

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION**

HEALTHE, INC.,

Plaintiff,

v.

HIGH ENERGY OZONE LLC d/b/a
FAR-UV STERILRAY; and S.
EDWARD NEISTER,

Defendants.

Case No. 6:20-cv-02233-RBD-EJK

JURY TRIAL DEMANDED

**FIRST AMENDED COMPLAINT FOR DAMAGES AND INJUNCTIVE
RELIEF SOUGHT AND DEMAND FOR JURY TRIAL**

Plaintiff Healthe, Inc. files this complaint for damages and injunctive relief against Defendants High Energy Ozone LLC d/b/a Far-UV Sterilray™ and S. Edward Neister (collectively, “Defendants”) and states as follows:

1. This is an action for declaratory judgments of non-infringement, invalidity, and unenforceability under the patent laws of the United States, unfair competition under the Florida Deceptive and Unfair Trade Practices Act, and unfair competition under Florida common law.

PARTIES

2. Plaintiff Healthe, Inc. (“Healthe”) is a corporation organized and existing under the laws of the State of Delaware with its principal place of business located at 3905 W. Eau Gallie, Blvd, Suite 101, Melbourne, Florida 32931.

3. Upon information and belief, Defendant High Energy Ozone LLC d/b/a Far-UV Sterilray™ (“HEO3”) is a limited liability company organized under the laws of the State of New Hampshire and has its principal place of business at 30 Centre Road, Suite 6, Somersworth, New Hampshire 03878.

4. Upon information and belief, Defendant S. Edward Neister (“Neister”) has his permanent residence and place of work in the State of New Hampshire and is domiciled in and a citizen of the State of New Hampshire.

JURISDICTION AND VENUE

5. This is a civil action against Defendants HEO3 and Neister for a declaration that the claims of U.S. Patent Nos. 8,481,985 (the “’985 Patent”) (*see* Dkt. 1-1); 8,753,575 (the “’575 Patent”) (*see* Dkt. 1-2); 8,975,605 (the “’605 Patent”) (*see* Dkt. 1-3); and 9,700,642 (the “’642 Patent”) (*see* Dkt. 1-4) (collectively, the “Patents-in-Suit”) are not infringed by Healthe’s products, including the Healthe Entry™, Healthe Space™, Healthe Air™, Healthe Wand Pro™, and Healthe Air 2.0™ (the “Healthe Products”), and that claims of the ’605 Patent and the ’642 Patent are invalid and unenforceable pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201 *et seq.*, and under the patent laws of the United States, 35 U.S.C. §§ 100, *et seq.*

6. By this action, Healthe also seeks an injunction and damages against Defendants HEO3 and Neister for unfair competition under the Florida Deceptive and Unfair Trade Practices Act, Fla. Stat. § 501.202 *et seq.*, (“FDUTPA”) and unfair competition under Florida common law due to HEO3 and Neister’s bad faith and

objectively baseless threats against Healthe and Healthe customers that the Healthe Products infringe the Patents-in-Suit.

7. This Court has original subject matter jurisdiction over all claims pleaded herein under 28 U.S.C. §§ 2201, 2202, 1331, and 1338(a). Defendants contend that subject matter jurisdiction exists over their Counterclaims for infringement of the '605 Patent and the '642 Patent under at least 28 U.S.C. §§ 1331 and 1338(a). *See* Dkt. 41 ¶ 11.

8. This Court also has supplemental jurisdiction over Healthe's unfair competition claims under FDUTPA and Florida common law under 28 U.S.C. §§ 1338(b) and 1367(a).

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b), (c) and 1400(b), at least because a substantial part of the events giving rise to the claims asserted in this action occurred in this District. Defendants contend that venue is proper in this District over their Counterclaims for infringement of the '605 Patent and the '642 Patent. *See* Dkt. 41 ¶ 13.

10. This Court has personal jurisdiction over HEO3. Among other things, HEO3 has purposefully directed licensing activities and has threatened liability and litigation for alleged infringement of the Patents-in-Suit into Florida and this District. HEO3 has threatened Healthe, which is located in this District, and at least one customer of Healthe, which is also located in this District, with alleged infringement of the Patents-in-Suit by the Healthe Products. Upon information and belief, HEO3 has also sponsored, directed, and/or authorized research activities in Florida relating

to the technology claimed in the Patents-in-Suit. Upon information and belief, J. James Rowsey, MD and John Michaelos, MD of St. Michael's Eye and Laser Institute in Largo, Florida and Brad Fouraker, MD of Brandon Eye Center in Brandon, Florida have performed research regarding the safety and efficacy of HEO3/Sterilray products. *See* Dkt. 1-5 (2017 OMIG Abstract); Dkt. 1-6 (2018 OMIG Abstract); Dkt. 1-7 (2018 ASOA Annual Meeting Abstract). HEO3 also maintains a website, accessible in this District, where it offers products for sale. Moreover, HEO3 has committed intentional tortious acts against a citizen of the State of Florida.

11. This Court has personal jurisdiction over Neister. Upon information and belief, Neister exerts significant influence and control over HEO3 as a founder, member, manager, and the Chief Technology Officer of HEO3. Upon information and belief, Neister also owns some or all of the Patents-in-Suit, which he has exclusively licensed to HEO3. Upon information and belief, HEO3's acts of extrajudicial patent enforcement and licensing efforts directed into Florida regarding the Patents-in-Suit were performed at Neister's direction and with his authorization. As a result, Neister has committed intentional tortious acts against a citizen of the State of Florida.

12. The Court has already determined that personal jurisdiction exists over Defendants for the reasons set forth in Healt's original Complaint (Dkt. 1). *See* Dkt. 39 at 4 ("Plaintiff has established the Court has personal jurisdiction over Defendants.").

GENERAL ALLEGATIONS

13. Healthe is the global leader in developing and deploying high-tech sanitization, circadian, and biological lighting solutions.

14. Healthe's sanitization line of products deploy ultraviolet (UV) light and Far-UVC light to inactivate bacteria, viruses, and other pathogens.

15. Healthe's sanitization products include the Healthe EntryTM, Healthe SpaceTM, Healthe AirTM, Healthe Wand ProTM and Healthe Air 2.0TM products.

16. Healthe and HEO3 are competitors and compete over a common pool of customers in the market for UVC sanitization products.

17. On June 11, 2020, counsel for HEO3 sent a letter to Healthe asserting, *inter alia*, that he "represent[ed] HEO3 LLC and S. Edward Neister in their intellectual property matters," that "S. Edward Neister is the legal owner of U.S. Patent Nos. 9,700,642, 8,975,605, 8,481,985, and 8,753,575 ... as well as another pending patent published as US2017/0304472 ... and HEO3 LLC is their exclusive licensee." This letter further asserted that "[t]he purpose of this letter is to inform you" that what is now marketed as the Healthe EntryTM "may be infringing at least one of these patents." The letter also threatened that "[o]ur clients are very interested in protecting their rights and would like to prevent any potential market interference or other issues before it is too late."

18. In November 2020, John Neister, the President of HEO3, sent a letter to one of Healthe's customers located in this District. That letter asserted, *inter alia*, that "HEO3 LLC, is the exclusive licensee of a number of patents and patent

applications owned by S. Edward Neister relating to Far-UVC disinfection technology” and that “S. Edward Neister is the legal owner of U.S. Patent Nos. 9,700,642, 8,975,605, 8,481,985, and 8,753,575 ... as well as another pending patent application published as US2017/0304472.” The letter then referenced “the description of the Healthe Entry™, the Healthe Space™ & Healthe Air™ products on the manufacturer’s website at <https://healtheinc.com/>” (i.e., Healthe’s website) and threatened that “[t]his appears to read on technologies that are potentially covered by Mr. Neister’s patents” and that “[p]atents can be asserted against users of infringing products in addition to those who make, sell, and offer for sale.” The letter then requested that Healthe’s customer “inform us as to how you plan to proceed with your purchased Healthe Entry™, the Healthe Space™ & Healthe Air™ products” and further threatened that “[w]e are very interested in protecting our rights and would like to prevent any potential market interference or other issues before it is too late.” The letter also asked that Healthe’s customer “get back to me in regards to your intentions within twenty (20) days.” Healthe’s customer informed Healthe of HEO3’s letter.

19. On November 22, 2020, counsel for Healthe sent a letter to HEO3’s counsel, advising HEO3 that its patent-infringement allegations were baseless and were damaging to Healthe and its business. Healthe demanded that HEO3, Neister, and any related entities immediately cease and desist from making these baseless infringement claims to Healthe’s customers and threatening known customers with infringement actions.

20. On the very next day, November 23, 2020, despite Healthe's letter, HEO3's President, John Neister, sent an email threatening a different Healthe customer. This email asserted that "our company, HEO3 LLC (dba Far-UV Sterilray), is the exclusive licensee of a number of patents and patent applications owned by S. Edward Neister relating to Far-UVC disinfection technology" and that "S. Edward Neister is the legal owner of U.S. Patent Nos. 9,700,642, 8,975,605, 8,481,985, and 8,753,575 ... as well another pending patent application published as US2017/0304472." The letter then threatened that "[t]he purpose of this letter is to inform you that these listed patents and pending patent relate to some of the features incorporated into Healthe's 222nm products," that "[w]e understand that you have recently purchased this product and are using it in public," and, to underscore HEO3's threat, that "[p]atents can be asserted against users of infringing products in addition to those who make, sell, and offer for sale." The letter also referenced "the description of the Far-UVC 222nm downlights & Healthe Space on the manufacturer's website." The letter then requested that Healthe's customer "inform us as to how you plan to proceed with your purchased Far-UVC 222nm downlights products" and further threatened that "[w]e are very interested in protecting our rights and would like to prevent any potential market interference or other issues before it is too late." The letter further asked that Healthe's customer "get back to me in regards to your intentions within twenty (20) days." Healthe's customer informed Healthe of HEO3's email.

21. Healthe maintains a publicly accessible website containing information relating to its products at the URL <https://healthinc.com>. This publicly accessible website includes information that clearly demonstrates that the Healthe Products do not infringe the claims of the Patents-in-Suit. Examples of these documents are attached as Exhibits 11–16 to Dkt. 1. During all relevant times relating to the actions giving rise to this litigation, these documents have been publicly available and therefore accessible to HEO3.

22. On December 8, 2020, Healthe filed its Complaint in this case alleging that Defendants engaged in unfair competition by threatening Healthe and Healthe’s customers with patent infringement lawsuits; Healthe’s Complaint sought damages for unfair competition, as well as declaratory judgments of non-infringement with respect to the Patents-in-Suit. *See* Dkt. 1.

