

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

IMMERSION CORPORATION,

Plaintiff,

v.

SONY COMPUTER ENTERTAINMENT
AMERICA, INC. and SONY COMPUTER
ENTERTAINMENT, INC.,

Defendants.

No. C 02-0710 CW

FINDINGS OF FACT
AND CONCLUSIONS
OF LAW REGARDING
DEFENDANTS'
INEQUITABLE
CONDUCT DEFENSE

Plaintiff Immersion Corporation (Immersion) is the owner of U.S. Patent Nos. 6,275,213 (the '213 patent) and 6,424,333 (the '333 patent). The inventions disclosed in the patents-in-suit address providing complex tactile sensations to users of interactive computer applications. In February, 2002, Immersion brought claims of infringement against the Playstation video game systems made by Defendants Sony Computer Entertainment America, Inc. and Sony Computer Entertainment, Inc. (collectively Sony). Following a motion to dismiss, claim construction and motions for summary judgment, the case proceeded to a jury trial on Immersion's infringement claims and Sony's defenses of anticipation, obviousness and inadequate written description. On September 21, 2004, a jury found that Immersion's patents were valid and infringed and awarded Immersion \$82 million in damages. On January 5 and 6, 2005, the

1 Court heard additional oral testimony on Sony's defense of
2 inequitable conduct with respect to infringement of the '333
3 patent. The specific issue before the Court is whether
4 Immersion engaged in inequitable conduct by failing to disclose
5 the Logitech "CyberMan" to the PTO during the prosecution of the
6 '333 patent. See March 2, 2004 Order Resolving Parties' Motions
7 for Summary Judgment at 27-29 (finding dispute of fact on that
8 issue with respect to the conduct of Immersion founder Dr. Louis
9 Rosenberg). The Court now enters its findings of fact and
10 conclusions of law with respect to Sony's inequitable conduct
11 defense.

12 LEGAL STANDARD

13 Patent applicants and their legal representatives have a
14 duty to prosecute applications with candor and good faith.
15 Molins PLC v. Textron, Inc., 48 F.3d 1172, 1178 (Fed. Cir.
16 1995); 37 C.F.R. § 1.56(a). A breach of this duty occurs when
17 an individual associated with filing and prosecuting a patent
18 application fails to disclose material information with an
19 intent to deceive. Union Pacific Resources Co. v. Chesapeake
20 Energy Corp., 236 F.3d 684, 693 (Fed. Cir. 2001).

21 Proof of such inequitable conduct entails a two-step
22 analysis. The court must first determine "whether the withheld
23 references satisfy a threshold level of materiality," and next
24 "whether the applicant's conduct satisfies a threshold finding
25 of intent to mislead." Halliburton Co. v. Schlumberger Tech.
26 Corp., 925 F.2d 1435, 1439 (Fed. Cir. 1991). Both materiality
27 and culpable conduct are questions of fact, and "each must be

1 proved by clear and convincing evidence." Goodyear Tire &
2 Rubber Co. v. Hercules Tire & Rubber Co., 162 F.3d 1113, 1122
3 (Fed. Cir. 1998). Assuming satisfaction of both thresholds, the
4 court balances materiality and intent; the "more material the
5 omission, the less culpable the intent required, and vice
6 versa." Halliburton, 925 F.2d at 1439.

7 FINDINGS OF FACT

8 I. Background

9 The patents-in-suit are both entitled "Tactile Feedback
10 Man-Machine Interface Device." The '213 and '333 patents share
11 an identical written description, but have different claims.
12 The '213 patent issued on August 14, 2001. The continuation
13 application that resulted in the '333 patent was filed on April
14 18, 2001. The '333 patent issued on July 23, 2002.

15 The inventors of the patents-in-suit were employees of
16 Virtual Technologies, Inc. (VTI). Immersion acquired VTI in
17 August, 2000, along with the rights to VTI's patents.

