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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARTIN HOFFMANN and DIANA LEUKEL-SCHÄFER¹

Appeal 2015-001488
Application 13/132,199
Technology Center 1600

Before DEMETRA J. MILLS, JACQUELINE WRIGHT BONILLA, and
DEVON ZASTROW NEWMAN, *Administrative Patent Judges*.

NEWMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims to an aqueous cleaning composition containing two or more anionic surfactants. The Examiner entered rejections for obviousness.

We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

STATEMENT OF THE CASE

The Specification discloses that the “present invention is related to an aqueous cleansing composition for keratin fibres, especially human hair, comprising at least two anionic surfactants comprising at least one amide group in their molecules.” Spec. 1:1–3. The Specification also discloses that an aim of the present invention

¹ Appellants identify the Real Party in Interest as KAO GERMANY GMBH. App. Br. 2.

is to provide an aqueous cleansing composition having optimal benefits in terms of foam properties such as its volume and creaminess as well as improved conditioning effects on keratin fibres, especially human hair, in terms of combability, smoothness, elasticity, softness, volume and body and at the same time washes out artificial hair colour in a lesser extend so that the coloured hair keeps its colour and therefore shiny and healthy / natural appearance.

Id. at 1:18–23. In addition:

Present inventors have surprisingly found that an aqueous cleansing composition comprising at least two anionic surfactants comprising amide groups in their molecules and substantially free of alkyl sulphate and alkyl ether sulphate surfactants washes less colour out from hair so that long lasting colours are achieved and also provides excellent foam and conditioning properties to hair.

Id. at 1:24–28.

The Issues

Claims 1–5, 10–12, and 16 are on appeal. The following rejections are before us to review (Ans. 3–4):

A. Claims 1, 3–5, 10, and 16 are rejected under 35 U.S.C. § 103(a) as obvious over 3-Protein Shampoo² and Fan³

² <http://www.amazon.com/Hobe-Naturals-3-protein-Shampoo-12-Ounce/dp/B001G7PVJQ> (printed by Examiner 1/4/2013) (“3 Protein Shampoo”)

³ Shimei Fan et al., US 2006/0263319 A1, published Nov. 23, 2006 (“Fan”)

- B. Claims 1, 3–5, 10, 12 and 16 are rejected under 35 U.S.C. § 103(a) as obvious over 3-Protein Shampoo and Behrens.⁴
- C. Claims 1, 3–5, 10, and 11 are rejected under 35 U.S.C. § 103(a) as being obvious over Artec⁵ and Green & Clean.⁶
- D. Claims 1, 2, 3–5, 10, and 11 are rejected under 35 U.S.C. § 103(a) as obvious over Artec and Green & Clean as applied to claims 1, 3–5, 10 and 11 above, and further in view of Fan.
- E. Claims 1, 3–5, 10, 11, and 12 are rejected under 35 U.S.C. § 103(a) as obvious over Artec and Green & Clean as applied to claims 1, 3–5, 10 and 11 above, and further in view of Behrens.

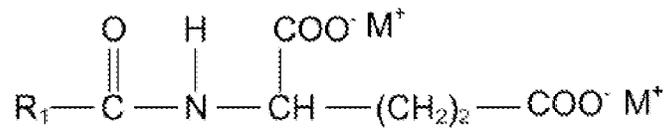
Claim 1, the sole independent claim, illustrates the appealed subject matter and reads as follows:

1. An aqueous cleansing composition for keratin fibres especially for human hair comprising a cationic polymer selected from cationic cellulose and its derivatives, cationic Caesalpinia spinosa gum and its derivatives, polyquaternium 6, polyquaternium 7, polyquaternium 67, polyquaternium 70 and polyquaternium-87, at least one glutamate surfactant according to the general formula

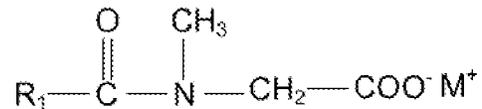
⁴ Jon Robert Behrens et al., U.S. Patent No. 5,672,576, issued Sept. 30, 1997 (“Behrens”)

⁵Mrs-j, *ARTEC Orange Marigold Shampoo – Either Be Ready for Red or Be Ready to Pay!*, EPINIONS (Jan. 12, 2005), http://www.epinions.com/review/Artec_8oz_Orange_Marigold_Shampoo/content_168221707908?sb=1 (“Artec”).

