.S. Patent No. 5,109,181 (the "'181 patent") and that Iwasaki actively induced infringement in the United States. The jury also found that Iwasaki had not proven by clear and convincing evidence that it would have been obvious to a person of ordinary skill in the art of lamp development to combine the disclosures in various prior art references to make a mercury vapor lamp having all the limitations of claim 1 of the '181 patent. It further found that plaintiff had proven the existence of six secondary considerations relevant to consideration of lack of obviousness. The jury awarded Philips \$28.70 per unit of sales by Iwasaki as a reasonable royalty. Separately, this Court found that Iwasaki has not proven inequitable conduct before the patent office.

Iwasaki now moves for judgment as a matter of law and for a new trial on a variety of grounds. As grounds for judgment as a matter of law, it asserts, among other things, that (1) the scope of the halogen concentration in claim 1 cannot be expanded upwardly under the doctrines of equivalents because of prior art; (2) claim 1 is invalid as obvious; and (3) Iwasaki did not actively induce infringement. Alternatively, Iwasaki seeks a new trial on obviousness, literal infringement and reasonable royalty rate. For reasons discussed herein, Iwasaki's motions for judgment as a matter of law or for a new trial are denied.

Philips moves for judgment in its favor on willfulness and it seeks enhanced damages and an award of attorneys' fees. 35 U.S.C. §§ 284 and 285. It also seeks prejudgment interest and a permanent injunction. The motion for enhanced damages for willful infringement is denied. The motion for prejudgment interest is granted, although the Court will require additional submissions as to the rate to be awarded. Limited permanent injunctive relief is awarded.

Background

Claim 1 discloses a high-pressure mercury-vapor discharge lamp, operating at pressures above 200 bar and employing the halogen-tungsten transport cycle to reduce blackening of the wall of the lamp, which, among other things, would lead to premature failure. It reads as follows:

A high-pressure mercury vapor discharge lamp comprising a discharge envelope, a pair of discharge electrodes comprising tungsten between which a discharge is maintained during lamp operation, and a filling essentially consisting of mercury, a rare gas, and a halogen for maintaining a tungsten transport cycle during lamp operation, characterized in that: the quantity of mercury is larger than 0.2 mg/mm^3 , during lamp operation the mercury

vapor pressure is higher than 200 bar and the wall load is higher than 1 W/mm^2 , and in that at least one of the halogens Cl, Br or I is present in a quantity between 10^{-6} and $10^{-4} \mu\text{mol/mm}^3$.¹

While the parties dispute whether claim 1 is responsible for the commercial success and acclaim of Philips Ultra High Pressure (“UHP”) lamps, the lamps have achieved great acceptance in rear-projection televisions and laptop projectors and have excellent color and brightness. The technology was awarded a special Emmy Award by the Academy of Television Arts & Sciences.

Prior to trial, the Federal Circuit affirmed this Court’s grant of summary judgment insofar as it concluded that there were no accused devices sold after the filing of the complaint that literally infringed claim 1.² U.S. Philips Corp. v. Iwasaki Elec. Co. Ltd., 505 F.3d 1371, 1377 (Fed Cir. 2007). The Federal Circuit, however, reversed this court’s conclusion that the doctrine of equivalents could not be applied to a numerical range of halogen content expressed in the form “between ___ and ___”. Id. at 1380. “On remand, the district court should consider on a lamp-by-lamp basis whether Iwasaki's lamps infringe under the doctrine of equivalents.” Id.

Following remand, Iwasaki made a further motion for summary judgment, which was denied by the Court. U.S. Philips Corp. v. Iwasaki Elec. Co., Ltd., No. 03 Civ. 0172, 2008 WL 2115176 (S.D.N.Y. May 14, 2008). Philips proceeded to trial solely on a

¹ The phrase “ $\mu\text{mol/mm}^3$ ” means micromoles per cubic millimeter. “Per cubic millimeter” is a unit of measure of volume. It is sometimes referred to as a millimeter cubed. The Court previously construed the phrase “a quantity between 10^{-6} and $10^{-4} \mu\text{mol/mm}^3$ ” to express a specific numerical range between 1×10^{-6} and $1 \times 10^{-4} \mu\text{mol/mm}^3$ and that construction has been affirmed. U.S. Philips Corp. v. Iwasaki Elec. Co., 505 F.3d 1371, 1376 (Fed Cir. 2007).