18 On October 4, 2001, representatives of Sony and Immersion
19 met to discuss Immersion's allegations of infringement against
20 Sony, including that Sony was infringing the '213 patent. Sony
21 informed Immersion that it believed Immersion's patents were
22 invalid. Another meeting between the parties took place on
23 November 8, 2001. At that meeting, as evidence of its
24 invalidity defenses, Sony showed Immersion the Cyberman
25 controller, a product produced by third-party Logitech and sold
26 to the public in 1993.

27 In February, 2002, Immersion sued Sony for infringement of
28

1 the '213 patent. Immersion amended its complaint to add
2 allegations involving the '333 patent after it was issued. Sony
3 contends that Immersion's failure to disclose Cyberman to the
4 PTO during the '333 prosecution constituted inequitable conduct.

5
6 I. Materiality.

7 A. Obviousness of Claim Fifteen.

8 Sony alleges that Cyberman renders asserted claim fifteen
9 of the '333 patent invalid as obvious when combined with U.S.
10 Patent No. 5,669,818 (Tr. Ex. 168, hereinafter, the Thorner '818
11 patent). Sony does not provide expert testimony directly on
12 this issue. Instead, Sony attempts to prove its allegation
13 based on the testimony of Immersion expert Dr. Robert Howe, the
14 testimony of Cyberman's inventor, James Barnes, and the CyberMan
15 3D SWIFT Supplement Version 1.0, the manual provided by Logitech
16 to game developers.

17 Claim fifteen of the '333 patent recites a "method for
18 controlling a plurality of rotating mass actuators to provide
19 tactile feedback to a user providing input to a computer
20 simulation." '333 Patent 20:21-23. The Thorner '818 patent
21 discloses a "seat-based tactile sensation generator" that
22 provides a video game player with tactile sensations that
23 correspond to activity in the video game. '333 Abstract. As in
24 claim fifteen of the '333 patent, the vibrations in Thorner '818
25 are generated by a plurality of rotating mass actuators.

26 Immersion's validity expert, Dr. Howe, testified that every
27 element of claim fifteen was met in the Thorner '818 reference

1 except for the limitation enabling rotation of "each of said
2 rotating-mass actuators . . . with a different frequency
3 profile." '333 Patent 20:34-35; Trial Tr. 3070:4-3072:1.¹ Dr.
4 Howe testified, and Sony does not dispute, that "different
5 frequency profile" means operation with a different frequency
6 over time. Trial Tr. 3072:7-14. Dr. Howe acknowledged that the
7 Thorner '818 patent expressly teaches changing the frequency of
8 actuators over time, but testified that Thorner did not meet the
9 Immersion claim limitations because the change in frequency of
10 Thorner's actuators occurred "simultaneously, collectively, and
11 identically" in all of the actuators. Trial Tr. 3072:15-18.

12 Sony's expert, Dr. Kenneth Salisbury, opined to the
13 contrary that Thorner did teach the rotation of actuators with
14 different frequency profiles. Trial Tr. 2520:6-18. Dr.
15 Salisbury pointed to two portions of the Thorner '818
16 specification that appear to describe operation of actuators
17 with different frequencies over time. See '818 Patent 4:23-26
18 ("The amplitude and frequency of the vibration is changed as the
19 video car changes speed . . .") and 6:29-37 ("The various
20 commands from the host specify which of the actuators (or groups
21 of actuators) shall be independently energized to stimulate the
22 game activity portrayed upon the computer monitor . . ."). In
23 rebutting this opinion, Dr. Howe testified that the
24 specification quotations Dr. Salisbury used to support his
25 opinion actually described two separate control circuits: (1) a

26
27 ¹Unless otherwise specified, citations to the trial
28 transcripts refer to the jury trial.