⁶ COSMETIC BUSINESS, *Green & Clean* (Sept. 30, 2008), [http://www.cosmeticsbusiness.com/technical/article ___ page/Green _____ and _____ Clea...](http://www.cosmeticsbusiness.com/technical/article___page/Green_____and_____Clea...) (*entire link unavailable*) (“Green & Clean”)



wherein R₁ is a saturated or unsaturated, straight or branched alkyl chain with 7 to 17 C atoms, and M is independent from each other H, sodium or potassium, and at least one sarcosinate surfactant according to the general formula



wherein R₁ is preferably a saturated or unsaturated, straight or branched alkyl chain with 7 to 17 C atoms, and M is H, sodium or potassium, wherein the following combination of two surfactants are excluded from the scope: monosodium myristoyl glutamate and sodium cocoyl glycinate, N-lauroyl glutamate and sodium lauroyl alaninate, sodium lauroyl alaninate and sodium lauroyl glutamate, and wherein the composition is substantially free from alkylsulphate and alkyl ether sulphate surfactants.

(App. Br. Claims Appx. 10–11).

DISCUSSION

Claims 1, 3–5, 10, and 16 over 3-Protein Shampoo and Fan

The issue with respect to this rejection is whether a preponderance of the evidence supports the Examiner's rejection of claim 1 as obvious over 3-Protein Shampoo and Fan.

The Examiner cited 3-Protein Shampoo as teaching a shampoo (i.e. cleansing composition) comprising deionized water (i.e. aqueous cleansing composition), cocoamidopropyl hydroxysultaine (i.e. an amphoteric surfactant), decyl glucoside (i.e. a nonionic surfactant of the recited general structure of claim 4 comprising an alkyl group with 10 carbon atoms (i.e. R₈), n=0, Z is a 5 carbon saccharide group and x=1), disodium

lauryl sulfosuccinate (i.e. anionic surfactant), sodium cocoyl glutamate (i.e. glutamate surfactant), sodium lauroyl sarcosinate (i.e. sarcosinate surfactant), dimethyl methyl siloxane (i.e. non-volatile silicone oil/conditioning agent) and chamomile extract (i.e. UV filter).

Fin. Act. 4.⁷

The Examiner found that 3-Protein Shampoo does not teach use of “alkyl sulphates or alkyl ether sulfates,” i.e., the compounds specifically excluded in the last “wherein” clause of claim 1. *Id.* The Examiner further found that the 3-Protein Shampoo reference teaches that “the 3-Protein Shampoo, Conditioner and Frizz Control work synergistically to rejuvenate and repair dull, dry or damaged hair” but that the reference does not teach direct inclusion of a conditioning agent comprising a cationic polymer (i.e. cationic cellulose). *Id.* at 5.

The Examiner found Fan teaches “shampoo compositions . . . which comprise water and two anionic surfactants,” including sodium N-lauryl sarcosinate (a sarcosinate surfactant), as well as “amphoteric and zwitterionic surfactants . . . including acyl glutamates.” *Id.* The Examiner also found that Fan discloses a relevant cationic polymer where it refers to a “shampoo comprising polyquaternium-10 (i.e. a polymeric quaternary ammonium derivative of hydroxyethyl cellulose which is cationic polymer).” *Id.* 6. The Examiner found Fan discloses “the class of the quaternary celluloses [] are cationic conditioning polymers that are desirable in hair care products for body/volume seekers.” *Id.*

⁷ Final Office Action, mailed Nov. 18, 2013.