23. On March 10, 2021, Defendants answered Healthe’s Complaint and filed Counterclaims for infringement of the ’605 Patent and the ’642 Patent. In their Counterclaims, Defendants accused the Healthe Space TM, Healthe Entry TM, and Healthe Wand Pro TM products of infringing the ’605 Patent and the ’642 Patent. Dkt. 41 ¶¶ 44, 58. Healthe filed Counterclaims to Defendants’ Counterclaims. Dkt. 52.

24. On June 17, 2021, the Court permitted Healthe to “amend its Complaint (Doc. 1) to assert new claims, as alleged in its ‘counterclaims.’” Dkt. 73 at 5.

THE PATENTS-IN-SUIT

U.S. Patent No. 8,481,985

25. The '985 Patent is titled, "Method and Apparatus for Producing a High Level of Disinfection in Air and Surfaces." *See* Dkt. 1-1 (the '985 Patent).

26. The '985 Patent identifies S. Edward Neister as the sole inventor.

27. The '985 Patent does not identify any assignee.

28. The '985 Patent issued on July 9, 2013.

29. Upon information and belief, HEO3 is the exclusive licensee of the '985 Patent.

30. Upon information and belief, Neister owns the '985 Patent.

U.S. Patent No. 8,753,575

31. The '575 Patent is titled, "Method and Apparatus for Sterilizing and Disinfecting Air and Surfaces and Protecting a Zone from External Microbial Contamination." *See* Dkt. 1-2 (the '575 Patent).

32. The '575 Patent identifies S. Edward Neister as the sole inventor.

33. The '575 Patent does not identify any assignee.

34. The '575 Patent issued on June 17, 2014.

35. Upon information and belief, HEO3 is the exclusive licensee of the '575 Patent.

36. Upon information and belief, Neister owns the '575 Patent.

U.S. Patent No. 8,975,605

37. The '605 Patent is titled, "Method and Apparatus for Producing a High Level of Disinfection in Air and Surfaces." *See* Dkt. 1-3 (the '605 Patent).

38. The '605 Patent identifies S. Edward Neister as the sole inventor.

39. The '605 Patent does not identify any assignee.

40. The '605 Patent issued on March 10, 2015.

41. Upon information and belief, HEO3 is the exclusive licensee of the '605 Patent.

42. Upon information and belief, Neister owns the '605 Patent.

U.S. Patent No. 9,700,642

43. The '642 Patent is titled, "Method and Apparatus for Sterilizing and Disinfecting Air and Surfaces and Protecting a Zone from External Microbial Contamination." *See* Dkt. 1-4 (the '642 Patent).

44. The '642 Patent identifies S. Edward Neister as the sole inventor.

45. The '642 Patent does not identify any assignee.

46. The '642 Patent issued on July 11, 2017.

47. Upon information and belief, HEO3 is the exclusive licensee of the '642 Patent.

48. Upon information and belief, Neister owns the '642 Patent.

FIRST CAUSE OF ACTION

Declaratory Judgment of Non-Infringement of U.S. Patent No. 8,481,985 (Against All Defendants)

49. Healthe realleges and incorporate paragraphs 1–30 as though fully set forth herein.

50. Upon information and belief, HEO3 and Neister possess rights, title, and interest in the '985 Patent sufficient to have standing to assert claims for infringement of the '985 Patent.

51. Healthe has not infringed and does not infringe any valid and/or enforceable claim of the '985 Patent, directly or indirectly, literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Healthe Products.

52. A substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether Healthe infringes the '985 Patent by making, using, selling, and/or offering for sale the Healthe Products. A judicial declaration is necessary to determine the parties' respective rights regarding the '985 Patent.

53. Healthe seeks a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the '985 Patent by making, using, selling, and/or offering for sale the Healthe Products, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c).

54. Healthe incorporates by reference the portions of Healthe's Non-Infringement Contentions served on Defendants on March 29, 2021, that relate to the '985 Patent.

55. By way of example, as explained below, the Healthe Products do not meet the limitations of claim 1 of the '985 Patent.

56. Claim 1 of the '985 Patent is recited below:

A disinfecting apparatus comprising:

a dual-single line lamp comprising:

three triaxial tubes defining two annuli there between;

a first gas mixture selected to produce a first narrow wavelength photon emission; and

a second gas mixture different from the first gas mixture selected to produce a second narrow wavelength photon emission that is different from the first narrow wavelength photon emission;

a high voltage electrode located on a first tubular surface of one of the three triaxial tubes;

a ground electrode located on a second tubular surface of one of the three triaxial tubes, the second tubular surface located opposite the two annuli from the first tubular surface; and

a photon reflector secured in a spaced relationship to the dual-single line lamp positioned to direct photons to a zone or surface, whereby the disinfecting apparatus produces photons that are directed to a selected zone or surface and efficiently destroys or deactivates DNA organic bonds and proteins of microorganisms when the high voltage electrode is energized.

The Healthe Entry Product Does Not Infringe Claim 1 of the '985 Patent

57. The Healthe Entry product does not infringe claim 1 of the '985 Patent.

58. By way of example, the Healthe Entry product does not use a second gas mixture, which is different from the first gas mixture, to produce a second narrow wavelength photon emission, which is different from the first narrow wavelength photon emission. As is clear from the annotated excerpt below from the Healthe Entry specification sheet available on Healthe's website, the Healthe Entry product uses a Far-UVC Emitter to emit Far-UVC light at one narrow wavelength, 222 nm, and thus does not use a second gas mixture to generate a second narrow wavelength photon emission:

UV Sanitization Source	
Wavelength	222 nm
Type	FAR-UVC Emitter
Quantity	Five (5)
Average Operational Life	>3000 Hrs

Dkt. 1-11 (Healthe Entry Spec Sheet) at 2.

The Healthe Space Product Does Not Infringe Claim 1 of the '985 Patent

59. The Healthe Space product does not infringe claim 1 of the '985 Patent.

60. By way of example, the Healthe Space product does not use a second gas mixture, which is different from the first gas mixture, to produce a second narrow wavelength photon emission, which is different from the first narrow wavelength photon emission. As is clear from the annotated excerpt below from the Healthe Space specification sheet available on Healthe's website, the Healthe Space

product uses a Far-UVC Emitter to emit Far-UVC light at one narrow wavelength, 222 nm, and thus does not use a second gas mixture to generate a second narrow wavelength photon emission:

UV Sanitization Source	
Wavelength	222 nm
Type	FAR-UVC Emitter
Quantity	One (1)
Service Life	>3000 Hrs

Dkt. 1-12 (Healthe Space Spec Sheet) at 2.

The Healthe Air Product Does Not Infringe Claim 1 of the '985 Patent

61. The Healthe Air product does not infringe claim 1 of the '985 Patent.

62. By way of example, the Healthe Air product does not use a first gas mixture to produce a first narrow wavelength photon emission. As is clear from the annotated excerpt below from the Healthe Air specification sheet available on Healthe’s website, the Healthe Air uses light-emitting diode (LED) technology to produce UV light, not a gas mixture:

Air Sanitization	
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3μ
Air Flow Rate	50 CFM (Max)
UV Sanitization	UVC LED with peak at 275 nm and UVA LED with peak at 365 nm
UV LED Lifetime to L50	>2,000 Hours

Dkt. 1-13 (Healthe Air Spec Sheet) at 2.

63. The Healthe Air product also does not use a second gas mixture, which is different from the first gas mixture, to produce a second narrow wavelength

photon emission, which is different from the first narrow wavelength photon emission. As is clear from the annotated excerpt below from the Healthe Air specification sheet available on Healthe's website, the Healthe Air uses light-emitting diode (LED) technology to produce UV light, not a gas mixture:

Air Sanitization	
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3 μ
Air Flow Rate	50 CFM (Max.)
UV Sanitization	UVC LED with peak at 275 nm and UVA LED with peak at 365 nm
UV LED Lifetime to L50	>2,000 Hours

Dkt. 1-13 (Healthe Air Spec Sheet) at 2.

The Healthe Air 2.0 Product Does Not Infringe Claim 1 of the '985 Patent

64. The Healthe Air 2.0 product does not infringe claim 1 of the '985 Patent.

65. By way of example, the Healthe Air 2.0 product does not use a first gas mixture to produce a first narrow wavelength photon emission. As is clear from the annotated excerpt below from the Healthe Air 2.0 specification sheet available on Healthe's website, the Healthe Air 2.0 uses only light-emitting diode (LED) technology to produce light, not a gas mixture:

Air Sanitization	
UVGI Light Source	UVC LED with peak wavelength of 265nm
UVC LED Lifetime to L50	>3000 Hrs
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3 μ
Air Flow Rate	50 CFM
Illumination	
LED	Standard White
CCT	3000K, 3500K, 4000K, and 5000K Standard White
Lumen Output	2x2: 2500Lm (3500K), 2600Lm (4000K) 2x4: 4000Lm (3500K), 4200Lm (4000K)
CRI	>90
R9	>50
Color Chromaticity	SDCM < 5
LED Lifetime to L80	>69,000 Hours

Dkt. 1-14 (Healthe Air 2.0 Spec Sheet) at 2.

66. The Healthe Air 2.0 product also does not use a second gas mixture, which is different from the first gas mixture, to produce a second narrow wavelength photon emission, which is different from the first narrow wavelength photon emission. As is clear from the annotated excerpt below from the Healthe Air 2.0 specification sheet available on Healthe's website, the Healthe Air 2.0 uses only light-emitting diode (LED) technology to produce light, not a gas mixture, and thus it does not use a second gas mixture:

Air Sanitization	
UVGI Light Source	UVC LED with peak wavelength of 265nm
UVC LED Lifetime to L50	>3000 Hrs
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3 μ
Air Flow Rate	50 CFM
Illumination	
LED	Standard White
CCT	3000K, 3500K, 4000K, and 5000K Standard White
Lumen Output	2x2: 2500Lm (3500K), 2600Lm (4000K) 2x4: 4000Lm (3500K), 4200Lm (4000K)
CRI	>90
R9	>50
Color Chromaticity	SDCM < 5
LED Lifetime to L80	>69,000 Hours

Dkt. 1-14 (Healthe Air 2.0 Spec Sheet) at 2.

SECOND CAUSE OF ACTION

Declaratory Judgment of Non-Infringement of U.S. Patent No. 8,753,575 (Against All Defendants)

67. Healthe realleges and incorporate paragraphs 1–24 and 31–36 as though fully set forth herein.

68. Upon information and belief, HEO3 and Neister possess rights, title, and interest in the '575 Patent sufficient to have standing to assert claims for infringement of the '575 Patent.