1 host dependent control circuit for which "the programmer can
2 simply turn each motor on or off. There's no variation in the
3 vibration while they're turned on," Trial Tr. 2957:1-3; and (2)
4 a host independent audio interpretation circuit, in which again
5 "all the motors are activated identically. They're all turned
6 on in exactly the same way at exactly the same time." Trial Tr.
7 2957:7-13. According to Dr. Howe, it was also not possible,
8 given the examples in the Thorner '818 patent, to use both
9 circuits to drive the same motor at the same time, and thus it
10 was not possible for the circuits to create the complex tactile
11 sensations claimed by Immersion's patents. Trial Tr. 1957:24-
12 2960:8.

13 Sony asserts that Cyberman provides the "missing link"
14 between the Thorner '818 patent and claim fifteen of the '333
15 patent by showing how to program the host dependent control
16 circuit so that the frequency of vibration varied over time.
17 Sony points to the testimony of Cyberman's inventor, James
18 Barnes, who stated that an example in the Cyberman manual
19 demonstrated that a programmer could use different on, off, and
20 duration values in order to create vibrations of differing
21 length and intensity. Trial Tr. 1889:5-1891:15. Mr. Barnes
22 testified that a game developer could thereby create a vibration
23 that changes or varies over its duration. Trial Tr. 1894:9-24.
24 Sony argues,

25 Cyberman's computer commands are exactly as contemplated by
26 Thorner '818 and control exactly the same sort of
27 eccentric-mass actuator. Clearly, one of ordinary skill in
the art, familiar with Cyberman, would have understood that
the "host dependent" control system of Thorner could not

1 only operate the actuators independently (as admitted by
2 Dr. Howe) but could also vary their speeds.

3 Sony's Post-Trial Brief With Regard to Inequitable Conduct, at
4 11:12-16. For the reasons explained below, Sony's arguments are
5 conclusory and deficient.

6 Immersion argues that to the extent Cyberman teaches varied
7 frequency profiles, it is cumulative of other prior art cited to
8 the PTO, specifically U.S. Patent No. 5,203,563 (the Loper '563
9 patent). Immersion points to Dr. Salisbury's testimony that the
10 Loper '563 patent teaches that "the microprocessor establishes
11 the speed of the rotation of the motor to control the amplitude
12 of the vibration of the handles." Trial Tr. 2633:24- 2634:6.
13 Sony has not sufficiently rebutted this argument. Dr.
14 Salisbury's testimony lacks sufficient detail to allow the Court
15 to draw the definite conclusion that Cyberman is cumulative.
16 However, Dr. Salisbury's evidence does suggest that the general
17 concept of using a microprocessor to vary levels of vibration
18 was not a unique contribution of Cyberman. In its reply, Sony
19 fails to respond with any specificity to Immersion's argument
20 based on Dr. Salisbury's testimony regarding Loper '563.
21 Instead, Sony generally asserts that Cyberman as a whole is not
22 cumulative of Loper '563 and Thorner '818 because the Loper
23 system was a self-contained arcade unit that did not disclose
24 the type of host-to-peripheral command contemplated by Thorner.
25 Yet Sony does not provide evidence that this difference is
26 necessarily relevant to the question at issue.

27 Furthermore, to support Mr. Barnes' testimony that Cyberman

1 teaches a method for varying the frequency of vibrations, Sony
2 claims in its reply that the method used in Cyberman was the
3 "same" as pulse width modulation, a technique Dr. Howe testified
4 has "been known for many, many years" to control "all sorts of
5 motor applications." Sony's Reply Brief at 2, n.1 (quoting
6 Trial Tr. 1976:3-4). According to Dr. Howe, pulse width
7 modulation occurs by using an adjustable clock signal, by which
8 a programmer can change when pulses are sent to a motor and how
9 far apart those pulses are. Trial Tr. 3047:25-3048:23. If
10 pulse width modulation is, as Sony argues, the "same" technique
11 employed by Mr. Barnes in Cyberman and one that has been known
12 for "many, many years," then it is highly unlikely that this
13 aspect of Cyberman represents a material, non-cumulative
14 invention that would have rendered claim fifteen of the '333
15 patent obvious. Indeed, it was Dr. Howe who testified that the
16 Thorner '818 patent used pulse width modulation, though Dr. Howe
17 was of the opinion that this technique could not be used by the
18 host-dependent circuit to achieve actuators with different
19 frequency profiles.

