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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

ECOSERVICES, LLC,)	CV 16-01824-RSWL-SPx
)	
Plaintiff,)	
)	
v.	)	ORDER RE: Defendant's
	)	Motions for Judgment of
	)	Patent Ineligibility
	)	[271] and Indefiniteness
	)	[273]; Plaintiff's
CERTIFIED AVIATION	)	Motions for Permanent
SERVICES, LLC,	)	Injunction [275],
	)	Attorneys' Fees [272],
Defendant.	)	and Prejudgment
	)	Interest, Post-Judgment
	)	Interest, Supplemental
	)	Damages, and Costs [274]
)	
)	
)	

Currently before the Court is Defendant Certified Aviation Services, LLC's ("Defendant") Motion for Judgment of Patent Ineligibility of the '262 Patent [271]; Defendant's Motion for Judgment of Patent Indefiniteness of the '860 Patent [273]; Plaintiff EcoServices, LLC's ("Plaintiff") Motion for Permanent Injunction [275]; Plaintiff's Motion for Attorneys'

1 Fees [272]; and Plaintiff's Motion for Prejudgment
2 Interest, Post-Judgment Interest, Supplemental Damages,
3 and Costs [274]. Having considered all papers
4 submitted pertaining to the Motions, the Court **NOW**
5 **FINDS AND RULES AS FOLLOWS:** the Court **DENIES**
6 Defendant's Motions for Ineligibility and
7 Indefiniteness; **DENIES** Plaintiff's Motion for Permanent
8 Injunction; **DENIES** Plaintiff's Motion for Attorneys'
9 Fees; and **GRANTS** Plaintiff's Motion for Prejudgment
10 Interest, Post-Judgment Interest, Supplemental Damages,
11 and Costs.

12 **I. BACKGROUND**

13 **A. Factual Background**

14 Plaintiff provides on-wing aircraft engine washing
15 using its EcoPower Engine Wash System ("EcoPower").
16 Def.'s Statement of Uncontroverted Facts in Supp. of
17 Mot. for Partial Summ. J. as to '860 Patent ('860 SUF)
18 ¶¶ 2, ECF No. 128-1. Defendant also provides engine
19 wash services in the United States. '860 SUF ¶ 3.
20 Prior to 2010, representatives for Defendant met with
21 Plaintiff's parent companies regarding the possible
22 purchase of EcoPower equipment, but did not reach an
23 agreement. Pl.'s Statement of Facts in Supp. of Opp'n
24 to Mot. for Partial Summ. J. as to '860 Patent ¶¶ 5-6,
25 ECF No. 134-1. Defendant then entered into discussions
26 with non-party Lufthansa Technik AG ("Lufthansa") for
27 use of the Cyclean Engine Wash ("Cyclean"). Id. ¶ 6.
28 Defendant leases Cyclean equipment from Lufthansa to

1 provide on-wing aircraft engine washing. '860 SUF ¶¶
2 5-6.

3 Plaintiff asserted two patents in connection with
4 EcoPower against Defendants' Cyclean for infringement.
5 First, U.S. Patent No. 9,162,262 (the "'262 Patent") is
6 entitled "Automated Detection and Control System and
7 Method for High Pressure Water Wash Application and
8 Collection Applied to Aero Compressor Washing," which
9 the USPTO issued on October 20, 2015. Def.'s Statement
10 of Uncontroverted Facts in Supp. of Mot. for Partial
11 Summ. J. as to '260 Patent ("'262 SUF") ¶¶ 11-12, ECF
12 No. 126-1. The jury found that Defendant infringed
13 Claims 1, 9, and 14 of the '262 Patent [264]. Claim 1
14 states,

15 A system for washing turbine engines comprising:
16 a washing unit for providing a washing liquid to
17 the turbine engines; an information detector
18 configured to gather information related to
19 engine type; and a control unit configured to
20 accept the information related to engine type
21 from the information detector and to determine a
22 washing program to be used as a function of the
23 information relating to engine type from a set
24 of preprogrammed washing programs, and further
25 configured to regulate the washing unit
26 according to washing parameters associated with
27 the washing program used.

22 Decl. of Gregory Apgar in Supp. of Def.'s Mot. for
23 Partial Summ. J. as to '262 Patent ("Apgar '262
24 Decl."), Ex. 1 ("'262 Patent") 8:36-47, ECF No. 126-3.
25 Claim 9 states, "The system of claim 1 wherein the
26 information provided by the information detector is
27 used by the control unit to regulate a washing time."
28

1 '262 Patent at 9:11-13. Claim 14 states,

2 A system for washing turbine engines comprising:
3 a washing unit for providing a washing liquid to
4 the turbine engines; an information detector for
5 providing information identifying at least one
6 of washing unit and engine type; and a control
7 unit configured to regulate the washing unit
8 according to washing parameters associated to a
9 particular engine based upon preprogrammed
10 control data relating to information provided by
11 the information detector, wherein the
12 preprogrammed control data comprises a washing
13 program from a set of available washing
14 programs.

9 '262 Patent at 10:14-26.

10 Second, U.S. Patent No. 5,868,860 (the "'860
11 Patent"), is entitled "Method of Washing Objects, Such
12 as Turbine Compressors," which the USPTO issued on
13 February 9, 1999. '860 SUP ¶¶ 11-12. The '860 Patent
14 provides parameters for four separate disclosures on
15 its two claims: pressure, particle size, volumetric
16 flow, and particle velocity. Pl.'s Opp'n re Partial
17 Summ. J., Ex. M, '860 Patent, 4:7-18, ECF No. 134-15.
18 At trial, the jury found that Defendant infringed
19 Claims 1 and 2 of the '860 Patent. Claim 1 is directed
20 to a method of washing turbine compressors:

21 wherein small quantities of finely-divided
22 liquid are sprayed onto and through the turbine
23 compressors, characterized by running the
24 turbine compressors and spraying the finely-
25 divided liquid quantities through at least one
26 nozzle towards and through the turbine
27 compressor at an overpressure within the range
28 of 50-80 bars and at a liquid particle size in
the range of 250-120 microns, and with a total
volumetric flow through the nozzle or nozzles
within the range of 0.5-60 l/min., and with a
liquid particle velocity of 100-126 m/sec.

1 Id. ¶ 16. Claim 2 is a dependent claim, which recites
2 the "method according to claim 1, characterized by
3 using a total volumetric liquid flow within the range
4 of 2-60 l/min." Id. ¶ 17. In prior washing systems,
5 centrifugal forces pushed the spray particles outward
6 towards the tips of the compressor fan blades, causing
7 an ineffective wash. '860 Patent at 1:24-36. The '860
8 Patent's specification states that in its method,
9 "[b]ecause the liquid particles are given a size and
10 velocity which together overcome the centrifugal
11 effect, all accessible surfaces of the object will be
12 cleaned effectively and efficiently." Id. at 2:14-18.
13 Thus, it is the particle size and method of making
14 small particles of water that renders the '860 Patent
15 new as compared to prior washing systems. Trial Tr.
16 6/27/2018 at 104:10-14 (direct testimony of Mr.
17 Kushnick).

18 The particle size recited in the claims is "a
19 liquid particle size in the range of 250-120 µm." '860
20 Patent at 4:8-9. Both parties' experts agreed at trial
21 that particles smaller than 120 µm or bigger than 250
22 µm would not overcome the centrifugal effect and would
23 provide a less effective cleaning. See Trial Tr.
24 6/27/2018 at 183:7-23; Trial Tr. 6/29/2018 at 19:14-24.

25 On July 2, 2018, the jury returned a verdict in
26 favor of Plaintiff in the amount of \$1,949,600 based on
27 a royalty rate of \$400 per jet engine wash. Pl.'s Mot.
28 re Interest & Costs 1:4-6, ECF No. 274. The verdict

1 confirmed that Defendant's Cyclean infringes all claims
2 of the '262 Patent, and willfully infringes the '860
3 Patent. Pl.'s Mot. re Permanent Injunction ("PI Mot.")
4 1:8-1, ECF No. 275. The '860 Patent expired in May of
5 2016. Plaintiff alleges that Defendant continues to
6 knowingly and willfully infringe the '262 Patent. Id.
7 at 1:14-15.

8 **B. Procedural Background**

9 On June 26, 2018, the jury trial in this Action
10 began [245]. On July 2, 2018, the jury reached a
11 verdict [265] in favor of Plaintiff, finding that
12 Defendant infringed the non-obvious '262 Patent. The
13 parties filed the instant Motions [271, 272, 273, 274,
14 275] on July 25, 2018. The parties timely opposed
15 [278, 279, 280, 281, 282], and timely replied [287,
16 288, 289, 290, 291].

17 **II. DISCUSSION**

18 **A. Legal Standard**

19 1. Patent Eligibility

20 Patent eligibility is a question of law. OIP
21 Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1362
22 (Fed. Cir. 2015). Section 101 of the Patent Act
23 provides that a patent may be obtained for "any new and
24 useful process, machine, manufacture, or composition of
25 matter, or any new and useful improvement thereof." 35
26 U.S.C. § 101. The Supreme Court has "long held that
27 this provision contains an important implicit
28 exception: laws of nature, natural phenomena, and

1 abstract ideas are not patentable.” Alice Corp. Pty.
2 v. CLS Bank, Int’l, 134 S. Ct. 2347, 2354 (2014). “The
3 concern that drives this exclusionary principle” is
4 “one of preemption.” Id. In other words, the concern
5 is “‘that patent law not inhibit further discovery by
6 improperly tying up the future use of’ these building
7 blocks of human ingenuity.” Id. (quoting Mayo
8 Collaborative Servs. v. Prometheus Labs, Inc., 132 S.
9 Ct. 1289, 1301 (2012)). Alice warns courts, however,
10 to “tread carefully in construing this exclusionary
11 principle lest it swallow all of patent law,” because
12 “[a]t some level, ‘all inventions . . . embody, use,
13 reflect, rest upon, or apply laws of nature, natural
14 phenomena, or abstract ideas.’” Id. (quoting Mayo, 132
15 S. Ct. at 1293).

16 Under the two-step framework established in Alice
17 and Mayo, the court first asks “whether the claims at
18 issue are directed to one of those patent-ineligible
19 concepts,” as opposed to “patent eligible applications
20 of those concepts.” Id. at 2354-55. If so, the court
21 then “consider[s] the elements of each claim both
22 individually and ‘as an ordered combination’ to
23 determine whether the additional elements ‘transform
24 the nature of the claim’ into a patent-eligible
25 application.” Id. at 2355 (quoting Mayo, 132 S. Ct. at
26 1298, 1297). In this second step, the court looks for
27 an “inventive concept,” or “an element or combination
28 of elements that is ‘sufficient to ensure that the

1 patent in practice amounts to significantly more than a
2 patent upon the [ineligible concept] itself.'" Id.
3 (quoting Mayo, 132 S. Ct. at 1294). While each step
4 involves its own separate inquiry, they may "involve
5 overlapping scrutiny of the content of the claims."
6 Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350,
7 1353 (Fed. Cir. 2016).

8 This standard is easier to articulate than it is to
9 apply. Modern Telecom Sys. v. Earthlink, Inc., No. SA
10 CV 14-0357-DOC, 2015 WL 1239992, at *6 (C.D. Cal. Mar.
11 17, 2015). "The line between a patentable 'process'
12 and an unpatentable 'principle' is not always clear,"
13 Parker v. Flook, 98 S. Ct. 2522, 2525 (1978), and the
14 Federal Circuit has referred to § 101 jurisprudence as
15 a "murky morass." MySpace, Inc. v. GraphOn Corp., 672
16 F.3d 1250, 1259 (Fed. Cir. 2012) (suggesting, in dicta,
17 that "courts could avoid the swamp of verbiage that is
18 § 101" by addressing patentability defenses under §§
19 102, 103, and 112 before addressing patent eligibility
20 under § 101).