² The claim is discussed in prior opinions, familiarity with which is assumed. See U.S. Philips Corp. v. Iwasaki Elec. Co., No. 03 Civ. 0172, 2006 WL 20504 (S.D.N.Y. Jan. 3, 2006) (claim construction), and U.S. Philips Corp. v. Iwasaki Elec. Co., No. 03 Civ. 0172, 2006 WL 2792693 (S.D.N.Y. Sept. 28, 2006) (granting partial summary judgment to Iwasaki), rev’d, 505 F.3d 1371 (Fed Cir. 2007).

theory of infringement by equivalents. A jury was empanelled on June 9, 2008 and returned its verdict on June 24, 2008. The post-verdict motions followed in a timely manner.

Rule 50(b) Motion

A. Legal Standard

Rule 50(a) provides that “[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party,” the Court may, upon motion by the opposing party, grant judgment as a matter of law in the movant’s favor. A motion under Rule 50(a) “may be made at any time before the case is submitted to the jury.” If the issue is submitted to the jury, “[t]he movant may renew its request for judgment as a matter of law by filing a motion no later than 10 days after the entry of judgment” under Rule 50(b), Fed. R. Civ. P. On a renewed motion under Rule 50(b), the court may “(A) allow the judgment to stand, (B) order a new trial, or (C) direct entry of judgment as a matter of law. . . .” Rule 50(b)(1), Fed. R. Civ. P.

The Federal Circuit “defers to the law of the regional circuits on matters of procedural law that do not implicate issues of patent law.” Rentrop v. Spectranetics Corp., ___ F.3d ___, 2008 WL 5246496, at *5 (Fed. Cir. Dec. 18, 2008) (quoting Duro-Last, Inc. v. Custom Seal, Inc., 321 F.3d 1098, 1106 (Fed. Cir. 2003)). “Thus for questions relating to Rule 50 motions generally, [the Federal Circuit] has applied regional circuit caselaw.” Duro-Last, 321 F.3d at 1106. The Second Circuit has stated that “[a] Rule 50 motion may be granted only when, considering the evidence in the light most favorable to the non-moving party and drawing all reasonable evidentiary inferences in that party's favor, there was ‘no

legally sufficient evidentiary basis for a reasonable jury to find' in favor of the non-moving party." Nimely v. City of New York, 414 F.3d 381, 390 (2d Cir. 2005) (quoting Fed. R. Civ.

P. 50(a)(1)). In construing Rule 50, the Supreme Court has explained that

although the court should review the record as a whole, it must disregard all evidence favorable to the moving party that the jury is not required to believe. That is, the court should give credence to the evidence favoring the nonmovant as well as that evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that that evidence comes from disinterested witnesses.

Reeves v. Sanderson Plumbing Prods., Inc., 530 U.S. 133, 151 (2000) (internal citation and quotation marks omitted).

The jury's verdict may be disturbed only if the "jury's findings could only have been the result of sheer surmise and conjecture," or the evidence in favor of the movant is so overwhelming that "reasonable and fair minded [jurors] could not arrive at a verdict against [it]." Nimely, 414 F.3d at 390 (quoting LeBlanc-Sternberg v. Fletcher, 67 F.3d 412, 429 (2d Cir. 1995)).

B. Obviousness

1. Standards

Iwasaki urges that claim 1 of the patent, as literally written and as urged by Philips under the doctrine of equivalents, is obvious over three items of prior art that were not before the examiner. 35 U.S.C. § 103(a). The items of prior art are: (1) Bol, Elenbaas & Lernmens, U.S. Patent No. 2,094,694, issued in 1937 ("Bol"); (2) Willem Elenbaas et al., High Pressure Mercury Vapour Lamps and their Application, which was published in 1965 under sponsorship of Philips ("Elenbaas '65"); and (3) Japan Patent Publication No. 54-1 50871 ("JP '871").

