

UNITED STATES DISTRICT COURT

DISTRICT OF MASSACHUSETTS

TARGET CORPORATION, a Minnesota corporation,

Plaintiff,

v. Case No. _____

EXCEL DRYER, INC., a Massachusetts corporation; UL SOLUTIONS INC., a Delaware limited liability company; SMART EPD LLC, a Virginia limited liability company; ANNA LASSO, an individual; and SGS NORTH AMERICA INC., a Delaware corporation,

Defendants.

COMPLAINT

JURY TRIAL DEMANDED

Plaintiff Target Corporation ("Target" or "Plaintiff"), by and through its attorneys, brings this Complaint against Defendants Excel Dryer, Inc. ("Excel"), UL Solutions Inc. ("UL"), Smart EPD LLC ("SmartEPD"), Anna Lasso, and SGS North America Inc. ("SGS"), and alleges as follows:

I. INTRODUCTION

A. The Test

1. The claims made in this case can be verified effortlessly by anyone in a few minutes. They can be experienced directly, without scientific equipment, without expert testimony, without specialized knowledge. Visit any public

restroom equipped with an electric hand dryer claiming compliance with or certified by the NSF P335 or UL PCR standards. Wash your hands. Place them in the dryer for 15 seconds—the least stringent drying time standard among all claims made by the Defendants. We begin by giving them the benefit of the doubt. Observe three things: (1) Watch where the water goes as it leaves your hands. (2) Remove your hands at 15 seconds. They will be visibly and obviously wet. (3) Look at the walls and floor near the dryer's air outlet. Note the growing mold, dirt and water staining originating from that point.

B. The Hypothetical

2. All aspects of hand dryer performance can be understood if you remove it from the room. Does a dryer improve or degrade the room by being there?



C. The Stakes

3. Target Corporation is the largest retailers in the United States, operating approximately 2,000 stores across North America. Every Target store contains public restrooms. Approximately 8,000 XLERATOR hand dryers manufactured by Defendant Excel are installed across Plaintiff's retail locations—four units per store, two in men's restrooms, two in women's restrooms. Every use of these devices exposes customers and employees to conditions that Defendants' own standards define as unsafe.

4. Plaintiff is one of the largest retailers in the United States, serving hundreds of millions of customer visits annually with over 400,000 employees. Target has built its brand on providing a clean, safe, welcoming shopping environment. Defendants' false certifications induced Plaintiff to install equipment that degrades rather than maintains restroom hygiene.

D. The Product Excel Sold

5. Defendant Excel marketed its XLERATOR hand dryer with specific claims: "Dries hands completely in 8 seconds." "A hygienic hand drying solution." "80% less energy than conventional hand dryers." "95% cost savings when compared to paper towels." "Up to 88% reduction in carbon footprint vs. paper towels." These claims were supported by certifications from Defendants UL Solutions, Smart EPD, and SGS. Every claim is false.
6. Excel claims 8-second drying. Independent testing of 460 drying cycles established that zero percent achieve the NSF P335 specification of 0.1 grams residual moisture at 8 seconds. At 8 seconds, residual moisture averages 2.97 grams—2,870% above specification. The actual time required to approach threshold dryness is 70 to 90 seconds. The claim is false by 775% to 1,025%.
7. Excel claims "hygienic" hand drying. Independent testing of 136 hand dryers established that 100% amplify bacterial and fungal contamination compared to ambient air. The median amplification factor is 49.6 to 110.5 times room air contamination levels. Products certified as "hygienic" make hands and the surrounding environment measurably less hygienic than doing nothing at all.
8. Excel claims energy savings. Because Excel's energy calculations are predicated on the false 8-second drying time, they are mathematically invalid. Energy consumption equals power multiplied by time. At actual

drying times of 70-90 seconds, XLERATOR energy consumption is 7 to 10 times higher than claimed. The 85-90% environmental advantage over paper towels disappears entirely. At actual drying times, hand dryers produce CO₂ emissions equivalent to or exceeding paper towels.

9. Excel claims HEPA filtration provides protection. Independent testing established that HEPA-filtered and non-HEPA-filtered hand dryers show statistically identical microbial amplification ($p = 0.803$). The filter addresses intake air while ignoring the primary contamination pathway: bacteria and fungi multiply in the warm, moist environment downstream of the filter and are amplified in the output air that strikes users' hands.
10. Excel's own data confirms these findings. The UL Product Category Rules for Hand Dryers, published July 2016, contains Figure 2 showing that at 8 seconds, residual moisture is 0.456 grams—82% above UL's own 0.25 gram threshold and 356% above NSF P335's 0.1 gram threshold. Excel held four of ten manufacturer seats on the committee that created this standard. Excel's own committee's own data proves Excel's own claims are false.
11. Denis Gagnon, Excel's President and CEO, testified under oath in federal court proceedings that XLERATOR drying time was 12 seconds—not the 8 seconds Excel markets today. Excel's own executive contradicted, under penalty of perjury, the company's current marketing claims.

E. The Reliance

12. Excel markets to major retailers as a key customer segment. Excel's website states: "Go into the restrooms of many of the world's top retailers and you will find our hand dryers keeping things clean and green" and "Our high-speed, energy-efficient hand dryers help retailers all over the world." Plaintiff's installation is part of Excel's strategy to establish market presence in high-traffic retail environments.

13. Plaintiff made a national purchasing decision based on Defendants' representations and certifications. Excel represented that XLERATOR provided superior hygiene, faster drying, lower energy consumption, and significant cost savings compared to paper towels. These representations were supported by certifications from nationally recognized testing laboratories and certification bodies. Plaintiff relied on those certifications.
14. Plaintiff's reliance was reasonable. When a manufacturer makes specific performance claims supported by certifications from UL Solutions, SGS International, and EPD program operators claiming ISO 14025 compliance, a sophisticated commercial purchaser is entitled to trust those claims. When a manufacturer touts a national installation client in press releases distributed to the business community, that manufacturer assumes responsibility for the accuracy of its claims to that client.

F. The Enablers

15. Excel's false claims did not achieve credibility in isolation. They were enabled by a network of certification bodies that lent their institutional authority to representations they never verified. The certifications that induced Plaintiff's purchasing decision were products of a captured standards process designed to validate manufacturer claims rather than protect purchasers.
16. Defendant UL Solutions created the Product Category Rules for Hand Dryers in July 2016. The committee that created this standard consisted of 10 manufacturer representatives and 2 UL employees. Zero public health officials. Zero consumer representatives. Zero independent researchers. Zero representatives of commercial purchasers like Plaintiff. The committee was chaired by William Gagnon, Excel's Vice President of Marketing and Sales. Excel held 4 of the 10 manufacturer seats.

17. The UL PCR established a 0.25 gram residual moisture threshold—2.5 times weaker than NSF P335's 0.1 gram threshold. This weaker standard was adopted after NSF rejected Excel's proposal to change NSF P335 from 0.1 grams to 0.2 grams. When Excel could not weaken one standard, it helped create a weaker one and then staffed the committee that wrote it.
18. From 2017 to 2022, UL Environment certified Excel's XLERATOR at 8-second drying time and 3.68 Wh energy consumption—specifications that UL's own Figure 2 data showed were physically impossible. UL certified claims its own published data contradicted.
19. Defendant Anna Lasso worked at UL Environment from 2016 to 2022 as Product Manager of EPDs and PCR Project Manager. In this role, she worked directly with William Gagnon as he chaired the PCR committee. Her published article documents: "The PCR development process was initiated by William Gagnon, Excel Dryer's vice president of marketing and sales. William was asked to serve as chairman of the PCR committee, working closely with me and other leading manufacturers."
20. In April 2022—the same month Hokwang received a UL EPD certifying 30-35 second drying time—Anna Lasso formed EPD USA LLC, later renamed Smart EPD LLC. In July 2022, Excel's UL certification expired and was not renewed. In June 2023, Anna Lasso's company certified Excel at the identical specifications UL had allowed to lapse: 8-second drying time, 3.68 Wh energy consumption. UL would not renew the certification. Anna Lasso would.
21. On the SmartEPD certificate, Anna Lasso appears in three roles: Program Operator, Independent Critical Reviewer, and Independent External Verifier. ISO 14025 requires these functions to be independent. One person occupies all three roles on certificates she issues for products manufactured by companies she worked "closely" with while employed at UL.

22. Defendant SGS tested Excel's products in 2012 using "a revised version of NSF Protocol P335"—a standard NSF had rejected. SGS tested at 12 and 15 seconds, not the 8 seconds Excel markets. SGS reported 0.186 grams residual moisture at 12 seconds; independent testing documents 2.5 to 3.0 grams at the same interval—1,350% to 1,600% higher than SGS results. The foundational test data for every subsequent certification was produced under a rejected standard at times longer than those marketed.
23. The certification network functioned as designed: manufacturers controlled the standards, certifiers validated the claims, and purchasers like Plaintiff relied on the apparent independence of the process. The independence was illusory. The certifications were worthless. Plaintiff's national purchasing decision—affecting 2,000 stores and approximately 8,000 hand dryers—was induced by a coordinated system of false representations.

G. The Continuing Harm

24. The harm to Plaintiff is ongoing. SmartEPD Certificate No. SmartEPD-2023-002-0006-01 remains active through June 23, 2028. Excel continues to market false drying time, hygiene, and environmental claims. Excel continues to sell products through Target's retail channels. Every day that Defendants' certifications remain in force, Plaintiff suffers new injury.
25. Plaintiff's approximately 8,000 installed XLERATOR units spray water onto walls and floors with every use. Independent testing documented visible mold colonization in 100% of dispersal-type hand dryer installations (50 of 50 locations). The walls and floors adjacent to Plaintiff's hand dryers bear the cumulative evidence of years of water dispersal—contamination that requires remediation, surfaces that require replacement, property damage distinct from the dryers themselves.

26. Plaintiff continues to suffer economic harm. Energy consumption at actual drying times is 7 to 10 times higher than represented. Across 8,000 units operating continuously in high-traffic retail locations, the excess energy cost is substantial. Plaintiff paid premium prices for products certified to deliver savings that do not exist.
27. The defect is the design itself. No repair, no maintenance, no user technique can make these products perform as certified. The physics does not negotiate. The only remedy is removal and replacement with equipment that actually dries hands hygienically—equipment as simple as the white paper towels Plaintiff already sells, the paper towels Plaintiff rejected because Defendants' false certifications made hand dryers appear superior.II.
- PARTIES

II. PARTIES

A. Plaintiff

28. Plaintiff Target Corporation is a Minnesota corporation with its principal place of business at 1000 Nicollet Mall, Minneapolis, Minnesota 55403. Target operates approximately 2,000 retail stores across all 50 states and the District of Columbia. Target has purchased and installed XLERATOR hand dryers manufactured by Defendant Excel in restrooms at its retail locations throughout the United States, including in Massachusetts.