21 2. Indefiniteness

22 In order to be valid, a patent claim must
23 "particularly point [] out and distinctly claim[] the
24 subject matter which the applicant regards as his
25 invention." 35 U.S.C. § 112, ¶ 2. Claim language must
26 "be precise enough to afford clear notice of what is
27 claimed." Nautilus, Inc. v. Biosig Instruments, Inc.,
28 134 S. Ct. 2120, 2129 (2014). The definiteness

1 standard "require[s] [that] a patent's claims, viewed
2 in light of the specification and prosecution history,
3 inform those skilled in the art about the scope of the
4 invention with reasonable certainty." Id. A party
5 challenging the validity of a patent must prove
6 indefiniteness by clear and convincing evidence. Cox
7 Commc'ns, Inc. v. Sprint Commc'n Co. LP, 838 F.3d 1224,
8 1228 (Fed. Cir. 2016).

9 3. Permanent Injunction

10 To be entitled to a permanent injunction, a
11 plaintiff must demonstrate: (1) that it has suffered an
12 irreparable injury; (2) that remedies available at law
13 are inadequate; (3) that the balance of hardships
14 justify a remedy in equity; and (4) that the public
15 interest would not be disserved by a permanent
16 injunction." Apple Inc. v. Samsung Elecs. Co. (Apple
17 III), 735 F.3d 1352, 1359-60 (Fed. Cir. 2013) (citing
18 eBay Inc. v. MercExch., LLC, 126 S. Ct. 1837, 1839
19 (2006)).

20 4. Attorneys' Fees

21 The Patent Act provides that "[t]he court in
22 exceptional cases may award reasonable attorney fees to
23 the prevailing party." 35 U.S.C. § 285. "[A]n
24 'exceptional' case is simply one that stands out from
25 others with respect to the substantive strength of a
26 party's litigating position (considering both the
27 governing law and the facts of the case) or the
28 unreasonable manner in which the case was litigated."

1 Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134
2 S. Ct. 1749, 1756 (2014). “District courts may
3 determine whether a case is ‘exceptional’ in the
4 case-by-case exercise of their discretion, considering
5 the totality of the circumstances.” Id. Fees may be
6 awarded where “a party’s unreasonable conduct—while not
7 necessarily independently sanctionable—is nonetheless”
8 exceptional. Id. at 1757. “[A] case presenting either
9 subjective bad faith or exceptionally meritless claims
10 may sufficiently set itself apart from mine-run cases
11 to warrant a fee award.” Id. A party must prove its
12 entitlement to fees by a preponderance of the evidence.
13 Id. at 1758.

14 **B. Analysis**

15 1. Patent Eligibility of the ‘262 Patent

16 a. *Waiver*

17 Plaintiff argues that Defendant has waived any
18 invalidity argument under 35 U.S.C. § 101. Pl.’s Opp’n
19 re Ineligibility 1:27, ECF No. 278. As a general
20 matter, invalidity arguments can be proper as post-
21 trial motions. See Exergen Corp. v. Kaz USA, Inc., 725
22 Fed. Appx. 959, 962 (Fed. Cir. 2018) (reviewing district
23 court’s denial of post-trial motion for invalidity
24 under § 101). In Exergen, no factual or legal issues
25 regarding patent eligibility under § 101 were submitted
26 to the jury. Id. Here, the Court identified
27 invalidity of the ‘262 Patent in its Final Pretrial
28 Conference Order (“FPTC Order”), preserving the issue

1 for trial. See FPTC Order 15, 30-31, ECF No. 209; see
2 e.g., Pierce Cty. Hotel Emps. & Rest. Emps. Health Tr.
3 v. Elks Lodge, B.P.O.E. No. 1450, 827 F.2d 1324, 1329
4 (9th Cir. 1987) (finding issues waived where not
5 included in pretrial order). At trial, the Court
6 confirmed that invalidity of the '262 patent is a
7 question of law for the Court to decide, and the
8 parties agreed to a briefing schedule post-trial. See
9 Trial Tr. 7/2/2018 at 135:24, 136:1-137:18. Thus, like
10 in Exergen, patent eligibility was not submitted to the
11 jury and properly raised as a post-trial motion.
12 Compare Exergen, 725 Fed. Appx. at 962, with Apple,
13 Inc. v. Samsung Elecs. Co., Ltd., No. 12-CV-00630-LHK,
14 2014 WL 12776506 (N.D. Cal. Aug. 21, 2014) (finding §
15 101 waived where there was no disclosure of the
16 argument after its invalidity contentions and not
17 included in pretrial order).

18 As to summary judgment, Plaintiff fails to cite any
19 authority that a § 101 argument is waived unless
20 raised at summary judgment stage. Cf. Move, Inc. v.
21 Real Estate All. Ltd., 221 F. Supp. 3d 1149, 1157 (C.D.
22 Cal. 2016) (“[W]e are aware of no authority suggesting
23 that [plaintiff] was required to move for summary
24 judgment on its § 101 argument in order to preserve
25 this argument.”) (internal citation omitted), aff’d, 721
26 F. App’x 950 (Fed. Cir. 2018). Further, patent
27 eligibility is a question of law that “may contain
28 underlying issues of fact.” Berkheimer v. HP Inc., 881

1 F.3d 1360, 1365 (Fed. Cir. 2018). Because Defendant
2 relies on trial testimony and the jury's verdict for
3 part of its argument,¹ it was reasonable to wait to
4 resolve the § 101 issue until after trial. For these
5 reasons, the Court finds the issue has not been waived.

6 b. *Ineligibility Under Section 101*

7 Defendant argues the claims of the '262 Patent are
8 ineligible because (1) they are directed to the
9 abstract idea of automating a conventional engine
10 washing process, and (2) they fail to recite any
11 specific method or machine that could constitute an
12 "inventive concept" for achieving automation.

13 Under the first step of the Alice inquiry, the
14 Court must determine whether the patent claims at issue
15 are directed to an abstract idea. Alice, 134 S. Ct. at
16 2354. There is no definitive rule to determine what
17 constitutes an "abstract idea." Enfish, LLC v.
18 Microsoft Corp., 822 F.3d 1327, 1334 (Fed. Cir. 2016).
19 See also DDR Holdings, LLC v. Hotels.com, L.P., 773
20 F.3d 1245, 1255 ("Distinguishing between claims that
21 recite a patent-eligible invention and claims that add
22 too little to a patent-ineligible abstract concept can
23 be difficult, as the line separating the two is not
24 always clear."). When considering whether a claim is
25 directed to an abstract idea, courts "compare the

26
27 ¹ For example, Defendant argues that the meaning of
28 "information detector" was disputed throughout trial, and relies
on both expert testimony and the jury's finding to argue that
"information detector" is generic for purposes of the Alice test.

1 claims at issue to those already found to be directed
2 to an abstract idea in previous cases.” Enfish, 822
3 F.3d at 1334.

4 Defendant argues that the ‘262 Patent is ineligible
5 because the bare idea of automating a process is
6 abstract. However, the use of computers or automation
7 itself is not necessarily an abstract idea. Rather,
8 courts look at whether the process being automated is
9 an abstract idea. See Research Corp. Techs., Inc. v.
10 Microsoft Corp., 627 F.3d 859, 868 (Fed. Cir. 2010)
11 (“Indeed, the Supreme Court [] refocused this court’s
12 inquiry into processes on the question of whether the
13 subject matter of the invention is abstract.”). See
14 also McRO, Inc. v. Bandai Namco Games Am. Inc., 837
15 F.3d 1299, 1313 (Fed. Cir. 2016) (“[P]rocesses that
16 automate tasks humans are capable of performing are
17 patent eligible if properly claimed.”).

18 In some instances, abstract ideas are “plainly
19 identifiable and divisible from the generic computer
20 limitations” recited by the claim. DDR Holdings, 773
21 F.3d at 1256. For example, in Ultramercial, Inc. v.
22 Hulu, LLC, 772 F.3d 709, 715-16 (Fed. Cir. 2014),
23 claims merely recited the abstract idea of using
24 advertising as a currency in the particular
25 technological environment of the Internet. In buySAFE,
26 Inc. v. Google, Inc., 765 F.3d 1350, 1355 (Fed. Cir.
27 2014), claims simply invoked a generic computer to
28 implement the abstract concept of “creating a

1 contractual relationship—a ‘transaction performance
2 guaranty’—that is beyond question of ancient lineage.”
3 And in OIP, claims were directed to automation of
4 offer-based price optimization, found to be a
5 “fundamental economic concept,” which had long been
6 held abstract. See 788 F.3d at 1362 (listing several
7 Supreme Court and Federal Circuit decisions finding
8 fundamental economic concepts abstract).

9 On the other hand, the Federal Circuit has found
10 several software-based claims to be patent-eligible,
11 noting that “[s]oftware can make non-abstract
12 improvements to computer technology just as hardware
13 improvements can, and sometimes the improvements can be
14 accomplished through either route.” Enfish, 822 F.3d
15 at 1335 (finding claims reciting a self-referential
16 table for a computer database eligible because the
17 claims were directed to a particular improvement in the
18 computer’s functionality). In Enfish, the Federal
19 Circuit contrasted claims “directed to an improvement
20 in the functioning of a computer” with claims “simply
21 adding conventional computer components to well-known
22 business practices” to find the claimed invention
23 achieved benefits over conventional databases, such as
24 “increased flexibility, faster search times, and
25 smaller memory requirements.” 822 F.3d at 1337-38.

26 Here, while it is undisputed there is some level of
27 automation in the ‘262 Patent, Pl.’s Opp’n re
28 Ineligibility at 6:4-5, the claimed process does not

1 use a computer to implement an abstract idea, but
2 rather it uses technology to improve the narrow
3 industry of turbine engine wash systems to ensure
4 quality, performance, and safety. The claims do not
5 fit squarely within abstract ideas found in previous
6 cases, as they do not recite a mathematical algorithm,²
7 nor do they recite a fundamental economic practice as
8 in Alice,³ Ultramercial, buySAFE, and OIP.⁴

9 The question then becomes whether the automation
10 goes beyond merely "organizing [existing] information
11 into a new form" to "focus on a specific means or
12 method that improves the relevant technology," or are
13 "directed to a result or effect that itself is the
14 abstract idea." Apple, Inc. v. Ameranth, Inc., 842
15

16 ² Claims that essentially seek to patent an algorithm itself
17 have been found abstract. See Gottschalk v. Benson, 93 S. Ct.
18 253 (1972); Parker v. Flook, 98 S. Ct. 2522 (1978).

19 ³ The claims at issue in Alice relate to a computerized
20 scheme for mitigating "settlement risk," designed to facilitate
21 the exchange of financial obligations between two parties using a
22 computer system as a third-party intermediary. 134 S. Ct. at
23 2352.

24 ⁴ Defendant also cites additional cases to support its
25 argument that automation is ineligible, however these cases
26 automate a fundamental economic practice and are not applicable
27 here for the same reasons already discussed. See Intellectual
28 Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1370
(Fed. Cir. 2015) (claims directed to tracking financial
transactions); Bancorp Servs., LLC v. Sun Life Assurance Co.
Of Can., 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("[W]ithout the
computer limitations nothing remains in the claims but the
abstract idea of managing a stable value protected life insurance
policy by performing calculations and manipulating the
results.").

1 F.3d 1229, 1244 (Fed. Cir. 2016) (internal citations
2 omitted). The distinction is a difficult line to draw
3 between abstract ideas merely claiming results, and non
4 abstract ideas claiming the method of achieving such
5 results. See Elec. Power Grp. LLC v, Alstom S.A., 830
6 F.3d 1335, 1343 (Fed. Cir. 2016) (“Computer software-
7 related inventions—due to their intangible nature—can
8 be particularly difficult to assess under the abstract
9 idea exception.”).