20 In the alternative, to the extent that Cyberman uses either
21 a new application of pulse width modulation or a different
22 technique altogether, Sony has failed to provide sufficient
23 evidence to prove that one of ordinary skill in the art would
24 have understood that claim fifteen was obvious in light of
25 Cyberman and the Thorner '818 patent. To do so would have
26 required proof that one skilled in the art would have been able
27 to extrapolate, from the publicly available Cyberman prior art,
28

1 an understanding of Cyberman's capabilities that was the same as
2 the inventor's own understanding. Mr. Barnes himself clearly
3 states that Cyberman could create varied frequencies. See Trial
4 Tr. 1869:2-1872:25. Yet Mr. Barnes' testimony that game
5 developers could understand this by examination of the SWIFT
6 manual is vague, conclusory and uncorroborated. Mr. Barnes
7 testified that publicly sold games Doom and Shadowcaster
8 included "varying levels of vibration," and when asked whether
9 he communicated "to game developers outside of Logitech the
10 ability to achieve varying levels of vibration with the
11 Cyberman," Mr. Barnes replied "Yes." Trial Tr. 1877:9-16; Trial
12 Tr. 1878:25-1879:3. Yet this testimony could refer to the
13 general capability to vary the frequency of vibrations rather
14 than the "different frequency profiles," i.e. varied over time,
15 element of claim fifteen of the '333 patent. The SWIFT manual
16 describes Cyberman's tactile feedback function as,

17 This function begins or ends a 'burst' of tactile feedback.
18 Any tactile burst in progress from a previous call to this
19 function is cancelled. If duration (CL) > 0, the new burst
20 begins immediately and lasts for CL*40 milliseconds. If CL
21 is 0, any prior tactile burst is terminated, and no new
22 burst is started.

23 A tactile burst consists of repeated On/Off cycles -
24 the tactile feedback motor is turned on for BH*5 ms, then
25 turned off for BL*5 ms, repeating for the duration of the
26 burst.

27 A value of 0 in BL or BH is interpreted to mean '5 ms.'

28 Tr. Ex. 170 at 12. The manual specifies the maximum tactile
burst duration, and the maximum and minimum "on" and "off" times
per cycle. Id. The manual also explains that the tactile
feedback command produces "a mechanical pulse or vibration the
user can feel, under the palm of his or her hand," and that

1 there is a "ramp-up or 'kickstart' time of 25 ms at the
2 beginning of every tactile feedback burst." Id. at 22-23. The
3 manual describes an example in which on-time is 5 milliseconds,
4 off-time is 5 milliseconds, and the total duration is 40
5 milliseconds, generating the following vibration pattern:

6	ON	30 ms	25 ms kickstart + 5 ms on-time, 1st cycle
	OFF	5 ms	5 ms off-time, 1st cycle
7	ON	5 ms	5 ms on-time, 2nd cycle
	OFF		shut off after 40 ms total

8 Id. at 23. Mr. Barnes testified that these commands could be
9 manipulated to create complex vibrations that changed or varied
10 during their duration, and that he did so while working on
11 Cyberman. Trial Tr. 1894:13-1896:6. However, nowhere does the
12 SWIFT manual explicitly describe, as Mr. Barnes did at trial,
13 exactly how to use these commands to create vibrations with
14 frequencies that differ over time.