B. Defendant Excel Dryer, Inc.

29. Defendant Excel Dryer, Inc. is a Massachusetts corporation with its principal place of business at 357 Chestnut Street, East Longmeadow, Massachusetts 01028. Excel manufactures, markets, distributes, and sells commercial hand dryers under the XLERATOR brand name. Excel markets its products to

commercial purchasers including retailers, with specific claims regarding drying time, hygiene, energy efficiency, and environmental benefits.

C. Defendant UL Solutions Inc.

30. Defendant UL Solutions Inc. is a Delaware limited liability company with its principal place of business at 333 Pfingsten Road, Northbrook, Illinois 60062. UL created the Product Category Rules for Hand Dryers published on July 13, 2016. The PCR establishes a 0.25 gram residual moisture threshold—2.5 times weaker than NSF P335's 0.1 gram threshold. The UL PCR committee consisted of 10 manufacturer seats and 2 UL representatives. Excel Dryer held 4 of 10 manufacturer seats through William Gagnon, Denis Gagnon, Tom Koetsch, and Peter Panaratos. William Gagnon, Excel's VP and COO, chaired the committee. From 2017 to 2022, UL Environment issued Environmental Product Declaration No. 4787137936.102.1 certifying Excel's XLERATOR Hand Dryer at 8-second drying times and 3.68 Wh energy consumption—specifications that UL's own PCR Figure 2 data showed were physically impossible.

D. Defendant Smart EPD LLC

31. Defendant Smart EPD LLC is a Virginia limited liability company, entity ID 11379451. Smart EPD LLC was formed on April 26, 2022, under the name "EPD USA LLC." On July 6, 2022, articles of amendment changed the company name to "Smart EPD LLC." Anna Lasso is listed as registered agent. Smart EPD's registered office address is 25320 Ripleys Field Dr, Chantilly, VA 20152—a single-family residence. The mailing address listed on Smart EPD certificates is a UPS Store commercial mail facility. Smart EPD certifies Environmental Product Declarations for hand dryer manufacturers using UL PCR methodology—the same methodology that Anna Lasso helped develop while employed at UL Environment.

E. Defendant Anna Lasso

32. Defendant Anna Lasso is an individual residing in Virginia. From 2016 to 2022, Anna Lasso was employed by UL Environment as Product Manager of EPDs and PCR Project Manager. In this role, she worked directly with William Gagnon as he chaired the UL PCR committee that created the Product Category Rules for Hand Dryers. Her published article documents: "The PCR development process was initiated by William Gagnon, Excel Dryer's vice president of marketing and sales. William was asked to serve as chairman of the PCR committee, working closely with me and other leading manufacturers." On April 26, 2022, while employed at UL Environment, Anna Lasso filed articles of organization for "EPD USA LLC." On SmartEPD certificates, Anna Lasso appears in three roles: Program Operator, Independent Critical Reviewer, and Independent External Verifier. ISO 14025 requires these functions to be independent. Anna Lasso occupies all three roles on certificates she issues.

F. Defendant SGS North America Inc.

33. Defendant SGS North America Inc. is a Delaware corporation with its principal place of business at 201 Route 17 North, Rutherford, New Jersey 07070. SGS Performance Test Report No. 2774929EFF-001, dated September 7, 2012, tested hand dryer products at 12 and 15 seconds—not the 8 seconds Excel claims in marketing. The report states testing was conducted under "a revised version of NSF Protocol P335 currently being developed." NSF had rejected this revision. SGS test data forms the basis for all subsequent certifications.

III. JURISDICTION AND VENUE

34. This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1332 (diversity jurisdiction). Plaintiff is a citizen of Minnesota. Defendant Excel is a citizen of Massachusetts. Defendant UL is a citizen of Delaware and Illinois. Defendant SmartEPD is a citizen of Virginia. Defendant Anna Lasso is a citizen of Virginia. Defendant SGS is a citizen of Delaware and New Jersey. Complete diversity exists. The amount in controversy exceeds \$75,000, exclusive of interest and costs.
35. This Court has personal jurisdiction over all Defendants. Defendant Excel is incorporated in Massachusetts. Defendants UL, SmartEPD, Anna Lasso, and SGS conduct substantial business in Massachusetts, issued certifications used to market products in Massachusetts, and their certifications caused injury in Massachusetts through Plaintiff's purchase and installation of certified products.
36. Venue is proper in this District pursuant to 28 U.S.C. § 1391(b)(1) because Defendant Excel resides in this District, and pursuant to 28 U.S.C. § 1391(b)(2) because a substantial part of the events giving rise to the claims occurred in this District.

IV. FACTUAL ALLEGATIONS

A. The Products

37. Defendant Excel manufactures, markets, and sells commercial hand dryers under the XLERATOR brand name. The XLERATOR product line includes multiple models, including the XLERATOR Standard (XL-SB, XL-BW, XL-W), XLERATOR ECO (XL-SB-ECO), and XLERATORsync. All models share the same fundamental design: high-velocity air jets directed at wet hands to remove water through mechanical shear and evaporation.

38. Defendant markets XLERATOR hand dryers as "hygienic" drying solutions that dry hands in 8 seconds, consume 1.7 watt-hours of energy per use, reduce carbon footprint by up to 88% compared to paper towels, and provide 95% cost savings versus paper towels.
39. Defendant offers optional Electrostatic HEPA (eHEPA) filtration, which Defendant claims "removes 99.999% of viruses and 99.97% of potentially present bacteria at 0.3 microns from the airstream."
40. Defendant's products are certified by third-party entities including SGS International and Smart EPD. Defendant prominently displays these certifications in marketing materials as evidence of independent verification of its performance claims.

B. Excel's Relationship with Plaintiff

41. Plaintiff operates approximately 2,000 retail stores across North America. Each store contains public restrooms equipped with hand dryers. Plaintiff installed approximately four XLERATOR hand dryers per store—two in men's restrooms, two in women's restrooms—for a total of approximately 8,000 XLERATOR units across Plaintiff's retail locations.
42. Excel, through its marketing materials, certifications, and the representations of its distribution partners, made specific claims to commercial purchasers including Plaintiff: that XLERATOR hand dryers dry hands in 8 seconds, provide hygienic hand drying, use 80% less energy than conventional dryers, provide 95% cost savings compared to paper towels, and reduce carbon footprint by up to 88% compared to paper towels. These representations were supported by certifications from UL Solutions, Smart EPD, and SGS International. Plaintiff relied on these representations and certifications in making its national purchasing decision.

43. Plaintiff's reliance was reasonable. When a manufacturer makes specific performance claims supported by Environmental Product Declarations claiming ISO 14025 compliance, certifications from OSHA-recognized Nationally Recognized Testing Laboratories, and test reports from internationally accredited testing facilities, a sophisticated commercial purchaser is entitled to trust those claims. The entire purpose of third-party certification is to provide purchasers with reliable, independently verified performance data.
44. Plaintiff occupies a unique position among Excel's commercial purchasers. Target sells paper towels. Target sells paper towel dispensers. Target made a corporate decision to install hand dryers in its own facilities instead of its own products because Defendants' certifications represented that hand dryers were superior—more hygienic, more energy efficient, more environmentally responsible. Plaintiff was induced by false certifications to reject its own merchandise in favor of a competitor's product.
45. Plaintiff did not consent to having its brand used to market products that amplify contamination rather than reduce it, that leave hands wet rather than dry them, that consume 7-10 times more energy than claimed, and that spray contaminated water onto walls and floors with every use. Excel's use of Plaintiff's name in marketing materials was based on performance claims that were false when made and remain false today.

C. Defendant Excel's Express Marketing Claims

46. Defendant makes the following express claims in its marketing materials, technical data sheets, website, and certification documents, all of which Plaintiff relied upon in making purchasing decisions:
47. Drying Time: "8 Second Dry Time" and "The XLERATOR dries hands completely in 8 seconds."

48. Energy Consumption: "Energy Per Use: 1.7 Wh" based on the claimed 8-second operational cycle.
49. Cost Savings: "95% Cost Savings vs. Paper Towels" and "Saves Time, Money and the Environment."
50. Environmental Claims: "Up to 88% Reduction of Carbon Footprint vs. Paper Towels" and "All XLERATOR Hand Dryer Models Are EPD Certified."
51. Hygiene Claims: "A Hygienic Hand Drying Solution" and "HEPA Filtration System proven to remove 99.999% of virus from the airstream."
52. Performance Claims: "Over a Decade of Proven Performance" and "Less Than 1% Failure Rate."
53. Each of these claims is false, misleading, or materially incomplete, as established by the independent scientific research described below.

D. The Science: Independent Research Establishing Systematic Failure

54. These are not "studies that suggest" or "evidence that indicates." These are physical facts established to scientific certainty. Between August 2023 and December 2025, an eleven-study independent research program documented systematic failure across every claimed performance dimension. The complete methodology, raw data (1.3 terabytes), and analysis are published with Digital Object Identifiers on Zenodo and Harvard Dataverse, making the research fully reproducible and independently verifiable.
55. The research documents systematic failure across every performance dimension examined. Six universal findings emerge from the data:

Finding 1: Drying Time Failure (0% Compliance)

56. Independent testing of n=409 drying cycles across Defendant's XLERATOR products and comparable devices established that zero units achieved manufacturer-specified dryness thresholds at claimed drying times—a 0% compliance rate. At 8 seconds (Excel's claimed time), residual moisture averaged 2.5-3.0 grams versus the 0.1 gram NSF P335 threshold or the 0.25 gram UL PCR threshold. This represents 2,500-3,000% excess moisture at claimed times. DOI: 10.5281/zenodo.15503698.
57. Actual drying time to achieve manufacturer thresholds: 70-90 seconds versus the claimed 8 seconds—a discrepancy of 775% to 1,025%. Cross-technology correlation coefficients exceeded $r = 0.999$ across all pairwise comparisons ($p < 0.001$), establishing that the failure pattern is universal to the technology, not specific to any manufacturer. DOI: 10.5281/zenodo.17869567.
58. Defendant's own data confirms this failure. UL PCR Figure 2, published in the Product Category Rules that Defendant helped write through four committee representatives, shows that at 8 seconds, average residual moisture is 0.456 grams—82% over the 0.25 gram threshold that Defendant's committee established. Defendant's own standard proves Defendant's own claims are false.

Finding 2: Microbial Amplification (100% of Units, 49.6-110.5× Ambient)

59. Independent microbial testing across 136 hand dryer samples established that 100% of units amplified bacterial and fungal contamination compared to ambient room air—136 of 136 tests showed amplification with statistical significance of $p < 10^{-41}$. This is not a tendency. It is a universal physical property of the devices. DOI: 10.5281/zenodo.15504115 and DOI: 10.5281/zenodo.17859894.