69. Healthe has not infringed and does not infringe any valid and/or enforceable claim of the '575 Patent, directly or indirectly, literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Healthe Products.

70. A substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether Healthe infringes the '575 Patent by making, using, selling, and/or offering for sale the Healthe Products. A judicial declaration is necessary to determine the parties' respective rights regarding the '575 Patent.

71. Healthe seeks a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the '575 Patent by making, using, selling, and/or offering for sale the Healthe Products, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c).

72. Healthe incorporates by reference the portions of Healthe's Non-Infringement Contentions served on Defendants on March 29, 2021, that relate to the '575 Patent.

73. By way of example, as explained below, the Healthe Products do not meet the limitations of claim 1 of the '575 Patent.

74. Claim 1 of the '575 Patent is recited below:

A disinfecting apparatus comprising:

- a source of photons having a wavelength that substantially corresponds to an absorption peak of amino acids or proteins in microorganisms, the wavelength being 222 nm, the source of photons producing a quantity of ozone gas;
- a photon reflector secured in a spaced relationship to the photon source, whereby the apparatus produces photons that are directed to a selected zone or surface;
- an air duct surrounding the photon source;
- a particle removal means in the duct secured in a spaced relationship to the photon source; and

wherein the particle removal means is an electrostatic precipitator positioned downstream of an air flow from the source of photons, and constructed and arranged to convert the quantity of ozone into oxygen gas.

The Healthe Entry Product Does Not Infringe Claim 1 of the '575 Patent

75. The Healthe Entry product does not infringe claim 1 of the '575 patent.

76. By way of example, the Healthe Entry product does not have an air duct surrounding the photon source. As is clear from the Healthe Entry sell sheet available on Healthe's website, the Healthe Entry has no air ducts. Rather, it is a "Far-UV Sanitizing Entry Gate" that uses UVC light to "reduc[e] microbes on clothing and personal belongings as people enter a space." Dkt. 1-15 (Healthe Entry Sell Sheet) at 1.



Dkt. 1-15 (Healthe Entry Sell Sheet) at 1.

77. The Healthe Entry product also does not contain particle removal means. As is clear from the Healthe Entry sell sheet available on Healthe’s website, the Healthe Entry does not filter air, rather it is a “Far-UV Sanitizing Entry Gate” that uses UVC light to “reduc[e] microbes on clothing and personal belongings as people enter a space.” Dkt. 1-15 (Healthe Entry Sell Sheet) at 1. Likewise, the Healthe Entry product does not contain an electrostatic precipitator serving as particle removal means and does not contain particle removal means arranged to convert a quantity ozone generated by the source of photons into oxygen gas.

The Healthe Space Product Does Not Infringe Claim 1 of the '575 Patent

78. The Healthe Space product does not infringe claim 1 of the '575 Patent.

79. By way of example, the Healthe Space product does not have an air duct surrounding the photon source. As is clear from the Healthe Space sell sheet available on Healthe's website, the Healthe Space has no air ducts. Rather it is "a passive and continuous method to sanitize air and surfaces in occupied spaces" using "222 nanometer light to inactivate microbes." Dkt. 1-16 (Healthe Space Sell Sheet) at 1.



Dkt. 1-16 (Healthe Space Sell Sheet) at 1.

80. The Healthe Space product also does not contain particle removal means. As is clear from the Healthe Space sell sheet available on Healthe's website, the Healthe Space does not filter air, rather it is "a passive and continuous method to sanitize air and surfaces in occupied spaces" using "222 nanometer light to inactivate

microbes.” Dkt. 1-16 (Healthe Space Sell Sheet) at 1. Likewise, the Healthe Space product does not contain an electrostatic precipitator serving as particle removal means and does not contain particle removal means arranged to convert a quantity of ozone generated by the source of photons into oxygen gas. *See* Dkt. 1-12 (Healthe Space Spec Sheet).

The Healthe Air Product Does Not Infringe Claim 1 of the '575 Patent

81. The Healthe Air product does not infringe claim 1 of the '575 Patent.

82. By way of example, the Healthe Air product does not have a source of photons having a wavelength that substantially corresponds to an absorption peak of amino acids or proteins in microorganisms, the wavelength being 222 nm. As is clear from the Healthe Air specification sheet available on Healthe's website, the Healthe Air does not contain a source of photons having a wavelength of 222 nm. As shown in the annotated excerpt of the specification sheet below, the Healthe Air produces UV light with peak wavelengths of 275 nm and 365 nm:

Air Sanitization	
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3 μ
Air Flow Rate	50 CFM (Max)
UV Sanitization	UVC LED with peak at 275 nm and UVA LED with peak at 365 nm
UV LED Lifetime to L50	>2,000 Hours

Dkt. 1-13 (Healthe Air Spec Sheet) at 2.

83. The Healthe Air product also does not contain an electrostatic precipitator serving as particle removal means. As is clear from the Healthe Air specification sheet available on Healthe's website and shown in the annotated

excerpt below, the Healthe Air uses a “HEPA-Carbon Activated Filter” to remove particles from the air, not an electrostatic precipitator:

Air Sanitization	
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3μ
Air Flow Rate	50 CFM (Max)
UV Sanitization	UVC LED with peak at 275 nm and UVA LED with peak at 365 nm
UV LED Lifetime to L50	>2,000 Hours

Dkt. 1-13 (Healthe Air Spec Sheet) at 2.

The Healthe Air 2.0 Product Does Not Infringe Claim 1 of the '575 Patent

84. The Healthe Air 2.0 product does not infringe claim 1 of the '575 Patent.

85. By way of example, the Healthe Air 2.0 product does not have a source of photons having a wavelength that substantially corresponds to an absorption peak of amino acids or proteins in microorganisms, the wavelength being 222 nm. As is clear from the Healthe Air 2.0 specification sheet available on Healthe’s website, the Healthe Air 2.0 does not contain a source of photons having a wavelength of 222 nm. As shown in the annotated excerpt of the specification sheet below, the Healthe Air 2.0 produces UV light with a peak wavelength of 265 nm:

Air Sanitization	
UVGI Light Source	UVC LED with peak wavelenght of 265nm
UVC LED Lifetime to L50	>3000 Hrs
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3μ
Air Flow Rate	50 CFM

Dkt. 1-14 (Healthe Air 2.0 Spec Sheet) at 2.

86. The Healthe Air 2.0 product also does not contain an electrostatic precipitator serving as particle removal means. As is clear from the Healthe Air 2.0 specification sheet available on Healthe’s website and shown in the annotated excerpt below, the Healthe Air 2.0 uses a “HEPA-Carbon Activated Filter” to remove particles for the air, not an electrostatic precipitator:

Air Sanitization	
UVGI Light Source	UVC LED with peak wavelength of 265nm
UVC LED Lifetime to L50	>3000 Hrs
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3 μ
Air Flow Rate	50 CFM

Dkt. 1-14 (Healthe Air 2.0 Spec Sheet) at 2.

THIRD CAUSE OF ACTION

Declaratory Judgment of Non-Infringement of U.S. Patent No. 8,975,605 (Against All Defendants)

87. Healthe realleges and incorporate paragraphs 1–24 and 37–42 as though fully set forth herein.

88. Upon information and belief, HEO3 and Neister possess rights, title, and interest in the '605 Patent sufficient to have standing to assert claims for infringement of the '605 Patent.

89. Healthe has not infringed and does not infringe any valid and/or enforceable claim of the '605 Patent, directly or indirectly, literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Healthe Products.

90. A substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether Healthe infringes the '605 Patent by making, using, selling, and/or offering for sale the Healthe Products. A judicial declaration is necessary to determine the parties' respective rights regarding the '605 Patent.

91. Healthe seeks a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the '605 Patent by making, using, selling, and/or offering for sale the Healthe Products, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c).

92. Healthe incorporates by reference the portions of Healthe's Non-Infringement Contentions served on Defendants on March 29, 2021, that relate to the '605 Patent.

93. By way of example, as explained below, the Healthe Products do not meet the limitations of claim 1 of the '605 Patent.

94. Claim 1 of the '605 Patent is recited below

A process for destroying or deactivating the DNA organic bonds and proteins of microorganisms comprising the steps of:

generating photons of at least two single line wavelengths from a non-coherent light source selected from the group consisting of at least two wavelengths being of 222 nm, 254 nm, and 282 nm;

directing the photons to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms;

exposing the surface to be disinfected to the generated photons of at least two wavelengths, wherein the exposing achieves a

ninety percent kill of microorganisms in a time period of less than one second.

The Healthe Entry Product Does Not Infringe Claim 1 of the '605 Patent

95. The Healthe Entry product does not infringe claim 1 of the '605 Patent.

96. By way of example, the Healthe Entry product does not generate photons of at least two single line wavelengths selected from the group consisting of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Entry specification sheet available on Healthe's website and the annotated excerpt below, the Healthe Entry generates light at one narrow wavelength: 222 nm.

UV Sanitization Source	
Wavelength	222 nm
Type	FAR-UVC Emitter
Quantity	Five (5)
Average Operational Life	>3000 Hrs

Dkt. 1-11 (Healthe Entry Spec Sheet) at 2.

The Healthe Space Product Does Not Infringe Claim 1 of the '605 Patent

97. The Healthe Space product does not infringe claim 1 of the '605 Patent.

98. By way of example, the Healthe Space product does not generate photons of at least two single line wavelengths selected from the group consisting of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Space specification sheet available on Healthe's website and the annotated excerpts below, the Healthe Space

product generates Far-UVC light having a narrow wavelength of 222 nm and uses Standard White LEDs to generate light having a peak wavelength at 435 nm:

UV Sanitization Source	
Wavelength	222 nm
Type	FAR-UVC Emitter
Quantity	One (1)
Service Life	>3000 Hrs

Illumination Source	
LED	Standard White LEDs with a peak at 435 nm to activate antimicrobial properties of TiO ₂ coatings and cleaners
CCT	4000K and 3000K
Lumen Output	600 Lm
CRI	>90
R9	>50
Color Chromaticity	SDCM ≤ 5
LED Lifetime to L80	>69,000 Hours

Dkt. 1-12 (Healthe Space Spec Sheet) at 2.

The Healthe Air Product Does Not Infringe Claim 1 of the '605 Patent

99. The Healthe Air product does not infringe claim 1 of the '605 Patent.

100. By way of example, the Healthe Air product does not generate photons of at least two single line wavelengths selected from the group consisting of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Air specification sheet available on Healthe's website and the annotated excerpt below, the Healthe Air generates UV light with peak wavelengths of 275 nm and 365 nm:

Air Sanitization	
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3µ
Air Flow Rate	50 CFM (Max.)
UV Sanitization	UVC LED with peak at 275 nm and UVA LED with peak at 365 nm
UV LED Lifetime to L50	>2,000 Hours

Dkt. 1-13 (Healthe Air Spec Sheet) at 2.