15 Sony might have been able to prove that the SWIFT manual
16 did teach different frequency profiles by showing that game
17 developers or others exploited this alleged possibility, yet
18 Sony did not. In fact, the available evidence points in the
19 other direction. Logitech's designated Rule 30(b)(6) witness,
20 David McVicar, testified that Cyberman's vibration feature "was
21 either an on or off thing, it vibrated or it didn't. The length
22 of vibration changed, but, you know, it was one -- one
23 frequency; you turned it on or you turned it off." McVicar Dep.
24 29:25-30:3. Furthermore, Mr. Barnes himself testified that Doom
25 did not include frequencies that varied over time, but merely a
26 simple "buzz" that was either turned on or off. Trial Tr.

1 1977:12-1978:10. Mr. Barnes was unable to remember any details
2 about the vibration effect in Shadowcaster. Id. at 1979:14-17.
3 Sony minimizes Mr. McVicar's testimony by noting that he is an
4 engineer rather than a programmer, and therefore his testimony
5 may simply reflect his lack of understanding of Cyberman's
6 capabilities. However, Sony has failed to point to evidence
7 from anyone else, other than Cyberman's own inventor,
8 establishing that one skilled in the art would have known that
9 Cyberman taught varying frequency of a vibration over time. In
10 the absence of such evidence, there is nothing in the record to
11 prove that a person of ordinary skill in the art would have
12 realized that Cyberman was capable of creating the different
13 frequency profiles as claimed in the '333 patent.

14 Finally, it is not clear from the record whether Cyberman,
15 even if it were non-cumulative prior art teaching different
16 frequency profiles, would be the "missing piece" Dr. Howe
17 identified in comparing the Thorner '818 patent with claim
18 fifteen. Dr. Howe's initial opinion was that Cyberman didn't
19 meet the "each of said rotating-mass actuators . . . with a
20 different frequency profile" because the Thorner rotating-mass
21 actuators operated at identical frequency profiles. Dr. Howe
22 did testify, in response to Dr. Salisbury's critique, that the
23 programmer could only use the host dependent control circuit to
24 turn each motor on or off, not to vary the vibration over time.
25 However, even if a programmer could use a technique taught by
26 Cyberman to vary vibration over time, Dr. Howe did not testify
27 that one skilled in the art would then understand that it was

1 possible to give each actuator a different frequency profile.
2 In the absence of expert testimony to that effect, the Court
3 cannot infer that Cyberman is indeed the missing link.

4 B. Anticipation of Claim One.

5 Unlike the claims Immersion asserted at trial, which
6 disclosed methods for controlling a plurality of rotating mass
7 actuators, claim one of the '333 patent discloses a device with
8 a single motor. Cyberman is also a single motor device. Sony
9 alleges that Cyberman anticipated unasserted claim one of the
10 '333 patent. Sony relies on the testimony of Mr. Barnes and the
11 SWIFT manual to establish the relevant facts about Cyberman and
12 on the testimony of Immersion infringement expert Dr. Edward
13 Colgate to establish relevant facts about the claimed invention,
14 and asks the Court to analyze the relationship between the two.

15
16 Sony's proffered evidence regarding Cyberman's alleged
17 anticipation of claim one suffers from the same defects as
18 Sony's obviousness claim regarding claim fifteen. One
19 limitation of unasserted claim one is that an activating signal
20 provided to the rotating mass actuator cause a tactile sensation
21 with "a frequency that varies over the duration of said tactile
22 sensation." '333 patent 19:9-13. This is the same limitation
23 as claim fifteen's "varying frequency profiles." Again, Sony
24 relies on the testimony of inventor Mr. Barnes and the SWIFT
25 manual to prove its allegation. However, for the reasons
26 explained above, Sony has not shown evidence sufficient to prove
27 that Cyberman prior art actually discloses a "frequency that
28

1 varies over the duration" of a tactile sensation.