60. Median amplification was 49.6× ambient levels using LB agar (conservative estimate) and 110.5× ambient levels using broad-spectrum TSA media. Mean contamination output was 88-200 colony-forming units per plate versus 2-4 CFU for ambient air controls.
61. HEPA filtration provided zero measurable hygiene benefit. Comparison between HEPA-filtered dryers (Dyson) and non-HEPA dryers (Defendant's XLERATOR) showed $p = 0.803$ —no statistically significant difference in contamination output. The contamination occurs downstream of the filter, in the airstream after filtration.

Finding 3: Water Dispersal (7.3 Grams Per Use Into Environment)

62. Baseline water mass on freshly washed hands averages 6.85 grams (95% CI: 6.70-7.00g). High-speed videography at 1,000 frames per second documented that hand dryers operating at 400-640 km/h air velocity mechanically strip water from hands and disperse it onto walls, floors, users' clothing, users' faces, and into the air as aerosol. Approximately 90% of water removal occurs through mechanical shear (spray), not evaporation. DOI: 10.5281/zenodo.15503304.
63. Defendant's documentation contains zero statements addressing where water goes after air jets strike it. The absence of any standard, measurement, or specification for water dispersal—in a product whose sole function is removing water from hands—is not an oversight. It is the central design failure that enables all other failures.
64. At 150 million daily U.S. hand dryer uses with 7.30 grams of water per use, dispersal-type hand dryers spray approximately 4.6 million cups of water into public restrooms daily—1.7 billion cups annually. That water carries whatever contamination was present on users' hands plus whatever contamination the dryer amplified.

Finding 4: Mold Colonization (100% of Installations)

65. Visual audit of 127 public restrooms across six states established that dispersal-type hand dryers (including Defendant's XLERATOR) showed visible wall mold in 100% of installations—50 of 50 dispersal-type dryer locations exhibited mold colonization patterns radiating from the dryer air outlet. DOI: 10.5281/zenodo.17860971.
66. Independent EPA-certified laboratory analysis (Hayes Microbial Consulting, EPA Laboratory ID: VA01419) confirmed fungal presence in 70% of plume samples. Species identified include *Aspergillus*, *Penicillium*, *Alternaria*, *Cladosporium*, and *Chaetomium*—genera associated with respiratory sensitization, allergic reactions, and opportunistic infections in immunocompromised individuals.
67. Comparison: White paper towel dispensers showed 12.8% mold rates—a 7.8× difference ($\chi^2 = 72.0$, $p < 0.001$). The mold colonization is not incidental. It is the cumulative record of dispersal-type dryers spraying contaminated water onto walls continuously over time.

Finding 5: Energy and Environmental Claim Invalidity

68. Every energy and environmental claim made by Defendant rests on a single assumption: that hands reach specified dryness thresholds in 8 seconds. That assumption is false. Actual drying requires 70-90 seconds. When actual operational times are used, all energy and environmental calculations become invalid. DOI: 10.5281/zenodo.17859198.
69. Defendant claims 1.7 Wh energy per use and approximately 2-4g CO₂ per drying cycle. At empirically verified drying times, actual consumption is 17-25 Wh and 12-18g CO₂ per use—600-900% higher for energy and 300-800% higher for CO₂. The claimed 85-90% environmental advantage over paper

towels disappears entirely; at actual drying times, hand dryers produce equivalent or higher CO₂ emissions than paper towels.

70. The EPD certification process itself violated basic principles of independent verification. Anna Lasso is listed as: (1) EPD Program Operator of Smart EPD, (2) Independent Critical Reviewer of the underlying LCA, and (3) Independent External Verifier of the EPD—three roles that ISO 14025 requires to be independent of one another. One person reviewing her own work is not independent verification. It is the absence of verification.

Finding 6: Paper Towel Superiority

71. White paper towels eliminate all five problems identified in this complaint. White paper towels are frequently sterile (55.6% showed zero colonies), tested as statistically indistinguishable from ambient room air, absorb water into disposable material rather than dispersing it into the environment, create no aerosol or wall contamination, and dry hands in 20-30 seconds to threshold dryness through absorption rather than evaporation.

E. Unbinding Mixed Law

72. This case does not ask the Court to impose liability on certifiers for defective products. That question is settled. Certifiers do not manufacture products. When a certified product fails due to manufacturing defects, the manufacturer bears liability.
73. Plaintiff invokes a different doctrine: certifiers bear independent liability for the certifications they issue. This is not derivative of manufacturer conduct. It is primary liability for the certifier's own product—the certification itself.
74. Defendants authored the standards. Defendants designed the test methods. Defendants controlled the protocols. Defendants issued the certifications. Every element was within Defendants' exclusive control. The question is not

whether the products are defective. The question is whether the certifications are false.

75. Defendants certified specifications. Independent research tested those specifications. 460 residual moisture trials. Zero compliance at certified times. Residual moisture of 2.5 to 3.0 grams when specifications require 0.1 to 0.25 grams. This is not marginal underperformance. This is 1,000 to 2,770 percent over specification.
76. Every certified specification is proven false. The independent research data is fully public. Plaintiff's methodology is fully documented. Defendants' underlying test data is not.
77. Independent research has established a prima facie case that Defendants' certified specifications are false. The burden now shifts to Defendants to present evidence that their certifications are accurate.

F. The Science Is The Product

78. 150 years of universal scientific consensus that wet hands spread disease is the reason hand dryers exist. Washing hands exists to reduce microorganism count. Drying hands exists to reduce microorganism transmission. Patrick et al. established that wet hands transfer 500-1000× more bacteria than dry hands. Defendants cite this research in their own materials.
79. This is foundational to the products. Defendants certified and subsequently built an entire industry on this science. Every marketing claim assumes it. Every certification standard incorporates it. Every purchase decision relies on it.
80. Semmelweis established the importance of hand hygiene in 1847. Patrick et al. established that wet hands transfer up to 1,000 times more bacteria than

dry hands in 1997. Defendants cite this research. Defendants then certify products that leave hands wet and amplify contamination.

G. The Mark Is A Contract

81. Underwriters Laboratories has spent 130 years building one of the most recognized consumer safety brands in the world. The UL mark appears on 22 billion products annually. It is designed to be seen by end users and relied upon when making purchases. Consumers who see the UL mark believe the product has been independently tested and meets published safety standards.
82. UL did not build this brand by accident. UL built it through deliberate consumer-facing marketing. The UL mark functions identically to the Nike swoosh or the Good Housekeeping Seal—it is brand advertising designed to create trust and induce purchases.
83. The UL mark is not merely a representation—it is a contract. Every element of formation is present. Offer: The mark communicates a specific promise—this product has been tested and meets published safety standards. Acceptance: Purchaser buys the product bearing the mark. Consideration: Certification fees embedded in product pricing are paid by purchasers through manufacturers. Mutual Assent: 130 years of deliberate consumer-facing brand development establishes UL's intent that purchasers rely on the mark.
84. UL is an OSHA-recognized Nationally Recognized Testing Laboratory under 29 CFR § 1910.7. This federal recognition confers regulatory significance to UL certifications.
85. *Hanberry v. Hearst Corp.*, 276 Cal. App. 2d 680, 685 (1969), held that one who endorses products for economic gain owes a duty of care to consumers

who rely on that endorsement: "Having voluntarily involved itself into the marketing process... the obligation [to use reasonable care] necessarily follows."

86. Defendants did not build consumer-facing marks by accident. They did not spend decades marketing trustworthiness to the purchasing public by oversight. Every element of the certifier business model depends on purchasers trusting certification marks. Defendants cannot now claim that purchasers should not rely on those marks.
87. The mark is the contract. The certification is the breach.

H. The Standard Is Indivisible

88. A drying standard for a product whose sole purpose is reducing microbe transmission is a hygiene standard. These two things cannot be separated. Hands must leave the device as clean or cleaner than they entered. Leaving them wetter is not just ineffective—it is actively harmful.
89. You cannot write a testing standard for a product that exists solely for the purpose of reducing microbe transmission without fully owning the entire microbe transmission properties of the entire product system cycle.
90. Defendants certified drying time. They clearly state what happens when drying fails—wet hands spread contamination.
91. Defendants have created no standard to measure the microbial content of the output jets of functioning dryers in situ. This failure provides for output air that amplifies ambient restroom air contamination by 50-110× in a device whose job is to reduce hand contamination.
92. Defendants certified "hygienic" hand dryers. These dryers colonize the walls around them with mold in 100% of installations.

93. Defendants created standards addressing one part of the product cycle while ignoring the rest. NSF P335 Section 6.2 requires HEPA filtration to prevent contaminated air intake—while ignoring that contamination occurs downstream of the filter in the output air stream.
94. It is not reasonable to believe these omissions are oversights. They fit the model of liability engineering. Defendants wrote standards that address what manufacturers wanted addressed and ignore what manufacturers wanted ignored.
95. That is not safety certification. That is regulatory capture. Defendants wrote the standards. Defendants certified the products. Defendants own the outcomes.

I. Scientific Consensus Compels Judicial Action

96. Courts began addressing tobacco-related harms when the science became unequivocal. Decades of industry denial collapsed under the weight of unanimous research. Judicial intervention followed scientific consensus.
97. Hand hygiene science presents a far stronger case than even the best second hand smoke science: The science establishing that hand drying prevents disease transmission has never been disputed. Research by Patrick et al. (1997) demonstrating that wet hands transfer 500-1000× more bacteria than dry hands is cited by manufacturers as the basis for their products' existence.
98. The science establishing that hand dryers amplify contamination has accumulated for 36 years across 18 peer-reviewed studies. Every study done on hand dryers in functioning restrooms shows the same result: amplification. Not reduction. Amplification.

99. Plaintiff declares that the weight of prior science combined with Plaintiff's empirical research establishes a prima facie case that Defendants' certified specifications are false. The burden shifts to Defendants.
100. The science justified the product's invention. The science now condemns its failure.

J. The Liability Position

101. Defendants established residual moisture thresholds as safety standards. NSF set 0.1 grams. UL set 0.25 grams. These thresholds exist because Defendants determined that exceeding them was harmful.
102. If exceeding those thresholds causes harm, then Defendants certified products that exceed the thresholds by 1,000 to 2,770 percent, and every use of every certified product exposes users to conditions Defendants themselves defined as unsafe.
103. If exceeding these thresholds does not cause harm, then Defendants' standards are arbitrary and meaningless, and Defendants collected certification fees and enabled premium pricing for compliance with standards that protect nothing.

Both positions establish liability.

104. If Defendants argue their standards were unachievable, they confirm that the thresholds define meaningful harm—harm their certified products inflicted with every use. If Defendants argue their standards were achievable, they must explain how products achieving zero percent compliance in 460 independent trials would achieve 95% compliance in certification tests.
105. This is not a case about products that marginally underperform specifications. This is a case about a certification ecosystem that was

systematically restructured—through committee capture, standard weakening, and verification elimination—to enable claims that physics cannot support.

K. Defendants' Cited Claims Analysis

Purpose

106. Defendant Anna Lasso as committee chair and verifier of the TrueNorth Collective Life Cycle Assessment states on page 1: "Hand dryers are electrical devices used to provide a hygienic method to dry hands in public washrooms."
107. Defendant UL states on page 9 of its Product Category Rules: "The function of a hand dryer is to dry hands after washing in a public restroom."
108. Defendant NSF International in its Protocol P335, section 1.2 states: "Commercial hand dryers are commonly used in public or commercial hand washing stations to dry hands after washing."
109. Defendant SGS International states in Annex A of its Performance Test Report: "The purpose of this test is to ensure that the hand dryer is able to thoroughly dry hands."
110. The purpose of drying hands is to reduce the transmissibility of disease spreading organisms after washing hands to clean them. Hand washing and drying are supported by 150 years of unequivocal science cited by Defendants as the basis for their products' existence.

Drying Time

111. Defendant Anna Lasso states in the SmartEPD Environmental Product Declaration: "The XLERATOR dries hands completely in 8 seconds."

112. Defendant SGS International states in its Performance Test: "The purpose of this test is to ensure that the hand dryer is able to thoroughly dry hands during one 15-sec. (± 1 sec.) operating cycle." SGS tested at 12 and 15 seconds—not 8 seconds.
113. Defendant NSF International in its P335, Section 4.3.3 states: "The unit must dry the user's hands to a satisfactory level (0.1 gram of residual moisture) within a period of one normal operating cycle (≤ 15 seconds)."
114. Defendant UL Solutions provides Figure 2 in its PCR showing residual moisture at various times. At 8 seconds, the data shows 0.456 grams—82% over the 0.25 gram threshold.
115. The time-to-dry of a hand dryer determines several important factors in how the product works, or does not work. Long dry times decrease compliance with users leaving the room with wet hands. Long dry times increase contamination exposure. Long dry times increase energy consumption. Long dry times invalidate all environmental claims.

Hygiene

116. Anna Lasso states in the Smart EPD Excel EPD: "The XLERATOR Hand Dryer is a touchless, hygienic way to dry hands." She states in the TrueNorth LCA that "hygiene is part of the protocol for commercial hand dryers" while simultaneously stating "hygiene is not considered in this study."
117. UL makes a single statement in the entire PCR regarding hygiene: "Hand dryers are electric devices used to provide a hygienic method to dry hands in public washrooms."
118. NSF states in the P335: "Additionally, if a hand dryer insufficiently dries the user's hands, the residual moisture remaining on the user's hands could

facilitate transmission of transient microorganisms to other surfaces contacted by the user."

119. SGS entirely fails to mention hygiene anywhere in its test report.
120. Hand dryers are the direct result of 150 years of continuous science proving that washed and dried hands decrease death and disease. The scientific purpose is the product purpose. All claims of beneficial hand dryer use either explicitly or implicitly include hygiene as part of their fundamental reason for being.

Water Dispersal

121. Defendant Anna Lasso fails to mention in the 51 pages of the Smart EPD Xlerator Certificate and the TrueNorth Collective LCA a single word about the dispersal of water into the room after the dryer air jets hit it.
122. In the 37 pages of its Product Category Rules, Defendant UL Solutions says nothing about the water that leaves hands after the dryer air-jets strike it. In Appendix 2, instructions for testing residual water on hands, UL acknowledges that dryers "blow off large water droplets" but provides no standard, test, measurement, or specification for where those droplets go.
123. NSF International created specifications for water in capture-type hand dryers but does not mention anywhere in the 11 pages of its Protocol P335 what occurs, or should occur, to the water after the air jets hit wet hands. NSF only states: "Liquid containment shall be monitored during all testing." Dispersal dryers do not contain liquid. They spray it everywhere.
124. SGS International fails to mention anything about the destination of water struck by the air jets in its Performance Test Report.
125. In a product whose single purpose is to remove water from wet hands, it is impossible to believe that the several certifying bodies writing the design,

build, and performance standards all failed to include a single word about what happens to that water. The omission is not oversight. It is liability engineering.

Plume of Filth

126. Anna Lasso provides no standard in the 51 pages of the SmartEPD certificate and TrueNorth LCA for addressing the persistent mold growth found under 100% of public restroom hand dryers, failing to acknowledge the problem exists.
127. UL provides no standard in the 37 pages of its PCR for addressing the persistent mold growth found under 100% of public restroom hand dryers, failing to acknowledge the problem exists.
128. NSF provides no standard in the 11 pages of P335 for addressing the persistent mold growth found under 100% of public restroom hand dryers, failing to acknowledge the problem exists.
129. SGS provides no testing protocol for addressing the persistent mold growth found under 100% of public restroom hand dryers, failing to acknowledge the problem exists.
130. Plaintiff documented visible mold colonization in 100% of approximately 200 tested installations. No defendant mentions the problem, much less providing any standard for preventing, measuring, or addressing it. The mold is the physical proof that the dryers spray water continuously, permanently contaminating every wall and floor they are installed near.

Energy and Environmental Claims

131. Anna Lasso claims in the TrueNorth LCA: "The comparative results indicate that the Excel dryers have between 80% to 97% fewer impacts than the paper towel baseline" and "The cradle-to-grave global warming potential

associated with the paper towel product ranges from 52 to 69 grams CO₂ equivalent, while the global warming potential of the Excel dryers range from 2.9 to 3.4 grams CO₂ equivalent per use."

132. UL Solutions provides in its PCR the methodology for calculating environmental impacts based on drying time. When actual drying times (70-90 seconds) are substituted for claimed times (8 seconds), all environmental calculations become invalid.
133. The energy savings and environmental claims made by hand dryer manufacturers are a primary reason they are purchased and the most heavily marketed aspect of their performance. Energy savings are based on the false 8-second operational cycle. At actual drying times, the claimed environmental advantages disappear entirely.

L. The Empirical Proofs

134. Plaintiff's testing and analysis are fully documented, transparent, and open to independent verification. All underlying data, images, sampling records, and chain-of-custody materials have been preserved and are available for review.
135. Plaintiff's research methodology, data, and analysis are published in ten studies with Digital Object Identifiers on Zenodo and at the Harvard Dataverse. All raw data, 1.3TB, is hosted at Cloudflare and Backblaze. These are: (1) Microbial Contamination Study - DOI: 10.5281/zenodo.15504115; (2) Residual Moisture Study - DOI: 10.5281/zenodo.15503698; (3) Systematic Failure Analysis - DOI: 10.5281/zenodo.17858443; (4) Energy Claims Refutation - DOI: 10.5281/zenodo.17859198; (5) Cross-Manufacturer Analysis - DOI: 10.5281/zenodo.17869567; (6) Ambient Air Comparison - DOI: 10.5281/zenodo.17859894; (7) Wandering Plume Study - DOI: 10.5281/zenodo.17860971.

136. The standards at issue were not imposed on Defendants by regulators. Defendants created them. Defendants promoted them. Defendants certified products under them. Defendants' own data proves compliance is impossible.
137. Drying Time Performance Testing Results
138. Performance curves from three manufacturers across 451 drying time trials demonstrated convergent correlation coefficients exceeding $r = 0.99$ across all pairwise comparisons ($p < 0.001$). In 31 trials below 15 seconds, zero achieved the NSF P335 specification of 0.1 grams residual moisture. The failure was not manufacturer-specific. The failure was physics.
139. In real-world use, at a 15 second drying time, hands remain visibly wet in 100% of observed trials. Water can be seen visibly dispersing from hands during the entire cycle. No user achieves satisfactory dryness at claimed times.
140. NSF P335 Section 6.3 establishes clear, quantified requirements: residual moisture of 0.1 grams or less at manufacturer-specified times, with 95% compliance across 20 trials.
141. Plaintiff conducted 460 trials—more than twenty times the sample size required for NSF certification. Zero trials achieved 0.1 grams or less at manufacturer-specified times. The average residual moisture at 8 seconds was 2.5-3.0 grams—2,500 to 3,000 percent over specification.
142. The probability that products achieving zero percent compliance in 460 trials would achieve 95% compliance in a 20-trial certification test approaches zero ($p < .001$, $r = .99$). This is not sampling variation. This is systematic fraud.
143. The Physical Impossibility of Certified Drying Times

144. The claimed drying times are not merely difficult to achieve. They are physically impossible to achieve.
145. Plaintiff's data demonstrates that water removal follows a bi-modal decay pattern. The first phase removes loose surface water quickly. The second phase removes bound water slowly. All dryers—regardless of manufacturer—hit an inflection point at approximately 12-15 seconds where the easy-to-remove water is gone and only the hard-to-remove water remains.
146. Plaintiff later discovered that Excel's own researchers had identified bi-modal drying. In an undated white paper filed as an exhibit in federal court proceedings, Excel researchers Aisenberg and Freedman documented the bimodal pattern and noted that achieving the 0.1 gram threshold would require substantially longer times than claimed.
147. Independent research tested this bi-modal framework across three manufacturers: Dyson, Excel (XLERATOR), and World Dryer. All three demonstrated effectively identical performance curves. Cross-manufacturer correlation exceeded $r = 0.999$. The physics does not vary by brand.
148. On December 4, 2025, prior to testing a third manufacturer for the first time, Plaintiff documented a formal prediction: World Dryer products would fail identically to Dyson and Excel because this is not a manufacturer problem—it is a physics problem. World Dryer products failed as predicted.
149. The joint probability of three independent manufacturers producing correlation coefficients all exceeding $r = 0.99$ under the null hypothesis (that performance varies by manufacturer) is less than $p < 0.001$. The convergence proves the failure is fundamental to the technology.
150. Contamination Results: Microbe Load in Output Dryer Air

151. Plaintiff's Microbial Contamination Study (Study 1, n=87) and Ambient Air Comparison Study (Study 9, n=49) documented bacterial amplification across all tested units. The methodology was consistent: sterile petri dishes exposed to dryer output air for a fixed interval, incubated, and colonies counted.
152. One hundred thirty-six consecutive tests showed amplification. No dryers reduced bacterial load. The probability of this occurring by chance is $p < 10^{-41}$. This is not sampling variation. This is a physical property of the devices.
153. Products certified as "hygienic" amplify bacterial contamination by 50 to 110 times compared to ambient room air, literally the opposite of hygienic. Defendants certified an industry built on hand hygiene that makes hands less hygienic than doing nothing.
154. The test remains simple: remove the dryer from the room. Is it more or less sanitary?

Water Spray: The Absent Standard

155. Plaintiff has created a novel but accurate distinction that brings clarity to the current state of the hand dryer market. There are Dispersal-type dryers and Capture-type dryers.
156. Capture dryers collect water in receptacles for disposal. Very few remain in use.
157. Dispersal dryers have no mechanism for processing the water after the output dryer air jets hit it. They spray it everywhere in a truly bizarre design parameter that everyone sees and nobody seems to have noticed is a problem—until now.

158. NSF P335 Section 6.5 imposes detailed, strict disinfection requirements on capture dryers—and zero requirements on dispersal dryers.
159. The UL PCR and the NSF P335 have no standards for the water coming off of hands, the necessary last phase of the product operational system cycle. It is as though a car company passed emission tests and the test protocol never checked where the exhaust went.
160. Dispersal dryers operate at air velocities of 400 to 690 kilometers per hour—hurricane force. At these speeds, water is mechanically stripped from hands and thrown into the room with very little evaporation. The water sprays onto walls, floors, users, and into the air as aerosol.
161. Plaintiff's baseline water study documented 7.30 grams of water on hands after washing. Approximately 90% of this water is removed by mechanical shear during the first phase of drying, not by evaporation. That water goes somewhere. Defendants' standards provide no specification for where.
162. Plaintiff's Visual Dispersal Study documented where the water goes. High-speed video captured water destinations including: Adjacent walls and floor surfaces. User clothing: torso, forearms, thighs, shoes. User face and hair from upward air dispersion. Airborne mist visible for 3+ seconds after use.
163. Paper towels showed a single destination: absorption into the towel material, followed by disposal. Minimal environmental dispersal.
164. Remove the dryers from the room and replace them with white paper towels. What is the impact on the restroom and the users?
165. The dispersed water cannot be sterile. Plaintiff's microbial studies documented 50-110× bacterial amplification in dryer output air. The contamination measured on petri dishes arrived via the air. That same

contaminated air strikes wet hands and picks up water droplets, carrying contamination to every surface and person in range.

166. Every user's output becomes every other user's input.
167. Poor washing plus a paper towel equals contamination contained in the towel and disposed in trash. Poor washing plus dispersal dryer equals contamination broadcast to surfaces and people in the space.
168. At 150 million daily dispersal-type dryer uses in the United States, water dispersal occurs at population scale: Daily: 2.8 to 4.6 million cups of water sprayed onto users, walls, floors, and fixtures. Annually: 1.0 to 1.7 billion cups.
169. That is not incidental moisture. It is systematic environmental contamination at industrial scale.
170. Neither NSF P335 nor the UL PCR contains any standard, test, measurement, or specification for water dispersal. The primary output of the device—where the water goes—is completely unaddressed.
171. Remove the dryers from the room. Is it more or less hygienic?
172. Physical Environmental Mold Contamination: The Plume of Filth
173. Plaintiff's Wandering Plume of Filth Study documented visible contamination patterns beneath hand drying equipment. Plaintiff randomly entered 127 public restrooms and visually examined the areas directly beneath hand dryers and paper towel dispensers.
174. Statistical comparison: $\chi^2 = 72.0$, $p < 0.001$; Ratio: Dispersal dryers show 8× higher mold rates than white paper towel installations (100% vs. 13%).
175. Every dispersal-type hand dryer installation exhibited visible wall mold. One hundred percent. The contamination pattern radiates outward from the

device, originating narrow at the unit and fanning outward as it descends—consistent with water dispersal physics.

176. Independent laboratory analysis by Hayes Microbial Consulting (EPA Laboratory ID: VA01419) confirmed fungal presence in wall contamination samples. Species identified include *Aspergillus*/*Penicillium*, *Alternaria*, *Cladosporium*, and *Chaetomium*—genera associated with respiratory sensitization and opportunistic infections.
177. The plume is a persistent physical presentation that correlates perfectly with the microbial and fungal findings in the dryer output air. The fact that mold is found at 100% of dryer installations is an indictment of the entire design concept, built into the certification standards that never address it.
178. Critical finding: The contamination affects everyone who enters the restroom, not just dryer users. A person who uses paper towels, who uses the sink but not the dryer, who enters but uses nothing—all are exposed to the contaminated environment created by the dryer.

The Paper Towel Alternative

179. Plaintiff's paper towel contamination studies produced a novel finding: prior paper towel research never sorted by towel type.
180. White paper towels are statistically equivalent to ambient room air in microbial content. In testing, 55.6% of white towels were completely sterile. The remainder contained 1-2 CFU. Mean contamination approached zero.
181. Brown paper towels are contaminated from the factory. 100% of samples contained microbial colonies. The contamination is intrinsic to the product.
182. The distributions do not overlap. The 75th percentile of white towels falls below the 25th percentile of brown towels. This complete distributional separation is exceptionally rare in biological data.

183. Paper towels dry hands in 20-30 seconds to 0.1g residual moisture—faster than dryers at actual performance. Water is absorbed into the towel and disposed in trash. No dispersal. No aerosol. No plume. No mold.
184. Remove the dryer. Install a white paper towel dispenser. Every problem documented in this complaint disappears.

The Green Energy Catastrophe

185. False drying time claims corrupt every environmental calculation built upon them. Energy consumption is power multiplied by time. When manufacturers claim 8 seconds but products require 70-90 seconds, energy consumption increases by 775-1,025%.
186. Manufacturers claim hand dryers use 3 Wh per dry and produce 85-90% less CO₂ than paper towels. These claims assume 8-12 second drying times. At actual drying times of 70-90 seconds, energy consumption is 17-25 Wh per use and CO₂ emissions equal or exceed paper towels.
187. Using Defendants' own commissioned lifecycle data, the claimed 85-90% environmental advantage disappears entirely. At actual drying times, hand dryers produce CO₂ emissions equivalent to paper towels or 2-3× higher.
188. False times create false energy and CO₂ emissions values, leading to false marketing claims made by manufacturers with explicit attribution to certification by Defendants.
189. Products marketed as environmentally superior consume 7-10 times more energy than claimed and provide no CO₂ advantage over paper towels.

The Causal Chain

190. The false drying time claim is the root cause of environmental contamination and energy/environmental failure. Each step follows inevitably from the one before:

191. Manufacturers claim 8 to 14 second drying times. Actual drying requires 80 to 90 seconds. The claim is false by 500 to 1,000 percent.
192. If a use stops drying at claimed times, 2.5 to 3.5 grams of water remain on hands. That water has been infested with the microorganisms in the dryer output air stream.
193. Carrying that water after dryer use increases microorganism transfer by 1000×.
194. If a user dries until hands are dry—80-90 seconds—microorganism amplifications on the hands increase over room air by 50-110×.
195. Energy and CO₂ production become equal to or greater than that of paper towels.
196. At 400 to 690 km/h air velocity in a Dispersal-type dryer water is violently blown onto walls, floors, users, and into the air as aerosol.
197. Dispersed water carries microorganisms from users' hands and the output air jets, contaminating the room for the users who come after.
198. Continuous deposition grows visible mold in 100% of installations.
199. The restroom becomes a permanent contamination zone. Everyone who enters is exposed, regardless of whether they use the dryer.
200. The hypothetical answers itself. Remove the dryer and every step in this chain disappears.

The Users' Dilemma

201. Users of certified hand dryers face two options, both creating harm.

- 202. Option one: Use the dryer for the specified 8 to 14 seconds. Leave with wet hands, freshly sprayed with bacteria and fungus. Transfer bacteria to every surface touched thereafter.
- 203. Option two: Use the dryer for 70 to 90 seconds to actually achieve dry hands. During this extended exposure, breathe air contaminated by liquid aerosols with 50 to 110 times room air microorganisms.
- 204. A user cannot achieve dry hands without extended exposure to contaminated output or pull out prematurely and leave with wet hands transmitting organisms at a rate 500 times higher than dry hands.
- 205. Following the rules makes you sick. Every option the certification system provides leads to the same place: elevated contamination exposure.

M. How These Certifications Came to Exist

- 206. In April 2007, NSF International established NSF P335, titled "Hygienic Commercial Hand Dryers." Section 3.4 defined dry hands as "less than 0.1 g residual moisture." Section 6.3 required 95% compliance across 20 trials. This was the original standard.
- 207. In 2012, Excel Dryer proposed amending NSF P335 to change the dryness threshold from 0.1 grams to 0.2 grams. NSF rejected this proposal. Dyson's attorneys stated in federal court filings: "Excel proposed to amend NSF P335 to increase the threshold to 0.2g per hand. NSF rejected Excel's proposed amendment."
- 208. Excel used the rejected standard anyway, advertising compliance under a "modified NSF protocol." SGS testing commissioned by Excel in 2012 applied "a revised version of NSF Protocol P335 Hygienic Commercial Hand Dryers currently being developed and reviewed by NSF"—a version NSF had explicitly rejected.

209. In July 2016, UL Solutions published the Product Category Rules for Hand Dryers with a 0.25 gram threshold—weaker than the proposal NSF had rejected four years earlier. The committee that created this standard was chaired by William Gagnon, Excel's VP and COO. Excel held 4 of 10 manufacturer seats.
210. On July 25, 2017, UL Environment issued Environmental Product Declaration No. 4787137936.102.1 for Excel Dryer's XLERATOR hand dryer certifying 8-second drying time and 3.68 Wh energy consumption.
211. The UL certificate expired in July 2022. Excel did not renew with UL. UL continues to certify hand dryers for other manufacturers.
212. Virginia State Corporation Commission records show: April 26, 2022: Articles of organization filed for "EPD USA LLC" with Anna Lasso as registered agent. July 6, 2022: Articles of amendment changing name to "Smart EPD LLC."
213. At the time of the April 2022 LLC formation, Anna Lasso was either employed by UL Environment or had recently terminated employment there.
214. The timing is significant. Anna Lasso formed EPD USA LLC in April 2022 while UL continued to certify hand dryers for other manufacturers. Hokwang's UL EPD was issued April 1, 2022—the same month Anna Lasso formed her competing company. UL certified Hokwang at 30-35 seconds drying time.
215. On June 23, 2023, Smart EPD issued Certificate No. SmartEPD-2023-002-0006-01 for Excel Dryer's XLERATOR certifying 8-second drying time and 3.68 Wh energy consumption—identical to the expired UL certificate.
216. The trajectory is documented. NSF established 0.1 grams in 2007. Excel proposed 0.2 grams. NSF rejected it. UL created 0.25 grams in 2016. Anna Lasso certified Excel to that standard. All these thresholds remain below actual performance of 2.5-3.0 grams.

N. The 2012 SGS Report

217. SGS Performance Test Report No. 2774929EFF-001, dated September 7, 2012, was filed as Exhibit B to Excel's motion for preliminary injunction in federal court. The report is the foundational test data for all subsequent lifecycle assessments and certifications.
218. The report tested five hand dryer models. Samples were received between June 29 and August 16, 2012.
219. Page 4 of the report states: "Each product was tested in accordance with a revised version of NSF Protocol P335 Hygienic Commercial Hand Dryers currently being developed and reviewed by NSF and incorporating input from the project sponsor." The "project sponsor" was Denis Gagnon, Excel's President.
220. Page 9 of Annex A states: "For the purposes of NSF Protocol P335, 'thoroughly dry' means that less than 0.1 grams of residual moisture per hand for a total of 0.2 grams or less is recovered."
221. This is linguistic sleight of hand. NSF P335 Section 3.4 defines dry hands as "less than 0.1 g residual moisture"—total, not per hand. By redefining the threshold as "0.1 grams per hand for a total of 0.2 grams," SGS doubled the allowable moisture. This was the proposal NSF had rejected.
222. Table 1 of the SGS report reveals the test results: Excel Dryer XL-BW at 12 seconds: 0.186 grams average residual moisture. Excel Dryer XL-BW at 15 seconds: 0.108 grams average residual moisture.
223. SGS certified these results: XLERATOR at 0.186 grams at 12 seconds. Plaintiff's 460 trials document 2.5 to 3.0 grams at the same intervals—1,350 to 1,600 percent higher than SGS results.

224. Excel's current marketing claims 8 seconds. Denis Gagnon testified under oath to 12 seconds. The SGS report tested at 12 and 15 seconds. The 8-second claim has no published test data supporting it.

O. ISO 14025 Independence Violation

225. ISO 14025:2006, Section 8.1.3 requires that EPD verification be performed by an independent verifier "independent of the organization, the EPD, and any parties that have a commercial interest in the EPD."
226. The SmartEPD certificate for XLERATOR Hand Dryer lists Anna Lasso in three capacities on Page 2: as contact for Smart EPD, the EPD Program Operator; as Independent Critical Reviewer; and as Independent External Verifier.
227. Smart EPD LLC was incorporated in Virginia in April 2022. Four months later, Smart EPD issued its first major certification: the Excel XLERATOR EPD. Excel was not a new client relationship. Anna Lasso had worked directly with William Gagnon for years.
228. The TrueNorth Collective LCA underlying the SmartEPD certificate was also reviewed by Anna Lasso as panel chair.
229. ISO 14025 requires three layers of independence: Program Operator, LCA Reviewer, External Verifier. One person occupies all three roles. That is not compliance with ISO 14025. That is the opposite of ISO 14025.

P. The Excel v Dyson Litigation

230. In December 2012, Excel Dryer sued Dyson in the United States District Court for the District of Massachusetts, Case 3:12-cv-30211-MAP, producing sworn testimony and documentary evidence regarding drying time standards and test results.

231. Excel represented to the court that its SGS testing used "a revised version of NSF Protocol P335 currently being developed." Dyson's attorneys revealed that NSF had rejected Excel's proposed amendment.
232. Dyson's memorandum stated explicitly: "The Xlerator is not NSF Certified, meaning NSF has not independently verified that it passes NSF P335 and dries hands within 15 seconds." This remains true today.
233. On February 22, 2013, Dyson filed counterclaims alleging: "The claim that the Xlerator dries hands completely in 10-15 seconds is false."
234. Both companies' sworn claims are now proven false. Plaintiff's 460 trials demonstrate that neither product achieves threshold dryness until 70-90 seconds.
235. The case settled before discovery. Neither company wanted its testing methodology examined under oath.

Q. The Document That Proves It

236. Certificate SmartEPD-2023-002-0006-01, issued June 23, 2023, certifies the XLERATOR Hand Dryer. The EPD Holder is Excel Dryer.
237. EPD Program Operator: Smart EPD, with Anna Lasso as contact.
Independent critical review: Anna Lasso. Independent External Verifier: Anna Lasso.
238. ISO 14025 requires independence between the program operator, the LCA reviewer, and the external verifier. These are meant to be separate parties providing independent oversight. On this certificate, one person occupies all three roles.
239. Page 3 of the certificate states: "The XLERATOR dries hands completely in 8 seconds."

240. Page 13 states: "Dry Time and Energy Use: Tests were performed by SGS International on standard XLERATOR Hand Dryer with 0.8 inch nozzle to 0.25g or less of residual moisture, pursuant to UL Environment Global Product Category Rules for Hand Dryers."
241. The certificate explicitly documents testing to 0.25 grams—the UL PCR threshold that is 2.5 times weaker than NSF P335.
242. The TrueNorth LCA underlying this certificate states: "Dry time, power and energy consumption are based on the average test results provided by Excel." No independent verification.
243. The same TrueNorth LCA states: "Although hygiene is another purpose for hand dryers that is of interest to the scientific community, hygiene is not considered in this study."
244. Excel Dryer's current marketing claims XLERATOR dries hands in 8 seconds. No test data in the evidentiary record supports this claim. The 2012 SGS report tested at 12 and 15 seconds. Denis Gagnon testified under oath that 12 seconds was accurate.
245. Plaintiff's independent trials show actual drying time to 0.1 grams is 70-90 seconds across all manufacturers.
246. The claim has propagated through the certification ecosystem without ever being validated. The actual performance of all production hand dryers has never not been 70-90 seconds to 0.1g of residual water.
247. Defendants can replicate their certified results for the Court in minutes. Or not.

R. Plaintiff's Harm

248. Plaintiff installed approximately 8,000 XLERATOR hand dryers across approximately 2,000 retail stores based on Defendants' false representations and certifications. The devices do not perform as represented. They do not dry hands in 8 seconds. They do not provide hygienic hand drying. They do not deliver the energy savings or environmental benefits claimed. Every unit installed based on Defendants' false certifications represents economic loss.
249. Plaintiff suffered direct economic harm including: the purchase price of approximately 8,000 XLERATOR units; installation costs for national deployment through the RMSe partnership; excess energy costs from dryers operating 7-10 times longer than claimed across a high-traffic retail environment; and ongoing remediation costs to address water damage and mold contamination at Plaintiff's facilities.
250. Plaintiff suffered property damage distinct from the hand dryers themselves. Independent research documented visible mold colonization in 100% of dispersal-type hand dryer installations. Across Plaintiff's approximately 2,000 stores, the walls and floors adjacent to hand dryers have been subjected to continuous water dispersal with every use. The cumulative damage—water staining, mold growth, surface degradation—requires remediation, repair, and in some cases replacement of building materials.
251. Plaintiff suffered reputational harm. Target has built its brand on providing a clean, safe, welcoming shopping environment. Defendants' false certifications induced Plaintiff to install equipment that degrades rather than maintains restroom hygiene. When Defendants' false claims become public, Plaintiff faces reputational consequences for having installed products that amplify contamination rather than reduce it.

252. Plaintiff's customers and employees have been exposed to bacterial and fungal contamination at levels 50-110 times higher than ambient air with every use of Plaintiff's restroom facilities. Across approximately 2,000 high-traffic retail locations serving millions of customers annually, the cumulative exposure is substantial.
253. Plaintiff's facilities team made a national purchasing decision affecting 2,000 stores based on Defendants' certifications. That reliance was reasonable. That reliance was induced by Defendants' false representations. The harm flows directly from Defendants' conduct.
254. Plaintiff rejected its own products based on Defendants' false certifications. Target sells paper towels and paper towel dispensers. Defendants' certifications represented that hand dryers were superior—more hygienic, more energy efficient, more environmentally responsible. Plaintiff chose hand dryers over paper towels based on those representations. The representations were false. Plaintiff was induced to favor a competitor's product over its own merchandise, losing both the margin on paper towel sales to its own facilities and the operational benefits that paper towels would have provided.

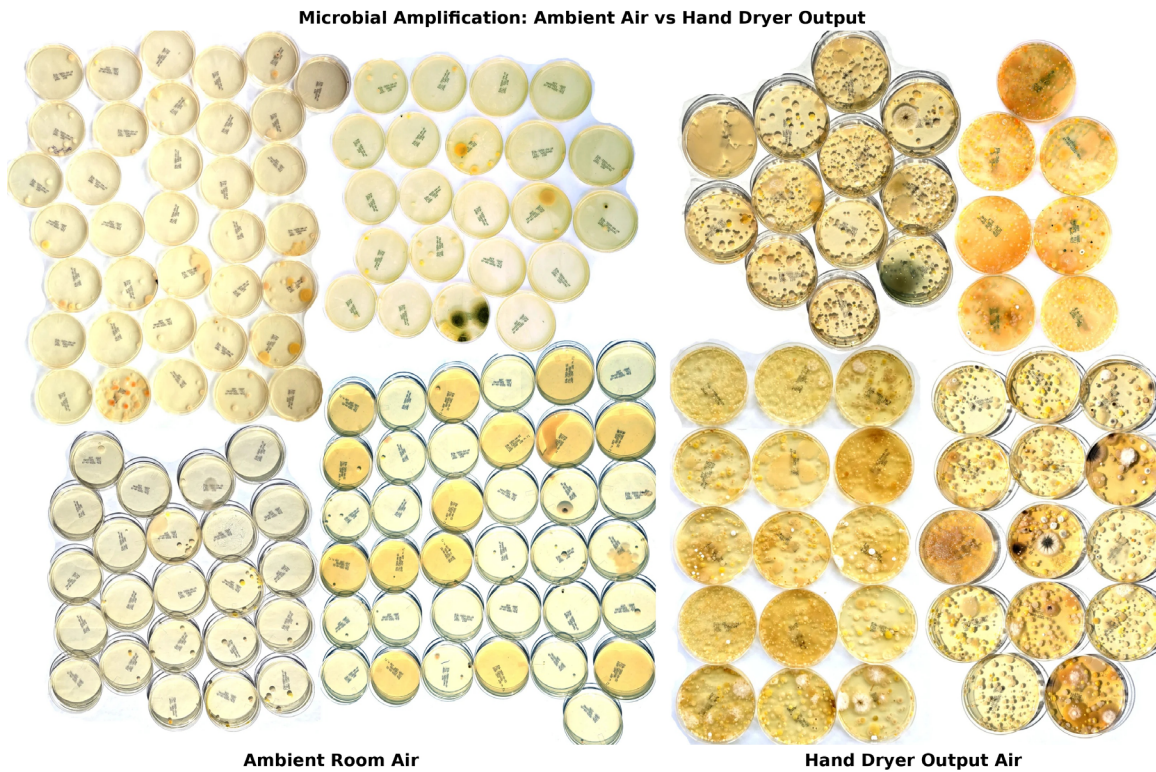
S. Timeliness

255. Defendants' false representations are ongoing. Defendants' website, marketing materials, technical data sheets, and EPD certifications containing the false claims identified herein remain publicly available and continue to be used to market the products.
256. Plaintiff has purchased replacement units in reliance on Defendants' same false claims within the applicable limitations period, creating a continuing relationship and continuing violations.

257. The scientific research establishing the specific nature and magnitude of failures described herein was conducted between August 2023 and December 2025. The research findings were published with DOIs beginning in 2024, providing the first publicly available documentation of these failures.
258. This action is timely under the discovery rule, the continuing violation doctrine, and principles of equitable tolling.

T. The Hypothetical

259. All aspects of hand dryer performance can be understood if you remove it from the room. Does a dryer improve or degrade the room by being there?



V. CAUSES OF ACTION

COUNT I

VIOLATION OF MASSACHUSETTS GENERAL LAWS CHAPTER 93A, § 11

(Unfair and Deceptive Trade Practices – Against All Defendants)

260. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
261. All Defendants are persons engaged in the conduct of trade or commerce within the meaning of M.G.L. c. 93A, § 11.
262. Plaintiff is a person engaged in the conduct of trade or commerce who has suffered loss of money or property as a result of Defendants' conduct.
263. Defendants' conduct as described herein constitutes unfair and deceptive acts and practices in violation of M.G.L. c. 93A, § 2, including but not limited to: (a) making false and misleading statements regarding product performance; (b) issuing false certifications regarding drying time, energy consumption, and hygiene; (c) failing to disclose known material facts regarding product failure; (d) representing products as compliant with standards when they are not; (e) creating, issuing, and maintaining certifications without adequate verification.
264. Defendants' violations were willful and knowing. Excel had access to the UL PCR Figure 2 data establishing that 8-second claims were impossible. UL published that data in the standard it created. SmartEPD and Anna Lasso certified claims they knew or should have known were false. SGS tested at 12-15 seconds while enabling marketing claims of 8 seconds.
265. As a direct and proximate result of Defendants' unfair and deceptive conduct, Plaintiff has suffered ascertainable losses including the purchase

price of products, excess energy costs, remediation costs, and property damage.

266. Plaintiff is entitled to recover actual damages, double or treble damages pursuant to M.G.L. c. 93A, § 11, reasonable attorneys' fees and costs.

COUNT II

BREACH OF EXPRESS WARRANTY

(M.G.L. c. 106, § 2-313 – Against Excel)

267. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
268. Defendant Excel made express warranties to Plaintiff through affirmations of fact and promises, including: (a) that XLERATOR hand dryers dry hands in 8 seconds; (b) that the products are hygienic; (c) that the products consume 1.7 Wh per use; (d) that the products reduce carbon footprint by 88% compared to paper towels; (e) that the products provide 95% cost savings compared to paper towels.
269. These affirmations of fact and promises became part of the basis of the bargain between Plaintiff and Defendant.
270. Defendant's products do not conform to these express warranties. Independent testing establishes that: (a) the products require 70-90 seconds to achieve claimed dryness; (b) the products amplify contamination rather than providing hygienic drying; (c) actual energy consumption is 17-25 Wh per use; (d) CO₂ emissions equal or exceed paper towels; (e) no cost savings exist at actual operational parameters.
271. As a direct and proximate result of Defendant's breach, Plaintiff has suffered damages.

COUNT III

BREACH OF IMPLIED WARRANTY OF MERCHANTABILITY

(M.G.L. c. 106, § 2-314 – Against Excel)

272. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
273. Defendant Excel is a merchant with respect to commercial hand dryers.
274. An implied warranty of merchantability arose in connection with Plaintiff's purchase.
275. To be merchantable, goods must be fit for the ordinary purposes for which such goods are used.
276. Defendant's products are not fit for the ordinary purposes for which commercial hand dryers are used—namely, drying hands hygienically and efficiently.
277. As a direct and proximate result of Defendant's breach, Plaintiff has suffered damages.

COUNT IV

BREACH OF IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE

(M.G.L. c. 106, § 2-315 – Against Excel)

278. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
279. At the time of contracting, Defendant had reason to know the particular purpose for which Plaintiff required commercial hand dryers—namely, providing hygienic, efficient hand drying in retail facilities.

280. Defendant had reason to know that Plaintiff was relying on Defendant's skill and judgment to furnish suitable goods.
281. Plaintiff relied on Defendant's skill and judgment in selecting Defendant's products.
282. Defendant's products are not fit for the particular purpose for which Plaintiff required them.
283. As a direct and proximate result of Defendant's breach, Plaintiff has suffered damages.

COUNT V

PRODUCTS LIABILITY—DESIGN DEFECT

(Against Excel)

284. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
285. Defendant Excel designed, manufactured, distributed, and sold the XLERATOR hand dryers at issue.
286. The defect is the design itself, not a manufacturing flaw. The XLERATOR products, as designed, are incapable of achieving their specified performance. The design relies on high-velocity air to remove water but physically cannot dry hands to threshold levels in claimed times.
287. A safer alternative design exists: paper towel dispensing systems. Paper towels remove both loose and bound water through absorption, achieving threshold dryness in 20-30 seconds without dispersing water or amplifying contamination.

288. The design defect caused damage to property other than the products themselves, including walls, floors, and fixtures damaged by water dispersal and mold colonization.
289. As a direct and proximate result of the design defect, Plaintiff has suffered damages.

COUNT VI

PRODUCTS LIABILITY—FAILURE TO WARN

(Against Excel)

290. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
291. Defendant had a duty to warn users and purchasers of known or reasonably knowable risks.
292. Defendant's products present risks that are not obvious, including: microbial amplification, water dispersal causing property damage, and mold colonization.
293. Defendant failed to provide adequate warnings of these risks.
294. Defendant knew or should have known of these risks through reasonable testing.
295. As a direct and proximate result of Defendant's failure to warn, Plaintiff has suffered damages.

COUNT VII

NEGLIGENT MISREPRESENTATION

(Against Excel)

296. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
297. Defendant Excel made misrepresentations of material fact regarding drying time, energy consumption, hygiene benefits, environmental impact, and cost savings.
298. Defendant made these misrepresentations under circumstances in which Defendant should have known of their falsity. Defendant had access to UL PCR Figure 2 data showing 8-second drying produces 0.456 grams residual moisture—82% over threshold.
299. Defendant made these misrepresentations with the intent to induce purchases.
300. Plaintiff justifiably relied on Defendant's misrepresentations.
301. As a direct and proximate result, Plaintiff has suffered damages.

COUNT VIII

UNJUST ENRICHMENT

(Against All Defendants)

302. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
303. Plaintiff conferred a benefit on Defendants by purchasing products and paying prices that included certification fees.

- 304. Defendants accepted and retained this benefit.
- 305. Defendants' retention of this benefit under these circumstances is unjust.
- 306. Plaintiff is entitled to restitution.

COUNT IX

NEGLIGENT MISREPRESENTATION

(Against UL Solutions)

- 307. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
- 308. UL made false representations of material fact by creating and publishing the Product Category Rules for Hand Dryers; by certifying Excel's XLERATOR under EPD No. 4787137936.102.1 with specifications that UL's own PCR Figure 2 data showed were impossible; and by publishing Figure 2 while certifying products that its own data proved could not comply.
- 309. UL made these representations in the course of its business and in transactions in which it had a pecuniary interest.
- 310. UL failed to exercise reasonable care in creating standards, conducting testing, and issuing certifications.
- 311. Plaintiff justifiably relied on UL's certifications.
- 312. UL's negligent misrepresentations were the direct and proximate cause of Plaintiff's damages.

COUNT X

NEGLIGENT MISREPRESENTATION

(Against SmartEPD and Anna Lasso)

313. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
314. SmartEPD and Anna Lasso made false representations of material fact by issuing Environmental Product Declaration No. SmartEPD-2023-002-0006-01 certifying that XLERATOR dries hands in 8 seconds; by occupying all three verification roles in violation of ISO 14025; and by certifying claims without independent verification.
315. SmartEPD and Anna Lasso made these representations in the course of their business.
316. SmartEPD and Anna Lasso failed to exercise reasonable care in issuing certifications.
317. Plaintiff justifiably relied on SmartEPD certifications.
318. SmartEPD's and Anna Lasso's negligent misrepresentations were the direct and proximate cause of Plaintiff's damages.

COUNT XI

NEGLIGENT MISREPRESENTATION

(Against SGS)

319. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.

320. SGS made false representations of material fact by issuing Performance Test Report No. 2774929EFF-001 purporting to validate hand dryer performance; by testing at 12 and 15 seconds while manufacturers claimed 8 seconds; and by using a rejected NSF standard while representing it as "currently being developed."
321. SGS made these representations in the course of its business.
322. SGS failed to exercise reasonable care in conducting testing and issuing reports.
323. Plaintiff justifiably relied on SGS testing data.
324. SGS's negligent misrepresentations were the direct and proximate cause of Plaintiff's damages.

COUNT XII

NEGLIGENT UNDERTAKING

(Against UL, SmartEPD, Anna Lasso, and SGS)

325. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
326. Defendants UL, SmartEPD, Anna Lasso, and SGS voluntarily undertook to perform certification and testing services for the benefit of commercial purchasers including Plaintiff.
327. Defendants knew or should have known that Plaintiff and other commercial purchasers would rely on their certifications and test reports.
328. Defendants failed to exercise reasonable care in performing their undertaking.
329. Plaintiff relied on Defendants' undertaking to Plaintiff's detriment.

330. Defendants' negligent undertaking was the direct and proximate cause of Plaintiff's damages.

COUNT XIII

NEGLIGENT STANDARD CREATION

(Against UL Solutions)

331. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
332. UL voluntarily undertook to create standards for hand dryer performance through the Product Category Rules for Hand Dryers.
333. UL knew or should have known that commercial purchasers including Plaintiff would rely on products certified under these standards.
334. UL failed to exercise reasonable care in creating standards by allowing manufacturers to dominate the standards committee (80% manufacturer representation); by setting thresholds (0.25 grams) that its own Figure 2 data showed could not be achieved at claimed times; by creating standards that omit all water dispersal specifications; and by enabling certifications of physically impossible claims.
335. UL's negligent standard creation was the direct and proximate cause of Plaintiff's damages.

COUNT XIV

EPD VERIFICATION NEGLIGENCE

(Against SmartEPD and Anna Lasso)

336. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.

337. SmartEPD and Anna Lasso voluntarily undertook to verify Environmental Product Declarations for hand dryers.
338. SmartEPD and Anna Lasso failed to exercise reasonable care in performing verification by certifying 8-second drying times without independent testing; by occupying all three verification roles in violation of ISO 14025; and by certifying the same specifications that UL would not renew.
339. SmartEPD's and Anna Lasso's negligent verification was the direct and proximate cause of Plaintiff's damages.

COUNT XV

DECLARATORY AND INJUNCTIVE RELIEF

(Against All Defendants)

340. Plaintiff incorporates by reference all preceding paragraphs as if fully set forth herein.
341. An actual controversy exists between Plaintiff and Defendants regarding the accuracy of Defendants' certifications and representations.
342. Plaintiff seeks a declaratory judgment that: Defendants' certified drying time specifications are false; Defendants' certified energy consumption specifications are false; Defendants' hygiene claims are false; SmartEPD certifications violate ISO 14025 independence requirements.
343. Plaintiff seeks injunctive relief requiring Defendants to: withdraw, correct, or revoke false certifications; cease marketing products with false performance claims; cease certifying products without independent verification.
344. Plaintiff has no adequate remedy at law. Defendants' false certifications remain active and continue to cause harm.

VI. DAMAGES

- 345. As a direct and proximate result of Defendants' conduct, Plaintiff has suffered damages including but not limited to:
- 346. The purchase price of Defendant's products;
- 347. Excess energy costs resulting from actual operational times substantially exceeding claimed times;
- 348. Costs of repairing or replacing walls, floors, and fixtures damaged by water dispersal and mold colonization;
- 349. Costs of remediation, cleaning, and ongoing maintenance;
- 350. Loss of the benefit of the bargain;
- 351. Such other incidental and consequential damages as may be proven at trial.

VII. JURY DEMAND

- 352. Plaintiff demands a trial by jury on all issues so triable.

VIII. PRAYER FOR RELIEF

WHEREFORE, Plaintiff Target Corporation respectfully requests that this Court enter judgment in its favor and against all Defendants as follows:

- 353. Compensatory damages in an amount to be proven at trial;
- 354. Double or treble damages pursuant to M.G.L. c. 93A, § 11;
- 355. Reasonable attorneys' fees and costs pursuant to M.G.L. c. 93A, § 11;
- 356. Pre-judgment and post-judgment interest as permitted by law;
- 357. Declaratory relief as specified in Count XV;

358. Injunctive relief requiring Defendants to correct false marketing claims and certifications;

359. Such other and further relief as the Court deems just and proper.

Respectfully submitted,

TARGET CORPORATION

By its attorneys,

[Attorney Name]

[Bar Number]

[Firm Name]

[Address]

[City, State ZIP]

[Telephone]

[Email]

Dated: _____, 2026

EXHIBITS

Journal Preprints

[EXHIBIT-A] Transmission of Bacteria and Fungus via Dyson and Xlerator Hand Dryers, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.15504115; Journal Preprint 1 of 11

[EXHIBIT-B] Testing the Validity of Hand Dryer Drying Time Specifications, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.15503698; Journal Preprint 2 of 11

[EXHIBIT-C] Visual Analysis of Water Dispersion Patterns, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.15503304; Journal Preprint 3 of 11

[EXHIBIT-D] Bacterial and Fungal Contamination Assessment of Paper Towel Types, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.15504144; Journal Preprint 4 of 11

[EXHIBIT-E] Systematic Performance Failure in Commercial Hand Dryers, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.17858443; Journal Preprint 5 of 11

[EXHIBIT-F] Baseline Water Mass on Freshly Washed Hands, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.17858834; Journal Preprint 6 of 11

[EXHIBIT-G] An Empirical Refutation of Green Energy Claims, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.17859198; Journal Preprint 7 of 11

[EXHIBIT-H] Catastrophic Time-To-Dry Failures via Bi-Modal Mechanism, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.17869567; Journal Preprint 8 of 11

[EXHIBIT-I] Validation of Hand Dryer Microbial Amplification, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.17859894; Journal Preprint 9 of 11

[EXHIBIT-J] The Wandering Plume of Filth, Blouch, R. A. Jr. (2025); DOI: 10.5281/zenodo.17860971; Journal Preprint 10 of 11

Complete List of Testing Data Files

[EXHIBIT-K] Complete Data File Index, Blouch 2025

Dryer Time Test Results Graphs

[EXHIBIT L] Comprehensive All-Trials Time-To-Dry Hand Dryer Data Graph

Petri Dish Images

[EXHIBIT-M] 136 Ambient Room Air Petri Dish Images Sampled In Front of Machines, Blouch, R. A. Jr. (2025)

[EXHIBIT-N] 60 Hand Dryer Output Air Jet Petri Dish Sample Images, Blouch, R. A. Jr. (2025)

[EXHIBIT-O] 28 Brown Paper Towel Petri Dish Sample Images, Blouch, R. A. Jr. (2025)

[EXHIBIT-P] 47 White Paper Towel Petri Dish Sample Images, Blouch, R. A. Jr. (2025)

Plume of Filth Images

[EXHIBIT-Q] Hand Dryer Plume of Filth Images

[EXHIBIT-R] Hand Dryer Mold Images with Corroborating Petri Dish Test Images

Comprehensive summary articles

[EXHIBIT-S] Comprehensive Hand Washing and Hand Drying Efficacy Studies, 59, AI, (December 2025)

[EXHIBIT-T] Comprehensive Functioning Hand Dryer Output Air Studies, 18, AI, (December 2025)

Lab Testing

[EXHIBIT-U] Hayes Microbial Consulting Report (EPA Laboratory ID: VA01419)

Evidence of Plaintiff Exposure

[EXHIBIT-V] Evidence of Plaintiff Exposure — Starbucks Rewards History + M&T Bank Statements

Standards documents

[EXHIBIT-W] UL PCR for Hand Dryers (July 13, 2016)

[EXHIBIT-X] NSF Protocol P335: Hygienic Commercial Hand Dryers (April 2007)

[EXHIBIT-Y] ISO 14025 Environmental Standards Principles and Procedures

[EXHIBIT-Z] ISO 14044 Life Cycle Assessment Requirements and Guidelines

Certifications

[EXHIBIT-AA] Smart EPD Certificate SmartEPD-2023-002-0006-01 (XLERATOR)

[EXHIBIT-BB] SGS Performance Test Report No. 2774929EFF-001 (Sept. 7, 2012)

[EXHIBIT-CC] UL Environment EPD No. 4787137936.102.1 — XLERATOR Hand Dryer certification; July 25, 2017

[EXHIBIT-DD] UL Environment EPD No. 4787616201.106.1 — Hokwang 2200 Hand Dryer certification; April 1 2022

[EXHIBIT-EE] TrueNorth Collective LCA (May 2023): Comparative Life Cycle Assessment of Hand Drying Systems: Excel Hand Dryers and Paper Towel Systems

[EXHIBIT-FF] MIT Materials Systems Laboratory Lifecycle Assessment — Document 6-1, September 2011.

[EXHIBIT-GG] NSF P335 Dyson Certified Live Listing 251231

[EXHIBIT-HH] XLERATOR LEED v4.1 Document

[EXHIBIT-II] DYSON LEED May 2014 Document

Collusion Network Structures

[EXHIBIT-JJ] Personnel and Committee Connections Master Reference Document

[EXHIBIT-KK] Standards and Certification Chronology UL to Smart EPD, Lasso, Blouch 2025

Defendant Source Documents

[EXHIBIT-LL] Anna Lasso, The First Sustainable Hand Dryer, Excel UK Website December 2025

Journalistic Industry Analysis and History

[EXHIBIT-MM] Hand dryers v paper towels, The Guardian_files, The Guardian, 25 April, 2019

Excel V Dyson Court Documents — Case_3:12-cv-30211-MAP_(D._Mass.)

[EXHIBIT-NN] Excel V Dyson Original Complaint, PACER

[EXHIBIT-OO] Denis Gagnon Affidavit Excel V Dyson, PACER

[EXHIBIT-PP] Toby Saville Affidavit Excel V Dyson, PACER

[EXHIBIT-PP-A] Toby Saville Claimed Dry Times Versus Ron Blouch Data, a Detailed Comparison

[EXHIBIT-QQ] Dyson's Answer, Statement of Defenses, and Counterclaims — Document filed February 22, 2013.

[EXHIBIT-RR] Defendant Dyson, Inc.'s Memorandum of Law in Opposition to Plaintiff Excel Dryer, Inc.'s Motion for Preliminary Injunction

[EXHIBIT-SS] Excel Reply to Dyson Opposition — Document 32, Filed February 4, 2013; includes Second Declaration of Denis Gagnon (Document 32-1)

[EXHIBIT-TT] MIT-QUANTIS Letter in response to dry time testing conflicts, 17 October 2012

[EXHIBIT-UU] Excel White Paper: "An Ultrafast, Comfortable Hand Dryer"

ITC Complaint

[EXHIBIT-VV] ITC COMPLAINT; Excel Dryer V Multiple Respondents, China; DN 3159; June 24, 2016

False Claims Summary Documents

[EXHIBIT-WW] False Advertising Claims Analysis Dyson

[EXHIBIT-XX] False Advertising Claims Analysis Excel

[EXHIBIT-YY] False Claims Analysis NSF with UL Supplemental Analysis

[EXHIBIT-ZZ] False Claims Supporting Screenshots and Document Images

Global Dryer Statistical Estimates

[EXHIBIT-AAA] US Dryer Use Estimates Annual and Per Use with microbe estimates, Blouch 2025

[EXHIBIT-BBB] US Dryer Use Estimates Annual and Per Use with energy estimates, Blouch 2025

[EXHIBIT-CCC] US Dryer Use Estimates Annual and Per Use with LEED estimates, Blouch 2025

Hokwang Dryer Product Sheets, UL

[EXHIBIT-DDD] Hokwang 2200W product sheet with UL certification, December 2025

[EXHIBIT-EEE] Hokwang high speed EcoHygiene product sheet without UL certification, December 2025

Journal Preprint

[EXHIBIT-FFF] Performance Failures in Commercial Hand Dryers: An Historical Synthesis and Sequential Summary Review of an Eleven-Study Research Program, Blouch, R. A. Jr. (2026); DOI: 10.5281/zenodo.18322481; Journal Preprint 11 of 11

[EXHIBIT-GGG] Dyson False Advertising Claims, Blouch 2025

[EXHIBIT-HHH] Excel False Advertising Claims, Blouch 2025

[EXHIBIT-III] NSF False advertising Claims, Blouch 2025

[EXHIBIT-JJJ] Screenshot False Advertising Claims Supporting Material

[EXHIBIT-KKK] Grand Central Terminal Excel Case Study

[EXHIBIT-LLL] US Green Building Council Excel Case Study

[EXHIBIT-MMM] Northwestern University Hospitals Excel Case Study

[EXHIBIT-NNN] Seabury Excel Case Study

[EXHIBIT-OOO] USDA Excel Case Study

[EXHIBIT-PPP] Dyson Energy Saving Signs

[EXHIBIT-QQQ] Excel Energy Savings Signs

[EXHIBIT-RRR] Gia AIRMID study

[EXHIBIT-SSS] Xlerator Hygiene Technical Data Sheet

[EXHIBIT-TTT] Unified Certifiers Civil Complaint, Blouch 2026