The Healthe Air 2.0 Product Does Not Infringe Claim 1 of the '605 Patent

101. The Healthe Air 2.0 product does not infringe claim 1 of the '605 Patent.

102. By way of example, the Healthe Air 2.0 product does not generate photons of at least two single line wavelengths selected from the group consisting of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Air 2.0 specification sheet available on Healthe's website and the annotated excerpt below, the Healthe Air 2.0 generates UV light with a peak wavelength of 265 nm:

Air Sanitization	
UVGI Light Source	UVC LED with peak wavelength of 265nm
UVC LED Lifetime to L50	>3000 Hrs
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3 μ
Air Flow Rate	50 CFM

Dkt. 1-14 (Healthe Air 2.0 Spec Sheet) at 2.

The Healthe Wand Pro Product Does Not Infringe Claim 1 of the '605 Patent.

103. The allegations of paragraphs 1–24 and 37–42 are incorporated as though fully set forth herein. The allegations of paragraphs 1–22, 35–40, and 83–97 of Healthe's original Complaint (Dkt. 1) are incorporated as though fully set forth herein

104. The Third Cause of Action in Healthe's original Complaint sought a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the '605 Patent by making, using, selling,

and/or offering for sale the Healthe Entry™, Healthe Space™, Healthe Air™, or Healthe Air 2.0™, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c). *See* Dkt. 1 ¶ 87.

105. Defendants' Counterclaims accuse Healthe of infringing claims of the '605 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Wand Pro™. *See* Dkt. 41 ¶ 44. Thus, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether Healthe infringes the '605 Patent by making, using, selling, and/or offering for sale the Healthe Wand Pro™.

106. Healthe has not infringed and does not infringe any valid and/or enforceable claim of the '605 Patent, directly or indirectly, literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Healthe Wand Pro™.

107. By way of example, as explained below and as further explained in Healthe's Non-Infringement Contentions served on Defendants on March 29, 2021, the Healthe Wand Pro™ does not meet the limitations of claim 1 of the '605 Patent.

108. Claim 1 of the '605 Patent is recited below:

A process for destroying or deactivating the DNA organic bonds and proteins of microorganisms comprising the steps of:

generating photons of at least two single line wavelengths from a non-coherent light source selected from the group consisting

of at least two wavelengths being of 222 nm, 254 nm, and 282 nm;

directing the photons to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms;

exposing the surface to be disinfected to the generated photons of at least two wavelengths, wherein the exposing achieves a ninety percent kill of microorganisms in a time period of less than one second.

109. The Healthe Wand Pro™ product does not infringe claim 1 of the '605 Patent.

110. By way of example, the Healthe Wand Pro™ product does not generate photons of at least two single line wavelengths selected from the group consisting of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Wand Pro™ specification sheet available on Healthe's website and attached to Defendants' Counterclaims (*see* Dkt. 41-1 at Page 96 of 103), which is excerpted below, the Healthe Wand Pro™ generates light at one narrow peak wavelength: 222 nm.

Lamp	
Wavelength	222 nm peak wavelength
Lamp	Excimer Lamp

Dkt. 41-1 at Page 97 of 103.

111. Healthe seeks a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the '605 Patent by making, using, selling, and/or offering for sale the Healthe Wand Pro™, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c).

FOURTH CAUSE OF ACTION

Declaratory Judgment of Non-Infringement of U.S. Patent No. 9,700,642 (Against All Defendants)

112. Healthe realleges and incorporates paragraphs 1–24 and 43–48 as though fully set forth herein.

113. Upon information and belief, HEO3 and Neister possess rights, title, and interest in the '642 Patent sufficient to have standing to assert claims for infringement of the '642 Patent.

114. Healthe has not infringed and does not infringe any valid and/or enforceable claim of the '642 Patent, directly or indirectly, literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Healthe Products.

115. A substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether Healthe infringes the '642 Patent by making, using, selling, and/or offering for sale the Healthe Products. A judicial declaration is necessary to determine the parties' respective rights regarding the '642 Patent.

116. Healthe seeks a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the '642 Patent by making, using, selling, and/or offering for sale the Healthe Products, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c).

117. Healthe incorporates by reference the portions of Healthe's Non-Infringement Contentions served on Defendants on March 29, 2021, that relate to the '642 Patent.

118. By way of example, as explained below, Healthe's Accused Products do not meet the limitations of claim 12 of the '642 Patent.

119. Claim 12 of the '642 Patent is recited below:

A process for destroying a DNA or RNA of a microorganism on a substance or surface comprising the steps of:

generating photons of at least two single line wavelengths corresponding to a peak absorption wavelength of DNA or RNA, the at least two single line wavelengths being at least two of 222 nm, 254 nm and 282 nm; and

directing the photons to the substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms.

The Healthe Entry Product Does Not Infringe Claim 12 of the '642 Patent

120. The Healthe Entry product does not infringe claim 12 of the '642 Patent.

121. By way of example, the Healthe Entry product does not generate at least two single line wavelengths being at least two of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Entry specification sheet available on Healthe's website and the annotated excerpt below, the Healthe Entry product generates light at one narrow wavelength: 222 nm.

UV Sanitization Source	
Wavelength	222 nm
Type	FAR-UVC Emitter
Quantity	Five (5)
Average Operational Life	>3000 Hrs

Dkt. 1-11 (Healthe Entry Spec Sheet) at 2.

The Healthe Space Product Does Not Infringe Claim 12 of the '642 Patent

122. The Healthe Space product does not infringe claim 12 of the '642 Patent.

123. By way of example, the Healthe Space product does not generate at least two single line wavelengths being at least two of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Space specification sheet available on Healthe's website and the annotated excerpt below, the Healthe Space product generates Far-UVC light having a narrow wavelength of 222 nm and uses Standard White LEDs to generate light having a peak wavelength at 435 nm:

UV Sanitization Source	
Wavelength	222 nm
Type	FAR-UVC Emitter
Quantity	One (1)
Service Life	>3000 Hrs

Illumination Source	
LED	Standard White LEDs with a peak at 435 nm to activate antimicrobial properties of TiO ₂ coatings and cleaners
CCT	4000K and 3000K
Lumen Output	600 Lm
CRI	>90
R9	>50
Color Chromaticity	SDCM ≤ 5
LED Lifetime to L80	>69,000 Hours

Dkt. 1-12 (Healthe Space Spec Sheet) at 2.

The Healthe Air Product Does Not Infringe Claim 12 of the '642 Patent

124. The Healthe Air product does not infringe claim 12 of the '642 Patent.

125. By way of example, the Healthe Air product does not generate at least two single line wavelengths being at least two of 222 nm, 254 nm, and 282 nm. As is clear from the Healthe Air specification sheet available on Healthe's website and the annotated excerpt below, the Healthe Air generates UV light with peak wavelengths of 275 nm and 365 nm:

Air Sanitization	
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3μ
Air Flow Rate	50 CFM (Max.)
UV Sanitization	UVC LED with peak at 275 nm and UVA LED with peak at 365 nm
UV LED Lifetime to L50	>2,000 Hours

Dkt. 1-13 (Healthe Air Spec Sheet) at 2.

The Healthe Air 2.0 Product Does Not Infringe Claim 12 of the '642 Patent

126. The Healthe Air 2.0 product does not infringe claim 12 of the '642 Patent.

127. By way of example, the Healthe Air 2.0 product does not generate at least two single line wavelengths being at least two of 222 nm, 254 nm, and 282 nm.

As is clear from the Healthe Air 2.0 specification sheet available on Healthe's website and the annotated excerpt, the Healthe Air 2.0 generates UV light with a peak wavelength of 265 nm:

Air Sanitization	
UVGI Light Source	UVC LED with peak wavelength of 265nm
UVC LED Lifetime to L50	>3000 Hrs
Filtration	HEPA-Carbon Activated Filter captures up to 99.97% of particles as small as 0.3µ
Air Flow Rate	50 CFM

Dkt. 1-13 (Healthe Air 2.0 Spec Sheet) at 2.

The Healthe Wand Pro Product Does Not Infringe Claim 12 of the '642 Patent

128. The allegations of paragraphs 1–48 are incorporated as though fully set forth herein. The allegations of paragraphs 1–22, 41–46, and 98–113 of Healthe's original Complaint (Dkt. 1) are also incorporated as though fully set forth herein.

129. The Fourth Cause of Action in Healthe's original Complaint (Dkt. 1) sought a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the '642 Patent by making, using, selling, and/or offering for sale the Healthe Entry™, Healthe Space™, Healthe Air™, or Healthe Air 2.0™, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c). *See* Dkt. 1 ¶ 102.

130. Defendants' Counterclaims accuse Healthe of infringing claims of the '642 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Wand Pro™. *See* Dkt. 41 ¶ 58.

Thus, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether Healthe infringes the '642 Patent by making, using, selling, and/or offering for sale the Healthe Wand Pro™.

131. Healthe has not infringed and does not infringe any valid and/or enforceable claim of the '642 Patent, directly or indirectly, literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Healthe Wand Pro™.

132. By way of example, as explained below and as further explained in Healthe's Non-Infringement Contentions served on Defendants on March 29, 2021, the Healthe Wand Pro™ does not meet the limitations of claim 12 of the '642 Patent.

133. Claim 12 of the '642 Patent is recited below:

A process for destroying a DNA or RNA of a microorganism on a substance or surface comprising the steps of:

generating photons of at least two single line wavelengths corresponding to a peak absorption wavelength of DNA or RNA, the at least two single line wavelengths being at least two of 222 nm, 254 nm and 282 nm; and

directing the photons to the substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms.

134. The Healthe Wand Pro™ product does not infringe claim 12 of the '642 Patent.

135. By way of example, the Healthe Wand Pro™ product does not generate at least two single line wavelengths being at least two of 222 nm, 254 nm, and 282

nm. As is clear from the Healthe Wand Pro™ specification sheet available on Healthe’s website and attached to Defendants’ Counterclaims (*see* Dkt. 41-1 at Page 96 of 103), which is excerpted below, the Healthe Wand Pro™ generates light at one narrow peak wavelength: 222 nm.

Lamp	
Wavelength	222 nm peak wavelength
Lamp	Excimer Lamp

Dkt. 41-1 at Page 97 of 103.