Based on the references' teachings, the Examiner reasoned that an ordinary artisan would have considered it obvious "to have modified the shampoo taught by *3-Protein Shampoo* by adding Polyquaternium-10 (i.e. cationic cellulose conditioning polymer) in order to provide conditioning, body, and volume to the hair as taught by FAN." *Id.* Specifically, the Examiner found that the ordinary artisan would have been motivated to add the cationic polymer to the shampoo, and expect success in doing so, "because *3-Protein Shampoo* teaches that [it] repairs (i.e. conditions) dry damaged hair and FAN teaches inclusion of quaternary cellulose, such as polyquaternium-10, is desirable in order to formulate hair care products which condition while still providing body and volume." *Id.*

As stated in *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992):

[T]he examiner bears the initial burden . . . of presenting a *prima facie* case of unpatentability. . . .

After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of argument.

We select claim 1 as representative of the claims subject to this ground of rejection. 37 C.F.R. § 41.37(c)(iv). Appellants' arguments do not persuade us that a preponderance of the evidence fails to support the Examiner's *prima facie* case as to claim 1.

While not explicitly stated, Appellants appear to argue that Fan teaches away from the claimed method:

A *prima facie* case of obviousness cannot be established because a skilled artisan would not have looked to Fan for guidance when formulating a shampoo that does not contain alkyl sulfates or alkyl ether sulfates. This is because Fan

explicitly teaches that anionic surfactants, particularly alkyl sulfates, are present in his composition.

App. Br. 5.

Appellants cite the following disclosure from Fan, which lists “alkyl sulfates” and alkyl ether sulfates” in paragraph 52:

Anionic Cleansing Surfactant

[0051] Shampoo compositions according to the invention will typically comprise one or more anionic cleansing surfactants, which are cosmetically acceptable and suitable for topical application to the hair.

[0052] Examples of suitable anionic cleansing surfactants are the alkyl sulfates, alkyl ether sulfates, alkaryl sulfonates, alkanoyl isethionates, alkyl succinates, alkyl sulfosuccinates, N-alkyl sarcosinates, alkyl phosphates, alkyl ether phosphates, alkyl ether carboxylates, and alpha-olefin sulfonates, especially their sodium, magnesium, ammonium and mono-, di- and triethanolamine salts. The alkyl and acyl groups generally contain from 8 to 18 carbon atoms and may be unsaturated. The alkyl ether sulfates, alkyl ether phosphates and alkyl ether carboxylates may contain from 1 to 10 ethylene oxide or propylene oxide units per molecule.

Id. Appellants argue, “[a] skilled artisan, seeking to formulate a composition that specifically excludes alkyl sulfates or alkyl ether sulfates, would not be motivated to look to a reference that specifically *includes* alkyl sulfates for guidance, such as Fan.” *Id.*

Appellants’ arguments do not persuade us that the Examiner erred in finding that 3-Protein Shampoo and Fan would have prompted an ordinary artisan to prepare an aqueous shampoo composition comprising a cationic polymer, a glutamate surfactant, and a sarcosinate surfactant *without* alkyl sulfate and alkyl ether sulfates, as required by claim 1. 3-Protein Shampoo describes a shampoo composition comprising deionized water (i.e. aqueous cleansing composition), sodium cocoyl glutamate (i.e. glutamate surfactant),

and sodium lauroyl sarcosinate (i.e. sarcosinate surfactant). 3-Protein Shampoo 2. The product is described as useful in achieving “effective results to rejuvenate and repair dull, dry or damaged hair utilizing a base of wheat, silk and Soy proteins.” *Id.*

Fan discloses that quaternary cellulosic cationic conditioning polymers (i.e. cationic cellulose polymers) have “been found to be desirable in hair care products for body/volume seekers” (¶ 3) and that polyquaternium-6 is a suitable cationic conditioning polymer (¶ 39). Fan further discloses example aqueous shampoo compositions containing polyquaternium-10, a cationic cellulose polymer (Fan, p. 7, Table 1; claim 4). Thus, Fan advised an ordinary artisan that quaternary cellulosic cationic conditioning polymers could be added to shampoo compositions for the purpose of adding body, volume or conditioning properties. Accordingly, given these teachings, we agree with the Examiner that an ordinary artisan would have found it obvious to add the cationic polymers taught by Fan to the composition of 3-Protein Shampoo to create the composition of claim 1.