“A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a). The ultimate determination of obviousness is a question of law based on underlying issues of fact. Winner Int’l Royalty Corp. v. Wang, 202 F.3d 1340, 1348 (Fed. Cir.2000). Those underlying fact questions “include 1) the scope and content of the prior art, 2) the level of ordinary skill in the art, 3) the differences between the claimed invention and the prior art, and 4) evidence of secondary factors, also known as objective indicia of non-obviousness.” Eisai Co. v. Dr. Reddy’s Labs., 533 F.3d 1353, 1356 (Fed. Cir. 2008). Evidence of secondary considerations bearing on non-obviousness may be taken into account if proven by the patent owner but the presence of one or more of them “does not always overcome a strong prima facie showing of obviousness.” Asyst Technologies, Inc. v. Emtrak, Inc., 544 F.3d 1310, 1316 (Fed. Cir. 2008) (citing Pfizer, Inc. v. Apotex, Inc., 480 F.3d 1348, 1372 (Fed. Cir. 2007)).

The jury was instructed to consider whether it would have been obvious for a skilled person who knew of the prior art to combine the elements from the prior art to make the invention. (Tr. 1344.) This instruction is consistent with KSR Int’l Co. v. Teleflex Inc., ___ U.S. ___, 127 S. Ct. 1727, 1742 (2007), and Rentrop, ___ F.3d at ___, 2008 WL 5246496, at *4 (Fed. Cir. Dec. 18, 2008). The parties stipulated and the jury was informed that a person of ordinary skill in the art would be someone with at least a bachelor’s degree in engineering, physics or chemistry with at least five years experience with halogen and discharge lamp technology. (Tr. 1349.) The jury also was instructed to consider the applicability of six potentially relevant secondary considerations and that, to find the consideration proven,

Philips must prove a causal nexus between the secondary consideration and the invention defined by claim 1; for example, if the factor is due to other product features or effective advertising and promotion, then the factor would not be proven as a relevant consideration. (Tr. 1350.)

The jury found that Iwasaki had not proven by clear and convincing evidence that it would have been obvious to a person of ordinary skill in the art of lamp development to combine the disclosure of the Bol patent together with the JP '871 application to make a lamp with all the limitations of claim 1. (Court Ex. 9 at Q3.) The jury also found that Iwasaki had not proven that it would have been obvious to combine Elenbaas '65 with JP '871. (Id. at Q4.) Each of the secondary considerations was framed as a separate inquiry to the jury. The jury found that Philips had proven by a preponderance of the evidence that the following factors were present as a result of the limitations in claim 1 of the patent: commercial success, long-felt need, unsuccessful attempts to solve the problem, copying, unexpectedly superior results and praise or surprise. (Id. at Q. 5.)

Issues of what a reference teaches to a person of ordinary skill in the art and whether it would have been obvious for a skilled person who knew of the prior art to combine the elements from the prior art to make the invention are issues of fact for the jury. See Alza Corp. v. Mylan Labs., Inc., 464 F.3d 1286, 1289 (Fed. Cir. 2006); McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1349-50 (Fed. Cir. 2001). The ultimate conclusion of obviousness is an issue of law for the Court. KSR, 127 S. Ct. at 1743.

2. Application of Standard to the Prior Art

The Bol patent, which was issued to individuals working for Philips, disclosed a high-pressure mercury-vapor discharge lamp utilizing tungsten electrodes with a small

amount of mercury and a rare gas introduced into the envelope. (Tr. 937-39; D. Ex. 20.) It described operation at several hundred atmospheres. (Tr. 941.) The lamps disclosed in the Bol patent are either air cooled or water cooled. (D.Ex. 20 at 3:42-50.)

Elenbaas described a capillary or tubular mercury discharge lamp. (Tr. 1119.) It is a water-cooled lamp with a very high velocity of water flow over the surface of the lamp. (Id. at 1120; see also Tr. 949.) During lamp operation, there is a pool of liquid mercury around one or both electrodes. (Tr. 1123.) The water-cooled capillary lamp is capable of achieving operating pressures of 200 atmosphere or approximately 200 bar.³ (Tr. 1124, 996.) The lamps had a high failure rate and tended to “fizzle[] out.” (Tr. 1126.) Elenbaas also disclosed a second type of mercury lamp — a compact mercury arc lamp. (Tr. 1122.) In the compact arc lamp, the mercury evaporates during operation. (Tr. 1124.) It operates at approximately 10 to 50 atmospheres of pressure. (Tr. 1127, 996-997.) The compact mercury arc lamp tends to emit a bluish light and has poor color-rendering properties. (Id.)

