IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

FIBER SYSTEMS INTERNATIONAL, INC., $\begin{tabular}{lll} Plaintiff, & & & & & \\ Plaintiff, & & & & & & \\ V. & & & & & & \\ APPLIED OPTICAL SYSTEMS, INC., & & & & & \\ Defendant. & & & & & \\ \end{tabular}$

MEMORANDUM OPINION AND ORDER

Before the Court is Defendant Applied Optical Systems, Inc.'s ("AOSI's") claim of inequitable conduct. The Court conducted a bench trial on April 8, 2010 on AOSI's counterclaim of inequitable conduct and the parties submitted their post-trial briefing on the issue after the bench trial. (*See* Dkt. Nos. 430, 432, and 436.) For the following reasons, the Court DENIES Defendant's claim of inequitable conduct on the '849 patent.

I. BACKGROUND

Trial in this case occurred between November 16-19, 2009 on patent infringement claims raised by Plaintiff Fiber Systems International, Inc. ("FSI") against AOSI based on U.S. Patent No. 6,305,849 ("the '849 patent"). The infringement trial involved claim 31 of the '849 patent¹ and three allegedly infringing products made and sold by FSI. The Court found that two of the three products did not infringe as a matter of law and submitted the issue of infringement to the jury on only one of the accused products. The jury found that the product did not infringe. (Dkt. No. 364.) Prior to the jury trial, the Court severed Defendant's antitrust and inequitable conduct

¹ On the eve of trial, FSI dropped its claims that AOSI infringed claims 1-6 of the '849 patent and proceeded to trial on claim 31, which was added during reexamination.

counterclaims from the infringement portion of the case.² The Court conducted a bench trial on April 8, 2010 on AOSI's counterclaim of inequitable conduct.³ The remaining issue before the Court is whether the '849 patent is unenforceable because of the alleged inequitable conduct committed by FSI on the United States Patent and Trademark Office (the "PTO").

II. LEGAL STANDARDS

"A patent may be rendered unenforceable for inequitable conduct if an applicant, with intent to mislead or deceive the examiner, fails to disclose material information or submits materially false information to the PTO during prosecution." *Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1313 (Fed. Cir. 2006); *see also* 37 C.F.R. § 1.56(a) ("Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section."). Thus, "[a] party may show inequitable conduct by producing clear and convincing evidence of (1) material prior art, (2) knowledge chargeable to the patent applicant of prior art and its materiality, and (3) the applicant's failure to disclose the prior art to the PTO with intent to

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² AOSI also asserted the counterclaims of fraud, negligent misrepresentation, and unfair competition, but during the jury trial the Court did not allow these issues to be presented to the jury because not enough evidence had been presented on those issues.

³ Prior to the bench trial after hearing arguments on FSI's motion for summary judgment (Dkt. No. 401), the Court granted-in-part FSI's motion for summary judgment on AOSI's antitrust counterclaims based upon *Walker-Process* fraud and sham litigation and denied-in-part the motion as to inequitable conduct. Accordingly, the sole issued tried to the bench was the issue of inequitable conduct.

mislead." Avid Identification Systems, Inc. v. Crystal Import Corp., 603 F.3d 967, 972 (Fed. Cir. 2010).

The materiality of information withheld during prosecution may be judged by the "reasonable examiner" standard. *See Digital Control*, 437 F.3d at 1316. That is, "[m]ateriality . . . embraces any information that a reasonable examiner would substantially likely consider important in deciding whether to allow an application to issue as a patent." *Akron Polymer Container Corp. v. Exxel Container, Inc.*, 148 F.3d 1380, 1382 (Fed. Cir. 1998) (citations omitted); *see Avid*, 603 F.3d at 972. Moreover, "[i]nformation concealed from the PTO may be material even though it would not invalidate the patent." *Li Second Family Ltd. Partnership v. Toshiba Corp.*, 231 F.3d 1373, 1380 (Fed. Cir. 2000). "However, a withheld otherwise material prior art reference is not material for the purposes of inequitable conduct if it is merely cumulative to that information considered by the examiner." *Digital Control*, 437 F.3d at 1319. "[T]he scope and content of prior art and what the prior art teaches are questions of fact." *Id.*