2 More generally, Sony's reliance on Dr. Colgate's opinions to
3 support a supposedly detailed anticipation analysis is
4 problematic. For example, Sony relies on Dr. Colgate's
5 testimony regarding the "pulsing" control technique, whereby
6 series of impulses, depending on the rate of revolutions, could
7 be perceived as either an impulse or a vibration. Trial Tr.
8 737:8-18. Sony then points to Mr. Barnes' testimony that
9 Cyberman is capable of responding to individual commands to
10 provide vibration lasting from 40 milliseconds to ten seconds,
11 Trial Tr. 1893:13-18, in order to prove that Cyberman meets the
12 '333 claim one limitation of providing the user a tactile
13 sensation that can be perceived as "a vibration, an impulse and
14 a series of impulses." '333 Patent 19:7-8. However, Dr.
15 Colgate's testimony was clearly based on examination of the
16 Immersion patents and the Sony products, all of which were dual
17 motor devices. See, e.g., Trial Tr. 737:13-15 ("If you had a
18 hundred revolutions, at least, at the rates of, say, the Sony
19 system, then it would, you know, have been a long enough
20 sensation . . ."); Trial Tr. 738 (Dr. Colgate's testimony that
21 he knows a vector force feels like a single impulse in part
22 because "I've played these games. And I've felt these sorts of
23 sensations. And the effect is really very, very strong.").
24 Both Drs. Colgate and Salisbury testified that the fact that
25 Sony's Dualshock Controllers had two motors increased the
26 complexity of the sensations generated. See respectively Trial
27 Tr. 3140:13-15 ("the Sony system, when making use of two motors,

1 is generating significantly more complex vibrations than when
2 spinning just one motor alone") and Trial Tr. 2446:22 (noting
3 that a controller with two motors spinning at the same time is
4 "a more complex vibration"). Yet Sony provides no expert
5 opinion that Dr. Colgate's analysis can nevertheless be applied
6 to Cyberman. Sony's request that the Court assume that Dr.
7 Colgate's testimony can be applied to a single-motor device with
8 a very limited range of practical application is unavailing.

9 C. Threshold Finding Regarding Materiality

10 For these reasons, Sony has failed to show by clear and
11 convincing evidence that Immersion's failure to cite Cyberman to
12 the PTO constituted omission of material, non-cumulative prior
13 art. Nonetheless, the Court also considers whether there is
14 clear and convincing evidence that Immersion, and specifically
15 Dr. Louis Rosenberg, intended to deceive the PTO.

16 II. Intent to Deceive

17 Sony representatives showed Dr. Rosenberg, other senior
18 Immersion executives, and Immersion's outside counsel a
19 partially disassembled Logitech Cyberman at the November 8, 2001
20 meeting. Immersion was informed that Cyberman had been on sale
21 and in public use as early as 1993. Sony informed Immersion of
22 its opinion that Cyberman rendered invalid Immersion's patents,
23 including the '213 patent, parent of the then-pending '333
24 patent. Sony did so by comparing the components of Cyberman to
25 those of the corresponding Sony Playstation products. Bench
26 Trial Tr. 32:17-34:11.

27 Riley Russell, a Sony executive who was at the meeting,
28

1 testified that he explained to Immersion that Cyberman could
2 produce vibrations "comparable" to those produced by Sony's
3 DualShock controller, but later clarified that he informed
4 Immersion only that Cyberman could produce "short or long"
5 vibrations. Bench Trial Tr. 26:3, 31:10-11. Mr. Russell's
6 "most vivid" memories are of discussions about Cyberman's weight
7 and motor. Bench Trial Tr. 27:13-14. Dr. Rosenberg recalled
8 that Sony informed Immersion that Cyberman could produce a
9 vibration, but did not remember any discussion of specific types
10 of sensations. Bench Trial Tr. 70:18-21. Sony did not provide
11 Immersion with the SWIFT manual, related game software, or any
12 other supplemental information about Cyberman.

