IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action No. 16-cv-02275-STV

FRAC SHACK INC.,

Plaintiff,

v.

FUEL AUTOMATION STATION, LLC, and
ATLAS OIL COMPANY,

Defendants.

ORDER

Magistrate Judge Scott T. Varholak

This matter is before the Court on the parties' request for construction of certain disputed claim terms contained in United States Patent No. 9,346,662 (the "'662 Patent"). The parties have consented to proceed before the undersigned United States Magistrate Judge for all proceedings, including entry of a final judgment. [## 20, 34] The matter is now ripe for consideration. This Court has carefully considered the briefing, the evidentiary hearing and argument presented on January 12, 2018, and the applicable case law. The Court construes certain claims in the '662 Patent as set forth below.

I. BACKGROUND

According to the Amended Complaint, Frac Shack, Inc. ("Frac Shack") "provides modular solutions for fuel delivery that reduce significantly the health, safety and environmental risks associated with fueling operations during hydraulic fracturing." [#30

at ¶ 10] Frac Shack is the owner of the '662 Patent, which was issued on May 24, 2016. [*Id.* at ¶ 9] The Preamble describes the '662 Patent as "[a] fuel delivery system for fuel delivery to multiple pieces of equipment at a work site." [#1-1 at 10] The Summary of the '662 Patent states that "[a] fuel delivery system and method is presented for reducing the likelihood that a fuel tank of equipment at a well site during fracturing of a well will run out of fuel." [*Id.* at 7]

Frac Shack alleges that Defendant Atlas Oil Company ("Atlas") has been using modular solutions for refueling during hydraulic fracturing operations in the United States. [#30 at ¶ 12] Frac Shack alleges that one of these solutions, the Atlas Fuel Automation Station, infringes Claims 1-4 and 7-12 of the '662 Patent. [*Id.* at ¶¶ 12-13] Defendant Fuel Automation Station, LLC ("Fuel Automation") allegedly leases the Atlas Fuel Automation Station to Atlas. [*Id.* at ¶ 12]

On June 2, 2017, following completion of the parties' claim construction briefs [## 40, 44, 46, 59, 63], the parties filed a Joint Motion for Determination, requesting the Court conduct a claim construction hearing and rule on disputed terms [#47]. This Court set a claim construction hearing for September 18, 2017. [## 55-57] Prior to that hearing, Frac Shack filed a Motion to Exclude Amended Invalidity Contentions (the "Motion to Exclude"), arguing that such contentions were improperly served and should be excluded. [#45]

At the September 18 hearing, the Court denied the Motion to Exclude. [#64] Because Frac Shack asserted that the Amended Invalidity Contentions required the construction of additional claim terms, however, the Court continued the claims construction hearing and allowed the parties to designate additional terms for

construction. [*Id.*] Briefing was submitted on these additional terms [## 70, 75, 78, 79, 82], and on January 12, 2018, the Court conducted a claims construction hearing [#86]. At that hearing, both sides presented expert testimony and argument. [*Id.*] Following the hearing, each side submitted additional briefing. [## 90, 91]

II. STANDARD OF REVIEW

In construing patent claims, courts are guided by the precedent of the Federal Circuit. *See Sun Tiger, Inc. v. Sci. Research Funding Grp.*, 189 F.3d 1327, 1333 (Fed. Cir. 1999). A patent infringement claim involves a two-step analysis. First, the Court "must determine as a matter of law the correct scope and meaning of a disputed claim term." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1365 (Fed. Cir. 2002). Second, the properly construed patent claims must be compared to the accused device to determine whether the accused device contains all of the limitations of the claimed invention. *Id.*

The first step, claim construction, is a matter of law for the Court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996). "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). "When construing claim terms, [courts] first look to, and primarily rely on, the intrinsic evidence, including the claims themselves, the specification, and the prosecution history of the patent, which is usually dispositive." *Sunovion Pharm., Inc. v. Teva Pharm. USA, Inc.*, 731 F.3d 1271, 1276 (Fed. Cir. 2013). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'"

Phillips, 415 F.3d at 1312 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

"The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation." *Id.* "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* While "the claims themselves provide substantial guidance as to the meaning of particular claim terms," the claims do not stand alone. *Id.* at 1314-15. "Rather, they are part of a fully integrated written instrument, consisting principally of a specification that concludes with the claims." *Id.* at 1315 (quotation omitted). As a result, "the specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* (*quoting Vitronics*, 90 F.3d at 1582). Nevertheless, "there is a fine line between reading a claim *in light of* the written description and reading a limitation into the claim from the written description." *Howmedica Osteonics Corp. v. Zimmer, Inc.*, 822 F.3d 1312, 1321 (Fed. Cir. 2016).

In addition to the claims and the specification, courts should also consider the patent's prosecution history, if it is in evidence. *Phillips*, 415 F.3d at 1317. The prosecution history is part of the "intrinsic evidence," and it "consists of the complete record of the proceedings before the [Patent and Trademark Office ("PTO")] and

includes the prior art cited during the examination of the patent." *Id.* "Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent." *Id.* Nonetheless, the prosecution history "often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.*

In addition to this intrinsic evidence, courts may also rely on "extrinsic evidence," consisting "of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Id.* (quoting *Markman*, 52 F.3d at 980). But, "while extrinsic evidence can shed useful light on the relevant art, . . . it is less significant than the intrinsic record in determining the legally operative meaning of claim language." *Id.* (quotations omitted). As a result, "extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1319.

III. ANALYSIS

As set forth below, the parties dispute fifteen distinct terms, as well as the definition of a person of ordinary skill in the art. The Court will address each dispute in turn.

A. Definition of Person of Ordinary Skill in the Art

Plaintiff contends that a person of ordinary skill in the art is a person with:

> a Bachelor of Science degree in chemical, oil & gas, or industrial engineering, or comparable degree, and at least two years' experience working in the field of fueling hydraulic fracturing equipment. This description is approximate, and a higher level of training or skill might make up for less education, and vice-versa.

[#91 at 4 (emphasis omitted)] In contrast, Defendants maintain that a person of ordinary skill in the art is a person with:

> a Bachelor of Science degree in mechanical engineering and at least two years' experience working in a field related to fluid handling; alternatively, a [person of ordinary skill in the art] would be a person without a formal degree but with at least four years' practical design and operational experience in fluid handling systems.

[*Id.* (emphasis omitted)] Thus, the main area of disagreement is whether the person of ordinary skill in the art has sufficient skill in the field of fueling hydraulic fracturing equipment (as Plaintiff contends), or has sufficient skill in the broader area of fluid handling (as Defendant contends). Put another way, the point of contention concerns the pertinent field of art.

The pertinent field of art is determined by the nature of the problem confronting the inventor. *Orthopedic Equip. Co. v. United States*, 702 F.2d 1005, 1009 (Fed. Cir. 1983). "The claims in suit provide a convenient starting place for determining the relevant art." *Id.* at 1008. But, other factors may illuminate the inquiry. These factors include an examination of the type of skills needed to understand the patent disclosure, the type of art applied to the application in the PTO, and the areas of expertise of witnesses who are recruited to testify concerning the obviousness of the invention.[1] *Id.* at 1008-09.