"[T]he facts in inequitable conduct cases rarely, if ever, include direct evidence of admitted deceitful conduct." *Akron Polymer*, 148 F.3d at 1384. "The intent element of the offense is thus in the main proven by inferences drawn from facts, with the collection of inferences permitting a confident judgment that deceit has occurred." *Id.* "However, inequitable conduct requires not intent to withhold, but rather intent to deceive. Intent to deceive cannot be inferred simply from the decision to withhold the reference where the reasons given for the withholding are plausible." *Dayco Products, Inc. v. Total Containment, Inc.*, 329 F.3d 1358,

⁴ The Federal Circuit has recently signaled that it intends to modify or clarify the standards on inequitable conduct, including whether the standard should be tied to fraud or unclean hands, the appropriate standard for materiality, and when it is proper to infer intent from materiality. *See Therasense, Inc. v. Becton, Dickinson and Co.*, 2010 WL 1655391 (Fed. Cir. Apr. 26, 2010).

1367 (Fed. Cir. 2003). In addition, "a finding that particular conduct amounts to 'gross negligence' does not of itself justify an inference of intent to deceive; the involved conduct, viewed in light of all the evidence, including evidence indicative of good faith, must indicate sufficient culpability to require a finding of intent to deceive." *Kingsdown Med. Consultants*, *Ltd. v. Hollister Inc.*, 863 F.2d 867, 876 (Fed. Cir. 1988) (en banc in relevant part).

"The party asserting inequitable conduct must prove a threshold level of materiality and intent by clear and convincing evidence." *Digital Control*, 437 F.3d at 1313. "Only after adequate showings are made as to both materiality and deceptive intent may the district court look to the equities by weighing the facts underlying those showings." *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co., et al.*, 537 F.3d 1357, 1367 (Fed. Cir. 2008). "The court must then determine whether the questioned conduct amounts to inequitable conduct by balancing the levels of materiality and intent, 'with a greater showing of one factor allowing a lesser showing of the other." *Digital Control*, 437 F.3d at 1313 (*quoting Union Pac. Res. Co. v. Chesapeake Energy Corp.*, 236 F.3d 684, 693 (Fed. Cir. 2001)).

III. DISCUSSION

A. Factual Background

In November 2006, FSI initiated this litigation by asserting infringement of the '849 patent against AOSI. On January 11, 2007, AOSI filed an ex-parte reexamination request on the '849 patent. The reexamination was based, in relevant part, on a design drawing of the FS3H fiber optic connector and U.S. Patent No. 5,000,536 ("the '536 patent"). FSI designed the FS3H connector in the mid 1990s. Whereas the commercial embodiment of the '849 patent is FSI's TFOCA-II connector, the original TFOCA connector was a commercial embodiment of the prior

art '536 patent. On April 22, 2008, while the reexamination was still pending, Stran Technologies, a competitor of FSI, sent a letter to FSI which identified seven prior art U.S. patents and stated that they were material to the claims under reexamination (the "Stran Letter"). It is undisputed that FSI did not disclose any of these prior art references during reexamination.

On August 22, 2008, the PTO rejected claims 1-6 of the '849 patent on multiple grounds, including FSI's product catalog depicting the FS3H in combination with the '536 patent. FSI responded to the rejection by proposing amendments to add limitations relating to the inner assembly of the TFOCA-II connector. On October 7, 2008, five representatives of FSI – Brian Colao, Barry Schindler, Heath Briggs, Bill Guernsey, and Bill Reid – conducted an in-person interview with two examiners at the PTO. During the interview, FSI presented the examiners with actual physical samples of three different connectors: the prior art TFOCA, the prior art FS3H (four-channel), and the TFOCA-II. The FS3H connector was shown disassembled and during the interview the inner assembly was pulled out to show the examiners that the inner sleeve and insert body were not held together. FSI discussed with the examiners the importance of the inner assembly of the TFOCA-II connector having a single fixed structure.

On October 20, 2008, FSI filed an amendment in the reexamination proceeding, which amended independent claim 1, added independent claim 31, and added various dependent claims upon claim 1. The amended and newly added claims included the following limitations:

- (d)(i) a main body sleeve and an inner assembly at least partially disposed within main body sleeve;
- (d)(ii) wherein the inner assembly comprises an insert body and an inner sleeve;
- (d)(iii) wherein the insert body is interlocked to the inner sleeve to form a single fixed structure; and

(d)(iv) wherein the single fixed structure is slidable within the main body sleeve along a long axis of the main body sleeve.