Both the capillary lamp and the compact mercury arc lamp described in Elenbaas utilize tungsten electrodes. Tungsten tends to evaporate and condenses on the inner surface of the envelope, causing blackening of the wall and premature failure. (Tr. 1125-26.) Significantly, neither Bols nor Elenbaas '65 taught the introduction of a halogen into the envelope in order to counteract the process of tungsten evaporation and condensation on the walls of the envelope.

Holmes U.S. Patent 3,382,396 (the “Holmes patent”), a cited reference in the '181 patent, disclosed the introduction of a halogen into a mercury-vapor discharge lamp

³ The parties agree that one atmosphere is equivalent to 1.013 bar.

with tungsten electrodes. The range of halogen disclosed in Holmes is from 5×10^{-4} and $5 \times 10^{-2} \mu\text{mol}/\text{mm}^3$.

JP'871, relied upon by Iwasaki, disclosed a super high-pressure mercury-discharge lamp utilizing bromide, a halogen, and tungsten electrodes. It disclosed levels of bromide with a range of between 1×10^{-4} to $6 \times 10^{-3} \mu\text{mol}/\text{mm}^3$ [expressed as 0.1×10^{-6} gram atom to 6×10^{-6} gram atom per cubic centimeter of internal volume]. (D. Ex. 90, Tr. 1129.) Iwasaki places considerable reliance upon the lower range of halogen in JP '871, relative to the Holmes patent.

Iwasaki urges that both the literal scope of claim 1 and the proposed extended scope of the claim would have been obvious in light of Bol, Elenbas '65 and JP '871. Relying upon JP '871, Iwasaki asserts that an extension of the halogen concentration range above 1×10^{-4} , the claimed upper limit in claim 1 of the '181 patent, is precluded because a hypothetical claim with that extended range would have been obvious and would not have been allowed over the items of prior art. “[T]he relevant inquiry is whether ‘a “hypothetical claim”’ that literally recites the range of equivalents asserted to infringe . . . could have been allowed by the PTO over the prior art.” U.S. Philips Corp., 505 F.3d at 1380 (quoting Abbott Labs. v. Dey, L.P., 287 F.3d 1097, 1105 (Fed. Cir. 2002)); see also Wilson Sporting Goods Co. v. David Geoffrey & Assocs., 904 F.2d 677, 684 (Fed. Cir. 1990) (“a patentee should not be able to obtain, under the doctrine of equivalents, coverage which he could not lawfully have obtained from the PTO by literal claims.”), overruled in part on other grounds, Cardinal Chem. Co. v. Morton Int’l, Inc., 508 U.S. 83 (1993).

For a hypothetical claim, Iwasaki urges the use of a halogen range of 1×10^{-6}

and $3.2 \times 10^{-4} \mu\text{mol}/\text{mm}^3$. (Iwasaki Br. at 4-5.) Philips urges the use of a range of between 1×10^{-6} and $2 \times 10^{-4} \mu\text{mol}/\text{mm}^3$. (Philips Br. at 6.) For the purpose of the analysis herein, I will accept, arguendo, Iwasaki's proposed range.⁴

The lamp disclosed in JP '871 operated in a range of about 20 to 40 atmospheres of pressure and could not be safely operated at a pressure of 200 atmospheres. (Tr. 1128, 1129-30.) JP '871 did not claim a wall load greater than 1 watt per millimeter². (Tr. 999.) It does not disclose a minimum quantity of mercury as is required by claim 1 of the '181 patent. (Id.) The lamp disclosed in JP '871 is about 100 times larger than the actual embodiment of the lamp disclosed in claim 1 of the '181 patent. (Id.)