13 At the time of the meeting, Dr. Rosenberg had resigned as
14 chair of Immersion's Board of Directors, but was continuing
15 part-time as Immersion's "Intellectual Property Specialist."
16 Bench Trial Tr. 75:11-76:7. He was involved in Immersion's
17 patent prosecution as an inventor on his own patents, and as a
18 consultant on others. Bench Trial Tr. 76:21-77:4. Dr.
19 Rosenberg attended the November 8 meeting because of his history
20 of involvement in the interactions with Sony. Bench Trial Tr.
21 76:10-12. After the meeting, Dr. Rosenberg answered some
22 questions from the Immersion legal team about Cyberman, but did
23 nothing more, assuming that the legal team was "handling it."
24 Bench Trial Tr. 80:14-22.

25 Dr. Rosenberg invoked attorney-client privilege when asked
26 about the content of his communications with Immersion
27 attorneys. Dr. Rosenberg did testify that, at the time, he
28

1 found Sony's claim that Cyberman rendered invalid five or six of
2 Immersion's patents to be "a very broad statement" and "not
3 credible." Bench Trial Tr. 69:12-13. Specifically, Dr.
4 Rosenberg testified that he believed that all of the unique
5 features of Cyberman had already been disclosed to the PTO in
6 U.S. Patent No. 5,589,828 (the Armstrong '828 patent), which was
7 cited to the PTO in the '213 patent application. Dr.
8 Rosenberg's belief that Cyberman was cumulative of the Armstrong
9 '828 patent was supported by the fact that Cyberman and
10 Armstrong '828 shared certain distinctive features, including a
11 six-degree-of-freedom controller with a single rotating mass
12 actuator for creating vibration. Dr. Rosenberg's belief is
13 consistent with Mr. Barnes' testimony that Cyberman was based on
14 the Armstrong technology. Barnes Dep. 15-17.

15 Dr. Rosenberg did no detailed further investigation of
16 Cyberman. Bench Trial Tr. 80:23-81:5. He did not contact
17 Logitech to attempt to obtain more information about Cyberman,
18 such as the SWIFT manual, even though he would have been in a
19 position to do so due to his past business relationship with
20 Logitech. Bench Trial Tr. 89:23-24. There is no evidence that
21 anyone else at Immersion performed an investigation of Cyberman,
22 though counsel for Immersion stated in a January 9, 2002, letter
23 to Sony, "Immersion's own investigation indicates that [the
24 Cyberman] has no significance whatsoever to the patents at
25 issue." Trial Ex. 2117.

26 James Riegel, Immersion's in-house patent attorney, was the
27 primary patent attorney responsible for prosecution of the '333
28

1 patent. Trial Ex. 372; Bench Trial Tr. 208:3-6. At trial,
2 however, Mr. Riegel was unable to recollect any of the details
3 of that prosecution, including whether he was aware of Cyberman
4 or even whether he was aware of Immersion's infringement
5 allegations against Sony. See generally Bench Trial Tr. 208-
6 215. During the prosecution of the '333 patent, Immersion cited
7 numerous references to the PTO, but did not cite Cyberman. Mr.
8 Riegel did advise the PTO of Immersion's lawsuit involving the
9 '333 application's parent patent. Trial Ex. 372, Paper No. 9.
10 Mr. Riegel did not remember if he made any inquiry of others at
11 Immersion as to whether there were any allegations in the
12 lawsuit that could be material to the prosecution of the '333
13 patent. Bench Trial Tr. 249:15-250:5.

14 In light of Mr. Riegel's inability to recall the prosecution
15 of the '333 patent, the Court infers from the letter from
16 Immersion's counsel, and the awareness of Dr. Rosenberg, Mr.
17 Riegel and Immersion's outside counsel of the duty to cite all
18 prior art to the PTO, that Immersion did at least consider the
19 materiality of Cyberman. Because Dr. Rosenberg formed an
20 opinion about Cyberman, and because he answered questions about
21 Cyberman, he was most likely involved in that consideration.
22 Dr. Rosenberg's privilege log lists several emails with Mr.
23 Riegel regarding the "status of patent application" sent during
24 the time of the prosecution of the '333 patent. Trial Ex. 1703.
25 Because these emails were exchanged after the '213 patent was
26 issued and after Sony disclosed Cyberman to Immersion, they
27 clearly related to the '333 patent application. Therefore, the
28

1 Court finds that Dr. Rosenberg was involved in the consideration
2 of Cyberman's materiality with respect to the '333 patent.²

3 Sony contends that Dr. Rosenberg's belief that Cyberman was
4 cumulative was not reasonable because the Armstrong '828 patent
5 lacked certain elements claimed by the '333 patents, inter alia,
6 the function of producing a sensation having varying frequency
7 over its duration. However, as explained above, Sony has not
8 established that Cyberman had this feature either. In addition,
9 the primary evidence Sony offered regarding Cyberman's alleged
10 complex vibration capability was the testimony of the inventor,
11 Mr. Barnes, which Dr. Rosenberg could not have been expected to
12 find or predict. Sony spent little time discussing with
13 Immersion the vibration sensation Cyberman could produce. Based
14 on his impression of Cyberman, Dr. Rosenberg's belief that it
15 was cumulative of prior art was reasonable. The information
16 Sony relies upon to establish the contrary was not actually
17 presented to Immersion.

18 To remedy this deficiency, Sony relies on Brasseler U.S.A.
19 I, L.P., v. Stryker Sales Corp., 267 F.3d 1370 (Fed. Cir. 2001),
20 in which the Federal Circuit found that patent applicants could
21 not escape a finding of inequitable conduct by virtue of their
22 failure to investigate potentially invalidating information. In
23 that case, however, other highly suspicious circumstances
24 supported the court's conclusion that the failure to investigate

25
26 ²Because the Court finds that Sony has not shown clear and
27 convincing evidence of culpable intent, the Court need not
28 decide whether Dr. Rosenberg's involvement was substantial
enough to give rise to a duty of candor toward the PTO.

1 was part of a deliberate effort to avoid discovery of such
2 information. For instance, faced with knowledge of a potential
3 on-sale bar event, the applicants in Brasseler created a
4 fictitious on-sale deadline in order to rush prosecution of the
5 patent. Id. at 1377. Sony has provided no comparable evidence
6 of deceptive intent here. The failure of Dr. Rosenberg or
7 anyone else at Immersion further to investigate Dr. Rosenberg's
8 conclusions is therefore at most negligence, and the Court will
9 not infer a higher level of culpability. See Halliburton, 925
10 F.2d at 1442 ("Gross negligence does not of itself justify an
11 inference of intent to deceive").

12 CONCLUSIONS OF LAW

13 The Court concludes that Sony has failed to meet its burden
14 of proof to provide clear and convincing evidence that Cyberman
15 meets the threshold of materiality or that Immersion acted with
16 an intent to deceive. Because the Court finds that these
17 threshold matters have not been satisfied, there is no need to
18 balance materiality and intent.

19 ATTORNEYS' FEES

20 Immersion urges the Court to award attorneys' fees pursuant
21 to 35 U.S.C. § 285 or 28 U.S.C. § 1927, on the grounds that Sony
22 has pursued a frivolous defense in order to delay entry of
23 judgment. Sony's reasons for pursuing its inequitable conduct
24 defense may well have been strategic, given its failure to
25 provide relevant expert testimony. However, the Court does not
26 find that the issues presented were entirely frivolous, despite
27 the lack of sufficient evidentiary support. Cf. Beckman Instr.,

1 Inc., v. LKB Produkter AB, 17 U.S.P.Q.2d (BNA) 1190, 1193-94 (D.
2 Md. 1990) (awarding fees where inequitable conduct defense was
3 baseless and based on a deliberate misreading of the patent
4 documents).

5 The Court will enter judgment separately.

6
7
8 IT IS SO ORDERED.

9
10 Dated: 3/24/05

/s/ CLAUDIA WILKEN
CLAUDIA WILKEN
United States District Judge