See Amendment and Response, dated October 20, 2008, at 4. In its response, FSI argued that "[a]s demonstrated at the interview, since the inner sleeve [sic] of the FS3H connector merely contacts the insert body and does not interlock with the insert body, [the inner sleeve and insert body] do not form a 'single fixed structure.'" *Id.* at 26. In the stated reasons for patentability the examiner stated that "[c]laim 1 is patentable because the prior art of record fails to disclose or make obvious the inclusion of the limitation that the insert body 164 is interlocked to the inner sleeve 132 to form a single fixed structure and the single fixed structure is slidable within the main body sleeve 42 along a long axis of the main body sleeve." *See* Notice of Intent to Issue Ex Parte Reexamination Certificate, dated December 19, 2008, at 2 (similar rationale for claim 31). On March 31, 2009, the Patent Office issued a reexamination certificate for the '849 patent.

B. FSI's Failure to Disclose the Use of Tape on the FS3H Connector and the Related Assembly Instructions

Defendant AOSI argues that FSI committed inequitable conduct by failing to disclose the use of tape on an actual FS3H connector and the related assembly instructions to the PTO during reexamination of the '849 patent. AOSI argues that the FS3H four-channel connector, when terminated and assembled with adhesive tape, discloses all of the inner assembly limitations of the '849 patent, as do the assembly instructions. AOSI argues that the adhesive tape was used in a manner to hold the inner sleeve to the insert body to form a single fixed structure, as required by the claims.

The FS3H four-channel connector includes a main connector housing and a removable inner assembly, which includes an inner sleeve, an insert body, and a retainer body. The insert body and inner sleeve have keys and cut-outs which interface to prevent rotational movement

when the inner assembly is being inserted into the main connector housing. The original design of the FS3H connector did not include a means to keep the insert body attached to the inner sleeve during termination. "Termination" of a fiber optic connector refers to connecting optical fibers to the termini inside the connector. Without a means of interlocking the insert body to the inner sleeve, the optical fibers can be damaged when the inner assembly is extracted from the connector body. When the FS3H four-channel connector first went into production in 1994, FSI production personnel came up with the solution of using adhesive tape to hold the insert body in place. By at least 1996, assembly instructions depicted the use of tape as an aid in assembling the FS3H connector. The instructions direct that the tape should not circumnavigate the insert body, but should be placed in a manner that leaves the groove cut in the insert body uncovered. The evidence shows that FS3H four-channel connectors sold in assembled form came with adhesive tape affixing the insert body to the inner sleeve, while FS3H four-channel connectors sold in disassembled form came with a copy of the FS3H assembly instructions.

AOSI argues that these references are highly material because they disclosed the prior existence of the very limitations FSI was adding to its claims. During the examiner interview, FSI argued that the FS3H connector did not disclose these newly added limitations and showed the examiners an unassembled and unterminated version of the FS3H. FSI argued to the examiners that the inner sleeve and insert body merely contacted one another, but did not interlock to form a single fixed structure that could be slidably inserted into the housing. AOSI argues that the examiners specifically relied on this representation in allowing the reexamination certificate to issue with the additional limitation. AOSI argues that the patent examiners could

not and would not have reached that conclusion if FSI had disclosed the fact that the FS3H fourchannel connector utilized adhesive tape to hold the insert body to the inner sleeve.