If one skilled in the art wanted to take the lamp disclosed in JP '871 and have it operate at a pressure of 200 atmosphere, it would be redesigned to a smaller configuration. (Tr. 1001.) But in making it smaller, one would be reducing the inner surface of the glass envelope and the electrodes would be operating closer to the surface of the lamp. (Tr. 1002.) It would greatly increase the temperature in the center of the discharge to 10,000° F. (Tr. 1003.) One would also add more mercury but mercury tends to dissolve in halogen forming mercury-halide compounds. (Tr. 1004.)

One skilled in the art would have believed that to operate at 200 bar, higher power densities would have been required. (Tr. 1139-40.) According to Robin Devonshire, Ph.D., a member of the Royal Society of Chemistry and Senior Lecturer in Chemistry at the University of Sheffield and Philips' expert, one skilled in the art in the 1987-88 time frame would believe that for a lamp described in Bols or Elenbaas to operate at 200 bar with the introduction of a halogen, the halogen level would be somewhere in the range of 1×10^{-3} to

⁴ It is undisputed that, during the period after the filing of the complaint, Iwasaki's target concentration of halogen has been $1.6 \pm 0.4 \times 10^{-4}$. (Tr. 394.)

1×10^{-2} . (Tr. 1140.) This would also cause concern whether a quantity this high of a halogen would erode the tungsten electrodes. (Id.)

The jury found that that Iwasaki failed to prove that it would have been obvious to combine the disclosure of either the Bol patent or Elenbaas '65 with the disclosure of JP '871. That finding is supported by substantial credible evidence and, indeed, comports with the greater weight of the evidence. The lamp technology in the super high pressure lamps of Bol and Elenbaas were fundamentally different than those lamp disclosed in JP '871. This would not have been a case of combining familiar elements according to known methods and yielding predictable results. Arizap, Inc. v. Woodstream, 520 F.3d 1337, 1344 (Fed. Cir. 2008) (citing KSR, 127 S. Ct. at 1739). Iwasaki has failed to make out a prima facie case of obviousness as to the literal scope of claim 1 and proposed equivalent scope of claim 1.

C. Active Inducement of Infringement

The jury found “by the preponderance of the evidence that Iwasaki actively induced infringement of the '181 patent in the United States.” (Court Ex. 9 , Q.2.) Iwasaki now moves for judgment as a matter of law arguing that Iwasaki believed its lamps were not infringing and that only its own actions within the territorial limits of the United States were relevant to the issue of active inducement.

It was the burden of Philips to prove that Iwasaki’s actions ““induced infringing acts and that he knew or should have known his actions would induce actual infringements.”” DSU Medical Corp. v. JMS Co., Ltd., 471 F.3d 1293, 1304 (Fed. Cir. 2006) (en banc) (quoting Manville Sales Crop. V. Paramount Systems, Inc., 917 F.2d 544, 554 (Fed. Cir.1990)). Philips’s burden required “evidence of culpable conduct, directed to

encouraging another's infringement, not merely that the inducer had knowledge of the direct infringer's activities." Id. at 1306. Direct evidence is not required and Philips may properly rely upon circumstantial evidence to make out its case. Water Techs. Corp. v. Calco, Ltd., 850 F.2d 660, 668 (Fed. Cir.), cert. denied, 488 U.S. 968 (1988).

There was ample circumstantial evidence that Iwasaki knew or should have known that its EHP lamps infringed the '181 patent from June 7, 2000, through to the date of trial. Iwasaki knew or should have known that the small difference in the amount of halogen was insubstantial and would not effect the operation of the lamp. (Tr. 531-537.) It knew or should have known that its target mercury concentration would result in a pressure of above 200 bar. (Tr. 516-18, 526-29, 983-84.) Of course, whether Iwasaki's knowledge rose to a level sufficient to support enhanced damages for willfulness is a different question which will be addressed.

