

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

Accordant Energy, LLC,)	CASE NO. 1:17 CV 411
)	
Plaintiff,)	JUDGE PATRICIA A. GAUGHAN
)	
Vs.)	
)	
Vexor Technology, Inc., et al.,)	<u>Order on Claim Construction</u>
)	
Defendant.)	

INTRODUCTION

This matter is before the Court upon the parties’ claim construction briefs. This is a patent case. The disputed claims are construed as follows:

1. “carbon content,” “hydrogen content,” “moisture content,” “sulfur content,” chlorine content,” “HHV,” “ash content,” and “O/C ratio:” ordinary meaning;
2. “substantially free/ substantially no” means “no more than 0.01 wt.% of the material is present;”
3. “fiber” will be construed after further briefing;

4. “engineered fuel feed stock” means “an engineered material used as a fuel or as a raw material for conversion into other fuels;”

5. “selecting:” ordinary meaning;

6. “processed industrial waste stream” means “a waste stream in which solid waste generated at industrial establishments has been processed by having been sorted according to types of solid waste components;”

7. “noncombustible waste” means “waste that does not readily gasify in gasification systems and does not give off any meaningful contribution of carbon or hydrogen into the synthesis gas generated during gasification;”

8. “additional fuel components:” ordinary meaning.

FACTS

Plaintiff Accordant Energy, LLC, brings this lawsuit against defendants Vexor Technology, Inc. and Vexor Technology, LLC¹ (collectively, “defendant”) alleging infringement of United States Patent No. 9,062,268 (“’268 Patent”) and United States Patent No. 9,523,051 (“’051 Patent”). Both patents are directed at engineered fuel feed stock. The parties ask that the Court construe a number of claim terms. In addition, defendant argues that three of the claim terms are indefinite rendering the patents-in-suit invalid. The parties agree that for purposes of claim construction the Court need not consider both specifications. Rather, consideration of the specification for the ’268 Patent is sufficient.

ANALYSIS

¹ Two other Vexor related entities were voluntarily dismissed without prejudice and are no longer parties to this lawsuit.

A. Invalidity

Here, defendant argues that a number of claim terms are indefinite, thus rendering the patents invalid.

In *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S.Ct. 2120 (2014), the Court clarified the standard to be applied in assessing indefiniteness. Prior to *Nautilus*, a claim passed § 112's threshold provided the claim was "amenable to construction" and not "insolubly ambiguous" as construed. There is "no serious question that *Nautilus* changed the law of indefiniteness. This was indeed the very purpose of the *Nautilus* decision." *Dow Chemical Co. v. Nova Chemicals Corp. (Canada)*, 803 F.3d 620 (Fed. Cir. 2015). The Supreme Court first noted that § 112 requires a "delicate balance." On the one hand, "the definiteness requirement must take into account the inherent limitations of language. Some modicum of uncertainty, the Court has recognized, is the price of ensuring the appropriate incentives for innovation." *Nautilus*, 134 S.Ct. at 2128 (internal citations and quotations omitted).

At the same time, a patent must be precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them. Otherwise there would be a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims. And absent a meaningful definiteness check, we are told, patent applicants face powerful incentives to inject ambiguity into their claims. Eliminating temptation is in order and the patent drafter is in the best position to resolve the ambiguity in patent claims.

Nautilus, 134 S.Ct. at 2129.

To reconcile these competing interests, the Court held that § 112 ¶ 2 requires "that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the inventions with reasonable certainty. The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is

unattainable.” *Id.*

Nautilus, however, did not alter the burden of proof with respect to indefiniteness arguments or other aspects of the analysis. Rather, the burden of proof remains with the party asserting indefiniteness to show by clear and convincing evidence that the claim fails § 112’s requirements as outlined in *Nautilus*. See, *Cox Communications, Inc. v. Sprint Communications Co.*, 838 F.3d 1224, 1228 (Fed. Cir. 2016)(“Any fact critical to a holding on indefiniteness ... must be proven by the challenger by clear and convincing evidence.”). Moreover, definiteness must be “evaluated from the perspective of someone skilled in the relevant art...from the viewpoint of a person skilled in the art at the time the patent was filed.” *Nautilus*, 134 S.Ct. at 2128. In addition, in “assessing definiteness, claims are to be read in light of the patent’s specification and prosecution history.” *Id.*

B. Claim construction

“[T]he interpretation and construction of patent claims, which define the scope of the patentee’s rights under the patent, is a matter of law exclusively for the court.” *Markman v. Westview Instruments*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). “To ascertain the meaning of claims, [the court considers] three sources: The claims, the specification, and the prosecution history.” *Markman*, 52 F.3d at 979. The words of a claim are generally given their ordinary and customary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). The ordinary and customary meaning is to be determined from the perspective of one of ordinary skill in the art at the time of the invention. *Id.* at 1313. “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.*

Accordingly, the court first looks to the claim itself, read in view of the specification. *Id.* at 1315 (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.”). However, while the court may look to the written description to define a term already in a claim limitation, the court may not read a limitation from the written description into a claim. *Id.* at 1323.