We are not persuaded that Fan’s disclosure of “alkyl sulfates” and alkyl ether sulfates” as “examples of suitable anionic cleansing surfactants” (¶ 52) would discourage one of skill in the art from using Fan’s teachings regarding cationic cellulose polymers in combination with shampoo compositions containing glutamate and sarcosinate surfactants. “Under the proper legal standard, a reference will teach away when it suggests that the developments flowing from its disclosures are unlikely to produce the objective of the applicant’s invention. A statement that a particular combination is not a preferred embodiment does not teach away absent clear

discouragement of that combination.” *Syntex (U.S.A.) LLC v. Apotex, Inc.*, 407 F.3d 1371, 1380 (Fed. Cir. 2005) (citations omitted).

Fan discloses the use of “alkyl sulfates” and alkyl ether sulfates” as surfactants but does not require that they be used. Rather, Fan discloses several other example surfactants in paragraph 52. In addition, as pointed out by the Examiner in the Answer (p. 5), “the claims do not completely exclude alkyl sulfates or alkyl ether sulfates . . . Claim 1 recites ‘the composition is substantially free from alkyl sulphate and alkyl ether sulphate surfactants.’” Hence, we are not persuaded that Fan’s teachings regarding these compounds teach away from the claimed composition. As stated above, we find the Examiner sufficiently establishes that an ordinary artisan reading 3-Protein Shampoo and Fan would have reasonably been lead to create the composition of claim 1.

Accordingly, we affirm the Examiner’s rejection of claim 1 under 35 U.S.C. § 103(a) as obvious over 3-Protein Shampoo and Fan. Claims 3–5, 10, and 16 have not been argued separately and therefore fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

Claims 1, 3–5, 10, 12 and 16 over 3-Protein Shampoo and Behrens

The issue with respect to this rejection is whether a preponderance of the evidence supports the Examiner’s rejection of claim 1 as obvious over 3-Protein Shampoo and Behrens.

The Examiner finds Behrens teaches “inclusion of cationic cellulose polymers as hair conditioning polymers . . . [and] teaches inclusion of the cationic cellulose polymer, Polyquaternium 10, in shampoos.” Ans. 9.

Based on the teachings of Behrens and of 3-Protein Shampoo, as discussed above, the Examiner concludes:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shampoo taught by *3-Protein Shampoo* by adding Polyquaternium-10 (i.e. cationic cellulose conditioning polymer) . . . because both *3-Protein Shampoo* and BEHRENS are drawn to shampoo compositions. The skilled artisan would have been motivated to modify the shampoo taught by *3-Protein Shampoo* by adding Polyquaternium-10 . . . with a reasonable expectation of success, in order to increase the conditioning . . . of the shampoo.

Id. at 10.

We select claim 1 as representative of the claims subject to this ground of rejection. 37 C.F.R. § 41.37(c)(iv). Appellants raise no argument pertaining to the disclosure of Behrens, but generally⁸ argue “[t]he Examiner erred in rejecting claims 1–5, 10, 12 and 16 as obvious over *3-Protein Shampoo* in view of Fan, and further in view of Behrens because a skilled artisan would not be motivated to look to the cited prior art for guidance in preparing the claimed composition.” App. Br. 4. Appellants do not explain why the skilled artisan would not be motivated to consult Behrens, a patent disclosing shampoo compositions, regarding its teachings.

Accordingly, Appellants do not persuade us that a preponderance of the evidence fails to support the Examiner’s obviousness rejection as to claim 1, and we affirm the Examiner’s rejection of claim 1 under 35 U.S.C. § 103(a) as obvious over 3-Protein Shampoo and Behrens. Claims 3–5, 10,

⁸ Appellants argue rejections A and B together.

and 16 have not been argued separately and therefore fall with claim 1. 37
C.F.R. § 41.37(c)(1)(vii).

Claims 1, 3–5, 10, and 11 over Artec and Green & Clean

The issue with respect to this rejection is whether a preponderance of the evidence supports the Examiner’s rejection of claim 1 as obvious over Artec and Green & Clean. We are persuaded that the Examiner has not established a prima facie case for this rejection.