Beginning with the claims themselves, the focus of the '662 Patent is the delivery of fuel. Claim One describes "a fuel source" connectable to a "fuel supply." [#1-1 at 10]

[1] Although field of art questions typically arise in determining whether an invention is deemed "obvious" under 35 U.S.C. § 103, the inquiry is the same for claim construction purposes. *See Rolls-Royce PLC v. United Techs. Corp.*, 730 F. Supp. 2d 489, 500 (E.D. Va. 2009) ("A person of ordinary skill in the art is a theoretical person, whose credentials and abilities are relevant to the issues of claims construction and § 103 obviousness.").

Manifolds and hoses have "multiple fuel outlets" and fuel is delivered to multiple pieces of equipment. [*Id.*] Claims Two through Four, and Six through Twelve, all describe the "fuel delivery system of claim 1." [*Id.* at 11] Claim Five describes the "fuel delivery system of claim 4." [*Id.*] The claims of the '662 Patent make clear that it is a system for delivering fuel. Defendants' definition of the pertinent field of art as fluid delivery is overly broad.

The type of skills needed to understand the patent disclosure supports a conclusion that the pertinent field of art is fueling hydraulic fracturing equipment. As Plaintiff aptly notes, the terminology and language used in the patent is specific to hydraulic fracturing. These terms include "fracturing jobs," "pumpers and blenders," Visi-Flo "sight glass," "head pressure as well as deadhead pressure from the pumps," "fill risers 59 such as a Freightliner™ lock top, and also a Peterbilt™ draw tight design," "twin flap systems commonly used in underground storage tanks," and many other terms that are specific to either fuel delivery or fracturing. [#91 at 8-9 (listing terms with citations to the '662 Patent)]

While the Court has yet to hear testimony concerning the obviousness of the invention, the experts called to testify at the claims construction hearing further support a conclusion that the pertinent field of art is fueling hydraulic fracturing equipment. Defendants' expert, James Blanton, worked for 45 years in the oil and gas industry. [#89 at 8] Similarly, Plaintiff's expert, Randy Tolman, is a consultant in the upstream oil and gas industry, with hydraulic fracturing experience. [*Id.* at 39, 43-47] The fact that

both parties relied on experts in the field of oil and gas for their claims construction supports a conclusion that the pertinent field of art is hydraulic fracturing.[2]

Thus, the claims themselves, the type of skills needed to understand the patent, and the experts called to testify during the claims construction hearing, all support Plaintiff's definition of a person of ordinary skill in the art. *See Orthopedic Equip. Co.*, 702 F.2d at 1008-09. With respect to the type of art considered by the PTO, on the other hand, the Court agrees with the Defendants that the PTO considered art beyond refueling equipment during fracturing. [#90-2 at 2-3; #90-4] Indeed, some of the prior art considered did not even involve fuel delivery, let alone fuel delivery during fracturing. [*Id.*] Nonetheless, this factor does not outweigh the other factors discussed above, all of which suggest that the pertinent field of art is fueling hydraulic fracturing equipment.

The Court's conclusion is bolstered by the description of the problem confronting the inventor set forth in the '662 Patent itself. The Background section of the '662 Patent describes the problem as follows:

> Equipment at a well being fractured requires large amounts of fuel. Conventionally, if the equipment needs to be at a well site during a very large fracturing job, the fuel tanks of the equipment may need to be filled up several times, and this is done by the well known method of manually discharging fluid from a fuel source into each fuel tank one after the other. If one of the fuel tanks runs out of fuel during the fracturing job, the fracturing job may need to be repeated, or possibly the well may be damaged. The larger the fracturing job, the more likely equipment is to run out of fuel. Dangers to the existing way of proceeding include: extreme operating temperatures and pressures, extreme noise levels, and fire hazard from fuel and fuel vapours.

[2] Moreover, when defense counsel read Mr. Blanton Plaintiff's definition of a person of ordinary skill in the art, Mr. Blanton stated that he could agree with Plaintiff's definition. [#89 at 10]

[#1-1 at 7] Thus, the problem confronting the inventor of the '662 Patent was refueling equipment at a fracturing site. The '662 Patent attempts to solve this problem by providing a "fuel delivery system and method . . . for reducing the likelihood that a fuel tank of equipment at a well site during fracturing of a well will run out of fuel." [*Id.*] The fact that the problem confronting the inventor was the refueling of equipment at a fracturing site further supports the Court's conclusion that the pertinent field of art is fueling hydraulic fracturing equipment. Accordingly, the Court adopts Plaintiff's definition of a person of ordinary skill in the art.

B. Disputed Terms

1. Detect, Detection

Claim One describes "a sensor associated with each combination of fuel outlet, hose and fuel delivery connection, each sensor being configured to detect a low fuel condition associated with each of the multiple pieces of equipment to which fuel is being delivered." [#1-1 at 11] Later, Claim One states that a "controller is responsive to the detection of the low fuel condition." [*Id.*] Atlas proposes that "detect" means "determine the existence of." [#40 at 9] Frac Shack maintains that no construction is necessary. [*Id.*]

The Court agrees with Atlas' construction of the phrase "detect." Claim One states that the sensor must be "configured to detect a low fuel condition." The clear implication of this phrase is that the sensor is determining the existence of the low fuel condition. Similarly, the controller responds "to the detection of the low fuel condition." This language implies that a determination is made that the fuel level is low, and the

controller responds to that determination. Atlas' proposed construction is therefore consistent with the language of the claims.

Frac Shack has argued that no construction is necessary for this term. [#44 at 34-35] But, Frac Shack has failed to identify what "detect" could mean other than making some determination. The Court therefore agrees with Atlas and will construe "detect" to mean "determine the existence of."[3]

2. A low fuel condition

As noted earlier, Claim One describes a "sensor being configured to detect a low fuel condition associated with each of the multiple pieces of equipment to which fuel is being delivered." [#1-1 at 11] Atlas maintains that the term "low fuel condition" is indefinite. [#40 at 10] Alternatively, Atlas proposes a definition of "low fuel condition" as "a state in which the fuel level is empty or nearly empty." [*Id.*] Frac Shack maintains that no construction is necessary or, in the alternative, a definition of "empty or almost empty." [*Id.*]

a. Indefiniteness

Patent laws require a patent's claims to "particularly point[] out and distinctly claim[] the subject matter," which the applicant "regards as the invention." 35 U.S.C. § 112(b). "Because claims delineate the patentee's right to exclude, the patent statute requires that the scope of the claims be sufficiently definite to inform the public of the bounds of the protected invention, i.e., what subject matter is covered by the exclusive rights of the patent." *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249

[3] "Detect" is also used in the specification in a different context. The specification states that a "gas detection system (not shown) may be used to detect the presence of leaking gas." [#1-1 at 10] Atlas' proposed construction is consistent with this usage of the term "detect." The gas detection system determines the presence of leaking gas.

(Fed. Cir. 2008). Absent sufficiently clear definition, "competitors cannot avoid infringement, defeating the public notice function of patent claims." *Id.* As a result, "a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014).

Atlas argues that the term "a low fuel condition" is indefinite because "'low' is left up to the person of ordinary skill in the art to interpret when the fuel is low, leaving it unclear to the person reading the patent as to what constitutes infringement." [#40 at 11] But, the patentee provided a narrowed definition of the term in the specification. The specification defines "low fuel condition" to mean "tank empty or nearly empty." [#1-1 at 8] The Court finds that the term "empty or nearly empty" sufficiently informs a person of ordinary skill in the art about the scope of the invention to avoid the patent being invalid for indefiniteness.