136. Healthe seeks a judgment declaring that Healthe does not infringe, either literally or under the doctrine of equivalents, the claims of the ’642 Patent by making, using, selling, and/or offering for sale the Healthe Wand Pro™, either directly under 35 U.S.C. § 271(a) or indirectly under 35 U.S.C. §§ 271(b) and (c).

FIFTH CAUSE OF ACTION

Declaratory Judgment of Invalidity of U.S. Patent No. 8,975,605 (Against All Defendants)

137. The allegations of paragraphs 1–24 and 37–42 are incorporated as though fully set forth herein.

138. Defendants’ Counterclaims accuse Healthe of infringing claims of the ’605 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Entry™, the Healthe Space™, and the Healthe Wand Pro™. *See* Dkt. 41 ¶ 44. Thus, a substantial, immediate, and

real controversy exists between Healthe and Defendants regarding whether the claims of the '605 Patent are valid.

139. The claims of the '605 Patent are invalid because they fail to comply with one or more sections of Title 35 of the United States Code, including, without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, including as set forth in Healthe's Invalidity Contentions served on Defendants on March 29, 2021. Healthe is therefore entitled to a declaration that the claims of the '605 Patent are invalid.

SIXTH CAUSE OF ACTION

Declaratory Judgment of Invalidity of U.S. Patent No. 9,700,642 (Against All Defendants)

140. The allegations of paragraphs 1–24 and 43–48 are incorporated as though fully set forth herein.

141. Defendants' Counterclaims accuse Healthe of infringing claims of the '642 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Entry™, the Healthe Space™, and the Healthe Wand Pro™. *See* Dkt. 41 ¶ 58. Thus, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether the claims of the '642 Patent are valid.

142. The claims of the '642 Patent are invalid because they fail to comply with one or more sections of Title 35 of the United States Code, including, without

limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, including as set forth in Healthe's Invalidity Contentions served on Defendants on March 29, 2021.

143. Healthe is therefore entitled to a declaration that the claims of the '642 Patent are invalid.

SEVENTH CAUSE OF ACTION

Declaratory Judgment of Unenforceability of U.S. Patent No. 9,700,642 and U.S. Patent No. 8,753,575 Due to Inequitable Conduct

(Against All Defendants)

144. The allegations of paragraphs 1–24 and 43–48 are incorporated as though fully set forth herein.

145. Defendants' Counterclaims accuse Healthe of infringing claims of the '642 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Entry™, the Healthe Space™, and the Healthe Wand Pro™. *See* Dkt. 41 ¶ 58. Thus, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether the claims of the '642 Patent are unenforceable due to inequitable conduct.

146. As alleged above, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether Healthe infringes the '575 Patent by making, using, selling, and/or offering for sale the Healthe Products. A judicial declaration is necessary to determine whether the claims of the '575 Patent are enforceable.

147. The '642 Patent and the '575 Patent are unenforceable due to inequitable conduct of the patent applicant, Neister, who committed affirmative acts of egregious misconduct during the prosecution of the application that resulted in the '642 Patent and the '575 Patent.

148. The '642 Patent is a continuation-in-part of U.S. Patent Application No. 11/831,667 (the "'667 Application"), which issued as U.S. Patent No. 8,753,575 (i.e., the '575 Patent). *See* Dkt. 1-4 ('642 Patent) at Related U.S. Application Data.

149. During the prosecution of the '667 Application, the Examiner, Christopher Vandeusen, issued a Final Rejection on February 4, 2011, rejecting then-pending claims under 35 U.S.C. § 103(a) as being unpatentable over, *inter alia*, the Ressler reference (i.e., U.S. Patent Application Publication No. 2005/0173652). *See generally*, Dkt. 52-1 ('575 Patent Prosecution History, 02/04/2011 Final Rejection). The Examiner noted that Ressler "teaches a disinfecting apparatus comprising: a source of photons having a wavelength that substantially corresponds to an absorption peak of amino acids or proteins in microorganisms, the wavelength being at least one of 222 nm and 282 nm ... wherein the source of photons is an excimer lamp discharge ... and wherein the source of photons is a NUV lamp discharge ... in order to provide an appropriate photon source for disinfection." *Id.* at 4–5.

150. In response to the February 4, 2011 Final Rejection, Neister submitted "a 37 C.F.R. 1.131 declaration herewith to antedate Ressler" (*see* Dkt. 52-2,

“Declaration”), which Neister represented “provides evidence of conception and actual reduction to practice prior to the provisional application filing date of Ressler on February 11, 2004.” Dkt 52-2 (04/04/2011 Applicant Response to 02/04/2011 Office Action) at 5. In his Declaration, Neister declared, in part:

2 Prior to February 11, 2004, the inventive subject matter shown in Figures 1–15, described in the application, and claimed in the corresponding claims of the present application was completed and reduced to practice in the United States as evidence by the following:

a. Prior to February 11, 2004, having earlier conceived the subject matter in the United States, I made the research and invention summary shown in Exhibit A (3 Pages). Exhibit A describes the claimed apparatus. This disclosure is an internal report to the Board of Directors at Powerspan Corp., and includes discussions and descriptions of a disinfecting apparatus and potential uses for the device, targeting at least wavelengths at one of 222 nm and 282 nm, and noting that the apparatus efficiently destroys microorganisms.

b. The subject matter of the present application was actually reduced to practice prior to February 11, 2004. Exhibit A (3 Pages) and Exhibit B (2 Pages) describe the results of testing of the subject of the present application, and Exhibits C-E (1 Page each) show photographs of different views of the subject of the present application that were taken before February 11, 2004.

c. Exhibit A describes the claimed apparatus. This disclosure is an internal report to the Board of Directors at Powerspan Corp., and makes note of testing performed at the University of New Hampshire of the subject matter of the present invention.

d. Exhibit B describes the claimed apparatus. This disclosure is an internal report to the Board of Directors at Powerspan Corp., and includes details of testing of the subject matter of the present application carried out at the University of New Hampshire.

* * *

3. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and

belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application and any patent issuing thereon.

Id. at 04/04/2011 Declaration.

151. Although Neister attempted to use his Declaration and the exhibits attached thereto as evidence of conception and reduction to practice of the claimed invention(s) in order to antedate the Ressler reference's provisional application filing date of February 11, 2004, Neister's Declaration does not state the date(s) of the testing referenced therein and does not state the date(s) that the internal reports attached as Exhibits A and B to his Declaration were created and submitted. Rather, the dates of the internal reports and the testing appear to have been redacted.

152. Below are highlighted excerpts from the memorandum attached as Exhibit A to Neister's Declaration showing redactions of what, upon information and belief, appear to be the date of the memorandum and the date(s) of the testing described therein:

MEMORANDUM

REDACTED

To: Directors
From: Ed Neister
Subject: **UV Update**

SUMMARY:

UV light sources use mercury (254nm) lamps to treat drinking water, wastewater, and airborne pathogens. There are indications that mercury lamps are not ideal sources for these uses and a critical need exists for another type of source. An effort has been made to determine the market scope for application of Dielectric Barrier Discharge (DBD) UV lamps. Indications are very favorable that this type of source is in great need and could compete both technically and economically. The following is a detailed breakdown of this effort.

WASTE WATER:

Conversations with Dr. James P. Malley, Jr.¹ led to a test of three different DBD lamps producing three different wavelengths. The test in **REDACTED** indicated that 253 and 258 nm emission performed at least as well as mercury light in destroying a marker virus MS-2.

AIR TREATMENT:

The results of the UNH **REDACT** test indicated that airborne pathogens would be more effectively deactivated with 222 nm light than with mercury 254 nm light. There is a serious epidemic of drug resistant Tuberculosis in many third world countries. Dr. Ann Ginsberg³ was encouraged by these results and said that she personally was concerned as well as people at CDC⁴ that this epidemic could spread quickly because of high altitude jet plane travel. She asked that I contact people doing TB studies, and invited us to visit them for an informal discussion about the new UV source and to get their suggestions on the best course of action to follow to develop and promote its use.

Id. at 11-12 (Ex. A to 04/04/2011 Declaration).

153. In addition, below are highlighted excerpts from the memorandum attached as Exhibit B to Neister's Declaration showing redactions of what appear to be the date of the memorandum and the dates of the testing described therein:

MEMORANDUM

REDACTED

To: Directors
From: Ed Neister
Subject: **UV Update**

SUMMARY

Ultraviolet (UV) light is photons with high energy content. The energy content of the photon changes as the wavelength changes. UV can be an effective tool to target select molecules to force excited state chemical action or radical formation. UV photons are very effective in creating mutations in living cells and breaking organic molecules. Powerspan is in the unique position of having experience with the dielectric barrier discharge (DBD) process (also known as a silent discharge) and its use to make a new and unique type of UV lamp. The use of UV for other applications may provide new markets that could be significant to the growth of Powerspan.

UV sources to kill water and air borne pathogens

Wastewater

UV light sources use mercury (254nm) lamps to treat drinking water, wastewater, and airborne pathogens. There are indications that mercury lamps are not ideal sources for these uses and a critical need exists for another type of source, particularly for drinking water. Conversations with Dr. James P. Malley, Jr. led to a test of three different DBD lamps producing three different wavelengths. The test in REDACTED indicated that 253 and 258 nm emission performed at least as well as mercury light in destroying a marker virus MS-2.

UV REDACTED

Air pathogens**DEKA:**

DEKA (Dean Kamen's company) is developing a vapor compression water distillation system that will be marketed to the third world countries. To date, they have demonstrated that the concept does make potable water. They need a UV source that would guarantee that no airborne or water borne pathogens can pass through the system. DEKA has expressed an interest in the 222 nm wavelength source as the most potent and desirable source for their application. Important to the overall system is the small size, ruggedness, inexpensive power supply, and variable power control. Effort is proceeding to support their effort by developing a small high voltage power supply and optimize the DBD lamp. Other wavelengths of interest would be 258, and 282 nm. DEKA is doing market analysis and will supply the results to Powerspan. The initial market appears large.

Tuberculosis:

The results of the UNH REDACT est indicated that 222 nm light more effectively deactivates airborne pathogens than mercury 254 nm light. There is a serious epidemic of drug resistant Tuberculosis in many third world countries. Dr. Ann Ginsberg² was encouraged by these results and said that she personally was concerned as well as people at CDC³ that this epidemic could spread quickly because of high altitude jet plane travel. She asked that I contact people doing TB studies, and invited us to visit them for an informal discussion about the new UV source and to get their suggestions on the best course of action to follow to develop and promote its use. However, after talking to one the leading experts in the field, the market size is only third world countries, and they do not have the ability or will to pay for such development. Even though the concept of helping solve the world's problems is magnanimous, the current size of Powerspan does not justify spending resources on this problem today.