Iwasaki also asserts that it cannot be liable under the patent laws because it did not engage in any affirmative acts within the United States. Iwasaki is correct that the patent laws do not extend beyond the territorial boundaries of the United States and Iwasaki may not be held liable for the acts of others within the United States. See International Rectifier Corp. v. Samsung Electronics Co., Ltd., 361 F.3d 1355, 1361 (Fed. Cir. 2004); see also Litecubes, LLC v. Northern Light Products, Inc., 523 F.3d 1353, 1367 (Fed. Cir. 2008) (territorial requirement is an element of a claim under the patent laws but not a requirement of subject matter jurisdiction). But here the circumstantial evidence was sufficient to establish that Iwasaki manufactured the lamps knowing that they would be imported and sold into the United States. The lamps, in fact, were sold within the United States by Iwasaki's customers. Iwasaki marked its EHP lamps with the

English language words “Made in Japan” and with the symbol “Hg” reflecting the mercury content, all in conformity with United States import requirements. (Tr. 446, 748-751, 805-809.) That Iwasaki’s corporate state of mind was formed or existed extraterritorially is of no particular moment. The jury properly found that Iwasaki knowingly and actively induced infringement of a United States patent within the United States.

New Trial

A party may move for a new trial in an action that was tried before a jury pursuant to Rule 59(a)(1), Fed. R. Civ. P. Unlike a motion for judgment as a matter of law, Rule 59 permits a court to grant a new trial even if substantial evidence exists to support the jury's verdict. See Song v. Ives Lab., Inc., 957 F.2d 1041, 1047 (2d Cir. 1992). However, a Rule 59(a) motion “ordinarily should not be granted unless the trial court is convinced that the jury has reached a seriously erroneous result or that the verdict is a miscarriage of justice.” Patrolmen’s Benevolent Ass’n v. City of New York, 310 F.3d 43, 54 (2d Cir. 2002) (internal quotation marks omitted).

Here, Iwasaki argues that the jury’s verdict is against the weight of the evidence. Further, it argues that Iwasaki erroneously was precluded from offering evidence concerning its intent and that it was prejudiced by the exclusion of this evidence. I have considered each of these arguments individually and in connection with each other and I conclude that no new trial was warranted. The verdict was consistent with the weight of the evidence, not erroneous, and has led to no miscarriage of justice. Iwasaki has demonstrated no evidentiary errors, and certainly none that warrants a new trial.

With respect to the jury's verdict awarding a reasonable royalty rate of \$28.70 per unit of sales by Iwasaki, it was supported by the evidence, not grossly excessive or based upon speculation or guesswork. The jury was instructed in accordance with the law. The jury's acceptance of plaintiff's evidence and its award of a figure closer to (but somewhat lower than) the royalty rate urged by plaintiff and its witnesses does not render the award excessive, erroneous or unjust. The jury award is consistent with the record as a whole and represents an amount that a willing and reasonable participant would agree to pay in a hypothetical royalty negotiation at the time infringement began.

Exceptional Case

Philips argues that it is entitled to enhanced damages in this case, pursuant to 35 U.S.C. § 284, because Iwasaki's infringement was willful. Notably, this lawsuit has been pending since January 8, 2003, yet Philips only seeks enhanced damages for a period commencing on November 2, 2007. Philips anchors its claim on November 7, 2007 because that was the date of the Federal Circuit's opinion reversing this Court's grant of summary judgment in favor of Iwasaki on the availability of the doctrine of equivalents to the claim element requiring that a halogen be "present in a quantity between 10^{-6} and 10^{-4} $\mu\text{mol}/\text{mm}^3$." 505 F.3d at 1373. Upon remand, to the district court, Philips abandoned any claim of literal infringement of claim 1 and proceeded exclusively under the doctrine of equivalents. Iwasaki unsuccessfully moved for summary judgment, arguing, as it has in its post-verdict motions, that the equivalency claim was unpatentable on a hypothetical infringement analysis.

Whether damages are tried to the court or to the jury, "the court may increase the damages up to three times the amount found or assessed." 35 U.S.C. § 284. Noting that

there is no statutory guide as to when enhanced damages ought to be awarded, the Federal Circuit has held that “an award of enhanced damages requires a showing of willful infringement.” In re Seagate Technology, LLC, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc), cert. denied, 128 S. Ct. 1445 (2008). In this context, the concept of willfulness includes reckless behavior. Id. at 1371. “[T]o establish willful infringement, a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” Id. at 1371. “If this threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.” Id.