As stated above, the prosecution history should also be considered by the court when conducting claim construction. *Phillips*, 415 F.3d at 1317. The “prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*; *see also Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (“The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution.”). Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers. *Chimie*, 402 F.3d at 1384. Moreover, the prosecution history of a parent application applies with equal force to a later patent that contains the same claim limitation. *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999); *see also Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004) (“the prosecution history of one patent is relevant to an understanding of the scope of a common term in a second patent stemming from the same parent application”). “The relevant inquiry is whether a competitor would reasonably believe that the applicant had surrendered the relevant subject matter.” *Cybor Corp. v. Fas Techs., Inc.*, 138 F.3d 1448, 1457 (Fed. Cir. 1998).

All other evidence is considered extrinsic and may be relied upon by the court in its discretion. *Markman*, 52 F.3d at 980; *Phillips*, 415 F.3d at 1317. However, extrinsic evidence is less reliable than intrinsic evidence. *Phillips*, 415 F.3d at 1318. Thus, the court should restrict its reliance on extrinsic evidence to educating itself regarding the field of invention or to determining what a person of ordinary skill in the art would have understood the claim terms to mean. *Id.* at 1319; *see also Markman*, 52 F.3d at 986 (“It is not ambiguity in the document that creates the need for extrinsic evidence but rather unfamiliarity of the court with the terminology of the art to which the patent is addressed.”). Extrinsic evidence may not be used for the purpose of varying or contradicting the terms of the claims. *Markman*, 52 F.3d at 981.

As a result, excessive reliance should not be placed on dictionaries. *Phillips*, 415 F.3d at 1321. “The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. ... [H]eavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.” *Id.*

C. The claim terms at issue

With these standards in mind, the Court turns to defendant’s arguments pertaining to indefiniteness, as well as the parties’ proposed claim constructions.

1. “carbon content,” “hydrogen content,” “moisture content,” “sulfur content,” “chlorine content,” “HHV,” “ash content,” and “O/C ratio”

The patent provides as follows:

1. A method of producing an engineered fuel feed stock from a processed waste stream, the method comprising the steps of:

a) selecting a plurality of components from a processed waste stream which components in combination have chemical molecular characteristics comprising: a *carbon content* of between about 30 wt% and about 80 wt%, and a *hydrogen content* of between about 3 wt% and about 10 wt%

2. The method of claim 1, wherein the engineered fuel feed stock has a *moisture content* of between about 10 wt% and about 30 wt%.

(Emphasis added).

The remaining terms are set forth in a similar fashion in the additional dependent claims.

Defendant argues that these terms are indefinite because the patent does not identify the proper unit of measurement, when the measurement is made, or how the measurement is accomplished. According to defendant, the specification provides two possible standards of measurement, *i.e.*, weight and volume. In addition, the specification fails to identify the type of measurement to be used. It appears that defendant argues that there are two different measurements that could be taken. Namely, the measurement could be taken on a “dry” basis or on an “as received basis.” Because the patent does not disclose which of these measurements to use, the claim is indefinite. In addition, defendant argues that the patent does not identify when during the performance of the method the measurements should be taken.

In response, plaintiff argues that the patent clearly identifies that the measurements are based on weight, not volume. In addition, plaintiff argues that defendant fails to identify different methods for testing the amounts of “carbon content,” “moisture content,” or the like. Nor does defendant offer any evidence or suggestion that different methods of testing would produce different results. With regard to the timing of the testing, plaintiff argues that the patent covers testing at any time during the performance of the method. Thus, provided the content for

each element or ratio is within the defined limits at any point, infringement will result. In the alternative, plaintiff argues that the patent sufficiently discloses that the measurement should occur based on an “as received” basis.

Upon review, the Court agrees with plaintiff. As an initial matter, the claims themselves identify that the proper measurement is weight. As set forth above, the claims expressly describe the content of each chemical in terms of “wt%.” Although the portion of the specification cited by plaintiff refers to “vol.%,” the claims themselves very clearly describe the measurements in terms of weight. The Court finds that the patent is not indefinite on this basis.

The Court also rejects any argument that the patent is indefinite because it does not identify the appropriate testing *method*. Here, defendant does not point to different ways that one could measure, for example, “carbon content.” Nor does defendant point to anything indicating that use of different methods of measurement would result in appreciable differences in the results. Rather, defendant argues that the patent does not identify whether the measurement should occur based on an “as received basis” or a “dry basis.” The Court finds that this argument is directed at the timing of the measurement, not the method. Thus, the Court agrees with plaintiff that the claim terms are not indefinite as a result of the failure to identify a testing method. Defendant simply has not met its burden in this regard.

Turning to the timing of the measurement, the Court finds that the claim terms are not indefinite as a result of the failure of the patentee to express a time at which the measurements should be taken. Here, defendant argues that the chemical properties of the fuel feed stock change over time. It appears that, according to defendant, the moisture content of the fuel feed stock increases as the product nears delivery. “As received” appears to describe the material as

it is delivered to the testing facility. Moreover, defendant claims that the manner in which the material is transported can have an effect on certain elements as the moisture content will change. The Court finds, however, that defendant fails to point to anything in the patent limiting the timing of the measurement. In other words, defendant is improperly attempting to read into the patent a limitation that is not present in the patent itself. There is simply no indication that the patentee intended to limit the timing of the measurement. Therefore, the measurement can occur at any point during the described processes. The Court agrees with plaintiff that the issue thus becomes one of infringement rather than indefiniteness.²

With regard to construction of these terms, the Court agrees with plaintiff that they should be afforded their ordinary meaning. Defendant offers no alternate construction, relying solely on its indefiniteness argument. Having reviewed the patent, the Court agrees that the terms require no special construction.

2. “Substantially free/ substantially no”

In claim one of the patent, the patent sets forth:

1. A method of producing an engineered fuel feed stock from a processed waste stream, the method comprising the steps of:

b) combining the selected components of step a) to form an engineered fuel feed stock; wherein the engineered fuel feed stock contains biodegradable waste and non-biodegradable waste and is *substantially free* of glass, metals, grit, and noncombustible waste.

The parties do not dispute that the terms “substantially free” and “substantially no” have the same meaning and scope. Plaintiff asks that the Court construe the term to mean “no more

² The Court declines to address defendant’s two-sentence enablement argument during claim construction.

than 0.01% of the material is present.” Defendant argues that the term is indefinite. The specification provides as follows:

Processed MSW contains substantially no glass, metals, grit, or non-combustibles. Grit includes dirt, dust, granular wastes such as coffee grounds and sand, and as such the processed MSW contains substantially no coffee grounds. The term “substantially no” as used herein means that no more than 0.01% of the material is present in the MSW components.

(’268 Patent at 19: 61-67).

Defendant argues that this term is indefinite. According to defendant, the specification and a provisional application refer only to “substantially free” in relation to MSW. The patent claims, however, apply the “substantially no” language to the fuel feed stock. Thus, according to defendant, it makes no sense to pull this definition from these documents and apply it to fuel feed stock. Moreover, defendant notes that the patentee was asked to clarify “substantially no” in order to overcome a Section 112 rejection. In so doing, the applicant pointed out as follows:

Applicants state that the processed MSW contains no more than 0.01% grit, dirt, dust, granular wastes such as coffee grounds or sand. Thus, one of skill in the art upon reading the specification would know that ‘substantially no’ when used in connection with ‘grit, dirt, dust, granular wastes such as coffee grounds and sand’ refers to ‘no more than 0.01%,’ regardless of whether ‘volume, weight, or moles, etc.’

Based on this statement, the Examiner withdrew the Section 112 rejection. Defendant, however, argues that this statement actually makes the claims more indefinite. According to defendant, the patent does not provide a method to measure whether the limit is met because the limit lacks both a temporal and physical context. Defendant then proceeds to ask a number of questions, such as “Is 0.01% measured upon manufacture or prior to combustion?” Or, “Is the 0.01% measured by batch, by truckload, by tote, or by random sample?” According to defendant, “these parameters are essential to understanding the scope of the patents.” In

addition, defendant claims that the patentee's statement that the measurement may be by "volume, weight, or moles, etc." confuses the meaning further. Defendant claims that the patents and their prosecution histories do not answer any of these fundamental questions.

In response, plaintiff argues that a person of ordinary skill in the art ("POSA") would understand that the definition of "substantially no" as set forth in the specification applies with equal force to the patent claims. Although the definition appears in the specification as it relates to MSW, there is no reason to think that a POSA would not apply the same definition to the patent claims. Plaintiff further argues that defendant falls far short of establishing that this claim is indefinite.

Upon review, the Court agrees with plaintiff. The parties do not dispute that the term "substantially no" and "substantially free" have the same meaning and there is no indication that the patentee intended a different meaning of this term as applied to fuel feed stock. Moreover, as pointed out by plaintiff, the specification includes the phrase "as used herein," indicating an intent to apply the definition throughout the patents. In addition, the Court finds that the prosecution history actually supports this determination. The examiner withdrew the Section 112 objection after the patentee pointed to the definition set forth in the specification. Accordingly, the Court finds that the fact that the specification refers to MSW—as opposed to fuel feed stock—in defining "substantially no," does not render the claim indefinite. Rather, the Court agrees with plaintiff that a POSA would understand that "substantially free" of glass, metal, grit, and noncombustible waster has the same definition throughout the patent.

The Court finds, however, that plaintiff's proposed construction is insufficient because it does not account for the fact that the patent identifies that the proper measure of this term is by

weight. Here, the patent claims expressly disclose that when measuring the molecular components of the fuel feed stock, the components are to be measured by weight. (*See, e.g.*, '268 Patent at Claims 1-4, 7-8)(carbon content, hydrogen content, moisture content, sulfur content, chlorine content, volatile matter content, and ash content all measured by wt.%). The Court agrees with plaintiff that a POSA would understand that any other component part, *i.e.*, “glass, metals, grit, and noncombustible waste,” would also be measured by weight. As plaintiff notes, it would be difficult to compare or combine percentages if only one of the many components was to be measured in something other than weight. Therefore, the Court finds that the claim “substantially free” must be defined to indicate that the patents require that the “glass, metals, grit, and noncombustible waste” are to be measured by weight.

In addition, the Court rejects defendant’s arguments regarding the “questions” it posited. Defendant bears the burden of proof to show by clear and convincing evidence that the claim fails § 112’s requirements as outlined in *Nautilus*. Here, although defendant asks a number of questions, defendant fails to provide the Court with the *answers* to these questions and thus fails to meet its burden of establishing indefiniteness. By way of example, defendant asks “how many samples are required?” or “Is 0.01% measured upon manufacture or prior to combustion?” Defendant, however, provides no evidence indicating that the number of samples or timing of measurement would significantly change the infringement analysis. Rather, it appears that defendant misplaces the burden. Defendant simply notes that “[plaintiff] fails to answer the important questions” of how to sample the material and what sampling is required. But the burden is on the party challenging the patent to establish by clear and convincing evidence that the claim is indefinite. Defendant has failed in this regard. Simply presenting certain questions

without explaining how the answers to those questions impact the claims falls short of satisfying this burden. Defendant offers no expert testimony explaining how the various testing mechanisms would result in different results. The Court cannot simply assume this information. Accordingly, the Court rejects defendant's argument that the term "substantially free/substantially no" is indefinite based on the questions identified by defendant.

As set forth above, the Court finds that the phrase "substantially free/substantially no" means "no more than 0.01 wt.% of the material is present."

3. "Fiber"

This term appears in various claims, including claims 19 and 20, which read as follows:

19. The method of claim 1, wherein the engineered fuel feed stock includes fiber and plastic.

20. The method of claim 19, wherein the engineered fuel feed stock consists essentially of fiber and plastic.

Defendant argues that the term "fiber" is indefinite and thus renders the patents-in-suit invalid. According to defendant, there are many different types of fibers and, without having specified which fiber the patentee intended, the patent "fail[s] to enable one of ordinary skill in the art to practice the invention with reasonable certainty." Because the patent and the prior art disclose that multiple meanings exist for this phrase, the patent fails Section 112's requirements.

On the other hand, plaintiff argues that a POSA would understand from the patent and its specification that the term "fiber" means "materials comprised of plant fibers." According to plaintiff, the term is not indefinite.

Upon review, the Court agrees in part with plaintiff. As an initial matter, the Court notes that the claim terms differentiate "fiber" from "plastic." The term fiber is not preceded by an

“a,” nor did the patentee pluralize the word “fiber.” Thus, basic tenets of construction require the conclusion that “fiber” as used in the claim terms refers to a *category* of material, as opposed to “a thread or structure or object resembling a thread.”³ Moreover, the Court finds that the term “fiber” cannot include plastic. Based on an ordinary reading of the claim terms at issue, a POSA would understand that plastic and fiber must be two different things. Otherwise, the claim would redundantly require that the fuel feed stock include “plastic and plastic.”

Similarly, the Court agrees with plaintiff that a fair reading of patent claims discloses that “fiber” cannot mean glass, metals, grit, or noncombustible waste. As claim 1 provides that the fuel feed stock be “substantially free” of these materials, a POSA would not read “fiber” in such a fashion as to require their *inclusion* in the fuel feed stock.

On the other hand, the Court agrees with defendant that the claim cannot be construed as suggested by plaintiff. Plaintiff seeks to limit the term “fiber” to include only “materials comprised of plant fibers.” This construction, however, is not consistent with the specification. As defendant notes, the specification provides as follows:

Types of MSW components include, but are not limited to, plastics, fibers, paper, yard waste, rubber, leather, wood, and also recycling residue, a residual component containing the non-recoverable portion of recyclable materials remaining after municipal solid waste has been processed with a plurality of components being sorted from the municipal solid waste.

(’268 Patent at Col. 18 ln. 12-18).

Here, “fibers” is listed as a category distinct from “yard waste” and “wood,” which are arguably “materials comprised of plant fibers.” This is confirmed in Figure 2a, which plots the

³ Defendant cites a dictionary definition of “fiber.” This is further a commonly understood meaning of this term.

H/R and O/C ratios of various materials. The figure shows different ratios for “fiber,” “yard waste” and “sludge.” As such, the Court rejects plaintiff’s argument that “fiber” is a general category encompassing other categories including “yard waste” because the chart plainly dictates that these two categories have different values for the ratios tested. And, importantly, plaintiff points to another part of the specification, which undercuts plaintiff’s own position. There, the specification discusses “biomass waste” and goes on to define it as “plant matter grown for use as biofuel, but it also includes plant or animal matter used for production of fibers, chemicals or heat.” (’268 Patent at Col. 20 ln. 35-37). This language does not limit “fiber” to “materials comprised of plant fibers” as it expressly discusses that biomass includes “*animal matter* used for production of *fibers...*” (Emphasis added). Thus, the Court does not find that the specification supports plaintiff’s proposed construction.⁴

On the other hand, the Court finds, based on the current record, that defendant fails to

⁴ For this reason, the Court finds that the publications the patentee purported to incorporate into the patent do not directly support plaintiff’s position. The Court has ruled herein that “fiber” does not include glass, plastic, and metal. Thus, it is not necessary for the Court to consider the ’957 Publication, which plaintiff claims supports this proposition. Moreover, plaintiff cites the same publication for the proposition that the term “fiber” includes “at least” materials such as paper and corrugated cardboard as the ’957 Patent defines “fiber” as news print, old corrugated paper, old telephone directories, old magazines, mail and/or office paper. Plaintiff, however, seeks an expanded definition of “fiber” and asks that it include *all* plant based materials. As set forth above, however, the provision of the specification cited by plaintiff is not limited to “plant based” materials and also includes animal based materials. Accordingly, even if the Court were to consider the ’957 Patent, it does not directly support the construction plaintiff seeks.

meet its burden of establishing indefiniteness. Defendant simply points out that there are multiple definitions of “fiber.” In the context of this claim, however, the possibility of multiple definitions does not *automatically* render the claim indefinite. There are often different interpretations of claim terms, which is not in and of itself grounds for invalidity. Rather, to find a claim indefinite, the Court must be convinced that the claim fails to “inform those skilled in the art about the scope of the invention[] with reasonable certainty.” At this point, the Court is not convinced.

In sum, the Court finds that defendant has not established that the claim is indefinite. And neither party presented the Court with a construction that comports with the claim terms, specification, and other intrinsic evidence. Accordingly, the Court cannot construe the claim at this time. Rather, the parties may submit additional briefing directed at this term in the context of the summary judgment motions.

4. “engineered fuel feed stock”

Plaintiff argues that this term means “a synthetic material designed and made to have certain predetermined chemical characteristics for use as a fuel or as a raw material for conversion into other fuels.” Defendant argues that the Court should afford the term its plain and ordinary meaning.

According to plaintiff, the specification supports its proposed definition. In addition, plaintiff argues that this term is not a common term that would be readily understood by a jury. Defendant, however, claims that plaintiff is improperly expanding the scope of the term by allowing the term to include “predetermined characteristics” beyond those expressly set forth in the patent. In addition, defendant argues that insertion of the term “synthetic” will only serve to

confuse the jury because synthetic brings to mind a substance that does not contain naturally occurring materials.

Upon review, the Court rejects both parties' proposed constructions and construes the term to mean "an engineered material used as a fuel or as a raw material for conversion into other fuels." As an initial matter, the Court agrees with defendant that the inclusion of the word "synthetic" will not serve to clarify the meaning of this term. Plaintiff seemingly argues that lay jurors would understand that "synthetic" means "a human-made, non-naturally occurring-material[]" that "could include components that are themselves not naturally occurring." According to plaintiff, the risk of confusing the jury is "minimal." The Court is not convinced that the typical lay juror would understand the term "synthetic" and finds that *insertion* of this word into the claim would not assist in defining the scope thereof.

Moreover, the Court finds that the use of the word "synthetic," along with the phrase "designed and made to have certain predetermined chemical characteristics" are terms that plaintiff attempts to use to construe the word "engineered." But, in this patent, the claims themselves describe how the fuel feed stock is to be "engineered." Therefore, it is not necessary to further describe the nature of the "engineering." Rather, "engineered" will be afforded its ordinary meaning.

On the other hand, the Court agrees that the phrase "fuel feed stock" is not a term that would commonly be understood by a juror. A brief review of the patent, however, discloses that the common meaning—as understood by a POSA—applies to this term. The Court finds that the remainder of plaintiff's proposed construction sets forth that common meaning. In other words, in excepting the portions of plaintiff's proposed construction that purport to define "engineered,"

the Court is left with the common meaning of “fuel feed stock.” Therefore, the Court finds that “engineered fuel feed stock” is to be construed as “an engineered material used as a fuel or as a raw material for conversion into other fuels.”

5. “selecting”

Plaintiff argues that the term “selecting” should be afforded its plain and ordinary meaning. On the other hand, defendant asks that the Court construe the term to mean “choosing components based on carbon content, hydrogen content, oxygen content, nitrogen content, ash content, sulfur content, moisture content, chlorine content, and/or HHV content (as specifically identified in the subject claims).”

This term appears in claim 1, among others. As set forth above, that claim provides:

1. A method of producing an engineered fuel feed stock from a processed waste stream, the method comprising the steps of:

a) *selecting* a plurality of components from a processed waste stream which components in combination have chemical molecular characteristics comprising: a carbon content of between about 30 wt% and about 80 wt%, and a hydrogen content of between about 3 wt% and about 10 wt%

This dispute essentially centers on whether the claim requires that the components be chosen specifically based on their molecular content.

Upon review, the Court agrees with plaintiff that the term “selecting” should be afforded its plain and ordinary meaning. As an initial matter, the Court notes that in defendant’s opening brief, defendant simply quotes certain passages from the specification. There is no analysis or argument as to how these passages support their proposed construction. In a complicated case such as this, the Court is not aided by string cites with no analysis. Regardless, the Court agrees that the citations do not fully support defendant’s position. By way of example, defendant cites

the following language in the specification:

[T]hese materials comprising the waste stream entering the materials recovery facility, when undergoing separation, can be positively or negatively selected for, based on, for example, BTU fuel content, carbon content, hydrogen content, ash content, chlorine content, or any other suitable characteristics, for gasification and combustion.

(’268 Patent at Col. 45:11-19).

This language, however, does not indicate that the components *must* be selected based on certain elemental content. Rather, the passage cited provides that materials “can– ” not “must” be selected based on elemental content.⁵ In addition, the words “for example” are used, which further indicates that selection is not required to be based on specific elemental content. Moreover, the specification provides that the materials can be selected based on elemental content or “any suitable characteristic.” In all, the language in this portion of the specification does not support defendant’s proposed construction, which would require the selection of components based on certain elemental content. None of the remaining portions of the specification support this narrow interpretation of the term “selecting.”

In addition, the Court agrees with plaintiff that the construction sought by defendant would render the claim itself nonsensical. By inserting defendant’s proposed construction into Claim 1, the claim would read as follows:

1. A method of producing an engineered fuel feed stock from a processed waste stream, the method comprising the steps of:

a) choosing components based on carbon content, hydrogen content, oxygen content, nitrogen content, ash content, sulfur content, moisture content, chlorine content, and/or

⁵ Defendant’s citation to prosecution documents also contain the word “can.” *See, e.g.*, Doc. 69 at PageID 3397 (quoting Doc. 63-2 at PageID 2853)).

HHV content (as specifically identified in the subject claims) a plurality of components from a processed waste stream which components in combination have chemical molecular characteristics comprising a carbon content of between about 30 wt% and about 80 wt%, and a hydrogen content of between about 3 wt% and about 10 wt%

The Court agrees with plaintiff that this construction would in no way assist the jury.

Nor is it supported by the intrinsic evidence.

Defendant cites the Examiner's Reasons for Allowance in support of its position. That provides as follows:

The following is an examiner's statement of reasons for allowance: The closest prior art is Morrison (US 5,888,256) and Ganguli (US 6,000,639) While these references teach sorting municipal waste to make products such as cement and fuel, *they do not teach the instant claimed method with the claimed C and H content and ratios and do not teach making a fuel by selecting a plurality of components having chemical molecular characteristics of the claimed C, H and ash content and comparing the molecular characteristics of the waste to form the fuel having the instant claimed C H content and ratios. As such the prior art does not teach or suggest the claimed method.*

(Doc. 63 at Ex. C).

The Court disagrees with defendant that the Reasons for Allowance supports defendant's proposed construction. As an initial matter, defendant once again does not explain in its opening brief the significance of this evidence. Regardless, the Court is not convinced that the evidence supports defendant's proposed construction. The language provides only that the components that are selected must possess certain molecular characteristics. There is nothing indicating that the components must be selected *based on* their molecular characteristics. Thus, the Court does not find that defendant's citation to the Reasons for Allowance supports the proposed construction.

In all, the Court finds nothing about the term "selecting" that requires a special construction. Rather, as defendant notes, both parties agree that, as a general matter, the word

“selecting” means “choosing.” The Court finds that the term “selecting” will be afforded its plain and ordinary meaning.

6. “Processed waste stream/processed industrial waste stream/processed MSW waste stream”

The parties agree on the construction of “processed waste stream” and “processed MSW waste stream.” The parties agreed that these terms mean “a waste stream in which solid waste has been processed by having been sorted according to types of solid waste components.” The parties disagree, however, on the meaning of “processed industrial waste stream.” Plaintiff asks that the Court construe the claim to mean, “a waste stream in which solid waste, at least a portion of which was generated at industrial establishments, has been processed by having been sorted according to types of solid waste components.” Defendant, on the other hand, argues that the term “at least a portion of which” should not be included in the construction. Therefore, defendant’s proposed construction is as follows, “a waste stream in which solid waste generated at industrial establishments has been processed by having been sorted according to types of solid waste components.”

Upon review, the Court agrees with defendant. It appears that, as a general matter, the parties agree that “industrial waste” is waste that is “generated at industrial establishments.” The parties disagree on whether, for purposes of Claim 13 of the patent, the entirety of the waste stream must be processed industrial waste or whether only a portion thereof need be processed industrial waste. A plain reading of the patent demonstrates that the entirety of the waste stream must be processed industrial waste. Simply put, there are no modifiers limiting the amount of the processed waste stream to only a “portion” of a “processed industrial waste stream.” Rather, the claim provides “[t]he method of claim 1, wherein, *the* processed waste stream is a processed

industrial waste stream.”

Plaintiff points to no language in the specification supporting its position that only a portion of the processed industrial waste stream need be “processed industrial waste.” Rather, plaintiff cites only to the definition of “commercial waste.” “Commercial waste” is defined in the specification as excluding “household process, industrial, or special wastes.” Plaintiff then makes the leap in logic that since the specification contains no definition for “industrial waste,” the term must mean any waste stream that contains even a scintilla of a processed industrial waste stream. In other words, by failing to include a definition for “industrial waste,” a waste stream that contains 99.9% percent of processed household waste and 0.1% of processed industrial waste amounts to a processed “industrial” waste stream. The Court does not find that a POSA would read the insertion of a definition for “commercial waste” in such a nonsensical fashion. Rather, the Court finds that the claim language itself simply does not contain any modification such that only “a portion” of the waste stream need be a processed industrial waste stream. Nor does the specification support such a reading. As such, based on the claim language, the Court finds that defendant’s claim construction is proper. Therefore, the term is construed to mean “a waste stream in which solid waste generated at industrial establishments has been processed by having been sorted according to types of solid waste components.”

7. “noncombustible waste”

Plaintiff argues that the Court should afford this term its plain and ordinary meaning. According to plaintiff, it is a commonly understood term that needs no further construction. On the other hand, defendant asks that the Court construe the term “noncombustible waste” to mean “waste that does not readily gasify in gasification systems and does not give off any meaningful

contribution of carbon or hydrogen into the synthesis gas generated during gasification.”

Defendant argues that the patent expressly defines the term as such.

Upon review, the Court agrees with defendant. The patent provides as follows:

The term ‘nonprocessable waste’ (also known as noncombustible waste) means waste that does not readily gasify in gasification systems and does not give off any meaningful contribution of carbon or hydrogen into the synthesis gas generated during gasification.

(’268 Patent Col. 17: 62-66).

Here, because the patentee acted as his own lexicographer in defining the term, the Court will construe the term to mean as such. The Court rejects plaintiff’s argument that the patentee did not clearly intend to define the term “noncombustible waste” and, instead, intended only to define the term “nonprocessable waste.” Although the term “noncombustible waste” is set off in parentheses, the setoff occurs immediately before the word “means.” Because the patentee indicated that the two terms are synonymous immediately before setting forth the definition, the Court finds that the patentee intended to act as his own lexicographer in defining the term “noncombustible waste.” As such, the Court accepts defendant’s construction of the term.

8. “additional fuel components”

Plaintiff asks that the Court afford this term its ordinary meaning. Defendant, on the other hand, asks that the Court construe the term to mean, “non-waste stream fuel components added for the purpose of increasing the heat value of the feed stock.” In order to address the parties’ positions, the Court will set forth the independent and two dependent claims relevant to the analysis:

21. A method of producing an engineered fuel feed stock, the method comprising:
 - a) receiving a plurality of waste streams;

- b) inventorying the components of the plurality of waste streams based on the chemical molecular characteristics of the components;
- c) selecting components to have chemical molecular characteristics in combination comprising [specific carbon and hydrogen contents]; and
- d) combining the components to form the engineered fuel feed stock, wherein the engineered fuel feed stock contains biodegradable and non-biodegradable materials...

34. The method of claim 21 further comprising, e) comparing the chemical molecular characteristics of the inventoried components of the plurality of waste streams of step b) with the selected chemical molecular characteristics of step c).

35. The method of claim 34 further comprising f) optionally *adding additional fuel components* to meet the desired chemical molecular characteristics of step c).

(emphasis added).

As an initial matter, the Court rejects defendant's belated argument that the term is indefinite because the step is "optional." According to plaintiff, defendant failed to raise this issue in its proposed constructions. Regardless, the Court agrees with plaintiff that a POSA would understand that this step is "optional" in the sense that it need only be performed if the "comparison" performed in claim 34 results in a fuel lacking the desired molecular characteristics. If the comparison step in claim 34 shows that the fuel possesses the desired characteristics, then the "optional" step need not be performed. This "quality check" claim is not rendered invalid simply because the step is "optional."

Defendant next argues that the doctrine of claim differentiation means that the term "additional fuel components" must mean something other than "components of the plurality of waste streams." Otherwise, the patentee would have used the terms consistently throughout the claims. In other words, because claim 21 involves components of "waste streams," but claim 35 involves "fuel components," fuel components must mean something other than components of

waste streams. Thus, defendant proposes that the term be limited to “non-waste stream fuel components.”

On the other hand, plaintiff argues that defendant is improperly applying the concept of claim differentiation. According to defendant, the claim itself adds an additional “quality assurance” step that is not found in any other claim. Thus, claim differentiation simply does not apply. Regardless, plaintiff notes that defendant’s proposed construction lacks any support in the patent. In attempting to distinguish “fuel component” from the waste stream component referenced in claims 21 and 34, defendant inexplicably narrows the definition. According to plaintiff, the plain and ordinary meaning of “fuel component” is broader—not narrower—than “waste stream component.” Thus, it would include *any* component added to the fuel, but is not limited to waste stream components.

The Court agrees with plaintiff. Simply put, the doctrine of claim differentiation does not apply. As even defendant notes, that doctrine involves the presumption that dependent claim limitations are not read into the independent claims. Here, however, regardless of the Court’s construction, no limitation set forth in claim 35 will be read into claim 21, *i.e.*, the independent claim. Accordingly, the Court rejects defendant’s argument that affording this term its “ordinary meaning” will violate the doctrine of claim differentiation.

In addition, the Court does not agree with defendant’s suggestion that the term “fuel component” must exclude waste stream components. Defendant fails to point to any evidence supporting this narrow construction. As defendant points out, a basic reading of the patent does not disclose that the term “fuel component” is narrower than “waste stream component.” Nor does the Court accept defendant’s argument that the term “fuel component” is a component

added for the purpose of increasing the heat value of the feed stock. Defendant makes a one-sentence argument that the term “fuel” modifies the phrase to include only components that increase the heat value of the feed stock. Defendant simply points to nothing from the patent claims, specification, or prosecution history that would limit the term “fuel components” to those components that increase the heat value of the feed stock. Rather, the term is not so limited and would instead include any component of fuel. As such, the Court agrees with plaintiff that the term should be afforded its ordinary meaning.

CONCLUSION

For the foregoing reasons, the Court construes the disputed claims as set forth herein. The Court will accept further briefing with respect to the construction and/or indefiniteness of the term “fiber.” That term will be further addressed by the Court in the context of the parties’ summary judgment motions.

IT IS SO ORDERED.

/s/ Patricia A. Gaughan
PATRICIA A. GAUGHAN
United States District Judge
Chief Judge

Dated: 11/21/17