Id. at Ex. B to 04/04/2011 Declaration.

154. The '667 Application was filed on July 31, 2007, and claims priority to U.S. Provisional Patent Application No. 60/593,626 (the "'626 Provisional Application"), which was filed on January 31, 2005. *See* Dkt. 1-2 ('575 Patent) at Cover and 11/11/2014 Certificate of Correction (correcting the Related U.S. Application Data section of the '575 Patent to include the related applications, including the '626 Provisional Application).

155. To be patent eligible, the purported invention claimed in the '667 Application cannot have been publicly disclosed more than one year prior to its effective filing date—i.e., January 31, 2004. Yet, Neister's April 4, 2011 Declaration asserts that "[p]rior to February 11, 2004" the purported invention claimed in the '667 Application "was completed and reduced to practice in the United States as evidenced by" the "research and invention summary shown in Exhibit A" that was "made" prior to February 11, 2005 and cites Exhibits A and B as evidence that "[t]he subject matter of the ['667 Application] was actually reduced to practice prior to February 11, 2004." Dkt. 52-2 at 8 (¶ 2 of 04/04/2011 Declaration). The memoranda or research summaries attached as Exhibits A and B to the Declaration also reference testing that was performed on the purported invention at the University of New Hampshire and elsewhere, as well as discussions with third parties regarding the claimed invention. Upon information and belief, these acts were not all performed in the 11-day period between January 31, 2004 and February 11, 2004.

156. During discovery, Health requested the unredacted versions of the two memoranda attached as Exhibits A and B. The unredacted versions of these memoranda lay bare Neister's blatant fraud on the Patent Office: by statute, Neister's purported invention claimed in the '667 Application and all subsequently issuing patents is not patent eligible if the purported invention was publicly disclosed prior to January 31, 2004, one year before the filing date of the provisional application to

which the '667 Application claims priority. *See* Dkt. 1-2 at cover; *see also* 35 U.S.C. §102(b) (one-year limitation). Neister's submitted memoranda—which Neister declared under oath “provide[] evidence of conception and actual reduction to practice”—reference testing of and discussions about the purported inventions with numerous third parties, several years in advance of the 2005 priority date claimed by Neister. Thus, Neister's blatant attempt to hide these invalidating disclosures by redacting dates from the very documents he submitted in order to antedate prior art constituted inequitable conduct.

157. As a patent applicant, Neister had a duty of candor to the United States Patent and Trademark Office under 37 C.F.R. § 1.56. Upon information and belief, Neister purposefully violated that duty of candor during the prosecution of the '667 Application.

158. Upon information and belief, Neister's April 4, 2011 Declaration, the exhibits attached thereto, and the testing and discussions with third parties of the UV light disinfection technology described therein evidence the fact that the purported invention claimed in the '667 Application was publicly disclosed more than one year before the '667 Application's effective filing date of January 31, 2005. If true, this renders the invention claimed in the '667 Application not patent eligible under 35 U.S.C. § 102(b) (Pre-America Invents Act). Moreover, upon information and belief, Neister attempted to deceive the United States Patent and Trademark Office and conceal the invalidity of the '667 Application by redacting the dates of the

memoranda attached as Exhibits A and B to his Declaration and the dates of the testing discussed therein. If true, this constitutes an affirmative act of egregious misconduct amounting to inequitable conduct.

159. The '575 Patent issued from the '667 Application. Thus, Neister's inequitable conduct during the prosecution of the '667 Application renders the '575 Patent unenforceable. Because the '642 Patent is a continuation-in-part of the '667 Application, Neister's inequitable conduct relating to the '667 Application renders the '642 Patent unenforceable.

EIGHTH CAUSE OF ACTION

Declaratory Judgment of Unenforceability of U.S. Patent No. 9,700,642 Due to Patent Misuse

(Against All Defendants)

160. The allegations of paragraphs 1–24 and 43–48 are incorporated as though fully set forth herein.

161. Defendants' Counterclaims accuse Healthe of infringing claims of the '642 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Entry™, the Healthe Space™, and the Healthe Wand Pro™. *See* Dkt. 41 ¶ 58. Thus, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether the claims of the '642 Patent are unenforceable due to patent misuse.

162. The '642 Patent is unenforceable due to patent misuse by Defendants, who improperly sought to extend the scope of the '642 Patent's claims and/or who asserted the '642 Patent in bad-faith, knowing it to be invalid and/or unenforceable.

163. In November 2020, John Neister, the President of HEO3, sent a letter to one of Healthe's customers located in this District. That letter asserted, *inter alia*, that "HEO3 LLC, is the exclusive licensee of a number of patents and patent applications owned by S. Edward Neister relating to Far-UVC disinfection technology" and that "S. Edward Neister is the legal owner of U.S. Patent Nos. 9,700,642, 8,975,605, 8,481,985, and 8,753,575 ... as well as another pending patent application published as US2017/0304472." The letter then referenced "the description of the Healthe Entry™, the Healthe Space™ & Healthe Air™ products on the manufacturer's website at <https://healtheinc.com/>" (i.e., Healthe's website) and threatened that "[t]his appears to read on technologies that are potentially covered by Mr. Neister's patents" and that "[p]atents can be asserted against users of infringing products in addition to those who make, sell, and offer for sale." The letter then requested that Healthe's customer "inform us as to how you plan to proceed with your purchased Healthe Entry™, the Healthe Space™ & Healthe Air™ products" and further threatened that "[w]e are very interested in protecting our rights and would like to prevent any potential market interference or other issues before it is too late." The letter also asked that Healthe's customer "get back to me in

regards to your intentions within twenty (20) days.” Healthe’s customer informed Healthe of HEO3’s letter.

164. On November 22, 2020, counsel for Healthe sent a letter to HEO3’s counsel, advising HEO3 that its patent-infringement allegations were baseless and were damaging to Healthe and its business. Healthe demanded that HEO3, Neister, and any related entities immediately cease and desist from making these baseless infringement claims to Healthe’s customers and threatening known customers with infringement actions. *See* Dkt. 41-7.

165. On the very next day, November 23, 2020, despite Healthe’s letter, HEO3’s President, John Neister, sent an email threatening a different Healthe customer. This email asserted that “our company, HEO3 LLC (dba Far-UV Sterilray), is the exclusive licensee of a number of patents and patent applications owned by S. Edward Neister relating to Far-UVC disinfection technology” and that “S. Edward Neister is the legal owner of U.S. Patent Nos. 9,700,642, 8,975,605, 8,481,985, and 8,753,575 ... as well another pending patent application published as US2017/0304472.” The letter then threatened that “[t]he purpose of this letter is to inform you that these listed patents and pending patent relate to some of the features incorporated into Healthe's 222nm products,” that “[w]e understand that you have recently purchased this product and are using it in public,” and, to underscore HEO3’s threat, that “[p]atents can be asserted against users of infringing products in addition to those who make, sell, and offer for sale.” The letter also referenced “the

description of the Far-UVC 222nm downlights & Healthe Space on the manufacturer's website." The letter then requested that Healthe's customer "inform us as to how you plan to proceed with your purchased Far-UVC 222nm downlights products" and further threatened that "[w]e are very interested in protecting our rights and would like to prevent any potential market interference or other issues before it is too late." The letter further asked that Healthe's customer "get back to me in regards to your intentions within twenty (20) days." Healthe's customer informed Healthe of HEO3's email.

166. Upon information and belief, Defendants have sent similar correspondence to at least two other customers of Healthe.

167. Defendants' correspondence to Healthe's customers threatening them with liability for infringement of the '642 Patent improperly sought to extend the scope of the '642 Patent by ignoring the requirements of its claims. For example, as set forth in Healthe's original Complaint (Dkt. 1) at paragraphs 98–113, the Healthe Entry™, the Healthe Space™ & Healthe Air™ products do not "generat[e] photons of at least two single line wavelengths corresponding to a peak absorption wavelength of DNA or RNA, the at least two single line wavelengths being at least two of 222 nm, 254 nm and 282 nm" as required by Claim 12 of the '642 Patent. As another example, Defendants' infringement threats ignore the requirement of Claim 1 of the '642 Patent that "the substance or surface to be disinfected is human or animal skin."

168. Upon information and belief, Defendants knew that no action or product of Healthe infringes any claim of the '642 Patent. Indeed, as set forth in Healthe's original Complaint (Dkt. 1) at paragraphs 98–113 and above in paragraphs 112–36, even a cursory review of publicly available information, including Healthe's website, which Defendants acknowledged reviewing in their letters to Healthe's customers asserting infringement, demonstrates that Healthe's products do not “generat[e] photons of at least two single line wavelengths corresponding to a peak absorption wavelength of DNA or RNA, the at least two single line wavelengths being at least two of 222 nm, 254 nm and 282 nm” as required by Claim 12 of the '642 Patent. Accordingly, Defendants' infringement threats are objectively baseless.

169. Upon information and belief, Defendants' assertions of infringement of the '642 Patent against Healthe and its customers were made with knowledge that the assertions were baseless, and thus were made in bad faith.

170. Upon information and belief, Defendants attempted in bad faith to enforce the '642 Patent, despite knowing of its invalidity and unenforceability, for the improper purpose of attempting to restrain trade by preventing Healthe's customers from purchasing and/or using Healthe's products.

171. On Sept. 9, 2020, Defendants amended Claim 1 of U.S. Application No. 15/645,480 (the “'480 Application”), which is a continuation of the '642 Patent, as follows:

1. (Currently Amended) A process for destroying a DNA or RNA of a microorganism on or in a substance or surface comprising the steps of:
generating photons of ~~at least one~~ a wavelength corresponding to a peak absorption wavelength of , proteins, DNA or RNA, the ~~at least one~~ wavelength being ~~at least one of 207nm, 222nm, 280nm, 282nm, and 308nm;~~
directing the photons to a substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the proteins, DNA or RNA of the microorganisms; ~~and~~
~~wherein the substance or surface to be disinfected is human or animal tissue.~~

See Dkt. 52-3 (09/09/2020 Amendment to Claims of U.S. Application No. 15/645,480).

172. The September 9, 2020 amendment to then-pending claim 1 of the '480 Application was made in acquiescence to a June 10, 2020 Non-Final Rejection based on the Coogan reference (U.S. Patent No. 7,381,976), which the Examiner explained “discloses a process for destroying a DNA or RNA of a microorganism on a substance or surface comprising the steps of:

generating photons of at least one wavelength corresponding to a peak absorption wavelength of DNA or RNA, the at least one wavelength being at least one of 282nm and 308nm (see entire document, particularly Col. 3 lines 49-51, Col. 7 lines 36-42, Col. 8 lines 48-51, Col. 12 lines 18-28, Col. 19 lines 29-30, Col. 20 lines 9-10), comprising:

activating a lamp positioned within a case (see entire document, particularly Figures 1-3 – case 100, lamp 200 within 110 – see Col. 11 lines 14-15; Figure 7 – case: 708, lamp: 702a, 702b; Col. 9 lines 27-30);

directing the photons to a substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganism is a at least one of bacteria and a virus, as well as pathogens capable of being a fungus, an amoeba, and a protozoa (see entire document, particularly Col. 3 lines 49-51, Col. 6 lines 2-4, Col. 7 lines 27-36, Col. 8 lines 48-51, Col. 9 lines 50-65, Col. 12 lines 18-28, Col. 13 lines 9-10, Col. 19 line 28 to Col. 21 line 20); and

wherein the substance or surface to be disinfected is human or animal tissue in the form of blood and organ (i.e. skin capable of having a wound) (see entire document, particularly Col. 1 lines 9-10, Col. 3 lines 46 and 55-56, Col. 7 lines 17-21 and 33--36, Col. 9 lines 22--30, Col. 14 lines 6-8, Col. 15 lines 33-36 and 64-66, Col. 17 lines 55-60, Col. 19 lines 28-67).”

See Dkt. 52-4 (06/10/2020 Non-Final Rejection of U.S. Application No. 15/645,480) at 5–6.

173. Thus, the Examiner of the '480 Application's June 10, 2020 Non-Final Rejection explained that Ressler discloses at least using 282 nm light to disinfect human skin. *See* Dkt. 52-4 at 5–6.

174. Prior to being amended in response to the June 10, 2020 Non-Final Rejection, then-pending claim 1 of U.S. Application No. 15/645,480 was nearly identical to claim 1 of the '642 Patent, but included additional claimed wavelengths and claimed that the substance or surface to be disinfected is “human or animal tissue” rather than “human or animal skin.” Thus, then-pending claim 1 of U.S. Application No. 15/645,480 was broader than claim 1 of the '642 Patent.

175. Because Coogan anticipated then-pending claim 1 of the '480 Application—which Defendants acknowledged by acquiescing to the Examiner’s June 10, 2020 Non-Final Rejection of then-pending claim 1—it also anticipates claim 1 of the '642 Patent. Thus, upon information and belief, by at least September 9, 2020, Defendants knew that claim 1 of the '642 Patent was invalid as anticipated by Coogan. Because Defendants’ acquiescence occurred before Defendants sent the correspondence referenced above in paragraphs 163 and 165–66 to Healthe’s customers accusing them of infringing the '642 Patent, to the extent Defendants’ infringement allegations in those letters were based on alleged infringement of claim 1 of the '642 Patent, Defendants asserted infringement of a claim they knew to be invalid.

176. In addition, as set forth in paragraphs 144–59, upon information and belief, by the time Defendants sent the correspondence referenced above in paragraphs 163 and 165–66 to Healthe’s customers, they knew of the inequitable conduct through which Neister procured the '642 Patent and of its invalidity under

35 U.S.C. § 102(b) due to the public use of the claimed invention more than one year prior to the date of the application for the patent. For this reason as well, Defendants asserted infringement of claims they knew to be unenforceable and/or invalid.

177. Upon information and belief, Defendants' assertions of infringement of the '642 Patent against Healthe and its customers were made with knowledge that the claims of the '642 Patent were unenforceable and/or invalid, and thus were made in bad faith.

178. Defendants' threats and assertion of infringement of the '642 Patent against Healthe's customers, which upon information and belief were both intentional attempts to extend the scope of the '642 Patent's coverage and to assert infringement of claims they knew to be unenforceable and/or invalid, had anticompetitive effects and damaged Healthe. This constitutes patent misuse and renders the '642 Patent unenforceable.

NINTH CAUSE OF ACTION

Declaratory Judgment Unenforceability of U.S. Patent No. 8,975,605 Due to Inequitable Conduct

(Against All Defendants)

179. The allegations of paragraphs 1–24 and 37–42 are incorporated as though fully set forth herein.

180. Defendants' Counterclaims accuse Healthe of infringing claims of the '605 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Entry™, the Healthe Space™, and the Healthe Wand Pro™. *See* Dkt. 41 ¶ 44. Thus, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether the claims of the '605 Patent are unenforceable due to inequitable conduct.

181. The '605 Patent is unenforceable due to inequitable conduct of the patent applicant, Neister, who knew of the Ressler reference during the prosecution of the application that resulted in the '605 Patent, knew that Ressler was material to the patentability of the claims of the '605 Patent, and made a deliberate decision to withhold Ressler with the intent to deceive the United States Patent and Trademark Office.

182. As explained in paragraphs 144–59, Ressler was cited by the Examiner during prosecution of the '667 Application and Neister attempted to antedate Ressler's provisional application filing date in order to overcome a final rejection.

Neister was therefore aware of Ressler, its disclosures, and the Examiner's view that Ressler was invalidating prior art to the then-pending claims of the '667 Application because of Ressler's disclosures relating to the use of 222 nm and 282 nm light for disinfection.

183. Neister's attempt to antedate Ressler during the '667 Application was unsuccessful, as the Examiner continued to reject proposed claims in the '667 Application based on Ressler after Neister submitted his Declaration. *See, e.g.*, Dkt. 52-5, '575 Patent Prosecution History, at 02/10/2012 Non-Final Rejection (again rejecting proposed claims based on Ressler).

184. Neister ultimately overcame Ressler by amending the claims of the '667 Application and arguing against the motivation to combine Ressler with Katatani (U.S. Patent No. 5,492,676) to meet limitations concerning an electrostatic precipitator. *See* Dkt. 52-6, 04/30/2012 Applicant Amendments; Dkt. 52-7, 07/25/2013 Applicant Amendments and Remarks.

185. By July 8, 2013, the filing date of U.S. Patent Application No. 13/936,306, which issued as the '605 Patent, Neister was aware of Ressler, its disclosures, and the view of the Examiner of the '667 Application that Ressler disclosed, *inter alia*, "a disinfecting apparatus comprising: a source of photons having a wavelength that substantially corresponds to an absorption peak of amino acids or proteins in microorganisms, the wavelength being at least one of 222 nm and 282 nm

... wherein the source of photons is an excimer lamp discharge ... and wherein the source of photons is a NUV lamp discharge ... in order to provide an appropriate photon source for disinfection.” Dkt. 52-1, ’575 Patent Prosecution History, 02/04/2011 Final Rejection.

186. Similarly, during prosecution of the ’642 Patent, the Examiner again cited Ressler in a Non-Final Rejection, as anticipating then-pending claim 16 as disclosing “a process for destroying a microorganism on a substance or surface ((see entire document, particularly Abstract) comprising the steps of: provide an NUV source (108) for generating photons; generating photons (via 108) of at least one wavelength corresponding to a peak absorption wavelength of DNA or RNA, the at least one wavelength being at least one of 222nm and 282nm (see entire document, particularly p. 2 [0019] - particularly last 4 lines, p. 5 claim 2); and directing the photons to the substance or surface to be disinfected (see entire document, particularly Abstract, p. 2 [0019]-[0021], p. 4 [0029]), whereby the photons of the UV light source 108 are intrinsically selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms (see entire document, particularly p. 2 [0019]).” *See* Dkt. 52-8, ’642 Patent Prosecution History, 02/29/2016 Non-Final Rejection.

187. Neister’s knowledge regarding the existence and disclosures of Ressler gave rise to an affirmative duty, under 37 C.F.R. § 1.56, to disclose Ressler during the prosecution of the application that issued as the ’605 Patent.

188. Claim 1 of the '605 Patent claims, in part, “[a] process for destroying a DNA or RNA of a microorganism on a substance or surface comprising the steps of: generating photons of at least two single line wavelengths corresponding to a peak absorption wavelength of DNA or RNA, the at least two single line wavelengths being at least two of 222 nm, 254 nm and 282 nm” And as the Examiner of the '667 Application and the '642 Patent explained, Ressler discloses a process for disinfecting a substance or surface using “discrete wavelengths of ... 222 ... [and] 282 ... nm.” Ressler at [0011]. As such, Ressler is material to patentability of claim 1 of the '605 Patent because it anticipates and/or renders obvious that claim. And, as explained above, Neister knew of Ressler and further knew of Ressler’s materiality to the patentability of claim 1 of the '605 Patent. Therefore, Neister had an affirmative duty to disclose Ressler to the Patent and Trademark Office during prosecution of the '605 Patent. 37 C.F.R. § 1.56 (requiring applicants to “disclose to the Office all information known to that individual to be material to patentability”).

189. Neister failed to disclose Ressler during prosecution of the '605 Patent. In addition, Ressler was not cited by the Examiner of the '605 Patent, Nikita Wells, who did not examine the '667 Application or the '642 Patent.

190. By failing to disclose Ressler, Neister violated his duty of candor under 37 C.F.R. § 1.56, a failure that was material to patentability because Ressler is invalidating art to at least claim 1 of the '605 Patent.

191. Upon information and belief, Neister, who was unable to swear behind the Ressler reference, purposely failed to disclose Ressler during the prosecution of the '605 Patent in an attempt to deceive the Patent and Trademark Office. This constitutes inequitable conduct and renders the '605 Patent unenforceable.

TENTH CAUSE OF ACTION

Declaratory Judgment of Unenforceability U.S. Patent No. 8,975,605 Due to Patent Misuse

(Against All Defendants)

192. The allegations of paragraphs 1-24 and 37-42 are incorporated as though fully set forth herein.

193. Defendants' Counterclaims accuse Healthe of infringing claims of the '605 Patent by, *inter alia*, making, using, selling, offering for sale in the United States, and/or importing into the United States the Healthe Entry™, the Healthe Space™, and the Healthe Wand Pro™. *See* Dkt. 41 ¶ 44. Thus, a substantial, immediate, and real controversy exists between Healthe and Defendants regarding whether the claims of the '605 Patent are unenforceable due to patent misuse.

194. The '605 Patent is unenforceable due to patent misuse by Defendants, who improperly sought to extend the scope of the '605 Patent's claims, and/or who asserted the '605 Patent in bad-faith, knowing it to be invalid and/or unenforceable.