On the totality of the record, I conclude that the objective standard has not been met and enhanced damages ought not be awarded in this case. Prior to the Federal Circuit’s ruling on the doctrine of equivalents, the district court had held that to apply, that doctrine would vitiate the claim limitation as to halogen concentration expressed in the language “a quantity between ___ and ___”. 2006 WL 20504, at *4. The Federal Circuit was of a different view and ruled that the application of the doctrine of equivalents was not foreclosed. 505 F.3d at 1378-79. The Federal Circuit also concluded the Holmes patent did not foreclose the application of the doctrine. Id. at 1378-80.

In a summary judgment motion made following remand, Iwasaki maintained that Bol or Elenbaas ’65, read in light of JP ’871, rendered claim 1 obvious. That position has been rejected. It continues to assert that position after trial. The rejection of Iwasaki’s position does not necessarily lead to a finding that Iwasaki proceeded in the face of an objectively high likelihood that its actions constituted infringement of a valid patent. At the

time of Iwasaki's actions, it had an objective basis to believe that there was not a high likelihood that its conduct would actively induce infringement of a valid patent. (Tr. 957-59.) Considering the totality of the record, enhanced damages for willful infringement are not awarded.

Attorneys' Fees

The court may award attorneys' fees to the prevailing party in an "exceptional case." 35 U.S.C. § 285. As a general rule, factors which may justify increased damages under 35 U.S.C. § 284 may be considered a basis for attorney's fees under section 285. Jurgens v. CBK, Ltd., 80 F.3d 1566, 1573 n. 4 (Fed. Cir. 1996). However, a case may be "exceptional" and attorneys' fees may be awarded even though it does not satisfy the criteria for increased damages under section 284. Id.

The Federal Circuit teaches that, in considering the appropriateness of an attorneys' fee award, district courts should engage in a two-step inquiry: "The court examines first whether there is clear and convincing evidence that the case is exceptional, and second, whether an award of attorney fees to the prevailing party is warranted." Evident Corp. v. Church & Dwight Co., Inc., 399 F.3d 1310, 1315 (Fed. Cir. 2005). To support an award, there must be "some finding by the trial judge of unfairness, bad faith, inequitable conduct, vexatious litigation, or some similar exceptional circumstance" Pharmacia & Upjohn Co. v. Mylan Pharm., Inc., 182 F.3d 1356, 1361 (Fed. Cir. 1999).

"Among the types of conduct which can form a basis for finding a case exceptional are willful infringement, inequitable conduct before the P.T.O., misconduct during litigation, vexatious or unjustified litigation, and frivolous suit." Beckman

Instruments, Inc. v. LKB Produkter AB, 892 F.2d 1547, 1551 (Fed. Cir. 1989) (citing Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 455 (Fed. Cir. 1985)).

Here, I conclude there was a colorable basis for Iwasaki's assertions in the litigation: they had a substantial legal and factual basis for its positions, although none were ultimately meritorious. Nothing in the litigation conduct of Iwasaki warrants an award of attorneys' fees. In the five years presiding over this hard-fought case, I found the manner in which Iwasaki's counsel conducted the defense of this litigation to be exemplary. Although it is not relevant to the precise issue at hand, I found the conduct of Philips' counsel also to be exemplary. All counsel have been attentive to their professional obligations throughout the case. I observed no litigation misconduct by anyone. This is not an "exceptional case" warranting an award of attorneys' fees.

Pre-Judgment Interest

Philips seeks an award of pre-judgment interest under section 284. The Supreme Court has noted that an award of pre-judgment interest is intended to make the patent owner whole:

The standard governing the award of prejudgment interest under § 284 should be consistent with Congress' overriding purpose of affording patent owners complete compensation. In light of that purpose, we conclude that prejudgment interest should ordinarily be awarded. . . . An award of interest from the time that the royalty payments would have been received merely serves to make the patent owner whole, since his damages consist not only of the value of the royalty payments but also of the foregone use of the money between the time of infringement and the date of the judgment.

General Motors Corp. v. Devex Corp., 461 U.S. 648, 655-56 (1983). "[P]rejudgment interest should be awarded under § 284 absent some justification for withholding such an award." Id. at 657. An award of pre-judgment interest serves to make Philips whole. There are no

circumstances present here which would make an award of pre-judgment interest an unwarranted windfall.