10 Defendant argues the ‘262 Patent only claims the
11 result of a more efficient wash by using a computer to
12 automate a conventional process. Because the ‘262
13 Patent is directed at improving efficiency by
14 eliminating human error, it is most similar in fact to
15 McRO, Inc. v. Bandai Namco Games Am. Inc., 837 F.3d
16 1299 (Fed. Cir. 2016). In McRO, claims directed to
17 automating a 3-D animator’s task produced “accurate and
18 realistic lip synchronization and facial expressions,”
19 which “previously could only be produced by human
20 animators.” 837 F.3d at 1313. The Federal Circuit
21 noted “processes that automate tasks that humans are
22 capable of performing are patent eligible if properly
23 claimed,” and to properly claim it, the system must be
24 a *distinct* process from that previously performed by
25 humans. Id. at 1314. Specifically, in prior art
26 animators made subjective determinations, while the
27 claimed invention applies new rules rendering
28 information into a specific format. Id. at 1314-15.

1 Here, like in McRO, the claims seek to automate a
2 task previously done by humans. Following McRO then,
3 the question is whether the automation provides an
4 improvement to the relevant technology used in airline
5 engine wash systems. The Patent's background section
6 describes three steps performed by human operators: (1)
7 "an operator is provided with information regarding the
8 engine type," (2) "[t]he operator is further provided
9 with information regarding the requirements for washing
10 that particular engine type," and (3) "[t]he operator
11 then manually sets the valves to the manifold nozzles
12 in order to obtain the appropriate pressure and flow
13 and keeps track of washing time." '262 Patent at 3:44-
14 55. Essentially, the conventional washing process
15 required a human operator to manually select a
16 "specific design washing configuration . . . for each
17 specific engine." '262 Patent at 2:46-49. To compare,
18 claim 1 states the claimed invention comprises: (1) a
19 washing unit for providing liquid, (2) an "information
20 detector configured to gather information related to
21 engine type" and (3) a control unit configured to
22 accept information related to the engine type and
23 determine which washing program to use "from a set of
24 preprogrammed washing programs," and further "regulate
25 the washing unit according to washing parameters
26 associated with the washing program used." '262 Patent
27 at 8:35-57.

28 Defendant argues the only difference is that the

1 claimed system, rather than the human operator, selects
2 which washing program to use based on the engine it
3 identifies. However, courts “must be careful to avoid
4 oversimplifying the claims’ by looking at them
5 generally and failing to account for the specific
6 requirements of the claims.” McRO, 837 F.3d at 1313
7 (citation omitted). See also Diamond v. Diehr, 101 S.
8 Ct. 1048, 1058 n.12 (cautioning that overgeneralizing
9 claims, “if carried to its extreme, make[s] all
10 inventions un-patentable because all inventions can be
11 reduced to underlying principles of nature which, once
12 known, make their implementation obvious”).

13 While Defendant is correct that the overall general
14 process is similar in selecting a wash program based on
15 engine type, the claimed invention is distinct. Like
16 how the claims in McRO focused on specific rules, claim
17 1 recites that the control unit has specific
18 configurations to regulate the washing unit. The
19 claim’s specifications are instructive as they provide
20 examples of how the control unit can be configured to
21 improve the prior art process. See Enfish, 822 F.3d at
22 1337 (finding claim specifications bolstered the
23 court’s conclusion that the claims are not abstract).
24 For instance, the control unit “may be responsive to
25 characteristics of the used washing liquid emanating
26 from the engine” by evaluating various characteristics,
27 such as types of solids, and adjusting the washing unit
28 “to alter the parameters of the washing procedure.”

1 '262 Patent at 6:5-15. The control unit also "may be
2 configured to process temperature data . . . in order
3 to delay initiating a washing procedure until the
4 washing fluid has reached a predetermined washing
5 temperature." '262 Patent at 7:29-33. Defendant has
6 not shown evidence that human operators could achieve
7 the same.

8 Additionally, in McRO the Federal Circuit found
9 persuasive that in prior art, animators used subjective
10 determinations on which process to implement, rather
11 than specific rules. 837 F.3d at 1314. Similarly,
12 here the claimed invention removes human subjectivity
13 and error. Rather than the operators making the
14 determination on which wash program to use, the control
15 unit based on its specific configurations applies the
16 best program for the given engine type. The Patent's
17 background notes that if the requirements for a
18 particular engine are not followed, the engine could be
19 damaged, "leading to very costly standstill of the
20 aircraft or that the result of the washing procedure is
21 inferior." '262 Patent at 3:60-64. The Patent further
22 explains this can happen due to human operators working
23 at night while not fully alert. '262 Patent at 3:56-
24 60. Thus, poor results are due to the subjective
25 aspect involved in the operator's choice of wash
26 program, and the claimed invention improves turbine
27 wash systems by completely eliminating subjectivity.
28 Mr. Nordlund's testimony at trial speaks to the need

1 for this improvement. See Trial Tr. 6/27/18 at 82:5-
2 83:8 (discussing the problem of bad wash results and
3 describing the solution as "an information detector
4 together with a control unit to control the wash unit
5 better and put a process around the timing of the wash
6 and how to perform the wash better"). With the
7 elimination of human error and implementation of the
8 information detector in combination with the control
9 unit, the claimed invention therefore improves the
10 existing process with a method distinct from the prior
11 art.

12 In sum, when looked at as a whole, the claims are
13 patent eligible because they are directed to improving
14 the process of washing turbine engines. The use of the
15 computer does not render the claims ineligible. See
16 Enfish, 822 F.3d 1327 ("[W]e are not persuaded that the
17 invention's ability to run on a general-purpose
18 computer dooms the claims."). The computer system is
19 instead used to solve a problem in "conventional
20 industry practice," that being human error in operating
21 prior engine wash systems. See Alice, 134 S. Ct. at
22 2358 (discussing that the claims in Diehr were "patent
23 eligible because they improved an existing
24 technological process, not because they were
25 implemented on a computer"). Because the claims are
26 not directed to ineligible subject matter, the Court
27 does not reach Alice step two. Enfish, 822 F.3d at
28

1 1339.⁵

2 For these reasons, the Court **DENIES** Defendant's
3 Motion for Judgment of Patent Ineligibility of the '262
4 Patent.

5 2. Indefiniteness of the '860 Patent

6 a. *Waiver*

7 Plaintiff argues as an initial matter that
8 Defendant waived its indefiniteness argument for
9 various reasons, including that Defendant failed to
10 raise it during claim construction, on summary
11 judgment, in its jury instructions, or as part of a
12 Rule 50(a) motion. With regard to the claim
13 construction phase, the parties agreed that the claim
14 term "a liquid particle size in the range of 250-120
15 μm " did not require construction. Order re Claim
16 Construction 7:14-17, ECF No. 80. Plaintiff argues
17 Defendant cannot now contest the indefiniteness of this
18 claim term. However, stipulating to a certain claim
19 construction term does not automatically become an
20 admission that the claim term is not indefinite.
21 MeadWestVaco Corp. v. Rexam Beauty and Closures, Inc.,
22 731 F.3d 1258, 1270 n.8 (Fed Cir. 2013). Nor is the
23 indefiniteness argument waived for this reason. Apple
24 v. Samsung, 932 F. Supp. 2d 1076, 1079 (N.D. Cal.

25 _____

26 ⁵ Defendant argues at length how each individual component
27 of claim 1 is generic and functionally-defined. However, this
28 analysis is best suited for Alice step two and unnecessary to
discuss given that the claims are not directed to an abstract
idea.

1 2013) (“[F]ailure to seek construction of a term during
2 claim construction does not constitute waiver of an
3 indefiniteness argument.”). See also Versata v. Zoho,
4 213 F. Supp. 3d 829, 934 (W.D. Tex. 2016) (“Nothing in
5 the law confines a party’s indefiniteness argument to
6 the claim construction stage of litigation.”); Havco
7 Wood Prods v. Industrial Hardwood Prods., No. 10-cv-
8 566-wme, 2013 WL 1497429, at *1-2 (W.D. Wis. Apr. 11,
9 2013) (rejecting plaintiff’s argument that defendant had
10 waived its indefiniteness defense and allowing it as a
11 post trial motion).

12 As to summary judgment, Plaintiff is correct that
13 Defendant did not raise the indefiniteness issue for
14 this claim term, as it only raised indefiniteness for
15 the different claim term “small quantities” in the ‘860
16 Patent. Defs.’ Mot. for Summ. J. 1:20-22, ECF No. 145.

17 While an indefiniteness determination is an issue of
18 law, it can involve underlying questions of fact.
19 E.g., UltimatePointer, LLC v. Nintendo Co., 816 F.3d
20 816, 826 (Fed. Cir. 2016). Here, because Defendants
21 rely on trial testimony and issues of fact resolved by
22 the jury in its Motion,⁶ its indefiniteness challenge
23 would not have been appropriately resolved on summary
24 judgment. See e.g., Presidio Components, Inc. v. Am.

25

26

27 ⁶ For example, Defendant relies on “inconsistencies” in Mr.
28 Kushnick’s trial testimony regarding his infringement opinion on
how many in-range particles would infringe. Def.’s Reply at 2:3-
11.

1 Tech. Ceramics Corp., No. 08cv335 IEG (NLS), 2008 WL
2 3925723, at *3 (S.D. Cal. Aug. 25, 2008).

3 Central to the issue of waiver is whether Plaintiff
4 had been on notice of Defendant's indefiniteness claim.
5 Defendant has consistently maintained its
6 indefiniteness claim throughout this litigation.
7 Compare Apple, 932 F. Supp. 2d at 1079 (finding
8 plaintiff on notice because defendant continued to
9 raise its invalidity issue in its invalidity
10 contentions and jury instructions, and the court
11 specifically included the issue as a topic defendant
12 could address in a non-jury brief) with BioCell Tech.
13 LLC v. Arthro-7, SACV 12-00519-JVS (RNBx), 2013 WL
14 12131282, at *10 (C.D. Cal. Apr. 16, 2016) (finding
15 unfair surprise where defendants did not even mention
16 the term it argued as indefinite prior in the
17 litigation). Defendant first raised indefiniteness of
18 the particle size limitation in its preliminary
19 invalidity contentions. Apgar Supp. Decl., Ex. B, 43-
20 44, ECF No. 291-2. Defendant's expert, Dr. Micklow,
21 stated in his invalidity report that the particle size
22 limitation rendered the '860 Patent indefinite. Id.
23 Ex. C, 172-75, ECF No. 291-3. Defendant's Memoranda of
24 Contentions of Fact and Law identified indefiniteness
25 as an issue of law triable to the Court. Def's Mem. re
26 Contentions of Fact and Law 25:4-5, 26:1-3, ECF No.
27 164. This Court identified indefiniteness of the '860
28 Patent as an issue for trial in its Final Pretrial

1 Conference Order ("FPTC Order"). FPTC Order 34:26, ECF
2 No. 209. Finally, the parties and this Court agreed
3 during trial that indefiniteness of the '860 Patent was
4 a remaining issue to be briefed for the Court to decide
5 after trial. Trial Tr. 7/2/2018 at 135:24-136:14,
6 137:16-18, 145:23-25. While Plaintiff is correct that
7 Defendant did not bring a Rule 50(a) motion, the
8 indefiniteness claim was separate from the jury's
9 determination of infringement and identified prior to
10 trial as a remaining issue of law, of which the Court
11 agreed to take post-trial. See Havco, 2012 1497429, at
12 *3 ("[I]t is not unusual for the court to consider
13 [indefiniteness] independent of the jury and render an
14 opinion after the jury verdict.") Given that Plaintiff
15 has been on notice of Defendant's indefiniteness, the
16 Court finds it appropriate for Defendant to raise the
17 issue now.

18 b. *Indefiniteness*

19 When read in light of the specification and the
20 prosecution history, claims "must provide objective
21 boundaries for those of skill in the art." Dow Chem.
22 Co v. Nova Chemicals Corp. (Canada), 803 F.3d 620, 630
23 (Fed. Cir. 2015) (quoting Interval Licensing LLC v. AOL,
24 Inc., 766 F.3d 1364, 1371 (Fed. Cir. 2014)). Because
25 claims delineate the patentee's right to exclude, the
26 patent statute requires that the scope of the claims be
27 sufficiently definite to inform the public of the
28 bounds of the protected invention, i.e., what subject

1 matter is covered by the exclusive rights of the
2 patent; otherwise, competitors cannot avoid
3 infringement, defeating the public notice function of
4 patent claims. Halliburton Energy Servs., Inc. v. M-I
5 LLC, 514 F.3d 1244, 1249 (Fed. Cir. 2008) (citing
6 Athletic Alts., Inc. v. Prince Mfg., Inc, 73 F.3d 1573,
7 1581 (Fed. Cir. 1996)).

8 Defendant challenges the validity of the '860
9 Patent by arguing that the claim term "at a liquid
10 particle size in the range of 250-120 μm " does not with
11 reasonable certainty inform a person skilled in the art
12 of the scope of the claim. Def.'s Mot. re
13 Indefiniteness 6:5-7, ECF No. 273. According to the
14 '860 Patent's specification, its novel method gives
15 particles a size and velocity within the claimed range
16 of 120 to 250 μm , causing it overcome the centrifugal
17 effect resulting in a more effective and efficient
18 wash. '860 Patent at 2:14-18. To compare, prior art
19 systems used particle sizes ranging 150 to 950 μm .
20 '860 Patent at 2:10-13. It is undisputed that
21 particles either smaller than 120 μm or larger than 250
22 μm do not overcome the centrifugal effect, and are thus
23 ineffective at cleaning the compressor. Trial Tr.
24 6/27/18 at 183:7-23; Trial Tr. 6/29/18 at 19:14-24.

25 The Court first looks to the language of the claim
26 to determine whether the meaning is reasonably clear.
27 Defendant argues that a person skilled in the art would
28 not understand what the particle size limitation

1 requires. Defendant relies on Berkheimer v. HP Inc.,
2 881 F.3d 1360, 1363-64 (Fed. Cir. 2018), where the
3 claim "minimal redundancies" was "not reasonably clear
4 as to what level of redundancy in the archive is
5 acceptable." Contrary to Defendant's argument,
6 Berkheimer is not illustrative because not only does
7 the claim in Berkheimer lack numerical boundaries like
8 the one here, but the terminology used in Berkheimer's
9 claim specification varied inconsistently in describing
10 the level of redundancy by switching from terms such as
11 "eliminating" and "reducing." Berkheimer, 881 F.3d at
12 1363-64. In contrast, the claim term here remains the
13 same fixed range throughout the specification and
14 prosecution history. Indefiniteness arguments come up
15 much more frequently in relation to terms of degree
16 like "minimal," "substantially equal to," "about,"; or
17 in relation to subjective phrases such as
18 "aesthetically pleasing." See Datamize, LLC v.
19 Plumtree Software, Inc., 417 F.3d 1342, 1351 (Fed. Cir.
20 2005) (internal citations omitted), *abrogated on other*
21 *grounds by* 572 U.S. 898. Here, in contrast, there is
22 no element of degree or subjectiveness because the term
23 is a fixed range from 120 to 250 μm , particles either
24 fall in that range, or they do not.

25 Next, because the claimed range of 120 to 250 μm
26 overlaps with the prior art range of 150 to 950 μm ,
27 Defendant argues the '860 Patent fails to identify how
28 many particles must fall within the claimed range to

1 infringe. Neither party contends 100% of the particles
2 must be within the claimed range, but Defendant argues
3 one skilled in the art is not informed whether some, a
4 majority, or more particles must be within the range to
5 infringe. Mot. at 6:10-16. Defendant relies on
6 Halliburton, in which the claim "fragile gels" in a
7 patent related to oil field drilling was found to be
8 indefinite for failure to distinguish from prior art
9 fluids. 514 F.3d at 1252. However, the Federal
10 Circuit noted that while it is an important
11 consideration in the definiteness inquiry whether a
12 patent differentiates itself from prior art, "that is
13 not to suggest that a claim can never be definite and
14 yet read on the prior art." Id. at 1252. The Federal
15 Circuit made an important distinction that the fragile
16 gels were indefinite because the claim failed to
17 distinguish how they perform differently from prior art
18 in any way, but "a claim that recites a specific
19 numeric range for a physical property may be definite
20 even though prior art products f[a]ll within that
21 range." Id. Here, the '860 Patent is directly on
22 point with the latter scenario. Unlike Halliburton,
23 there is no question that the claim term range of 250-
24 120 μm distinguishes from prior art because it is
25 undisputed that only particles in that range overcome
26 the centrifugal effect, of which prior art could not
27 overcome. Thus, the numeric range can be definite even
28 though prior art particles may fall within the range.

1 The Court also looks to prosecution history. At
2 trial, Mr. Kushnik testified, and the jury unanimously
3 found, that enough of Cyclean's particles fell within
4 the claimed range to infringe the '860 Patent.⁷ See
5 Trial Tr. 6/27/18 at 136:16-21, 137:9-13. Mr. Kushnick
6 performed 84 tests using Defendant's Cyclean system,
7 and while the tests produced a varied range of droplet
8 sizes, at least 35% of the liquid particles fell within
9 Plaintiff's claimed range of sizes. See Trial Tr.
10 6/27/28 at 134:17-24; Pl.'s Mot. Ex. A, 169:18-23.
11 The fact that Mr. Kushnick was able to come to a
12 determination that the Cyclean infringes the '860
13 Patent demonstrates that he was able to understand its
14 objective boundaries.⁸

16
17 ⁷ The parties dispute Plaintiff's reliance on Broadcom Corp
18 v. Emulex Corp., 732 F.3d 1325 (Fed. Cir. 2013) and Bell Commc'ns
19 Research Inc. v. Vitalink Commc'ns Corp., 55 F.3d 615, 622-23
20 (Fed. Cir. 1995), for the proposition that "[i]t is well-settled
21 law that an accused device that sometimes embodies a claimed
22 invention nonetheless infringes." The contention here is not
23 that Cylean sometimes falls completely 100% outside the claimed
24 range to where it "sometimes embodies a claimed invention."
25 Rather, the jury found enough of Cyclean's particles fell within
26 the claimed range, so there is no issue as to whether the Cyclean
27 "sometimes embodies" EcoPower.

28 ⁸ Where the specification provides objective criteria to
know if a claim limitation is met, the claim will not be
indefinite just because one of skill may need to perform some
experimentation to determine if the criteria is met. Enzo
Biochem, Inc. v. Applera Corp., 599 F.3d 1325, 1336 (Fed. Cir.
2010). Here, the specification sets out clear, objective
criteria that particle sizes must fall within the claimed range,
and the fact that Mr. Kushnik had to test whether enough of
Cyclean's particles fell within the range to infringe does not
render the claim term indefinite.

1 On the other hand, Defendant's expert Dr. Micklow
2 did not perform any tests or testify as to the subject
3 of indefiniteness. The only indefiniteness argument
4 Dr. Micklow put forth was in his invalidity report,
5 which Defendant later abandoned before trial, stating
6 that the particle size term is indefinite because it
7 does not describe the way to measure the diameter of
8 the particles. See Def.'s Reply Ex. C, Micklow Report
9 172-72, ECF No. 291-3. Defendant has not put forth any
10 expert testimony or evidence, let alone clear and
11 convincing evidence, that one skilled in the art would
12 not know the boundaries of the claim. See Berkheimer,
13 881 F.3d at 1363 (relying on "the declaration of HP's
14 expert, Dr. Schonfeld, to find that an ordinarily
15 skilled artisan would not have known what the term
16 'minimal redundancy' meant" to find indefiniteness).
17 Thus, because Defendant has failed to prove
18 indefiniteness by clear and convincing evidence, the
19 Court **DENIES** Defendant's Motion for Indefiniteness of
20 the '860 Patent.

21 3. Permanent Injunction

22 a. *Waiver*

23 As an initial matter, Defendant argues that
24 Plaintiff waived its claim for injunctive relief.
25 Federal Rule of Civil Procedure 26(e) requires a party
26 to supplement interrogatory responses "in a timely
27 manner if the party learns that in some material
28 respect the disclosure or response is incomplete or

1 incorrect, and if the additional or corrective
2 information has not otherwise been made known to the
3 other parties during the discovery process or in
4 writing." Where a party fails to disclose information
5 required by Rule 26, "the party is not allowed to use
6 that information or witness to supply evidence on a
7 motion, at a hearing, or at trial, unless the failure
8 was substantially justified or is harmless." Fed. R.
9 Civ. P. 37(c)(1).

10 Here, Plaintiff requested a permanent injunction in
11 its Complaint, but Defendant contends that during
12 discovery Plaintiff refused to identify the factual
13 basis for its claim in response to Defendant's
14 interrogatories. See Opp'n Ex. 4, Interrog. No. 10.
15 Plaintiff indicated it would produce documents
16 "sufficient to prove its contentions," but never
17 supplemented this response. Plaintiff's damages
18 expert, Mr. Lettiere, did not offer an opinion as to
19 injunctive relief at his deposition. Def.'s Opp'n Ex.
20 7, Lettiere Dep. Tr. 11:16-20, ECF No. 282-8.
21 Defendant argues that as a result, it believed
22 Plaintiff abandoned its injunction claim until shortly
23 before trial when Plaintiff said it would seek an
24 injunction based on "the testimony of the two parties'
25 respective executives and employees." Pl.'s Mem. Fact
26 & Law 14:10-12, ECF No. 160. Defendant argues it was
27 prejudiced by having to address new arguments at the
28 post-trial stage, pointing to the fact that Defendant

1 did not know Plaintiff intended to use its Southwest
2 agreements to support its injunction claim. However,
3 Plaintiff's executive testified to the Southwest
4 agreements at trial. See Pl.'s Mot. Ex. B at 48:25-
5 49:14, 212:11-213:24. Plaintiff indicated before trial
6 it would rely on this testimony, and Defendant had
7 ample opportunity to cross-examine regarding the
8 Southwest agreements. Moreover, Defendant has not
9 cited to any authority showing a court refusing to
10 consider the merits of an injunction on this basis.⁹
11 While Defendant argues Plaintiff never provided the
12 factual basis during discovery, neither did Defendant
13 move to compel additional answers to interrogatories or
14 object to any of the evidence Plaintiff used. The
15 Court thus finds Plaintiff has not waived its claim for
16 injunctive relief.

17 b. *Permanent Injunction*

18 i. *Irreparable Injury and Adequacy of*
19 *Legal Remedies*

20 The issues of irreparable harm and adequacy of
21 remedies at law are "inextricably intertwined."
22 ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.,
23 694 F.3d 1312, 1337 (Fed. Cir. 2012). The parties'
24 briefing similarly intertwined the discussion of these
25

26
27 ⁹ Defendant cites to MicroStrategy Inc. v. Business Objects,
28 S.A., 429 F.3d 1344, 1356-57 (Fed. Cir. 2005), however, there the
court excluded "non-expert damage theories" at trial for failure
to supplement.

1 two factors, and as such, the two factors are discussed
2 together here.

3 As to the first eBay factor, there is no
4 presumption of irreparable harm upon a finding of
5 patent infringement. Robert Bosch LLC v. Pylon Mfg.
6 Corp., 659 F.3d 1142, 1148 (Fed. Cir. 2011). Plaintiff
7 must show both (1) it will suffer irreparable harm
8 absent an injunction and (2) "a sufficiently strong
9 causal nexus relates the alleged harm to the alleged
10 infringement." Apple Inc. v. Samsung Elecs. Co. (Apple
11 III), 735 F.3d 1352, 1359-60 (Fed. Cir. 2013) (citation
12 omitted). Here, Plaintiff claims it has suffered three
13 types of irreparable harm as a result of Defendant's
14 patent infringement: (1) lost market share, (2) lost
15 future sales, and (3) erosion in the price point for
16 jet engine washes.