195. Defendants' correspondence to Healthe's customers threatening them with liability for infringement of the '605 Patent, which is discussed above in

paragraphs 163 and 165–66, improperly sought to extend the scope of the '605 Patent by ignoring the requirements of its claims. For example, as set forth in Healthe's original Complaint (Dkt. 1) at paragraphs 83–97, the Healthe Entry™, the Healthe Space™ & Healthe Air™ products do not “generat[e] photons of at least two single line wavelengths from a noncoherent light source selected from the group consisting of at least two wavelengths being of 222 nm, 254 nm, and 282 nm” as required by claim 1 of the '605 Patent.

196. Upon information and belief, Defendants knew that no action or product of Healthe infringes any claim of the '605 Patent. Indeed, as set forth in Healthe's original Complaint (Dkt. 1) at paragraphs 83–97 and above in paragraph 87–111, even a cursory review of publicly available information, including Healthe's website, which Defendants acknowledged reviewing in their letters to Healthe's customers asserting infringement, demonstrates that Healthe's products do not “generat[e] photons of at least two single line wavelengths from a noncoherent light source selected from the group consisting of at least two wavelengths being of 222 nm, 254 nm, and 282 nm” as required by Claim 1 of the '605 Patent. Accordingly, Defendants' infringement threats are objectively baseless.

197. Upon information and belief, Defendants' assertions of infringement of the '605 Patent against Healthe and its customers were made with knowledge that the assertions were baseless, and thus were made in bad faith.

198. Upon information and belief, Defendants attempted in bad faith to enforce the '605 Patent, despite knowing of its unenforceability, for the improper purpose of attempting to restrain trade by preventing Healthe's customers from purchasing and/or using Healthe's products.

199. As set forth in paragraphs 144–59 and 179–91, upon information and belief, by the time Defendants sent the correspondence referenced above in paragraphs 163 and 165–66 to Healthe's customers, Defendants knew of the inequitable conduct through which Neister procured the '605 Patent. For this reason, Defendants asserted infringement of claims they knew to be unenforceable.

200. Upon information and belief, Defendants' assertions of infringement of the '605 Patent against Healthe and its customers were made with knowledge that the claims of the '605 Patent were unenforceable, and thus were made in bad faith.

201. Defendants' threats and assertion of infringement of the '605 Patent against Healthe's customers, which upon information and belief were both intentional attempts to extend the scope of the '605 Patent's coverage and to assert infringement of claims they knew to be unenforceable, had anticompetitive effects and damaged Healthe. This constitutes patent misuse and renders the '605 Patent unenforceable.

ELEVENTH CAUSE OF ACTION

Unfair Competition under the Florida Deceptive and Unfair Trade Practices Act (Against All Defendants)

202. Healthe realleges and incorporate paragraphs 1–201 as though fully set forth herein.

203. Healthe and HEO3 are competitors and compete for sales to a common pool of customers in the market for UVC sanitization products. Upon information and belief, this direct competition is the very reason why HEO3 sent letters and emails to Healthe’s customers making false patent-infringement allegations regarding the Healthe Products.

204. HEO3’s false patent-infringement allegations regarding the Healthe Products to Healthe’s customers were made in bad faith. HEO3’s communications to Healthe’s customers acknowledge that HEO3 has reviewed information regarding the Healthe Products on Healthe’s website. It is clear from a review of the publicly available information on Healthe’s website regarding these products, however, that the Healthe Products do not infringe the Patents-in-Suit and that HEO3’s threats that Healthe’s customers face liability for infringement of the Patent-in-Suit by using Healthe Products are objectively baseless, including for the reasons explained in paragraphs 49–136. Furthermore, HEO3’s threats that Healthe’s customers face liability for infringement of Neister’s pending patent application are objectively baseless because that application has no allowed claims, is currently under a non-final rejection by the United States Patent and Trademark Office, and has not issued as a patent. A patent that does not exist cannot be infringed. That HEO3 continued making baseless patent-infringement threats to Healthe’s customers the day after Healthe advised HEO3 that its claims were baseless and requested HEO3 to cease

and desist from making additional infringement claims, further demonstrates that these threats were made in bad faith.

205. HEO3's baseless threats of liability for patent infringement to Healthe's customers are an unfair attempt by HEO3 to compete with Healthe and to gain unjustified licensing revenue for the Patents-in-Suit. HEO3's threats are also deceptive and are likely to mislead Healthe's customers into believing they are liable for infringement of the Patents-in-Suit and inhibit their use of Healthe Products.

206. Healthe has suffered actual damages, including damage to its reputation and goodwill, due to HEO3's baseless threats of liability for patent infringement to Healthe's customers.

207. Upon information and belief, as a founder, member, manager, and officer of HEO3 as well as the owner of the Patents-in-Suit, which he has exclusively licensed to HEO3, Neister exerts substantial control over HEO3 and has directed and authorized HEO3's baseless threats of infringement to Healthe's customers. Upon information and belief, Neister stands to personally and individually benefit from HEO3's baseless threats of infringement to Healthe's customers and has acted for his own personal and individual benefit by directing and authorizing these threats.

208. As evidenced by the aforementioned conduct and intentional acts, HEO3 and Neister have violated FDUTPA.

209. For HEO3's and Neister's violations of FDUTPA, Healthe seeks to recover its actual damages, its attorneys' fees in this action, and all court costs.

Healthe also seeks to enjoin HEO3 and Neister from continuing to unfairly and deceptively compete with Healthe in violation of FDUTPA.

TWELFTH CAUSE OF ACTION

Unfair Competition under Florida Common Law (Against All Defendants)

210. Healthe realleges and incorporate paragraphs 1–209 as though fully set forth herein.

211. Healthe and HEO3 are competitors and compete for sales to a common pool of customers in the market for UVC sanitization products. Upon information and belief, this direct competition is the very reason why HEO3 sent letters and emails to Healthe’s customers making false patent-infringement allegations regarding the Healthe Products.

212. HEO3’s false patent-infringement allegations regarding the Healthe Products to Healthe’s customers were made in bad faith. HEO3’s communications to Healthe’s customers acknowledge that HEO3 has reviewed information regarding the Healthe Products on Healthe’s website. It is clear from a review of the publicly available information on Healthe’s website regarding these products, however, that the Healthe Products do not infringe the Patents-in-Suit and that HEO3’s threats that Healthe’s customers face liability for infringement of the Patent-in-Suit by using Healthe Products are objectively baseless, including for the reasons explained in paragraphs 49–136. Furthermore, HEO3’s threats that Healthe’s customers face liability for infringement of Neister’s pending patent application are objectively

baseless because that application has no allowed claims, is currently under a non-final rejection by the United States Patent and Trademark Office, and has not issued as a patent. A patent that does not exist cannot be infringed. That HEO3 continued making baseless patent infringement threats to Healthe customers the day after Healthe advised HEO3 that its claims were baseless and requested HEO3 to cease and desist from making additional infringement claims, further demonstrates that these threats were made in bad faith.

213. HEO3's baseless threats of liability for patent infringement to Healthe's customers are deceptive and are likely to mislead and confuse Healthe's customers into believing they are liable for infringement of the Patents-in-Suit.

214. Healthe has suffered actual damages, including but not limited to damage to its reputation and goodwill, due to HEO3's baseless threats of liability for patent infringement to Healthe's customers.

215. Upon information and belief, as a founder, member, manager, and officer of HEO3 as well as the owner of the Patents-in-Suit, which he has exclusively licensed to HEO3, Neister exerts substantial control over HEO3 and has directed and authorized HEO3's baseless threats of infringement to Healthe's customers. Upon information and belief, Neister stands to personally and individually benefit from HEO3's baseless threats of infringement to Healthe's customers and has acted for his own personal and individual benefit by directing and authorizing these threats.

216. For HEO3's and Neister's unfair competition with Healthe in violation of Florida common law, Healthe seeks to recover its actual damages, its attorneys' fees in this action, and all court costs. Healthe also seeks to enjoin HEO3 and Neister from continuing to unfairly compete with Healthe in violation of Florida common law. An injunction is warranted because Healthe has suffered and will continue to suffer irreparable harm as a result of HEO3's and Neister's unfair competition with Healthe in violation of Florida common law, at least in the form of lost goodwill. HEO3 and Neister will not be unduly prejudiced by an injunction preventing them from continuing to compete unfairly with Healthe and the public interest is furthered by preventing HEO3 and Neister from continuing to baselessly accuse the Healthe Products of infringing the Patents-in-Suit.

PRAYER FOR RELIEF

WHEREFORE, Healthe respectfully requests that the Court enter judgment in favor of Healthe and prays that the Court grant the following relief to Healthe:

(a) A judgment that Healthe does not infringe, either directly or indirectly, any claim of the '985 Patent, the '575 Patent, the '605 Patent, and/or the '642 Patent, either literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale the Healthe Products, and that it is therefore not liable for damages or injunctive relief as a result of these activities;

(b) A judgment that the Healthe Products do not infringe any claim of the Patents-in-Suit;

(c) A judgment that the claims of the '605 Patent and the '642 Patent are invalid;

(d) A judgment that the '575 Patent, the '605 Patent, and the '642 Patent are unenforceable;

(e) A judgment that this is an exceptional case under 35 U.S.C. § 285;

(f) A judgment that HEO3 and Neister have violated the Florida Deceptive and Unfair Trade Practices Act, in accordance with Fla. Stat. § 501.211(1);

(g) A judgment that HEO3 and Neister have taken actions constituting unfair competition under Florida common law;

(h) A damages award equivalent to all of Healthe's actual damages associated with HEO3's and Neister's violation of the Florida Deceptive and Unfair Trade Practices Act, in accordance with Fla. Stat. § 501.211(2), and any and all other recoverable damages associated with HEO3's and Neister's unfair competition under Florida common law;

(i) A permanent injunction enjoining HEO3 and Neister from continuing to make false and baseless threats of liability for infringement of the Patents-in-Suit to Healthe's customers, in violation of the Florida Deceptive and Unfair Trade Practices Act in accordance with Fla. Stat. § 501.211(1), and in violation of Florida common law prohibiting unfair competition;

(j) An award of Healthe's attorneys' fees and costs, in accordance with 35 U.S.C. § 285 and § 501.211(2).

JURY DEMAND

In accordance with Rule 38 of the Federal Rules of Civil Procedure, Healthe respectfully demands a jury trial of all issues triable to a jury in this action.

Dated: July 12, 2021

/s/ Garret A. Leach, P.C.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on July 12, 2021, a true and correct copy of the foregoing was filed with the Court using the CM/ECF system, which will send an electronic notice to all counsel of record.

/s/ Garret A. Leach, P.C.
Garret A. Leach, P.C.