The Court's conclusion is bolstered by the purposes behind the definiteness requirement. As the Supreme Court recently explained, "a patent must be precise enough to afford clear notice of what is claimed, thereby appris[ing] the public of what is still open to them." *Nautilus, Inc.*, 134 S. Ct. at 2129 (quotations omitted). "Otherwise there would be [a] zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement of claims." *Id.* (quotation omitted). In other words, and as conceded by Atlas during the claims construction hearing, "the purpose of [the definiteness requirement] is to give fair notice as to what is off limits in the field and what is available for exploration." [#89 at 182]

Here, the term "low fuel condition," which is defined as "empty or nearly empty," gives sufficient notice of what is claimed and provides fair notice of what is off limits in the field. Any lack of definition in the term "low fuel condition" is unlikely to deter future inventors from designing fuel delivery systems. Accordingly, the Court finds that the term "low fuel condition" does not render the '662 Patent invalid for indefiniteness.

b. Definition

In the alternative, Atlas proposes to define "a low fuel condition" as "a state in which the fuel level is empty or nearly empty." [#40 at 10] Although Frac Shack maintains that no construction is necessary, it proposes the definition "empty or almost empty." [*Id.*] As discussed during the claims construction hearing, the Court does not see a meaningful distinction between these two definitions, and counsel for Frac Shack acknowledged that he was not going "to split hairs." [#89 at 202] Because a low fuel condition must involve a condition or state, and because the patentee described it as "empty or nearly empty," the Court adopts Atlas' proposed definition of "low fuel condition," which mirrors the patentee's description. The Court will therefore construe "a low fuel condition" to mean "a state in which the fuel level is empty or nearly empty."

3. Controller

Claim One describes "a controller responsive to signals supplied from each sensor through respective communication channels, the controller being configured to provide control signals to open and close the respective electrically operable valves." [#1-1 at 11] Claim One further states that the "controller is responsive to the detection of the low fuel condition, to display an indication of the low fuel condition or to open at least one of the electrically operable valves for each of the multiple pieces of equipment

that is associated with the low fuel condition." [*Id.*] Atlas proposes defining "controller" as "a device alone or in combination with an operator capable of sending and receiving signals." [#40 at 16] Frac Shack proposes defining "controller" as "[e]quipment configured to receive signals indicative of the fuel level in a fuel tank and in response, send control signals to allow fuel to flow to the fuel tank when its level is low and to stop the flow of fuel when its level is high." [*Id.*]

The Court agrees with Frac Shack's construction of the term "controller." The claims clearly indicate that the controller responds "to the detection of the low fuel condition" [#1-1 at 11], not just to any signal, as suggested by Atlas' construction. Moreover, the specification explains that the "controller 56 is responsive to a low fuel level signal from each fuel tank 12 to start fuel flow to the fuel tank 12 independently of flow to other fuel tanks 12 and to a high level signal from each fuel tank 12 to stop fuel flow to the fuel tank 12 independently of flow to other fuel tanks 12." [*Id.* at 8] Frac Shack's definition accurately describes this function.

Atlas' proposed definition for "controller" would encompass items that are not the controller. For example, the specification states that the fuel level sensor preferably includes a wireless transceiver. [#1-1 at 8] By definition, a transceiver is capable of both transmitting and receiving communications. *See Transceiver*, WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (2002) (defining transceiver as "a radio transmitter-receiver that uses many of the same components for both transmission and reception"). The specification further explains that the "control station or controller 56 in this embodiment is responsive to signals supplied from each fuel level sensor 54 through respective communication channels, wired or wireless, but preferably wireless, to

provide control signals to the respective automatically operable valves 58." [#1-1 at 8] Thus, in the described embodiment, the fuel level sensor is also capable of sending and receiving signals. Atlas' proposed "controller" definition would therefore also describe the fuel level sensor. Because Atlas' definition would encompass items that are not controllers, the definition is overly broad. The Court therefore agrees with Frac Shack and will construe "controller" to mean "equipment configured to receive signals indicative of the fuel level in a fuel tank and in response, send control signals to allow fuel to flow to the fuel tank when its level is low and to stop the flow of fuel when its level is high."

4. The Controller is Responsive to the Detection of the Low Fuel Condition

Again, Claim One states that the "controller is responsive to the detection of the low fuel condition, to display an indication of the low fuel condition or to open at least one of the electrically operable valves for each of the multiple pieces of equipment that is associated with the low fuel condition." [#1-1 at 11] In addition to defining "controller" and "low fuel condition," Atlas also seeks to define the phrase "the controller is responsive to the detection of the low fuel condition." [#40 at 15] According to Atlas, this phrase should be defined as "the controller is programmed to be triggered by the sensor's detection of the low fuel condition." [*Id.*] Frac Shack, on the other hand, contends that the Court need only construct the terms "controller" and "low fuel condition," and no further construction is needed for the phrase. [*Id.*]

The Court agrees with Frac Shack that no further construction of this phrase is necessary. Once "controller" and "low fuel condition" are defined, the phrase reads as follows, with only the italicized portion without a construction: The equipment configured

to receive signals indicative of the fuel level in a fuel tank and in response, send control signals to allow fuel to flow to the fuel tank when its level is low and to stop the flow of fuel when its level is high (controller definition, discussed above), *is responsive to the* (remaining language) determin[ation] [of] the existence of (detection definition), a state in which the fuel level is empty or nearly empty (low fuel condition definition, discussed above). Accordingly, the Court has constructed the phrase, "the controller is responsive to the detection of the low fuel condition," to give it the meaning that it would have to a person of ordinary skill in the art, and therefore constitutes a proper construction. *Phillips*, 415 F.3d at 1313. Given that "controller," "detect," and "low fuel condition" are already defined, and that the remaining terms are commonly understood words, the Court concludes that defining the entire phrase would only create confusion and is unnecessary.[4]

5. Signal

As indicated earlier, Claim One describes "a controller responsive to signals supplied from each sensor through respective communication channels, the controller being configured to provide control signals to open and close the respective electrically operable valves." [#1-1 at 11] Atlas maintains that "signal" means "a communication or message conveying a warning." [#40 at 19] Frac Shack, on the other hand, argues that "signal" means "an electronic communication or message." [#44 at 3]

[4] This is not a situation where the Court is refusing to resolve an actual dispute regarding the proper scope of a claim. *Compare O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008). Instead, the Court concludes that the phrase is properly construed once the disputed terms inside the phrase are constructed.

The Court agrees with Frac Shack. Atlas argues that the signals are representative of the detection of conditions that could be problematic—either running out of fuel or overflowing fuel—and therefore the term signal must indicate some type of warning. Certainly, the '662 Patent often uses the term "signals" to indicate that the fuel level is either high (warning of possible overflow) or low (warning that the tank is nearly empty). [#1-1 at 8 ("controller [] is responsive to a low fuel level signal . . . and to a high level signal"); *id.* at 9 (fuel tank display may show "fuel empty . . . or fuel full . . . signals"); *id.* at 11; ("controller is responsive to a low fuel level signal"); *id.* ("controller is responsive to a high fuel level signal")] But, this is not always the case. Claim One describes "a controller responsive to signals supplied from each sensor" and makes no mention of those signals being linked to a low or high fuel level. [*Id.*] Similarly, in the specification, the '662 Patent describes "[f]luid flow in each hose 24 is controlled automatically or manually in response to receiving signals representative of fuel levels in the fuel tanks." [*Id.* at 9] Later, the specification provides that "the operator may electrically signal the automatic valves 58 to open." [*Id.*] Neither of these uses of "signal" in the specification conveys a warning. Accordingly, because the '626 Patent uses the term "signal" in ways that do not always convey a warning, the Court finds Atlas' definition overly narrow.

Frac Shack's definition, on the other hand, encompasses the possibility that the message is a warning. But, it is broad enough to include all the uses of the term "signal" within the '662 Patent. Accordingly, the Court will construe "signal" to mean "a communication or message."

6. [Start/Stop] Fuel Flow to the One of the Multiple Pieces of Equipment Independently of Flow to Other Pieces of Equipment

Claim Ten describes the fuel delivery system of Claim One as one in which the controller is responsive to the low fuel signal and sends a signal to each of the pieces of equipment to which fuel is to be delivered "to start fuel flow to the one of the multiple pieces of equipment independently of flow to other pieces of equipment." [#1-1 at 11] Claim Eleven claims the fuel delivery system of Claim One in which the controller is responsive to the high fuel signal and sends a signal to each of the pieces of equipment to which fuel is to be delivered "to stop fuel flow to the one of the multiple pieces of equipment independently of flow to other pieces of equipment." [*Id.*] Both parties agree that the quoted phrase should be given its plain and ordinary meaning [#75 at 34-35], and the Court agrees. As a result, no further construction is necessary. *See O2 Micro Int'l*, 521 F.3d at 1360 (court need not construe terms with ordinary meanings).

7. Manifold

Claim One describes "a fuel source comprising one or more manifolds, the one or more manifolds being connectable to a fuel supply; each manifold of the one or more manifolds having multiple fuel outlets, each fuel outlet of the multiple fuel outlets having a hose connection." [#1-1 at 10] Atlas argues that "manifold" means "a common pipe or chamber having more than one outlet." [#40 at 21] Frac Shack maintains that no construction is necessary. [*Id.*] In the alternative, Frac Shack argues that "manifold" means "an arrangement of piping having multiple outlets through which fuel is distributed, which may have a valve arrangement at each outlet to control the fuel distributed through that outlet." [*Id.*]

First, the Court agrees with Atlas that the Court must construe the term manifold. While the Court need not construe terms with ordinary meanings, "[w]hen the parties raise an actual dispute regarding the proper scope of the[] claims, the court, not the jury, must resolve that dispute." *O2 Micro Int'l*, 521 F.3d at 1360. Here, "manifold" as used in the '662 Patent is not an ordinary term that would be understood by the jury, and the meaning of manifold may affect the scope of the claims. Accordingly, the Court must construe "manifold."

Second, the Court agrees with Frac Shack's construction of "manifold." Frac Shack's construction is consistent with the claims. Claim One describes the manifold as "being connectable to a fuel supply" and "having multiple fuel outlets." That description is consistent with Frac Shack's proposed construction of manifold as "an arrangement of piping having multiple outlets through which fuel is distributed." [#40 at 21]

Frac Shack's construction also states that a manifold "may have a valve arrangement at each outlet to control the fuel distributed through that outlet." [*Id.*] That description is consistent with the preferred embodiment in the specification, which states that "[t]he manually controlled valves 28 are preferably located on and formed *as a part of* the manifolds 36, 38." [#1-1 at 8; *see also id.* ("The fuel outlets 22 are located on the manifolds 36, 38 and fluid flow through the fuel outlets 22 is controlled preferably at least by the manual valves 28.")

The Court is not persuaded by Atlas' argument, which implies that Frac Shack's construction conflates "manifold" and "valve," instead of distinguishing between these two elements. [#40 at 22] "Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct component[s]' of

the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp.*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)); *see also CAE Screenplates Inc. v. Heinrich Fielder GmbH & Co.*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of any evidence to the contrary, we must presume that the use of . . . different terms in the claims connotes different meanings."); *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1405 (Fed. Cir. 1996) (concluding that where a claim provides for two separate elements, those two elements "logically cannot be one and the same"). In *Becton*, the relevant elements were a "hinged arm" and a "spring," and the claims stated that the "spring means" was "connected to" the "hinged arm." 616 F.3d at 1253. The Federal Circuit reversed the district court's finding that the spring did not need to be defined as separate from the hinged arm, as defendant had suggested. *Id.* at 1254. In *Engel Industries*, the pertinent elements were a "second portion" and a "return portion." 96 F.3d at 1404-05. Defendant argued that the "second portion . . . *include[d]* the return portion." *Id.* at 1405. The Court found that this construction contradicted the plain language of the patent, which stated: "A second portion is bent rearwardly . . . . A return portion is also provided." *Id.* Because a return portion was "also provided," those elements "logically c[ould not] be one and the same." *Id.*

But Frac Shack's proposed construction of "manifold" can be distinguished from the improper constructions in *Becton* and *Engel*. Unlike those cases, Plaintiff's construction does not state or suggest that a manifold always includes a valve, or imply that these elements are one and the same. Instead, the conditional language of Plaintiff's construction—that a manifold "*may* have a valve arrangement"—recognizes

that manifolds and valves are distinguishable, and is consistent with both the claim language and the specification, as discussed above.

Accordingly, the Court will construe "manifold" to mean "an arrangement of piping having multiple outlets through which fuel is distributed, which may have a valve arrangement at each outlet to control the fuel distributed through that outlet."

8. Fuel Outlet

The term "fuel outlet" is used on multiple occasions in the claims. [#1-1 at 10-11] Atlas contends that "fuel outlet" means "a place or opening through which fuel can be let out." [#40 at 22] Frac Shack, on the other hand, maintains that "fuel outlet" means: "A part of a manifold where fuel exists. The fuel outlet can include a valve arrangement to control the fuel distributed through the fuel outlet." [*Id.*]

The Court agrees with Atlas' proposed construction. Unlike Frac Shack's proposed construction of manifold—that a manifold *may* include a valve arrangement—Frac Shack's definition of "fuel outlet" unequivocally incorporates a "fuel outlet" into a "manifold," even though the claims separately describe these terms. Because "manifold" and "fuel outlet" are listed separately, "'the clear implication of the claim language' is that those elements are 'distinct component[s]' of the patented invention." *Becton*, 616 F.3d at 1254 (quoting *Gaus*, 363 F.3d at 1288); *see also CAE Screenplates*, 224 F.3d at 1317 ("In the absence of any evidence to the contrary, we must presume that the use of . . . different terms in the claims connotes different meanings."); *Engel Indus.*, 96 F.3d at 1405 (concluding that where a claim provides for two separate elements, those two elements "logically cannot be one and the same").

Moreover, Frac Shack's definition would contradict the specification. Under Frac Shack's definition, the fuel outlet must be a part of a manifold. Certainly, the claims contemplate each manifold having multiple fuel outlets. [#1-1 at 10] But, the specification also states that "[t]he fuel outlets 22 are located *on* the manifolds 36, 38," in the Figure 1 embodiment. [*Id.* at 8 (emphasis added)] If the fuel outlets are located *on* the manifolds, it necessarily follows that the manifold and the fuel outlets are separate components, and that a fuel outlet is not "part of a manifold." Moreover, the specification describes the following:

> In a further embodiment, the fuel outlets 22 may each be supplied fuel through a corresponding pump, one pump for each outlet 22, and there may be one or more tanks, even one or more tanks for each outlet 22. However, using a manifold 36, 38 makes for a simpler system. The manually controlled valves 28 are preferably located on and formed as part of the manifolds 36, 38.

[#1-1 at 8] Thus, a "fuel outlet" is not always a part of the manifold, as Frac Shack's construction requires.

Atlas' construction is consistent with both the claims and the specification. The fuel outlet is a "place or opening through which fuel can be let out." Each manifold will have multiple such locations, but fuel outlets may also be supplied without a manifold system. Accordingly, the Court will construe "fuel outlets" to mean "a place or opening through which fuel can be let out."

9. [Hose] Connection; Connected [at the First End of the Hose to a Corresponding One of the Multiple Fuel Outlets]; a Fuel Delivery Connection . . . for Securing the Second End of the Hose to a Corresponding One of the Multiple Pieces of Equipment to which Fuel is to be Delivered

Claim One describes:

> plural hoses, each hose having a first end and a second end and being connected at the first end of the hose to a corresponding one of the multiple fuel outlets and having a fuel delivery connection at the second end of the hose for securing the second end of the hose to a corresponding one of the multiple pieces of equipment to which fuel is to be delivered.

[#1-1 at 10] Claim Twelve claims "[t]he fuel delivery system of claim 1 in which each fuel delivery connection comprises a cap for a fuel tank on each one of the multiple pieces of equipment to which fuel is to be delivered." [#1-1 at 11]

a. The First Round of Briefing

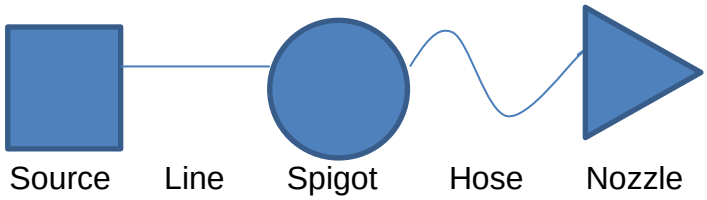
Atlas proposes that "hose connection" means "structure having the primary purpose of joining an end of a hose [to a fuel outlet]." [#40 at 23] Atlas further proposes that the phrase "connected at the first end of the hose to a corresponding one of the multiple fuel outlets" means "joined at one terminal end of the hose to the fuel outlet." [*Id.* at 25] Frac Shack, on the other hand, argues that the Court need only construe the terms "fuel outlet" (discussed above) and "connected/connection." [*Id.* at 23, 25] During the first round of briefing, Frac Shack proposed the following construction of "connected" and "connection":

> Joined to enable fluid to flow from a first component, such as a fuel outlet, to a second component, such as a hose. A first and second component can be connected directly or indirectly through, for example, a dry connection, a rotatable connection that includes bearings and dynamic seals, a hard line or a coupling.

[*Id.* at 23]

The Court agrees with Atlas that the phrases "[hose] connection" and "connected at the first end of the hose to a corresponding one of the multiple fuel outlets" are narrower than the definition for "connected/connection" proposed by Frac Shack. The Court begins with the phrase "connected at the first end of the hose to a corresponding one of the multiple fuel outlets." The use of "first end" contemplates a terminal connection between the first end of the hose and the fuel outlet. Similarly, Claim One's description of a "fuel delivery connection at the second end of the hose" designed to "secur[e] the second end of the hose" to one of the multiple pieces of equipment contemplates a terminal connection between the second end of the hose and the equipment.

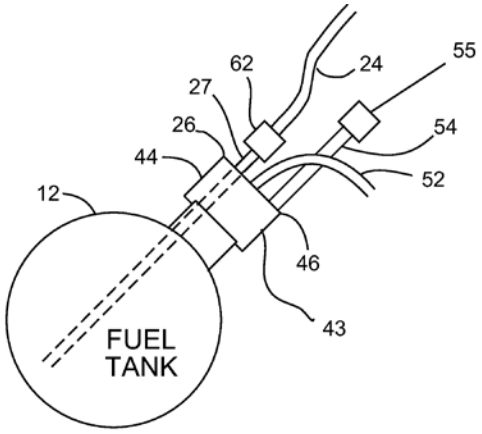
The example used by Atlas illustrates this point. In an example garden hose arrangement, there may be a water source, a line from the water source, a spigot, a hose, and a nozzle.



[#46 at 15] Certainly, one could correctly claim that the nozzle was connected to the source. But, nobody would say that the first end of the nozzle was connected to the source, or that the second end of the line was connected to the nozzle. Rather, the terms "first end" and "second end," as used in Claim One, connote a direct connection. By contrast, Frac Shack's proposed construction encompasses an indirect connection.

Atlas' construction of "hose connection" is consistent with the use of the terms in the claims. Claim 1 describes the first end of each hose "being connected . . . to a

corresponding one of the multiple fuel outlets" and a "fuel delivery connection" at the second end "for securing" that end "to a corresponding" piece of fuel delivery equipment. [#1-1 at 10] Thus Atlas' construction, a "structure having the primary purpose of joining an end of a hose [to a fuel outlet]" is consistent with the claim language. Atlas' construction of "hose connection" is also consistent with the specification. When the specification refers to a "connection," it refers to structure designed to join.[5] For example, the specification states that a conduit is "connected via a connection 62, for example a dry connection, to one of the hoses 24." [#1-1 at 8] The description of the "connection 62" as a dry connection connotes a joining structure, and the figure itself depicts 62 as a structure joining two components:



[#1-1 at 4] Other uses of "connection" in the specification support this interpretation. [#1-1 at 10 ("a rotatable connection between portion 61 and top end 46 may be adapted to channel pressurized fluids under seal"); *id.* ("quick connection couplings"); *id.* ("male or female connections on fuel tank")] Finally, as Atlas observes [*see* #40 at 27], if "connection" referred more generally to enabling fluid to flow from one component to

[5] The examples provided by Frac Shack suggesting less-direct connections involve the words "connected" or "connectable." [#44 at 15-19; Plaintiff's Claim Constr. Presentation, at 43]

another, as Frac Shack proposes, the patentee would not have needed to differentiate between the first and second ends of the hose, and the specific components to which they connect. *See, e.g.*, *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so."); *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed. Cir. 2004) ("[I]nterpretations that render some portion of the claim language superfluous are disfavored.").

Frac Shack nonetheless argues that Atlas' definition would exclude the '662 Patent's preferred embodiment. [#44 at 17-18] According to Frac Shack, the preferred embodiment shows hose reels in the fuel path between the hoses and the fuel outlet. [#44 at 18] Thus, Frac Shack argues that the hoses are not connected at the terminal end to the fuel outlet, and would therefore be excluded by Atlas' definition. [*Id.*] Frac Shack also argues that the patentee described other components as being "directly connected," but did not use that language with respect to the hose connection, or in describing the hose as being "connected at the first end . . . to a corresponding one of the multiple fuel outlets." [#44 at 18 (citing #1-1 at 10 ("Valve 71 may be directly or indirectly connected to port 50."); ("In some case the top end 46 may quick connect directly to the fuel tank 12."))]

The Court disagrees. As Atlas correctly notes, "[n]othing in the ['662 Patent] describes the reels as being part of the fluid path, and not all hose reels are part of the fluid path." [#46 at 15-16] Instead, the hose reels appear to predominantly be a storage device and do not break the connection between the hoses and the fuel outlets. [*See* #1-1 at 7 ("The hoses 24 are preferably stored on reels 30."); *id.* at 9 ("Hoses from

the outlets 22 may be stored on reels 30 mounted on two or more shelves within the trailer 14.")] Using the water hose analogy again, if the hose was wrapped around a reel, the reel would not interfere with the direct connection between the hose and the nozzle.

Moreover, Atlas' proposed construction does not include "direct" or "indirect" language. Instead, while Atlas' construction allows for a direct connection, with respect to the first end of the hose being "joined at one terminal end of the hose to the fuel outlet," its construction of "hose connection" anticipates more indirect connections as well by defining that term as a "structure having the primary purpose of joining an end of a hose [to a fuel outlet]." [*See* #46 at 14] In other words, Atlas' proposed construction would include intervening components if they have "the primary purpose of joining," but is not overbroad like Frac Shack's proposed construction, which could include any number of intervening parts, even if they do not have that joining purpose. [*Id.*] As a result, Atlas' proposed construction does not exclude the '662 Patent's preferred embodiment and does not limit connections to ones that are strictly direct.

b. The Second Round of Briefing

Despite arguing in the first round of claims construction briefing that connection should be given the same meaning as connected, during the second round of briefing Frac Shack took the position that the phrase "a fuel delivery connection . . . for securing the second end of the hose to a corresponding one of the multiple pieces of equipment to which fuel is to be delivered" was actually a means-plus-function limitation, governed by 35 U.S.C. § 112(f). [#75 at 7-15] That subsection provides:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure,

> material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112(f). "Means-plus-function limitations permit a patentee to claim an element of her invention in terms of the element's function, without in the claim reciting corresponding structure." *Power Integrations, Inc. v. Fairchild Semiconductor Intern., Inc.*, 711 F.3d 1348, 1363-64 (Fed. Cir. 2013).

If a claim does not use the word "means," the Federal Circuit presumes that means-plus-function claiming does not apply. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). This is not a "strong" presumption, however, and it can be overcome "if the challenger demonstrates that the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Id.* at 1349 (quoting *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)). Ultimately, the "standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Id.*

The Federal Circuit has noted that "[g]eneric terms such as 'mechanism,' 'element,' 'device,' and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the words 'means' because they typically do not connote sufficiently definite structure and therefore may invoke [§ 112(f)]." *Id.* at 1350 (quotation omitted). Frac Shack argues that the expression "fuel delivery connection" is such a nonce word. [#75 at 9] The Court disagrees. The description of a "fuel delivery connection" as being located at the second end of a hose and being used to secure the second end of the hose to a

corresponding piece of equipment provides sufficiently definite meaning to a person of ordinary skill in the art to connote structure. *See Papst Licensing GmbH & Co. KG v. Apple Inc.*, No. 6:15-cv-01095, 2017 WL 897172, at *5 (E.D. Tex. Mar. 7, 2017) ("The term 'connecting device' . . . is not a 'nonce' term but rather connotes a class of electrical connection structures." (citation omitted)).

The Court's conclusion is bolstered by the specification. According to the specification, "[e]ach one of the individual features described here may be used in one or more embodiments and is not, by virtue only of being described here, to be construed as essential to all embodiments by the claims." [#1-1 at 7] Such language contradicts a means-plus-function limitation. *See Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1296 (Fed. Cir. 2014) ("[W]e must construe the claim limitation to decide if it connotes 'sufficiently definite structure' to a person of ordinary skill in the art, which requires us to consider the specification (among other evidence)."), *overruled on other grounds by Williamson*, 792 F.3d 1339.

c. Conclusion

Accordingly, the Court will construe "[hose] connection" as used in Claim One to mean "structure having the primary purpose of joining an end of a hose [to a fuel outlet]." The Court will further construe the phrase "connected at the first end of the hose to a corresponding one of the multiple fuel outlets" to mean "joined at one terminal end of the hose to the fuel outlet."

10. Preamble: A Fuel Delivery System for Fuel Delivery to Multiple Pieces of Equipment at a Work Site, Comprising

The parties dispute whether the preamble limits the scope of the claim language. [#70 at 7] Generally, a preamble does not limit the claims. *Georgetown Rail Equip. Co.*

v. Holland L.P., 867 F.3d 1229, 1236 (Fed. Cir. 2017). "A preamble is not a claim limitation if the claim body 'defines a structurally complete invention . . . and uses the preamble only to state a purported or intended use for the invention.'" *Id.* (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997))). Similarly, preamble language "merely extolling the benefits or features of the claimed invention does not limit the scope without clear reliance on those benefits or features as patentably significant." *Id.* (quoting *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809 (Fed. Cir. 2002)).

But, a "preamble is generally construed to be limiting if it 'recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim.'" *Proveris Sci. Corp. v. Innovasystems, Inc.*, 739 F.3d 1367, 1372 (Fed. Cir. 2014) (quoting *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1305 (Fed. Cir. 2005)). "For example, the preamble may be construed as limiting when it recites particular structure or steps that are highlighted as important by the specification." *Id.* "Additionally, '[w]hen limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.'" *Id.* (quoting *NTP*, 418 F.3d at 1306). Finally, when there was clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art, then the preamble may be limiting. *See Georgetown Rail*, 867 F.3d at 1236.

Here, the Court agrees that the preamble is limiting. The preamble reads as follows: "A fuel delivery system for fuel delivery to multiple pieces of equipment at a work site." [#1-1 at 10] Claim One refers to "multiple pieces of equipment" three times.

[*Id.* at 10-11] The use of "multiple pieces of equipment" in the preamble as an antecedent for the repeated use of that same phrase in the body of the claim supports a conclusion that the phrase limits the claim. *See Electro Sci. Indus., Inc. v. Dynamic Details, Inc.*, 307 F.3d 1343, 1348 (Fed. Cir. 2002) (finding antecedent basis where preamble defined "circuit boards" and the claim made multiple references to "circuit boards"); *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999) (finding the preamble limiting where it claimed a method or apparatus "for producing on a photoreceptor an image of generated shapes made up of spots" and the claim body used the phrase "generated shapes").

The Court further concludes that the entire phrase "multiple pieces of equipment at a work site" is limiting. [*See* #1-1 at 10] Without the explanatory phrase "at a work site," the later reference to "the multiple pieces of equipment" does not make sense. The preamble provides the necessary context for understanding the phrase "multiple pieces of equipment." The phrase "multiple pieces of equipment at a work site" is "necessary to give life, meaning, and vitality to the claim." *Proveris Sci. Corp.*, 739 F.3d at 1372.

Relying on *TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1322-24 (Fed. Cir. 2015), Atlas argues that the entire preamble should not be deemed limiting simply because a part of the preamble is limiting. [#70 at 9-11] *TomTom* is readily distinguishable. There, the Court emphasized that the non-limiting portion of the preamble "only state[d] the intended use of the invention." 790 F.3d at 1323. Indeed, the party arguing against limitation in *TomTom* stressed that the non-limiting portions of the preamble were "unrelated" to the limiting portions of the preamble. *Id.*

Here, the Court has concluded that "multiple pieces of equipment at a work site" is limiting based upon the antecedent use of the phrase "multiple pieces of equipment." [*See* #1-1 at 10] The remainder of the preamble—"[a] fuel delivery system for fuel delivery to"—does not describe an intended use for the invention. *Cf. TomTom*, 790 F.3d at 1322, 1323-24 (finding the phrase "*a method for* generating and updating data *for use in*" not limiting because that language stated a purpose and intended use, evidence by the standard language 'a method for a purpose of intended use,' followed by the body of the claim (emphasis added)). Rather, it is essential to understanding the remainder of the preamble and the claims themselves—without it, the '662 patent would be structurally incomplete. *See id.* at 1324. Accordingly, the Court concludes that the entire preamble is limiting. *See Koninklijke KPN N.V. v. Samsung Elecs. Co., Ltd.*, Nos. 2:14-CV-1165-JRG, 2:15-CV-948-JRG, 2016 WL 2610649, at *32 (E.D. Tex. May 6, 2016) ("*TomTom* is distinguishable here because the language relied upon for antecedent basis makes up substantially the entireties of the preambles, and the preamble language is intertwined such that the preambles cannot be parsed into limiting and non-limiting portions."); *Blue Calypso, Inc. v. Groupon, Inc.*, 93 F. Supp. 3d 575, 594 (E.D. Tex. 2015) (finding *TomTom* distinguishable because "in all of the claims at issue [in *Blue Calypso*], the language relied upon for antecedent basis is intertwined with the entireties of the preambles such that the preambles cannot be parsed into limiting and non-limiting portions").

The Court's conclusion that the preamble is limiting is bolstered by a review of the claims prosecution. Frac Shack characterized Claim One (then Claim 37) as "directed to a system for delivery of fuel to multiple pieces of equipment at a work site."

[#40-2 at 106] Frac Shack explained that "[t]he equipment at the work site may need to be refuel[]ed several times." [*Id.*] Frac Shack then distinguished prior art by relying on the "multiple pieces at a work site" phrase. [*Id.* at 106-08] This clear reliance on the preamble to distinguish the '662 Patent from other prior art further supports the Court's conclusion that the preamble is limiting. *See Georgetown Rail*, 867 F.3d at 1236.

Despite Frac Shack's reliance on the preamble phrase during prosecution, Atlas nonetheless argues that the preamble is not limiting because Frac Shack's "reliance on the preamble failed, and it was not until Frac Shack made a late amendment to the structural body of claims that the Patent Office finally allowed the patent." [#70 at 11 (citing #70-2 at 50 (examiner allowing the patent because "[t]he combination of a manifold connected to plural hoses and a controller which is responsive to a low fuel condition in the claimed manner is not anticipated or made obvious by the prior art of record")] But, the Federal Circuit has held that "clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention." *Catalina Mktg.*, 289 F.3d at 808.[6] By relying on

[6] In *Catalina Marketing*, the Federal Circuit held that applicants did not rely on the preamble phrase to distinguish the prior art where the examiner had expressly held that the preamble phrase was insignificant for patentability, and in response the applicants amended structural limitations in the claims. 289 F.3d at 810. By contrast, as discussed above, here Frac Shack *did* use the preamble to distinguish the '662 Patent from the prior art, and the examiner did not make the express finding that the preamble was patently insignificant. [*See* #70-2 at 50-52]. Citing to *Symantec Corporation v. Computer Associates International, Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008), Atlas argues that "the relied-upon preamble language takes on independent significance" only if the language of the preamble is used by the patent holder to *successfully* distinguish his patent from the prior art, which Atlas contends Frac Shack failed to do. [#70 at 11] But in *Symantec*, the district court's "only basis" for determining that the preamble phrase was limiting, was that the preamble language had been added separately from

the preamble, Frac Shack was defining the '662 Patent. As a result, the preamble is limiting.

11. A Fuel Delivery System

As indicated above, the preamble describes "[a] fuel delivery system for fuel delivery to multiple pieces of equipment at a work site." [#1-1 at 10] Atlas maintains that the phrase "a fuel delivery system" should be given its plain and ordinary meaning. [#70 at 7] Frac Shack, on the other hand, argues that "a fuel delivery system" means "a system for delivering fuel, as opposed to equipment being fueled." [*Id.*; #75 at 17]

The Court agrees with Frac Shack's proposed definition. The preamble describes "[a] fuel delivery system" that delivers fuel "*to* [the] multiple pieces of equipment." [#1-1 at 10 (emphasis added)] Thus, the multiple pieces of equipment receive fuel from the fuel delivery system. This language implies that the equipment is separate from the fuel delivery system.

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text added to the claims to overcome the prior art. 522 F.3d at 1289. The Federal Circuit vacated because "both terms were added concurrently to overcome the same prior art" and accordingly the preamble language "did not have its own independent significance." *Id.* The Court is faced with a different situation here. As discussed above, the prosecution history is one of multiple reasons that the Court finds the "fuel delivery system" language in the preamble to be limiting. And, unlike *Symantec*, the patentee here did not concurrently add limitations to the preamble and body of the claims to overcome the same prior art. *See id.* Moreover, Atlas has not presented any case law to support its claim that reliance on the preamble language during the prosecution must be successful. Instead of looking to the success of the reliance, the applicant's reliance itself appears to hold the most significance. *See, e.g.*, *Ekchian v. Home Depot, Inc.*, 104 F.3d 1299, 1304 (Fed. Cir. 1997) ("[S]ince, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover, he is by implication surrendering such protection."). For example, in a related context (constructing claims rather than the preamble), the Federal Circuit rejected the patent owner's argument that because the applicant had "made two arguments to overcome" the prior art during the prosecution history, and because the examiner allowed all of the claims based only on the second argument, that the first argument did not narrow the claim scope. *Seachange Intern., Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1373 (Fed. Cir. 2005).

This conclusion is supported by a review of the specification. [*See, e.g.*, #1-1 at 7 ("Equipment at a well being fractured requires large amounts of fuel.")] As Frac Shack aptly notes, "[t]he specification never considers any of the equipment being fueled as part of the claimed system." [#75 at 23] Accordingly, the Court will construe "[a] fuel delivery system" to mean "a system for delivering fuel, as opposed to equipment being fueled."

12. Work Site

As indicated above, the preamble describes "[a] fuel delivery system for fuel delivery to multiple pieces of equipment at a work site." [#1-1 at 10] Atlas maintains that "work site" should be given its plain and ordinary meaning. [#70 at 7] Frac Shack argues that "work site" means "a temporary construction area." [*Id.*; #75 at 25] Alternatively, Frac Shack does not oppose the construction adopted by the United States Patent and Trademark Office's Patent Trial and Appeals Board ("PTAB") that a "work site" is the equivalent of at a "well site" found in Claim 7. [#79 at 7; #79-1 at 14-16]

The Court agrees with the PTAB that a "work site" is the equivalent of a "well site." This reading is consistent with the specification that consistently refers to the use of the claimed system to deliver fuel to equipment during the fracturing of a well. [#1-1 at 7, 9] This reading is also consistent with the prosecution history in that the applicants distinguished the Hockner prior art on the basis that Hockner was used for filling fuel tanks at a filling station, not for refueling multiple pieces of equipment at a work site. [#40-2 at 106] If a work site were defined as any area where work was done, as Atlas

has argued, then a work site would include a filling station and Hockner would not have been distinguishable on the basis of the term "work site."

Construing "work site" to mean "well site" is also consistent with the expert testimony about how a person of ordinary skill in the art would understand the term "work site." Mr. Tolman testified that "'work site' and 'well site' are generally interchangeable in the industry." [#89 at 52] While he testified that "well site" may be narrower to only include the "hot zone" where the hydraulic fracturing, or fracking, was taking place, he also testified that the refueling contemplated by the '662 Patent during fracking generally takes place in that "hot zone." [*Id.* at 52-54] As a result, defining "work site" to mean "well site" is consistent with Mr. Tolman's expert testimony.

The Court therefore concludes that the PTAB accurately construed the phrase "work site." Accordingly, the Court will construe "work site" to mean "well site."

13. Claim Seven

Claim Seven claims "[t]he fuel delivery system of claim 1 set up for delivery of fuel at a well site during fracturing of a well." [#1-1 at 11] Atlas maintains that Claim Seven is invalid under 35 U.S.C. § 112(d) for failing to further limit Claim One. [#70 at 13] Alternatively, Atlas maintains: (1) "well site" should be given its plain and ordinary meaning, and (2) "set up for delivery of fuel at a well site during fracturing of a well" means "positioned for fluid delivery." [*Id.*] Frac Shack, on the other hand, maintains: (1) "well site" means "where a well is drilled," and (2) "set up for delivery of fuel at a well site during fracturing of a well" means "erect in position near a well for delivery of fuel during fracturing of the well." [*Id.*; #75 at 28]

a. Validity of Claim Seven

Section 112(d) provides, in relevant part, that "a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed." Atlas maintains that Claim Seven fails to limit Claim One, and instead only describes a positional location. [#70 at 13-14] The Court disagrees. Mr. Tolman testified that there was equipment at the well site that could use the refueling technique of the '662 Patent but that would not be used during the hydraulic fracturing process under Claim One. [#89 at 95-97] Mr. Tolman therefore agreed that "the hydraulic fracturing is just a subset of what's done at a well site using the techniques of the '662 Patent." [*Id.* at 97] Based on this testimony, Claim Seven has a narrower scope then Claim One—Claim Seven limits the technique of the '662 Patent to refueling equipment during the hydraulic fracturing process, whereas Claim One includes the use of the technique of the '662 Patent at a well site at any time, and includes fueling equipment at the well site that are not used during the hydraulic fracturing process.

b. Well Site

The Court agrees with Frac Shack's proposed construction of "well site." A well site is a place where a well is drilled. Indeed, during the claims construction hearing, Atlas' expert agreed that Frac Shack's proposed definition was appropriate. [#89 at 21] Accordingly, the Court will construe "well site" to mean "where a well is drilled."

c. Set Up for Delivery of Fuel at a Well Site During Fracturing of a Well

The Court agrees with Frac Shack definition of "set up for delivery of fuel at a well site during fracturing of a well"—"erect in position near a well for delivery of fuel

during fracturing of the well." [#75 at 28] Without citation, Atlas maintains that its proposed definition, "positioned for fluid delivery," is consistent with the understanding of the phrase by a person of ordinary skill in the art. [#70 at 13, 14] But, nothing in either the intrinsic or extrinsic evidence supports Atlas' substitution of the term "fluid" for "fuel."[7] Frac Shack's definition, in contrast, is consistent with Mr. Tolman's testimony that "set up for delivery of fuel at a well site during fracturing of a well" would be understood by a person of ordinary skill in the art as setting up the equipment at the beginning of the fracking operation. [#89 at 62] Frac Shack's proposed definition of "erect in a position near a well for delivery of fuel during fracturing of the well" is consistent with Mr. Tolman's testimony that the phrase is related to the fracturing of the well. [#75 at 28] Moreover, while Mr. Tolman's description of "set up" suggests the beginning of the fracking operation [#89 at 62], Claim Seven's phrase "during fracturing" contemplates the entire fracturing process [#1-1 at 11]. Accordingly, the Court will construe "set up for delivery of fuel at a well site during fracturing of a well" to mean "erect in position near a well for delivery of fuel during fracturing of the well."

15. A Sensor Associated with Each Combination of Fuel Outlet, Hose and Fuel Delivery Connection

As explained earlier, Claim One describes "a sensor associated with each combination of fuel outlet, hose and fuel delivery connection, each sensor being

[7] Somewhat confusingly, after suggesting the "positioned for *fluid* delivery" construction in its chart [#70 at 13], Atlas then states that "set up for delivery of fuel at a well site during fracturing of a well" means "positioned for *fuel* delivery" [*id.* at 14]. In the two sentences that follow, Atlas states: "This is how one of ordinary skill in the art would understand the purported limitation to claim 1. That is, the invention of claim 1 being imported to a fracturing well site to be used there to deliver *fluid* to the equipment at that site." [*Id.*] Moreover, Atlas did not respond to Frac Shack's argument that "for delivery of fuel" is not equivalent to "for delivery of fluid" [#75 at 31-32] in its reply brief [see #78]. Accordingly, the Court presumes that Atlas' construction is "positioned for fluid delivery."

configured to detect a low fuel condition associated with each of the multiple pieces of equipment to which fuel is to be delivered." [#1-1 at 11] Atlas proposes that the phrase "a sensor associated with each combination of fuel outlet, hose and fuel delivery connection" be given its plain and ordinary meaning. [#70 at 19] Frac Shack argues that the phrase means "a sensor associated with unique combination of fuel outlet, hose, and fuel delivery connection, regardless of to which equipment being fueled the hose is connected, or whether the hose is connected to equipment being fueled at all." [*Id.*; #75 at 23]

The Court agrees with Atlas' proposed definition. Frac Shack maintains that its proposed definition:

> [I]s put forth to make clear that a fuel delivery system's sensor is 'associated' with an outlet/hose/fuel delivery connection in the sense that a sensor is associated with a unique combination which is deployed to a particular piece of equipment being fueled, and remains so associated regardless of whether the combination is changed to another piece of equipment to be fueled.

[#75 at 23-24] But, the real debate is whether the sensor must be in the fuel cap, or whether it can go elsewhere. [#70 at 19 ("Frac Shack hopes to add a structural requirement that the sensor is not part of the fuel tank."); #89 at 140 (counsel for Frac Shack stating that the sensor has to be in "the fuel cap or some mechanical equivalent of it")] The '662 Patent does not contain any restriction on the placement of the sensor. Indeed, the specification states that "[e]ach cap . . . *preferably* comprises a fuel level sensor [] mounted in port." [#1-1 at 8 (emphasis added)] Thus, while the preferred embodiment places the sensor in the cap, such placement is only preferred and not required. Accordingly, the Court the will construe "a sensor associated with each

combination of fuel outlet, hose and fuel delivery connection" to have its plain and ordinary meaning.

IV. CONCLUSION

For the foregoing reasons, the Court construes the '662 Patent as set forth above. A Final Pretrial Conference is set in this matter for November 16, 2018, at 9:30 a.m.

DATED: March 9, 2018

BY THE COURT:

s/Scott T. Varholak
United States Magistrate Judge