17 As to lost market share and sales, Plaintiff and
18 Defendant are direct competitors in the jet engine
19 washing industry. See, e.g., Ex. D, Trial Tr. 6/29/18
20 at 147:17-21. Defendant argues that Plaintiff has not
21 shown lost market share caused directly by Defendant,
22 as Plaintiff competes with several other engine washing
23 providers. Plaintiff argues that while there are other
24 competitors, the two parties provide the most efficient
25 washes by using the atomization of water from the '860
26 Patent. However, Plaintiff's President, Mr. Welch,
27 agreed that because the '860 Patent has expired, any
28 competitor can use that technology to compete with

1 Plaintiff. See Trial Tr. 6/27/18 at 57:9-14. Rochem,
2 another competitor, has a system that already does some
3 type of atomization. See id. at 58:1-3. Additionally,
4 Mr. Welch testified that another competitor Arrow Jet,
5 and airlines who use Arrow Jet's equipment, also take
6 away business from Plaintiff. See id. at 58:4-17.

7 While Mr. Welch identifies Defendant as the only
8 direct competitor successful in using atomized washing
9 technology, id. at 58:17-19, this is not persuasive.
10 First, it only indicates lost market share to the
11 expired '860 Patent, and not the '262 Patent, for which
12 Plaintiff is seeking an injunction. In short, a
13 permanent injunction as to the '262 Patent will not
14 prevent competitors from implementing the technology of
15 the '860 Patent to atomize its water and compete with
16 Plaintiff. Second, Plaintiff also loses business to
17 its other competitors. Plaintiff only cites to losing
18 one customer, Jet Blue, when it decided not to re-up
19 its contract indicating it would "be testing the
20 Cycleclean system." See id. at 49:8-14. However, Mr.
21 Welch testified that it lost United Airlines as a
22 customer because it went back to using the Shepard's
23 hook, a technique used by other competitors including
24 Arrow Jet. Id. at 58:24-59:10. And Plaintiff also
25 lost Spirit Airlines to a different competitor, Rochem.
26 Id. at 59:11-12. Because Plaintiff has lost customers
27 to competitors other than Defendant, this does not
28 favor a finding of irreparable harm. See Belden Techs.

1 Inc. v. Superior Essex Commc'ns LP, 802 F. Supp. 2d
2 555, 577 (D. Del. 2011) (finding no irreparable harm
3 where "plaintiffs and defendants are not the only
4 competitors in [a] multi-supplier market"); Apple, Inc.
5 v. Samsung Electronics Co., Ltd., (Apple I), 678 F.3d
6 1314, 1324-25 (Fed. Cir. 2012) ("A mere showing that
7 [plaintiff] might lose some insubstantial market share
8 as a result of [Defendant's] infringement is not
9 enough.").

10 As to price erosion, Plaintiff's damages expert
11 testified that Plaintiff had to lower its per engine
12 wash price by more than \$800 per wash to keep Southwest
13 as a client after Southwest said in negotiations that
14 Plaintiff has competitors offering comparable wash
15 results at lower prices. See Ex. B at 212:11-213:24,
16 225:6-226:12. As Defendant points out, there is no
17 evidence of the substance of the negotiations, the
18 state of the engine washing market in 2014 compared to
19 other years, or whether Southwest actually received a
20 lower offer from Defendant or any other competitor.
21 This alone is insufficient to show irreparable harm by
22 price erosion because there is no showing Plaintiff
23 would have been able to retain its original price but
24 for Defendant's use of Cycleclean.¹⁰ See Ericsson, Inc. v.

25
26 ¹⁰ Plaintiff relies on Douglas Dynamics, LLC v. Buyers
27 Prods. Co., 717 F.3d 1336, 1344 (Fed. Cir. 2013), to argue that
28 price erosion is often "difficult to quantify," however the court
there discussed price erosion as to "reputation and brand
distinction." Plaintiff has not made that argument here.

1 Harris Corp., 352 F.3d 1369, 1378-79 (Fed. Cir.
2 2003) (discussing detailed expert analysis showing "but
3 for the infringing activity, the patentee would have
4 made the infringer's sales"); Crystal Semiconductor
5 Corp. v. TriTech Microelectronics Intern., Inc., 246
6 F.3d 1336, 1359 (Fed. Cir. 2001) ("[A] patentee must
7 produce credible economic evidence to show the decrease
8 in sales, *if any*, that would have occurred at the
9 higher hypothetical price.").

10 Plaintiff must also show a causal nexus between the
11 irreparable harm and Defendant's infringement. The
12 patented feature does not need to be the "exclusive
13 reason for consumer demand," but rather, Plaintiff need
14 only show "some connection between the patented feature
15 and demand for [Defendant's] products." Apple III, 735
16 at 1364. This can be shown by evidence that a patented
17 feature is one of several features that cause consumers
18 to make their purchasing decisions, or with evidence
19 that inclusion of a patented feature makes a product
20 significantly more desirable. Id.

21 Here, as Defendant points out, it is the expired
22 '860 Patent's use of atomized water that has driven
23 competition, and there is no evidence of a demand for
24 the '262 Patent. Plaintiff argues that even if the
25 claimed features of the '860 Patent are the primary
26 draw for customers, those features are dependent on the
27 features of the '262 Patent for using the Cyclean
28 system. Plaintiff relies on TransPerfect Global, Inc.

1 v. MotionPoint Corp., No. C 10-2590 CW, 2014 WL
2 6068384, at *6 (N.D. Cal. Nov. 13, 2014), where the
3 court found causal nexus based on testimony that
4 infringing features of "implicit navigation" and
5 "single action translation" were "integral parts of the
6 system" and "impossible to use" without them. However,
7 Plaintiff provides no evidence that the Cyclean is
8 impossible to use without the '262 features. Nor has
9 Plaintiff shown any consumer demand for the '262
10 features.¹¹ As such, Plaintiff has failed to make the
11 requisite showing as to a causal nexus. See Power
12 Integrations, Inc. v. Fairchild Semiconductor Int'l,
13 Inc., No. C 09-5235 MMC, 2015 WL 604582, at *4 (N.D.
14 Cal. Feb 12, 2015) (finding no causal nexus between
15 plaintiff's alleged lost sales and infringing feature
16 because the accused products contain other features
17 that 'attract customers').

18 As to the second eBay factor, Plaintiff provides
19 few arguments as to why monetary damages are
20 inadequate. First, Plaintiff argues there is a
21

22 ¹¹ Mr. Welch testified several times that the '860 Patent is
23 what drives demand, and provided no testimony as to the '262
24 Patent drawing customers. See Trial Tr. 6/27/18 46:18-24 ("And
25 we really believed that the atomized engine wash process showed
26 much more value for our customers. And that was part of what we
27 did sell to customers"); id. at 62-63 (testifying that
28 Lufthansa and Defendant were the first to eliminate a post wash
runoff with atomized water, and that Plaintiff lost bids to Air
Canada and Easy Jet to Defendant for this reason); id. at 67:1-7
(testifying that Plaintiff viewed Defendant as a threat because
"if they didn't have atomizing technology . . . it wouldn't
matter").

1 collectability-risk because Defendant is a smaller
2 company. However, Plaintiff points to no evidence
3 suggesting Defendant is unable or unwilling to pay, and
4 even relies on the fact that engine washing is only a
5 part of Defendant's revenue in arguing balance of the
6 hardships below.¹² Without any evidence, the Court
7 cannot determine Defendant is unable to pay. Plaintiff
8 also argues that monetary damages are difficult to
9 quantify because of the financial arrangement between
10 Defendant and Lufthansa, the developer of the Cyclean
11 system. Defendant provided two agreements it had with
12 Lufthansa: a lease agreement where Defendant pays
13 Lufthansa \$100/month for each Cyclean unit, and an
14 engine wash agreement where Defendant performs the
15 washes for a set fee. See Def.'s Mot. re Partial Summ.
16 J., Exs. 2-3, ECF Nos. 145-2, 145-3. Plaintiff argues
17 that without more, there is not enough insight into the
18 finances of Lufthansa. However, Mr. Lettiere,
19 Plaintiff's damages expert, testified that he had
20 "enough data" on Lufthansa's financials and explained
21 how he accounted for Lufthansa in his determination of
22 a reasonable royalty rate. See Trial Tr. 6/28/18 at
23 23:4-25:5.

24 Plaintiff further argues monetary damages are
25 inadequate because Defendant will "drag out this

26
27 ¹² Plaintiff points out that Defendant made \$3 million in
28 Cyclean revenue from 2010-2017, however this is not Defendant's
sole source of revenue as Plaintiff also noted the Cyclean is a
small part of revenue.

1 litigation as long as possible" and continue to
2 infringe the '262 Patent in the meantime. Plaintiff
3 points to an email exchange following trial, in which
4 the parties' counsels disagreed over whether continued
5 sale of the Cyclean constitutes willful infringement of
6 the '262 Patent. See Pl.'s Mot. Ex. A, ECF No. 275-2.
7 Defendant's response also indicates it intends to
8 proceed through further post judgment motions and an
9 appeal to the Federal Circuit. See id. However,
10 Plaintiff provides no other evidence directly showing
11 Defendant continues to infringe upon the '262 Patent,
12 or that if they did, how an ongoing royalty rate would
13 be inadequate. Without more, Plaintiff has not shown
14 monetary damages would be inadequate.

15 The facts weigh against Plaintiff on this factor.
16 For example, Plaintiff has demonstrated a willingness
17 to license its patents. Plaintiff tried to send two
18 pre-suit licensing letters to Defendant to license its
19 patents. See Order re Def,'s Mot. for Partial Summ.
20 J., 25:6-15, ECF No. 177 ("In these letters . . .
21 Plaintiff discusses patents, including the '860 Patent,
22 that are available for licensing."). While the letter
23 did not list the '262 Patent, Plaintiff's President Mr.
24 Welch testified that the '860 Patent is the most
25 valuable, see Trial Tr. 6/27/18 at 71:13-16, thus a
26 willingness to license the '860 Patent demonstrates
27 Plaintiff finds monetary compensation adequate in
28 comparison to its patent rights. Further, in a recent

1 press release discussing the jury verdict in this case
2 Mr. Welch stated that Plaintiff "welcome[s]. . .
3 interested parties to discuss licensing opportunities"
4 over the use of Plaintiff's patents. See Def.'s Opp'n,
5 Ex. 3, ECF No. 282-4. Plaintiff's willingness to
6 license its patents to both Defendant and other
7 competitors supports a finding that monetary damages
8 are adequate. See Cave Consulting Grp., LLC v.
9 Optuminsight, Inc., No. 5:11-CV-00469-EJD, 2016 WL
10 4658979, at *21 (N.D. Cal. Sept. 7, 2016) (finding that
11 where a patent holder is willing to "forego its patent
12 rights for compensation," "monetary damages are rarely
13 inadequate. . . ") (citation omitted); ActiveVideo, 694
14 F.3d at 1339 (finding Plaintiff sought to "broadly and
15 extensively license [its] technology . . . including a
16 campaign to secure a license from [Defendant] itself").

17 Moreover, contrary to Plaintiff's arguments, the
18 damages in this case are quantifiable. Mr. Lettiere
19 stated in his expert report that "[i]f [Defendant] is
20 found liable, reasonable royalty compensation would be
21 the appropriate measure of damages in this matter."
22 Def.'s Mot. to Exclude, Ex. D, Mr. Lettiere Expert
23 Report, 2, ECF No. 144-4. See Conceptus, Inc. v.
24 Hologic, Inc., No. 09-cv-02280, 2012 WL 44064, at *2
25 (N.D. Cal. Jan. 9, 2012) (finding harm quantifiable, and
26 that "it would be disingenuous" for patent holder to
27 argue otherwise because patent holder's expert argued
28 for the reasonable royalty rate that the jury awarded).

1 While Plaintiff argues it lost customers such as Jet
2 Blue, and had to lower prices as to Southwest, both are
3 forms of quantifiable harm compensable by monetary
4 damages. See ActiveVideo, 694 F.3d at 1338 (finding
5 that when an infringer pays the patent holder a monthly
6 royalty, the patent holder is adequately compensated).
7 After hearing Mr. Lettiere's expert testimony and
8 viewing the entire record of evidence, the jury decided
9 to impose a royalty rate of \$400 per wash—the same
10 amount Mr. Lettiere recommended. See Pl.'s Mot. Ex. C
11 at 16-20. Plaintiff has not made a sufficient showing
12 such a royalty rate is inadequate.

13 Accordingly, the first two eBay factors weigh
14 against granting a permanent injunction.

15 *ii. Balance of Hardships*

16 The balance of hardships assesses the "relative
17 effect of granting or denying an injunction" by
18 considering factors such as the "parties' sizes,
19 products, and revenue sources." i4i Ltd. Partnership
20 v. Microsoft Corp., 598 F.3d 831, 862 (Fed. Cir. 2010).
21 Here, Plaintiff argues that the balance of hardships
22 weighs in its favor because on one hand, EcoPower
23 washes are Plaintiff's primary line of business, while
24 Defendant's engine washing, on the other hand, is an
25 ancillary part of its business. For example, corporate
26 representatives for Defendant testified that engine
27 washing is a "small part" of Defendant's business and
28 overall revenue. See Pl.'s Mot. Ex. C, Trial Tr.

1 6/28/18 74:6-11, 132:22-133:2, ECF No. 275-4. In
2 contrast, Mr. Welch testified that the EcoPower system
3 is Plaintiff's primary business. Pl.'s Mot. Ex. B,
4 32:6-8, ECF No. 275-3. Defendant can also continue its
5 engine wash business by using non-infringing methods
6 such as the Shepard's hook. See Ex. B at 48:8-12;
7 58:4-7; 58:20-21. Although Defendant repeatedly
8 characterized itself as a "small company," see, e.g.,
9 Pl.'s Mot. Ex. E, Trial Tr. 6/26/18 at 56:1-2, 58:12,
10 60:5-7, 92:9-13, there is no evidence that an
11 injunction would put Defendant out of business or that
12 Defendant is in financial trouble. Additionally, the
13 jury found Defendant to be a willful infringer and as
14 such, "[o]ne who elects to [utilize a business method]
15 found to infringe cannot be heard to complain if an
16 injunction against continuing infringement destroys the
17 business so elected." eBay, 547 U.S. at 583-84.

18 On balance, this factor weighs in favor of granting
19 a permanent injunction.

20 *iii. Public Interest*

21 In general, protecting the rights of patentees and
22 enforcing the patent system serves the public interest.
23 See ActiveVideo, 694 F.3d at 1341. The exclusive
24 rights protected by patents "represent the public's
25 willingness to sacrifice access to an invention or
26 method . . . to allow the inventor the opportunity to
27 recoup her investment." Edwards Lifesciences AG v.
28 Core Valve, Inc., 699 F.3d 1305, 1314 (Fed. Cir. 2012).

1 Here, public health and welfare is not at issue, so
2 there is no question of whether the infringing products
3 are considered "necessary to the public." See eBay,
4 547 U.S. at 586-87. Neither is Defendant a huge
5 corporation whose marketplace brings together millions
6 of consumers. See id.

7 Defendant relies on Apple III to argue that the
8 public interest does not favor an injunction when the
9 patent covers only a "non-core" feature of a product
10 having a large number of unpatented features. In Apple
11 III, the concern was that while phones contained
12 infringing features, they contained a "far greater
13 number of non-infringing features to which consumers
14 would no longer have access to" if an injunction were
15 issued. 735 F.3d at 1372. The concern was that entire
16 products would be enjoined based on "limited non-core
17 features." Id. Here, the facts are not comparable.
18 Plaintiff's engine wash system is within a small,
19 unique market unlike that of cell phones, which are
20 used by the public at large on a daily basis. There is
21 also not an equal concern that entire products will be
22 enjoined, as there are several other non-infringing
23 competitors still able to wash turbine engines.

24 In sum, while Plaintiff has shown that the balance
25 of hardships and public interest weigh in favor of
26 granting a permanent injunction, Plaintiff has not made
27 a sufficient showing of irreparable harm, or that legal
28 damages are inadequate. The jury adopted Plaintiff's

1 own damages expert's reasonable royalty rate, and in
2 light of Plaintiff's willingness to license, the Court
3 finds Plaintiff will be adequately compensated with an
4 ongoing royalty rate (discussed below) should Defendant
5 continue infringe the '262 Patent.

6 For these reasons, the Court **DENIES** Plaintiff's
7 Motion for Permanent Injunction.

8 c. *Royalty Rate*

9 In the absence of a permanent injunction, a
10 patentee may be entitled to receive ongoing royalties.
11 Paice LLC v. Toyota Motor Corp., 504 F.3d 1293, 1314
12 (Fed. Cir. 2007). A post-verdict royalty is
13 fundamentally different from a pre-verdict royalty.
14 Amado v. Microsoft Corp., 517 F.3d 1353, 1361 (Fed.
15 Cir. 2008). For determining an ongoing post-judgment
16 royalty rate, the rate the jury adopted is "significant
17 as a starting point," but the court "cannot simply
18 apply the jury's pre-verdict royalty award to the post-
19 verdict infringement, without considering the impact of
20 changed circumstances." Fresenius USA, Inc. v. Baxter
21 Intern., Inc., No. C 03-1431 PJH, 2012 WL 761712, at
22 *11 (N.D. Cal. Mar. 8, 2012), *vaca. on other grounds by*
23 721 F.3d 1330.

24 Here, Plaintiff acknowledges that following Paice,
25 courts often conduct a "'modified' Georgia-Pacific
26 analysis that takes into account the traditional
27
28

1 Georgia-Pacific factors,¹³ but also considers the new
2 legal status quo between the parties," including "any
3 continuing infringement [that] is willful by
4 definition." Pl.'s Mot. 14:11-14 (citing Paice, 609 F.
5 Supp. 2d at 624-31). However, Plaintiff provides no
6 evidence to guide the Court on an ongoing royalty rate
7 other than one email suggesting Defendant continues to
8 infringe the '262 Patent.¹⁴ In Paice, the Court relied
9 on new expert analysis for an ongoing royalty rate
10 issue that took into account a new hypothetical
11 negotiation following the changed legal status after
12 the jury's verdict. 609 F. Supp. 2d at 625. Indeed,
13 the cases following Paice, of which Plaintiff relies
14 on, all considered substantially more evidence to
15 determine an ongoing rate than what Plaintiff has
16 presented here. See Boston Sci. Corp. v. Cordis Corp.,
17 838 F. Supp. 2d. 259 (D. Del. 2012) (presented expert
18 testimony for an ongoing royalty rate); Mondis Tech.

19
20 ¹³ The Georgia-Pacific Court set forth fifteen factors to be
21 considered in a reasonable royalty analysis, with the central
22 premise being a fictional hypothetical negotiation occurring at
23 the time infringement began between a willing licensor and
24 willing licensee. Paice, 609 F. Supp. 2d at 624 (discussing
25 Georgia-Pacific Corp v. United States Plywood Corp., 318 F. Supp.
26 1116 (S.D.N.Y. 1970)).

27 ¹⁴ The Court acknowledges that "[f]ollowing a jury verdict
28 and entry of judgement of infringement and no validity, a
defendant's continued infringement will be willful absent very
unusual circumstances." Affinity Labs, 783 F. Supp. 2d 891, 899
(E.D. Tex. 2011). However, Plaintiff has provided no direct
evidence of Defendant's continued infringement other than an
email exchange between counsel disputing what constitutes
"willful."

1 Ltd. v. Chimei InnoLux Corp., 822 F. Supp. 2d. 639, 646
2 (E.D. Tex. Sept. 30, 2011) (court conducted a full
3 Georgia-Pacific analysis and had evidence of ongoing
4 willful infringement).

5 While the Court agrees with Plaintiff that any
6 ongoing royalty rate should not be less than the \$400
7 rate the jury awarded, Plaintiff has provided no
8 evidence for the Court to determine whether an
9 increased rate is justified. Thus, the Court directs
10 the parties to negotiate an ongoing royalty for the
11 '262 Patent. See Paice, 504 F.3d at 1315 (finding
12 ongoing royalties should not be provided "as a matter
13 of course whenever a permanent injunction is not
14 imposed," and in many cases, the "district court may
15 wish to allow the parties to negotiate a license among
16 themselves").

17 4. Attorneys' Fees

18 As an initial matter, Plaintiff argues that the
19 jury's verdict for willful infringement of the '860
20 Patent is an appropriate basis for attorneys' fees.
21 District courts have in the past awarded attorneys'
22 fees based upon willful infringement. S.C. Johnson &
23 Son, Inc. v. Carter-Wallace, Inc., 781 F.2d 198, 200
24 (Fed. Cir. 1986) ("District courts have tended to award
25 attorney fees when willful infringement has been
26 proven, and [the Federal Circuit] has uniformly upheld
27 such awards.") (collecting cases). While the district
28 court must articulate a basis for finding exceptional

1 circumstances, “[i]t is equally necessary for the trial
2 court to explain why [there] is not an exceptional case
3 in the face of its express finding of willful
4 infringement.” Id. at 201. As Defendant points out,
5 these cases were decided before Octane, which requires
6 a “case-by-case exercise of [] discretion, considering
7 the totality of the circumstances.” Octane, 134 S. Ct.
8 at 1756. However, the Federal Circuit has since
9 reenforced S.C. Johnson & Son, that within the totality
10 of the circumstances, it is still necessary to explain
11 why a case is not exceptional when there has been a
12 finding of willful infringement. See Energy Heating,
13 LLC v. Heat On-The-Fly, LLC, 889 F.3d 1291, 1307 (Fed.
14 Cir. 2018). Here, the jury unanimously found in favor
15 of Plaintiff on all counts, but only found willful
16 infringement of the ‘860 Patent, which has expired. As
17 such, the jury finding alone is not sufficient to award
18 attorneys’ fees and the Court proceeds through the
19 totality of the circumstances analysis.

20 a. *Substantive Strength of Defendant’s*
21 *Litigation Position*

22 Plaintiff first argues that Defendant’s expert, Dr.
23 Micklow, premised his non-infringement theory on false
24 “facts” and assumptions. First, Plaintiff argues
25 Defendant did not inform Dr. Micklow what nozzles the
26 Cycleclean system uses, despite having received that
27 information from Lufthansa. See Pl.’s Reply Ex. B,
28 Trial Tr. 6/28/18 at 149:3-12 (Mr. Caban testifying

1 that he was informed the Cyclean uses the Lechler 652
2 nozzle). However, Dr. Micklow testified that he did
3 not test the Cyclean nozzles or ask about the nozzles
4 used because he "didn't think it was pertinent to the
5 engineering analysis," demonstrating he did not base
6 his opinion on the type of nozzles used. See Trial Tr.
7 6/29/18 at 60:24-61:21-22.

8 Plaintiff then points to three instances where it
9 claims Dr. Micklow based his non-infringement theory at
10 trial on false assumptions, including: (1) that a 100-
11 foot hose was used in the Cyclean system, (2) that the
12 hose used in the Cyclean system had "50-60 bends", and
13 (3) that the rotational velocity of the engine fan
14 during a Cyclean wash was 2550 revolutions per minute.
15 Defendant characterizes these as "minor factual
16 dispute[s]" and "non-issue[s] with no bearing on the
17 substantive strength of Defendant's non-infringement
18 position." Indeed, Plaintiff picks out and
19 mischaracterizes excerpts of Dr. Micklow's testimony
20 from trial.¹⁵ Moreover, Defendant's non-infringement
21 position was not based solely on Dr. Micklow's
22

23 ¹⁵ As to the hose length and number of bends in the hose,
24 Dr. Micklow testified that information is relevant to the
25 pressure limitation of Claim 1 of the '860 Patent, but that he
26 could not provide an opinion of the exact pressure lost because
27 "[e]very wash that's done for the Cyclean system will be
28 different." Trial Tr. 6/29/18 at 25:21-22. Dr. Micklow
testified that he could not assume a specific number of bends.
See id. at 25:21-26:2. Dr. Micklow thus did not appear to rely
on the hose length and bends, but discussed them to show the
variables that could affect pressure loss.

1 testimony, let alone these four facts. See FPTC Order
2 at 27-30 (identifying key evidence and arguments for
3 the non-infringement position such as patent history,
4 testimony of Melissa Bennis, discovery documents,
5 videos and photos, testimony of CAS witnesses, and
6 admissions made by Plaintiff's inventors). Nor was
7 Defendant's entire litigation position based on Dr.
8 Micklow's non-infringement analysis. See FPTC at 30-31
9 (identifying invalidity claims of both patents that
10 rely on the patents themselves, prior art,
11 publications, and admissions made by the inventors and
12 Plaintiff's witnesses during depositions).

13 Second, Plaintiff argues Defendant's invalidity
14 case was substantively weak. Plaintiff first claims
15 that Dr. Micklow applied the wrong legal standard for
16 written description, when he testified that it "needs
17 to be explicitly defined." See Pl.'s Mot. Ex. C, Trial
18 Tr. 6/29/18 63:1-3. However, Dr. Micklow testified he
19 did not "consider that to be a standard," but an
20 "approach." Id. at 62:24-25. The remainder of Dr.
21 Micklow's opinions demonstrate he did not rely on this
22 standard in forming his invalidity opinion.¹⁶ Plaintiff
23 further claims Dr. Micklow did not know that the USPTO

24

25 ¹⁶ For example, Dr. Micklow articulated the correct legal
26 standard in his invalidity report. See Micklow Invalidity Report
27 ¶ 33, ECF No. 190-2 (testifying to the standard that the
28 specification must "reasonably convey to a person of skill in the
art that the inventor had possession of the claimed invention as
of the filing date").

1 had addressed the written description requirement
2 during prosecution, but the trial testimony directly
3 contradicts this. Dr. Micklow answered that he did
4 know the USPTO made a rejection for written description
5 when asked at trial. Id. at 65:1-4. Finally,
6 Plaintiff claims Dr. Micklow did not provide a
7 motivation to combine references in his invalidity
8 analysis of the '262 Patent. Again, this misconstrues
9 the record because Dr. Micklow testified that an
10 ordinary artisan would have been motivated to combine
11 the prior art.¹⁷ See Trial Tr. 6/29/18 at 12:15-13:12.
12 Plaintiff's counsel objected to Dr. Micklow's testimony
13 acknowledging it was directed to motivation. Id. at
14 13:15 (Mr. Pabis objecting that "[a]ny testimony on
15 motivation is brand new").

16 While Plaintiff points to issues with Dr. Micklow's
17 testimony, Plaintiff misconstrues parts of the record
18 and has not shown they render Defendant's entire
19 litigation position unreasonably weak. Notably,
20 Plaintiff never throughout litigation filed motions to
21 compel, motions for summary judgment, or motions to
22 exclude Dr. Micklow's expert opinions. See Prism
23 Techs. LLC v. T-Mobile USA, Inc., 696 Fed. Appx. 1014,

24 _____

25 ¹⁷ Moreover, a motivation to combine is not always required
26 for an obviousness analysis. See KSR Int'l Co. v. Teleflex Inc.,
27 550 U.S. 398, 419-20 (2007) ("In determining whether the subject
28 matter of a patent claim is obvious, neither the particular
motivation nor the avowed purpose of the patentee controls."); In
re Mouttet, 686 F.3d 1322 (Fed. Cir. 2012) (finding obviousness
irrespective of motivation).

1 1018 (Fed. Cir. 2017) (“[Defendant’s] decision to forego
2 summary judgment of non-infringement belies its
3 arguments regarding the purported weakness of
4 [plaintiff’s] infringement position.”). An award of
5 attorney fees is not a “penalty for failure to win a
6 patent infringement suit.” Octane, 134 S. Ct. at 1753
7 (internal quotation omitted). Ultimately, while
8 Defendant’s expert may have been unconvincing to the
9 jury, Defendant’s overall litigation position was not
10 so frivolous to make this case stand out from others.

11 b. *Manner of Litigation*

12 Plaintiff first argues that Defendant did not act
13 reasonably after receiving notice of the Complaint.
14 Defendant’s chairman, Mark Lee, testified that he did
15 not read the asserted patents upon learning of the
16 lawsuit, and still had not read them at the time of
17 trial. See Pl.’s Mem., Ex. A, Trial Tr. 6/28/18,
18 78:12-18, ECF No. 272-2. Mr. Caban, Defendant’s former
19 president, testified that Defendant did not perform any
20 testing to determine whether it infringed the asserted
21 patents. See id. at 145:16-146:1. However, Plaintiff
22 relies on cases where it was a failure on the
23 *plaintiff’s* part to conduct proper pre-suit
24 investigations before bringing an infringement action.¹⁸

26 ¹⁸ See Int’l Intellectual Mgmt. Corp. v. Lee Yunn Enters.,
27 Inc., No. 2:08-cv-07587, 2009 U.S. Dist. LEXIS 132872, at *6
28 (C.D. Cal. Dec. 14, 2009) (finding plaintiff did not make proper
pre-suit investigation); Eltech Sys. Corp. v. PPG Indus., Inc.,
903 F.2d 805, 808, 810 (Fed. Cir. 1990) (patentee’s expert

1 Here, it was Plaintiff's burden to investigate and
2 prove a valid infringement claim, and Defendant acted
3 reasonably in defending it. See Finjan, Inc. v. Blue
4 Coat Systems, Inc., No. 13-cv-03999-BLF, 2016 WL
5 3880774, at *15 (N.D. Cal. July 18, 2016) (denying fees
6 because, "as the accused infringer, [defendant] was
7 obligated to defend against [plaintiff's] numerous
8 asserted patents and claims," and the defendant "did
9 not choose to bring this lawsuit, but once sued,
10 defended itself in a determined manner") *reversed on*
11 *other grounds by* 879 F.3d 1299. Mr. Lee and Mr. Caban
12 are not patent attorneys, and acted reasonably
13 responding to the Complaint by hiring counsel to read
14 the patents and provide an opinion.¹⁹ With no evidence
15 to suggest otherwise, the Court assumes Defendant's
16 counsel would review the patents and only pursue
17 defenses believed to have merit.

18 Plaintiff also argues that Defendant's conduct
19 during the litigation was unreasonable because
20 Defendant dropped claims close to trial. Three days
21 before trial, Defendant dropped its invalidity defense
22 as to the '860 Patent. See Pl.'s Mem., Ex. B (Email
23 from Defendant's counsel on June 22, 2018, indicating
24 Defendant "is no longer intending to assert its defense

25 _____
26 performed no tests, yet concluded that defendant infringed).

27 ¹⁹ Additionally, Mr. Caban testified that his work focused
28 on line maintenance and go team, and not the Cyclean system. See
Pl.'s Mot. Ex. A, Trial Tr. 6/28/18 at 148:21-25.

1 of invalidity of the '860 Patent under 35 USC § 103").
2 Less than two weeks before trial, Defendant dropped its
3 indefiniteness argument as to the '860 Patent. See
4 Def.'s Opp'n re MIL 6 n.3, ECF No. 221. And two weeks
5 before trial, Defendant dropped most of its prior art
6 references it would use at trial against the '262
7 Patent. However, the mere fact that Defendant dropped
8 some defenses does not mean that Defendant's behavior
9 was exceptional. Plaintiff did not bring summary
10 judgment on these issues, suggesting they were not
11 objectively meritless. Further, the Court denied
12 summary judgment as to invalidity of the '860 Patent,
13 allowing that issue to proceed. See Order Re Partial
14 Summ. J. 30, ECF No. 189. Without more, Plaintiff has
15 not shown the claims were objectively meritless, and
16 Defendant's narrowing of the claims for trial were not
17 exceptional. See Chrimar Holding Co., LLC v. ALE USA
18 Inc., Nos. 2017-1848, 2017-1911, 2018 WL 2120618, at
19 *11-12 (Fed. Cir. May 8, 2018) (nonprecedential)
20 (affirming denial of § 285 fees to patentee because the
21 defendant's act of dropping many of its defenses and
22 counterclaims, some even during trial, "fell within the
23 range of ordinary practices involving the narrowing of
24 claims for trial"); Radware, Ltd. v. F5 Networks, Inc.,
25 No. 5:13-cv-02024-RMW, 2016 WL 4427490, at *9 (N.D.
26 Cal. Aug. 22, 2016) (finding defendant's decision to
27 abandon its obviousness at trial not exceptional).

28 Plaintiff otherwise does not point to litigation

1 misconduct. For instance, there is no indication
2 Defendant refused to respond to interrogatories,
3 discovery requests, or refused to provide witnesses for
4 depositions. Courts have even denied attorneys' fees
5 to parties that have acted in bad faith. See Lee v.
6 Mike's Novelties, Inc., No. CV 10-2225-VBF (Jcx), 2011
7 WL 13177625 (denying attorneys' fees where defendant
8 conducted bad faith settlement offers, bad faith
9 discovery practices, and threatened to report
10 Plaintiff's counsel to the state bar), *aff'd*, 608 Fed.
11 App'x 946. In contrast, Plaintiff has not shown any
12 such bad faith by Defendant.

13 In sum, considering the totality of the
14 circumstances, Plaintiff has failed to show that
15 Defendant put forth its defense with either bad faith
16 or exceptionally meritless claims. Because this case
17 is not "exceptional" under 35 U.S.C. § 285, Plaintiff
18 is not entitled to recover its attorneys' fees and the
19 Court **DENIES** Plaintiff's Motion for Attorneys' Fees.

20 5. Prejudgment Interest

21 In patent litigation, prejudgment interest on
22 damages is awarded pursuant to 35 U.S.C. § 284, which
23 states, in part, "[u]pon a finding for the claimant the
24 court shall award the claimant damages adequate to
25 compensate for the infringement, but in no event less
26 than a reasonable royalty for the use made of the
27 invention by the infringer, together with interest and
28 costs as fixed by the court." This interest should be

1 awarded from the time infringement began until the
2 entry of judgment. See, e.g., Bio-Rad Laboratories,
3 Inc. v. Nicolet Instrument Corp., 807 F.2d 964, 967
4 (Fed. Cir. 1986). Prejudgment interest is "necessary"
5 in a typical case "to ensure the patent owner is placed
6 in as good a position as he would have been in had the
7 infringer entered into a reasonable royalty rate."
8 Gen. Motors Corp. v. Devex Corp., 103 S. Ct. 2058
9 (1983). "[P]rejudgment interest should ordinarily be
10 awarded absent some justification for withholding such
11 an award." Id.

12 Here, Defendant argues Plaintiff delayed assertion
13 of the '860 Patent by nearly six years from when
14 Defendant first announced it was using Cyclean. In
15 General Motors, the Supreme Court specifically noted
16 that a patentee's undue delay in prosecution could
17 justify a denial of prejudgment interest. See Crystal
18 Semiconductor Corp. v. TriTech Microelecs Int'l, Inc.,
19 246 F.3d 1336, 1361-62 (Fed. Cir. 2001) (denying
20 prejudgment interest where the plaintiff delayed
21 bringing suit for two years as a litigation tactic). In
22 Crystal Semiconductor, the defendant presented evidence
23 that the delay was a litigation tactic through
24 testimony of plaintiff's former president who said they
25 sent letters to 30-40 companies infringing their
26 patents but did not send any to defendant, despite
27 already determining the defendant was infringing. 246
28 F.3d at 1362. Here, unlike Crystal Semiconductor,

1 Defendant has not put forth any evidence that
2 Plaintiff's delay was a litigation tactic or how
3 Defendant was prejudiced in any way. Without more, the
4 Court finds prejudgment interest appropriate. See
5 Lummus Indus., Inc. v. D.M. & E. Corp., 862 F.2d 267,
6 275 (Fed. Cir. 1988) ("[A]bsent prejudice to the
7 defendants, any delay [by the patentee] does not
8 support the denial of prejudgment interest.").