The Court “is afforded wide latitude in the selection of interest rates, and may award interest at or above the prime rate.” Uniroyal, Inc. v. Rudkin-Wiley Corp., 939 F.2d 1540, 1545 (Fed. Cir. 1991) (citation omitted); see also, Lam, Inc. v. Johns-Manville Corp., 718 F.2d 1056, 1066 (Fed. Cir.1983) (affirming district court's award of pre-judgment interest at a higher-than-prime rate where plaintiff had borrowed money at or above the prime rate in order to continue its operations). Philips argues for an award at the prime rate of interest; Iwasaki urges that, if interest be awarded, it should be at the rate established for post-judgment interest under 28 U.S.C. § 1961, essentially the weekly average 1-year constant maturity Treasury yield. I will set prejudgment interest at the prime rate of interest calculated and compounded quarterly, which better approximates a corporate borrower’s cost of funds. See Lam, 718 F.2d at 1066. .

Injunctive Relief

Requests for permanent injunctive relief in patent cases must satisfy the traditional rules of equity, including the requirement that the moving party demonstrate the likelihood of irreparable harm. eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 388, 394 (2006) (application for permanent injunction). “According to well-established principles of equity, a plaintiff seeking a permanent injunction must satisfy a four-factor test before a court may grant such relief. A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest

would not be disserved by a permanent injunction.” Id. at 391. The district court must assess the traditional factors based upon the evidence and not based upon categorical assumptions about the consequences of patent infringement. Id. at 394.

Notably, the ’181 patent will expire in a few months on April 28, 2009. Philips has suffered irreparable harm in the past. The sale of the infringing products has led to significant price erosion for Philips UHP lamps. (Tr.780; Tr. 672-76.) But money damages — calculated on the basis of a hypothetical royalty negotiation at the time infringement began — together with an award of prejudgment interest stands to make Philips largely, though not entirely, whole. While Philips seeks an array of injunctive provisions, including an injunction against marking products in the English language with the country of origin and the presence of mercury content and a prohibition on providing pressure-measurement data to its customers, little at this late stage is necessary or appropriate beyond a prohibition against actively inducing infringement by indemnifying customers for future sales within the United States of the infringing product and a requirement that Iwasaki notify its EHP customers who sold product within the United States of the entry of judgment finding that Iwasaki has actively induced infringement. Considering the balance of the hardships between Philips, which has suffered Iwasaki’s inducement of infringement but will now receive a monetary award, and Iwasaki, which has no lawful right to cause infringing products to enter the United States, a modest injunction (as described) is appropriate. Money damages are inadequate as to this limited relief and the public would not be disserved by granting this relief.

CONCLUSIONS

The trial motions of Philips and Iwasaki for judgment as a matter of law are denied as moot. (Docket ## 212 and 214.)

Iwasaki's post-trial motion for judgment as a matter of law or, alternatively, for a new trial is denied. (Docket # 224.)

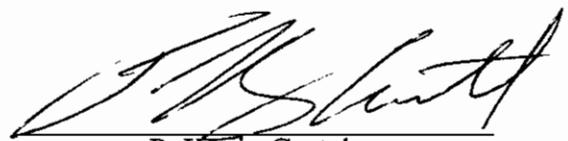
In separately filed findings of fact and conclusions of law of today's date, Iwasaki's motion for judgment that the '181 patent is unenforceable by virtue of us Philips' inequitable conduct during the prosecution of the patent is denied. (Docket # 229.)

The motion of Philips for judgment of willfulness, enhanced damages and attorneys' fees, pursuant to 35 U.S.C. §§ 284 and 285, is denied. (Docket # 226.)

The motion of Philips for a permanent injunction is granted to the extent that Iwasaki is enjoined from actively inducing infringement of the '181 patent by indemnifying customers for sales of the infringing product within the United States and Iwasaki is required to notify customers who have sold infringing product within the United States that it has been adjudged to have actively infringed claim 1 of the '181 patent. The motion for prejudgment interest is granted and prejudgment interest is awarded at the prime rate of interest calculated and compounded quarterly. (Docket # 232.)

Philips shall submit a proposed final judgment on notice to Iwasaki within ten days.

SO ORDERED.



P. Kevin Castel
United States District Judge

Dated: New York, New York
January 13, 2009