AOSI argues that, while there is no direct evidence of intent to deceive the PTO, there is an inference of intent to deceive based upon all of the circumstances. AOSI argues that the omitted references are highly material and the facts create a strong inference of deceptive intent. AOSI argues that FSI was attempting to salvage the '849 patent by adding limitations to distinguish its own prior art product, the FS3H connector. AOSI argues that FSI and its lawyers were under an obligation to ensure that the distinguishing arguments it made to the patent examiners were true, particularly because the prior art was FSI's own product and FSI's own publication. AOSI argues that these facts alone create a strong inference that the individuals involved intentionally concealed information or carefully cultivated a willful ignorance of the true facts. AOSI argues that Bill Reid's position as head of the product management group and his related responsibilities and involvement in the FS3H connector since 2002 implies that he should have known about the use of the tape and the related assembly instructions. Additionally, FSI provided the assembly instructions to AOSI during the scope of this litigation and marked those instructions as "highly confidential" prior to the examiner interview. Mr. Reid had been in charge of collecting and producing documents in this litigation on behalf of FSI, and Mr. Reid and FSI's litigation lawyer Mr. Colao attended the examiner interview. AOSI argues that FSI's failure to disclose the assembly instructions not only breached the duty of candor to the PTO but also shows that the failure was active concealment with the intent to deceive.

FSI argues that in June 2009, Messrs. Reid and Guernsey learned, for the first time, of assembly instructions depicting the use of tape as an aid in assembling the FS3H connector.

Subsequent to learning of the assembly instructions, Messrs. Reid and Guernsey discovered that employees who assemble FS3H connectors sometimes use tape in the assembly process. AOSI also argues that they discovered that only 11 FS3H connectors had been made up to that point in the year 2009, which represents using merely half of one work day on one of FSI's five production lines towards production of the FS3H connector. FSI argues that Heath Briggs and Barry Schindler, patent attorneys representing FSI in the reexamination, learned of the assembly instructions and the FS3H with additional tape for the first time around the time of their depositions on August 20, 2009. FSI argues that the FS3H with additional tape was not withheld from the PTO with intent to deceive. FSI argues that, because of the extremely low volume of FS3H production, it is not surprising that the occasional use of tape in the assembly of the insert body of the FS3H was not known to Messrs. Reid and Guernsey or their attorneys Messrs. Schnidler and Briggs. FSI argues that none of AOSI's witnesses could establish that Messrs. Reid or Guernsey were aware of the FS3H connector with additional tape or that they knew of the assembly instructions for the FS3H connector. FSI argues that when the assembly instructions were produced during litigation they were produced with thousands of other pages, were not reviewed in detail, and that Mr. Reid did not know that the assembly instructions existed or that they described the use of tape. FSI argues that Mr. Reid did not discuss the use of tape with anyone at FSI prior to the interview with the patent examiner.

FSI also argues that the FS3H connector with additional tape is not material. FSI argues that the evidence shows that the addition of tape to the inner assembly of the FS3H is not interlocked and does not create a single fixed structure. FSI argues that the tape does not bind the pieces of the inner assembly strongly enough to interlock the pieces to create a single fixed

structure with components incapable of substantial movement. FSI also argues that the assembly instructions merely state that tape "should" be used, not that it "must" be used in the assembly process, indicating that the tape is an unnecessary addition. FSI also argues that the assembly instructions themselves do not include tape on the list of items required for the process and that even AOSI's witnesses did not dispute that the FS3H connector can function without the addition of tape. Further, FSI argues that the assembly instructions teach applying tape in such a way that it does not encircle the inner assembly. Thus, FSI argues that a weak, removable tape encircling about three-fourths of the insert body does not make two distinct metal pieces a single fixed structure.

Based on the evidence of record, the arguments of counsel, and the testimony of the witnesses, the Court does not find that the evidence is clear and convincing to prove that FSI intended to deceive the PTO by not disclosing the use of tape with the FS3H connector or the related assembly instructions. AOSI has not established that the FS3H connector with additional tape was withheld with intent. Nor has AOSI established that the assembly instructions showing the use of tape was withheld with intent. The Court finds that AOSI has not proven, much less by clear and convincing evidence, that anyone involved in the reexamination of the '849 patent knew about the FS3H with additional tape or assembly instructions during the reexamination of the '849 patent. At best, AOSI elicited testimony that provides indeterminate support that some of the individuals involved in the reexamination proceeding *should have known* about the use of the tape and the related assembly instructions. However, inequitable conduct requires not merely knowledge of the prior art or intent to withhold, but intent to deceive. *See Dayco Products*, 329 F.3d at 1367. This inconclusive evidence falls far short of AOSI's burden to show intent to

deceive. Because the Court has found that AOSI has not satisfied its burden of proving deceptive intent by clear and convincing evidence, inequitable conduct cannot be found in this instance. See Star Scientific, 537 F.3d at 1365-67. Nonetheless, even if AOSI did meet its burden as to intent, the Court finds that AOSI did not meet its burden to show that the use of the tape was material. While information may be material even if it does not invalidate a patent, the Court is not convinced that the use of tape on the inner assembly of the FS3H connector is material and that the tape makes the insert body interlocked to the inner sleeve to form a single fixed structure. AOSI presented no expert testimony that the use of the tape on the FS3H connector was material, relying instead upon lay witness testimony and arguments from its attorneys. While this case involves relatively simple technology that may not need an expert's opinion as to materiality, the Court nonetheless finds that AOSI did not meet its burden as to materiality. AOSI has not met its burden to prove, much less by clear and convincing evidence, that the use of the tape was material as to any of the claims of the '849 patent.⁵ Thus, the Court finds that AOSI has failed to meet both the intent and materiality prongs to prove inequitable conduct as to the failure of FSI to disclose the use of tape with the FS3H four-channel connector and the related assembly instructions.

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⁵ FSI has filed a motion to strike or leave to file a sur-reply brief because it argues AOSI is attempting to prove inequitable conduct on claims other than claim 31. (Dkt. No. 440.) AOSI argues that its inequitable conduct contentions do not limit itself to merely claim 31, that the joint pre-trial order and its post-trial briefing were not limited to merely claim 31, that until the morning of the infringement trial FSI was still asserting other claims besides claim 31, and that claim 31 is similar to claims 1-6 of the '849 patent for inequitable conduct purposes. The Court finds that AOSI is not precluded from asserting inequitable conduct allegations against claims besides claim 31. Because the Court finds that AOSI has not met its burden as prove inequitable conduct as to any claims of the '849 patent, the Court DENIES FSI's motion. (Dkt. No. 440.)

C. FSI's Failure to Disclose the Patents Referenced in the "Stran Letter"

Defendant AOSI also argues that FSI committed inequitable conduct by failing to disclose the patents referenced in the "Stran Letter" to the PTO. AOSI has only based its arguments on two of these patents, U.S. Patent Nos. 5,210,810 ("the '810 patent") and 2,572,448 ("the '448 patent"). AOSI argues that the '810 patent depicts a fiber optic connector having an inner assembly consisting of an inner sleeve, an insert body, and a retainer body. AOSI argues that the '810 patent would be highly material to a reasonable examiner because it discloses all of the new claim limitations FSI added during reexamination. AOSI argues that the '448 patent discloses a 4-channel connector and that, although directed to an electrical connector, one skilled in the art would understand that the mechanical interface in the '448 patent may be equally applied to fiber optics. AOSI argues that FSI's arguments that not all of the claim limitations are met by the undisclosed prior art does not preclude materiality. AOSI argues that, while there is no direct evidence of intent to deceive the PTO, there is an inference of intent to deceive based upon all of the circumstances. AOSI argues that the omitted references are highly material and the facts create a strong inference of deceptive intent. AOSI argues that FSI has provided no explanation, let alone a credible one, for failing to disclose the '810 and '448 patents to the PTO.

FSI argues that the patents identified in the Stran Letter were not withheld with intent to deceive the PTO. FSI argues that it is undisputed that Messrs. Reid and Guernsey were not aware of the Stran Letter or the patents identified in it during the reexamination proceedings, and thus there is no basis for any inference that either of them withheld anything from the examiner with intent to deceive. FSI does not dispute that its attorneys knew about the patents identified in the Stran Letter and that it failed to disclose those patents to the PTO. FSI argues that AOSI did

not show any competent evidence that the patents are material and not cumulative. FSI argues that AOSI relies upon conclusory, unsupported testimony of a lay witness to establish materiality. FSI argues that the '448 patent discloses an electrical connector, without an inner sleeve, that is very different than the connector disclosed in the '849 patent. FSI argues that the '810 patent is also very different and discloses a single-channel connector, as opposed to a four-channel connector as disclosed in the '849 patent. FSI argues that the '810 patent does not disclose an insert body at all, let alone an insert body interlocked with an inner sleeve to form a single fixed structure. FSI argues that AOSI has not shown that a reasonable patent examiner would consider the '448 or '810 patents relevant to the patentability of claim 31 of the '849 patent. Further, FSI argues that the reexamination record is clear that the '810 and '448 patents were merely cumulative of other prior art in front of the examiners, such as the FS3H connector and the connectors disclosed in the '536 patent.

Based on the evidence of record, the arguments of counsel, and the testimony of the witnesses, the Court does not find that the evidence is clear and convincing to prove that FSI intended to deceive the PTO by not disclosing the patents referenced in the Stran Letter. First, AOSI has not established that the '810 and '448 patents were withheld with intent. The Court finds that AOSI has not proven, much less by clear and convincing evidence, that Messrs. Reid and Guernsey knew about these patents during the reexamination of the '849 patent. At best, AOSI proved that FSI's lawyers knew about the '810 and '448 patents, but AOSI did not elicit any evidence to show that the lawyers withheld the patents with intent to deceive. However, inequitable conduct requires not merely knowledge of the prior art or intent to withhold, but intent to deceive. See Dayco Products, 329 F.3d at 1367. This inconclusive evidence falls far

short of AOSI's burden to show intent to deceive. Because the Court has found that AOSI has not satisfied its burden of proving deceptive intent by clear and convincing evidence, inequitable conduct cannot be found in this instance. *See Star Scientific*, 537 F.3d at 1365-67. Nonetheless, even if AOSI did meet its burden as to intent, the Court finds that AOSI did not meet its burden to show that the '810 and '448 patents were material. While information may be material even if it does not invalidate a patent, the Court is not convinced that the '810 and '448 patents are material. AOSI presented no expert testimony that the withheld patents were material and non-cumulative, relying instead upon lay witness testimony and arguments from its attorneys. Again, although expert testimony may not be required, the Court nonetheless finds that AOSI did not meet its burden as to materiality as to any of the claims of the '849 patent. Thus, the Court finds that AOSI has failed to meet both the intent and materiality prongs to prove inequitable conduct as to the failure of FSI to disclose the patents referenced in the Stran letter.

D. AOSI's Claims Regarding the FS3H 12-Channel Connector

Defendant AOSI also argues that FSI committed inequitable conduct by failing to disclose the FS3H 12-channel connector to the USPTO. AOSI argues that the FS3H 12-channel connector had the same type of inner assembly as the TFOCA-II connector and was prior art to the '849 patent. In response, FSI argues that the Court previously precluded AOSI from introducing new contentions regarding inequitable conducted based on the FS3H 12-channel connector, and that nevertheless, AOSI failed to meet its burden of showing that FSI intended to deceive the PTO or that the connector was material.

Prior to the start of the bench trial on inequitable conduct, the Court expressly precluded AOSI from introducing new and previously undisclosed contentions related to the FS3H 12-

channel connector at the late stage of the proceedings and on the eve of trial.⁶ No information, arguments, or legal theories based upon the FS3H 12-channel connector were set forth in AOSI's counterclaims. Similarly, AOSI's invalidity contentions do not identify any contentions based upon the FS3H 12-channel connector. Further, the pre-trial order contains no mention of any arguments based on the FS3H 12-channel connector. The Court finds that AOSI is precluded from asserting any inequitable conduct arguments based on FSI's failure to disclose the FS3H 12-channel connector to the PTO, and thus denies AOSI's arguments on this connector. To hold otherwise would allow FSI to argue and present entirely new theories of inequitable conduct on the eve of trial, and now at this stage of post-trial arguments, without providing FSI the opportunity to fully investigate or defend against the merits of AOSI's claims.

V. CONCLUSION

Having found that AOSI has not met its burden of proving inequitable conduct by clear and convincing evidence, the Court concludes that FSI did not commit inequitable conduct toward the PTO. The Court therefore finds that the '849 patent is not unenforceable and DENIES AOSI's motion.

IT IS SO ORDERED.

SIGNED this 7th day of July, 2010.

T. JOHN WAKD

UNITED STATES DISTRICT JUDGE

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⁶ While the Court stated that AOSI's contentions cannot be changed and precluded AOSI from amending its contentions, it allowed certain exhibits to be introduced if they supported the already existing contentions. Accordingly, the Court denied FSI's motion to strike the newly added exhibits. (Dkt. No. 424).