9 The Court must next determine the proper rate to
10 apply. Because there is no standard rate for
11 calculating prejudgment interest provided in the
12 statute, the district court has "substantial
13 discretion" to determine the interest rate in patent
14 infringement cases. See Gyromat Corp. v. Champion
15 Spark Plug Co., 735 F.2d 549, 556-57 (Fed. Cir.
16 1984) ("We conclude that the determination whether to
17 award simple or compound interest [] is a matter
18 largely within the discretion of the district court.").
19 Here, Plaintiff argues prejudgment interest should be
20 based upon the California state statutory rate of seven
21 percent, while Defendant argues the Treasury Bill ("T-
22 Bill") rate should apply. Many courts in the Ninth
23 Circuit have calculated prejudgment interest based upon
24 the California state statutory rate of seven percent.
25 See, e.g., Carl Zeiss Vision Int'l GMBH v. Signet
26 Armorlite, Inc., No. 07-cv-0894 DMS (DHB), 2012 U.S.
27 Dist. LEXIS 105928, at *7-8 (S.D. Cal. July 27,
28 2012) (awarding the California statutory rate of seven

1 percent); Presidio Components Inc. v. Am. Technical
2 Ceramics Corp., 723 F. Supp. 2d 1284, 1330 (S.D. Cal.
3 2010) *aff'd in part, vacated in part*, 702 F.3d 1351
4 (Fed. Cir. 2012) (same finding "California courts have
5 found that a simple interest rate of 7% is usually
6 appropriate to fully compensate the plaintiff for the
7 infringement"); In re Hayes Microcomputer Prods., 766
8 F. Supp. 818, 824-25 (N.D. Cal. 1991) (same), *aff'd*, 982
9 F.2d 1527 (Fed. Cir. 1992).

10 It is also within the Court's discretion to choose
11 the state statutory rate over the T-Bill rate
12 specifically.²⁰ See Bard Peripheral Vascular, Inc. v.
13 W.L. Gore & Assoc., Inc., No. CV 03-0597, 2009 WL
14 920300, at *2-*3 (D. Ariz. Mar. 31, 2009) (awarding
15 state statutory rate of 10 percent because "[i]n the
16 context of patent infringement, the T-Bill rate is
17 often inappropriate, as its lower rate of return has
18 the potential to result in a windfall profit for the
19 wrongful interloper"), *aff'd*, 670 F.3d 1171
20 (Fed. Cir. 2012), *vac. in part on other grounds*, 682
21 F.3d 1003 (Fed. Cir. 2012); Server Tech., Inc. v Am.

22
23 ²⁰ Defendant cites to a number of cases applying the T-Bill
24 rate to support the contention that an affirmative demonstration
25 of borrowing is required to award anything other than the T-Bill
26 rate. However, the Federal Circuit has rejected this idea and
27 maintained that the court has wide discretion. See
28 Studiengesellschaft Kohle, m.b.H. v. Dart Industries, Inc., 862
F.2d 1564, 1579-80 (Fed. Cir. 1988) (rejecting defendant's
argument there is a rule requiring "affirmative demonstration"
because "the question of the rate at which such an award should
be made is a matter of left to the sound discretion of the trier
of fact").

1 Power Conversion Corp., No. 3:06-CV-00698-LRH-VP, 2015
2 WL 1505654, at *6 (D. Nev. Mar. 31, 2015) (“[T]he court
3 finds that [the] proposed Treasury Bill rate would not
4 cover inflation over the infringing period. . . .”).

5 Thus, the state statutory rate of seven percent is
6 more likely to put Plaintiff in the position it would
7 have been had Defendant entered into a reasonable
8 royalty rate agreement. Accordingly, the Court **GRANTS**
9 prejudgment interest at the rate of seven percent
10 simple interest per annum.

11 6. Post-Judgment Interest

12 Under 28 U.S.C. § 1961, post-judgment interest
13 “shall be allowed on any money judgment in a civil case
14 recovered in a district court....” Section 1961
15 further provides that “[s]uch interest shall be
16 calculated from the date of the entry of the judgment,
17 at a rate equal to the weekly average 1-year constant
18 maturity Treasury yield, as published by the Board of
19 Governors of the Federal Reserve System, for the
20 calendar week preceding the date of the judgment.” 28
21 U.S.C. § 1961. The Federal Circuit defers to the
22 relevant circuit for interpretation of the
23 post-judgment statute. Transmatic Inc. v. Gulton
24 Indus. Inc., 180 F.3d 1343, 1347-48 (Fed. Cir. 1999).
25 The Ninth Circuit has held that the award of
26 post-judgment interest is mandatory. Barnard v.
27 Theobald, 721 F.3d 1069, 1078 (9th Cir.2013). Thus,
28 the Court **GRANTS** post-judgment interest, calculated in

1 the manner set forth in 28 U.S.C. § 1961(a).

2 7. Supplemental Damages

3 Plaintiff also seeks supplemental damages based on
4 the infringing washes that occurred in the period from
5 January 2018 through entry of final judgment. Under
6 the Patent Act's damages provision, "the court shall
7 award the claimant damages adequate to compensate for
8 the infringement, but in no event less than a
9 reasonable royalty for the use made of the invention by
10 the infringer, together with interest and costs as
11 fixed by the court." 35 U.S.C. § 284. Furthermore,
12 "[w]hen the damages are not found by a jury, the court
13 shall assess them." Id. Patentees are entitled to
14 supplemental damage awards for infringing sales that a
15 jury does not consider and precedes entry of a
16 permanent injunction. See Finjan, Inc. v. Secure
17 Computing Corp., 626 F.3d 1197, 1212-13 (Fed. Cir.
18 2010) (awarding damages for infringing sales for 17
19 months between entry of judgment and injunction that
20 the jury did not consider); Asetek Danmark A/S v. CMI
21 USA, Inc., No. 13-cv-00457-JST, 2015 WL 5568360, at *21
22 (N.D. Cal. 2015) (awarding the patentee supplemental
23 damages and an accounting for all sales made after the
24 end date of the damages period proved at trial through
25 the issue date of the injunction) *vaca. on other*
26 *grounds by* 852 F.3d 1352; Hynix Semiconductor Inc. v.
27 Rambus Inc., 609 F. Supp. 2d 951, 960-61 (N.D. Cal.
28 2009) (same). The amount of supplemental damages is

1 within the sound discretion of the court. Amado v.
2 Microsoft Corp., 517 F.3d 1353, 1362 n.2 (Fed. Cir.
3 2008).

4 Here, although the jury's verdict was entered on
5 July 2, 2018, the jury's damages award was limited to
6 the period from April 2010 through December 2017. See
7 Pl.'s Mot. Ex. B, Trial Tr. 6/28/18 at 17:17-18:17, ECF
8 No. 274-4. Plaintiff requests the Court order
9 Defendant to supplement its financial disclosure to
10 show the number of washes it has performed from January
11 of 2018 until entry of the final judgment, and award a
12 royalty rate of \$400 per wash. Defendant argues there
13 is no evidence in the record from which the jury could
14 have determined a reasonable royalty for any ongoing
15 infringement of the '262 Patent. Defendant relies on
16 Boston Scientific Corp. v. Johnson & Johnson, 550 F.
17 Supp. 2d 1102, 1122 (N.D. Cal. 2008), however, there
18 the patentee did not call its damages expert to testify
19 to any reasonable royalty rate. As Plaintiff points
20 out, the \$400 royalty rate which the jury adopted,
21 includes the washes performed after the expiration of
22 the '860 Patent. Unlike Boston Scientific, Plaintiff's
23 damages expert, Mr. Lettiere, testified at trial that
24 the \$400 royalty rate applies to the entire time
25 period, and that a royalty for the time period when
26 both patents remained in force would have been higher.
27 The '860 Patent expired on May 31, 2016, and Mr.
28 Lettiere's rate still covered the period from that date

1 through December 2017. Thus, Mr. Lettiere's opinion
2 was that \$400 per wash was a reasonable royalty rate
3 for the time period covering only the '260 Patent; as
4 such it is also a reasonable rate for the period from
5 January 2018 until the jury entered its verdict on July
6 2, 2018.

7 Because the jury's damages award did not include
8 the time from January 2018 to July 2, 2018, the Court
9 **GRANTS** supplemental damages and orders Defendant to
10 supplement its financial disclosure for this time
11 period and awards a royalty rate of \$400 per wash for
12 the infringing washes accounted for. See Asetek, 2015
13 WL 55683.60, at *21 (awarding supplemental damages at
14 the same rate for infringing sales over the two month
15 period from the date the jury's damages was limited to,
16 to entry of its verdict).

17 8. Costs

18 Federal Rule of Civil Procedure 54(d) provides that
19 "unless a federal statute, these rules, or a court
20 order provides otherwise, costs—other than attorney's
21 fees—should be allowed to the prevailing party." See
22 also Shum v. Intel Corp., 629 F.3d 1360, 1365 (Fed.
23 Cir. 2010). Defendant argues costs should be denied
24 because, (1) Plaintiff filed baseless assertions of the
25 '609 Patent causing unnecessary expenses; (2) the
26 closeness and difficulties of the issues in this case;
27 (3) the chilling effect on future similar actions; and
28 (4) the economic disparity between the parties.

1 Here, Defendant argues Plaintiff brought a baseless
2 assertion of the '609 Patent only to lose at summary
3 judgment, however Defendant also brought claims it
4 dropped prior to trial, as discussed above in regard to
5 attorneys' fees. Second, the closeness of the case is
6 not supported by the fact that the jury rendered a
7 unanimous verdict in favor of Plaintiff. Third,
8 Defendant's reliance on Ass'n of Mexican-American
9 Educators v. State of Cal., 231 F.3d 572 (9th Cir.
10 2000) is unpersuasive in comparison to the facts here.
11 In Ass'n of Mexican-American Educators, the parties
12 were individuals and nonprofit organizations with
13 record evidence of limited resources, bringing action
14 on "the gravest public importance" affecting the
15 state's public school system as a whole. 231 F.3d 572
16 at 293. The chilling effect in Ass'n of Mexican-
17 American Educators concerned plaintiffs bringing civil
18 rights claims, and Defendant has not explained how
19 costs to a prevailing patentee would have any similarly
20 damaging effect. Finally, Defendant argues they are a
21 smaller company in comparison to Plaintiff resulting in
22 economic disparity. However, Defendant also argues in
23 its concurrently filed Opposition to Plaintiff's Motion
24 for Permanent Injunction that there is no evidence of a
25 collectability-risk from Defendant despite its small
26 size. Def.'s Opp'n re Permanent Injunction 12:2-7, ECF
27 No. 282 ("Just because a company is small does not mean
28 it is in poor financial shape."). Defendant cannot

1 claim its size renders a disparity while simultaneously
2 arguing its size does not indicate financial issues.
3 Moreover, Defendant's position cannot be compared to
4 that of a nonprofit organization like in Ass'n of
5 Mexican-American Educators.

6 In sum, Defendant has not shown sufficient reasons
7 to deny costs to Plaintiff. Because the jury
8 unanimously entered a verdict for Plaintiff, the Court
9 finds Plaintiff is the prevailing party entitled to
10 statutory costs.²¹

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27 ²¹ Plaintiff only requests the Court find Plaintiff is the
28 prevailing party, and will submit a completed Form CV-59
specifying its costs in accordance with Local Rule 54-2.