The Examiner finds Green & Clean “teaches sarcosinate and glutamate based surfactants provide a fine lather, good detergency, are very mild in use, and are rapidly [biodegradable].” *Id.* at 11. The Examiner further finds Green & Clean teaches that “sarcosinates have good lathering properties and a high resistance to delathering by sebum while glutamates are non-comedogenic, tolerant to hard water, and hypoallergenic” and discloses a “commercially available product, Plantapon SF, which comprises sodium cocoyl glutamate (in which M is sodium, and R₁ is C10-18) and lauryl glucoside.” *Id.*

The Examiner finds Artec teaches an “aqueous cleansing composition comprising water, Polyquaternium-7 (i.e. cationic polymer) . . . sodium cocoyl sarcosinate (i.e. . . . at least one sarcosinate surfactant in which M⁺ is sodium and R¹ is a saturated straight alkyl chain with 11 carbon atoms, R² is methyl, R³ is hydrogen, n is 0 and X⁻ is COO-).” Fin. Act. 10–11. The Examiner further finds that Artec teaches incompatibility of its formulation with “hard water,” which the Examiner posits would lead the ordinary artisan to add sodium cocoyl glutamate to the shampoo of Artec, to address

this issue: the Examiner concludes it would have been obvious to the skilled artisan

to have modified the shampoo taught by *Artec Orange Marigold Shampoo* by adding sodium cocoyl glutamate to the composition because both sodium cocoyl glutamate and sarcosinate amino acid surfactants are fine lathering, detergents that are rapidly biodegradable as taught by *Green & Clean*. The skilled artisan would have been motivated to add sodium cocoyl glutamate, with an expectation of success, in order to improve the performance of the *Artec Orange Marigold Shampoo* so that the shampoo does not turn hair pink when used with hard water.

Id. at 11–12.

Appellants argue the Artec reference contains nothing “to motivate a skilled artisan to modify Artec in order to achieve the present invention” and that the “Examiner has failed to provide any rational[] basis for making this rejection, other than to imply that it would have been obvious to make the claimed invention from *Aztec* [sic, Artec] at the time of the invention.” App. Br. 6.

Artec is a “review” of the product Artec 8 oz Orange Marigold Shampoo, as presented on the Epinions.com website. Artec 1. In that review, an individual reviewer identified as “mrs-j.” describes the Artec shampoo as a color-depositing shampoo designed to “*maintain[] brightness of copper, auburn and warm brown hair.*” Artec 2. The review lists a “written” date of January 12, 2005, and appears to have been printed by the Examiner on September 1, 2012, prior to citation in an IDS on January 10, 2013. *Id.* The review recites ingredients of the shampoo. *Id.*

The reviewer “mrs-j” reports having had “two wildly different experiences with this shampoo,” one being that the shampoo “worked well

for me in a home with softer water” (e.g., normal color deposit that washed out as expected) and the second being “with hard water [the color . . .] faded to a ‘pink’ color and was expensive to fix.” (e.g., she was required to visit a hair colorist to reverse the permanent color deposit). *Id.* The reviewer writes that she was told that by her “board certified colorist” at her hair salon that well water (also described as “hard water”) caused her hair to become “unnaturally absorbent” and “extremely porous.” *Id.*

We find the Examiner has not established a prima facie case of obviousness for this rejection because the Examiner has not provided a sufficient basis to establish that Artec is a printed publication under 35 U.S.C. § 102(a).⁹ As stated by the Federal Circuit:

“[A] document may be deemed a printed publication upon a satisfactory showing that it has been disseminated or otherwise made available to the extent that persons interested and of ordinary skill in the subject matter or art, exercising reasonable diligence can locate it and recognize and comprehend therefrom the essentials of the claimed invention without need of further research or experimentation.”

Massachusetts Inst. of Tech. v. AB Fortia, 774 F.2d 1104, 1109 (Fed. Cir. 1985) (quoting *In re Wyer*, 655 F.2d 221, 226 (CCPA 1981)). Once established as a prior art reference, “the meaning of a prior art reference requires analysis of the understanding of an artisan of ordinary skill.” *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1336 (Fed. Cir. 2008).

⁹ See 35 U.S.C. 35 § 102(a) (2012): “A person shall be entitled to a patent unless—(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.”

Although Artec claims a “written” date of January 12, 2005, the Examiner’s printed copy is dated September 2012. No other information to corroborate Artec’s publication prior to the effective filing date of this application, December 15, 2008, is in the record. Therefore, the Examiner has not established sufficiently that Artec is available as a prior art reference.

We further find the Examiner has not established sufficiently that one of skill in the art of making shampoo compositions would have encountered this user review on Epinions.com during an exercise of reasonable diligence. Artec’s “teachings” of the effect cited by the Examiner—that the “shampoo [] turn[s] hair pink when used with hard water” (Artec 2–3)—are the relayed experiences of a single individual as allegedly advised by a hair colorist. Thus, we conclude that Artec is not prior art under § 102(a).

Even if Artec were prior art, we find that the Examiner does not establish sufficiently what Artec would have taught to one of skill in the art regarding the effect of hard water on hair porosity and its resulting effect on hair color in color depositing shampoo disclosed in Artec, given that the reported effect is the experience of a single person disclosing an opinion from a third party. We find the Examiner has not established sufficiently that one of skill in the art would rely upon this reviewer as a credible source regarding the teachings of the components of Artec or as an accurate source of the ingredients in the Artec shampoo.

Furthermore, we find the Examiner has not provided “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). We are not persuaded that the teachings of Artec would have motivated one of skill in

the art of making shampoo compositions to select the teachings of Green & Clean regarding detergents that are “fine lathering” and “rapidly biodegradable” to use with the components taught in Artec to overcome deposition of pink hair dye in hard water. Green & Clean explains it is suitable for use in hard water. That said, we see no reason to conclude that suitability for use would singlehandedly overcome the dye deposition effect identified in Artec. Accordingly, we reverse the Examiner’s rejection of claim 1 over Artec and Green & Clean.

Claims 1, 2, 3–5, 10, and 11 over Artec, Green & Clean and Fan

The issue with respect to this rejection is whether a preponderance of the evidence supports the Examiner’s rejection of claim 1 as obvious over Artec, Green & Clean and Fan.

The Examiner relies on Artec and Green & Clean for the rejection of claim 1; the Examiner’s reliance on Fan relates only to the “routine optimization” of the amounts of anionic surfactants claimed in dependent claims. Fin. Act. 14. The Examiner has not established that Fan remedies the deficiencies in Artec and Green & Clean, as discussed above.

Claims 1, 3–5, 10, 11, and 12 over Artec, Green & Clean and Behrens

The issue with respect to this rejection is whether a preponderance of the evidence supports the Examiner’s rejection of claim 1 as obvious over Artec, Green & Clean and Behrens.

Once again, the Examiner relies on Artec and Green & Clean for the rejection of claim 1; the Examiner’s reliance on Behrens relates only to the teachings of a thickener having the general structure recited in dependent

claim 12. Fin. Act. 15–16. The Examiner has not established that Behrens remedies the deficiencies in Artec and Green & Clean, as discussed above.

SUMMARY

We affirm the rejection of claims 1, 3–5, 10, and 16 under 35 U.S.C. § 103(a) as obvious over 3-Protein Shampoo and Fan.

We affirm the rejection of claims 1, 3–5, 10, 12 and 16 under 35 U.S.C. § 103(a) as obvious over 3-Protein Shampoo and Behrens.

We reverse the rejection of claims 1, 3–5, 10, and 11 under 35 U.S.C. § 103(a) over Artec and Green & Clean.

We reverse the rejection of claims 1, 2, 3–5, 10, and 11 under 35 U.S.C. § 103(a) over Artec, Green & Clean, and Fan.

We reverse the rejection of claims 1, 3–5, 10, 11, and 12 under 35 U.S.C. § 103(a) over Artec, Green & Clean and Behrens.

We note that claims 2 and 11 currently are not subject to an affirmed rejection.

TIME PERIOD FOR RESPOSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART