ELIZABETH C. PRITZKER (SBN: 146267)
JONATHAN K. LEVINE (SBN: 220289)
BETHANY L. CARACUZZO (SBN: 190687)
HEATHER P. HAGGARTY (SBN: 244186)
RICHARD R. SEAL (SBN: 311131)
PRITZKER LEVINE LLP
1900 Powell Street, Suite 450
Emeryville, California 94608
Telephone: (415) 692-0772
Facsimile: (415) 366-6110
Email: ecp@pritzkerlevine.com; jkl@pritzkerlevine.com
bc@pritzkerlevine.com; hph@pritzkerlevine.com
rrs@pritzkerlevine.com

Attorneys for Plaintiffs

SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF SANTA CLARA

TERESA MAULDIN, TODD SPELLMAN, GARY WEEKLEY, KEVIN BEBEE, DAN STAPP, BOB BACON, JOHN CASTRO, LUIS CHACON, FRANK DIAZ, FELIX DIAZ, PAUL EDEN, JOHN LAURENT, LARRY NOON, ROB PIPER, STEVE PIZZO, MOSES SALAS, MIKE SANCHEZ, ED SOLANO, MARC STELLING, MIKE TALLERICO, MIKE TAPIA, EUNICO TRINIDAD, GEORGE VEGA, WILLIAM STAPLES, BRIDGET TAPIA, VICTORIA BEBEE, and KATHY PIPER,

Plaintiffs,

vs.

3M COMPANY, E. I. DU PONT DE NEMOURS & CO., THE CHEMOURS COMPANY L.L.C., ARCHROMA U.S., INC., ARKEMA, INC., AGC CHEMICALS AMERICAS, INC., DAIKIN AMERICA, INC., SOLVAY SPECIALTY POLYMERS, USA, L.L.C., JOHNSON CONTROLS, INC., TYCO FIRE PRODUCTS, L.P., NATIONAL FOAM, INC., CHEMGUARD, INC., CARRIER GLOBAL CORPORATION, KIDDE FIREFIGHTING INC., KIDDE-FENWAL,

Case No: 20CV370176

COMPLAINT FOR DAMAGES AND INJUNCTIVE RELIEF

DEMAND FOR JURY TRIAL

INC., PERIMETER SOLUTIONS, LP, FIRE SERVICE PLUS, INC., BUCKEYE FIRE EQUIPMENT, AMEREX CORPORATION, DYNAX CORPORATION, MSA SAFETY, INC., LION GROUP, INC., L.N. CURTIS & SONS, W. L. GORE & ASSOCIATES, INC., ROYAL TEN CATE US, INC., PBI PERFORMANCE PRODUCTS, INC., ALLSTAR FIRE EQUIPMENT, and DOES 1 through 25,

Defendants,

Plaintiffs Teresa Mauldin, Todd Spellman, Gary Weekley, Kevin Bebee, Dan Stapp, Bob Bacon, John Castro, Luis Chacon, Frank Diaz, Felix Diaz, Paul Eden, John Laurent, Larry Noon, Rob Piper, Steve Pizzo, Moses Salas, Mike Sanchez, Ed Solano, Marc Stelling, Mike Tallerico, Mike Tapia, Eunico Trinidad, George Vega, William Staples, Bridget Tapia, Victoria Bebee, and Kathy Piper, by and through their attorneys of record, allege as follows:

INTRODUCTION

1. Plaintiffs are 24 current and retired firefighters (collectively, the "Firefighter Plaintiffs") who have served the San Jose, Santa Clara, and Gilroy communities as firefighters and worked in various fire stations, engine, truck, and specialized companies in the County of Santa Clara for decades, and three of their spouses (collectively, the "Spouse Plaintiffs").

2. Plaintiffs bring this action for monetary damages and appropriate equitable and injunctive relief for harm resulting from exposure to per- and polyfluoroalkyl substances ("PFAS") that were manufactured, designed, sold, supplied, distributed and/or contained in products manufactured, designed, sold, supplied and/or distributed by each of the Defendants, individually or through their predecessors or subsidiaries

3. PFAS are human-made chemicals consisting of a chain of carbon and fluorine atoms used in manufactured products to, *inter alia*, resist and repel oil, stains, heat and water. PFAS include "long-chain" PFAS made up of eight or more carbon atoms ("long-chain PFAS") as well as "short-

chain" PFAS made up of six or fewer carbon atoms ("short-chain PFAS").

4. PFAS are known as "forever chemicals" because they are immune to degradation, bio-accumulate in individual organisms and humans, and increase in concentration up the food chain. PFAS exposure to humans can occur through inhalation, ingestion and dermal contact.[1]

5. PFAS have been associated with multiple and serious adverse health effects in humans including cancer, liver damage, immune system and endocrine disorders, high cholesterol, thyroid disease, ulcerative colitis, birth defects, decreased fertility, and pregnancy-induced hypertension. PFAS have also been found to concentrate in human blood, bones and organs.

6. Unbeknownst to Plaintiffs, Defendants have manufactured, marketed, distributed, sold, or used PFAS and PFAS-containing materials in Class B firefighting foams ("Class B foam")[2] and in protective clothing specifically designed for firefighters ("turnouts").

7. For decades, Defendants were aware of the toxic nature of PFAS and the harmful impact these substances have on human health. Yet, Defendants manufactured, designed, marketed, sold, supplied, or distributed PFAS and PFAS chemical feedstock,[3] as well PFAS-containing Class B foam and turnouts, to firefighting training facilities and fire departments nationally, including in California and in Santa Clara County. Defendants did so, moreover, without ever informing firefighters or the public that their Class B foams and turnouts contained PFAS, and without warning firefighters or the public of the substantial and serious health injuries that can result from exposure to PFAS or PFAS-containing materials.

8. The Firefighter Plaintiffs wore turnouts and used Class B foam in the usual and normal course of performing their firefighting duties and training. They did not know and, in the exercise of reasonable diligence, could not have known that these products contained PFAS or PFAS-

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[1] Suzanne E. Fenton, MS, PhD, *PFAS Collection*, Environmental Health Perspectives (February 22, 2019), https://ehp.niehs.nih.gov/curated-collections/pfas.

[2] Class B foams are synthetic "soap-like" foams that spread rapidly across the surface of a fuel or chemical fire to stop the formation of flammable vapors. The most common Class B foam is aqueous film-forming foam (or "AFFF").

[3] Chemical feedstock refers to a chemical used to support a large-scale chemical reaction. The PFAS chemicals utilized to manufacture products containing PFAS are generally referred to herein as "chemical feedstock."

containing materials. Instead, at all relevant times and continuing to the present, Defendants represented their Class B foams and turnouts as safe.

9. The Firefighter Plaintiffs did not learn of their PFAS exposure until July 2020, when blood serum tests revealed that each of them has significantly elevated levels of PFAS in their blood.

10. The Firefighter Plaintiffs use and/or used the Class B foam and turnouts as they were intended and in a foreseeable manner which exposed them to PFAS in the course of their firefighting activities. This repeated and extensive exposure to PFAS resulted in cancers and other serious and life-threatening diseases to the Firefighter Plaintiffs. Their PFAS exposures continue to pose a significant threat to their personal health due to PFAS' persistence, pervasiveness, toxicity and bioaccumulation.

11. Defendants knowingly and willfully manufactured, designed, marketed, sold, and distributed chemicals and/or products containing PFAS for use within the State of California when they knew or reasonably should have known that the Firefighter Plaintiffs would repeatedly inhale and/or have dermal contact with these harmful compounds during firefighting training exercises and in firefighting emergencies, and that such exposure would threaten the health and welfare of firefighters exposed to these dangerous and hazardous chemicals.

12. Plaintiffs bring this action against Defendants and seek damages, together with any appropriate injunctive or other equitable relief.

PARTIES TO THE ACTION

Plaintiffs

A. The Firefighter Plaintiffs

13. Teresa Mauldin worked for 20 years in the City of San Jose Fire Department ("SJFD"). She worked as a firefighter and fire engineer at one of busiest fire stations in the United States, SJFD Fire Station 2 ("The Rock"), serving the Alum Rock district of San Jose. Teresa was promoted to fire inspector and later became an arson investigator. Teresa's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. She also received specialized training as an arson investigator. During her career, she

responded to approximately 100 calls a year and, by the end, had responded to 600 fire calls. In the course of firefighting training and fire suppression activities, she routinely used Class B foam and wore turnouts that, unbeknownst to her, contained PFAS or PFAS-containing materials. She was unaware that the Class B foam she used and the turnouts she wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 shows her PFAS levels are significantly elevated. She has been diagnosed with and treated for bladder cancer (as well as a reoccurrence) and for breast cancer.

14. Todd Spellman was in the fire service for 29 years in the City of San Jose Fire Department. He worked as a volunteer firefighter, firefighter, and fire captain on the Hazardous Incident Team ("HIT) at SJFD Fire Station 29, serving the neighborhoods of north San Jose. In 1999, he was awarded Firefighter of the Year. Todd's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. Todd also received specialized training related to hazardous materials incidents and ARFF (aircraft rescue firefighter). The HIT team responded to calls for flammable liquid spills, drug labs, vehicle accidents and hazardous materials incidents. As captain, Todd was responsible for developing appropriate tactics and strategy to safely mitigate the hazardous material incident. In this role, Todd received such comprehensive hazardous material training in risk assessment, risk-exposure and tactical decision-making that he became a specialist in hazardous materials first responder operations. In the course of firefighting training and fire suppression activities, he routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 shows his PFAS levels are significantly elevated. Todd was diagnosed with prostate cancer and is currently being treated.

15. Gary Weekley was in the fire service for 30 years, 27 of which were in the City of San Jose Fire Department. He worked as a firefighter, fire engineer, fire captain, and battalion chief, spending many years working at SJFD's busiest engine Fire Station 8, serving the Naglee Park district of San Jose, as well as Station 5 in San Jose's industrial area. Gary's firefighter training

included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fire ground command, low-angle rope rescue operations, and fire administration. As a battalion chief, Gary was in charge of supervision, administration and large emergency incidents, and training for six stations. He also worked as both the training and ARFF program manager, as well as at a station that specialized in hazardous materials calls. Gary volunteered for 15 years with the Valley Medical Center Burn Center Foundation to raise money for the local burn unit. He spent one week each summer at a summer camp for children burn survivors - something he considers to be one of his most privileged and fulfilling memories. In the course of firefighting training and fire suppression activities, Gary routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 shows his PFAS levels are significantly elevated. He has been diagnosed with and has been treated for prostate cancer.

16. Kevin Bebee has been in the fire service for 24 years in the Santa Clara, Contra Costa County and Gilroy Fire Departments, working as a volunteer firefighter, firefighter, and is currently a fire engineer serving the Gilroy community at the Chestnut Station. Kevin's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. Kevin has also received specialized training in low-angle rope rescue. In 2019, Kevin was volunteering at the first aid station at the Gilroy Garlic Festival when a mass shooter opened fire on the crowd. He was assigned to be the triage, treatment, and transport officer in which he was responsible for triaging victims and arranging for medical treatment before being transported to the hospital. For his bravery and service, he was honored with a Medal of Valor from the State of California EMSA. In the course of firefighting training and fire suppression activities, Kevin routinely uses and has routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used

and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 shows his PFAS levels are significantly elevated. Kevin has been diagnosed with and treated for testicular cancer.

17. Dan Stapp was in the fire service for 31 years in the City of Pacifica and San Jose Fire Departments and worked as a firefighter, fire engineer and fire captain. As fire captain, Dan spent many years at Fire Station 4 protecting the Burbank district of San Jose. Dan's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fires, and low-angle rope rescue operations. Dan earned a Medal of Valor and the Firefighter of the Year for the rescue of a baby trapped in a burning second story bedroom which required searching for the baby without the protection of a hose line, and then descending the ladder with the uninjured baby in his arms. Dan also delivered four babies during his career. In the course of firefighting training and fire suppression activities, he routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 shows his PFAS levels are significantly elevated. Dan has been diagnosed with and treated for prostate cancer and tumors in his lymph nodes.

18. Bob Bacon worked as a firefighter for over 28 years in the City of San Jose Fire Department, primarily serving at SJFD Fire Station 20, at the Norman Y. Mineta San Jose International Airport. Bob's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in ARFF. One of the most significant moments in Bob's career was when he responded to a medical emergency at the airport for a man who was in full cardiac arrest. Bob successfully resuscitated him; the man later visited the station to thank Bob for saving his life. He also delivered one baby during his career. In the course of firefighting training and fire suppression activities, Bob routinely used Class B foam and wore turnouts that, unbeknownst to him contained

PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Bob has been diagnosed with and treated for prostate cancer.

19. John Castro worked for nearly 30 years in the City of San Jose Fire Department, working his way through the ranks from firefighter, fire engineer, and fire inspector to fire captain, spending many years working at SJFD Fire Station 6, serving the Willow Glen district of San Jose. John's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He received specialized training in high-rise fires, and low-angle rope rescue operations, and has delivered three babies over his career. He has fought many fires, but one stands out for him: he and his crew extinguished a residential structure fire in south San Jose, and during the course of the fire fight, John was able to locate and rescue the family's dog, which had been burned and was struggling to breath, and was successfully able to resuscitate and save the family's beloved pet. For 18 years, John was on the organizing committee for the Firefighter Chili Cook-Off which raised over $2 million for the Santa Clara Valley Medical Burn Center. In the course of firefighting training and fire suppression activities, John routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. John has been diagnosed and treated for Chronic Lymphocytic Leukemia and kidney cancer.

20. Luis Chacon worked as a firefighter for over 25 years in the City of San Jose Fire Department, primarily SJFD Fire Station 1 ("The Market Street Zoo") one of the busiest fire stations in the United States. Luis' firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He received specialized training in high-rise fires, and low-angle rope rescue operations. Luis earned two Medals

of Valor for rescuing two adults trapped in a burning house, and for his work on a mutual-aid strike team for the Lick Fire, where he was on the fire line for six days and saved dozens of family homes and businesses. Luis also has delivered one baby during his career. In the course of firefighting training and fire suppression activities, Luis routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Luis has been diagnosed with and treated for prostate cancer.

21. Frank Diaz worked as a firefighter for 34 years in the City of Mountain View and the City of San Jose Fire Departments with the majority of his career at SJFD Fire Station 3, serving the Alma district of San Jose. Frank's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fires, and low-angle rope rescue operations. In his long career, one of Frank's most memorable moments was responding to a medical call for an unresponsive middle-aged man who, when Frank arrived at the scene, had stopped breathing. Frank provided emergency life support and saved the man's life. At the other end of life's spectrum, Frank also has delivered two babies during his career. In the course of firefighting training and fire suppression activities, Frank routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Frank has been diagnosed with and treated for prostate cancer.

22. Felix Diaz worked as a firefighter for 25 years for the City of Santa Clara Fire Department at both engine and truck companies throughout the City of Santa Clara. Felix's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul operations; and emergency medical training. In his long career, Felix responded to many emergencies.

One of Felix's most significant moments was rescuing a man involved in a vehicle accident on US 101 who, when Felix arrived at the scene, was in full traumatic arrest (no heartbeat and no respiratory activity). Though resuscitation success rates for full traumatic arrest are very low, Felix worked on the man for an hour until the man was finally resuscitated and responsive, saving the man's life. In the course of firefighting training and fire suppression activities, Felix routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Felix has been diagnosed with and treated for prostate cancer.

23. Paul Eden was in the fire service for over 32 years and spent 26 of those years in the City of San Jose Fire Department, working as a firefighter, fire engineer, fire inspector and fire captain. He spent the majority of his career working at Fire Station 26 ("The Night Train") one of San Jose's busiest stations serving central San Jose. Paul's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fire operations, and low-angle rope rescue operations. In his long career, one call stands out and involved an approximately 400 lb. man who was in cardiac arrest (no heartbeat or respiratory activity) on the roof of a commercial building. Paul had to climb a ladder with approximately 60 lbs. of EMS gear and immediately begin working on resuscitating the man. Paul performed life-saving measures, the man's pulse returned, and Paul arranged to have the man transported on a stretcher by ladder from the roof to the ambulance. The man later visited the station to thank them for saving his life. Paul also delivered three babies during his career. In the course of firefighting training and fire suppression activities, Paul routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Paul has been diagnosed with and treated for kidney cancer. In 2020, metastatic renal cell carcinoma tumors were found and removed from his right lung.

24. John Laurent worked for 34 years in the City of San Jose Fire Department as a firefighter, fire engineer and fire captain with the majority of his career working in downtown San Jose on Engine 30. John's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fire operations and low-angle rope rescue operations. During his firefighting career, John received a Medal of Valor for rescuing five adults living in an old Victorian era home that were trapped by fire. He also delivered one baby during his career. John has continued to serve the community by teaching CPR for adults and infants. In the course of firefighting training and fire suppression activities, John routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. John has been diagnosed with and is being treated for Myelodysplastic Syndrome, a rare blood cancer that can also be a precursor to leukemia.

25. Larry Noon worked as a firefighter for 30 years in the City of San Jose Fire Department, spending many years at Fire Station 15 serving San Jose's west side neighborhoods. Larry's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fires, and low angle rope rescue operations. One of the most significant moments in Larry's career happened when he responded to a medical emergency for a baby having seizures. At the scene, Larry found a panicked mother holding her seizing baby: Larry immediately provided medical care which stopped the seizures and comforted the baby's distressed family. He also assisted in the delivery of two babies during his career. In the course of firefighting training and fire suppression activities, Larry routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his

PFAS levels are significantly elevated. Larry has been diagnosed with and treated for bladder cancer.

26. Rob Piper has worked in the fire service for 35 years, with 28 of those years serving in the City of San Jose Fire Department as a firefighter, fire captain, battalion chief, and deputy chief. Rob spent many years working on SJFD Engine 26, "The Night Train." His firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fire operations, low-angle rope rescue operations, and fire administration. Rob received the Firefighter of the Year award from the City of San Jose, a commendation for bravery from the State of California and County of Santa Clara, and a commendation for bravery from the City of San Jose for saving a fellow firefighter who fell through a floor into a burning basement during a house fire with high heat and zero visibility in San Jose's Willow Glen district. Rob also delivered six babies during his career. In the course of firefighting training and fire suppression activities, he routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Rob has been diagnosed with and treated for transverse colon cancer.

27. Steve Pizzo worked for 25 years in the City of San Jose Fire Department as a firefighter, fire engineer and fire captain, spending many years working at SJFD Fire Station 5 serving San Jose's Japantown District. Steve's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in ARFF, high-rise fire operations, and low-angle rope rescue operations. Steve received a commendation from SJFD Fire Chief Osby for his life-saving actions taken, while off-duty, when he assisted a severely injured motorcycle rider who had been thrown 50 feet over a steep embankment, fracturing his leg and rendering him unconscious. Steve provided scene control, cervical stabilization, and constructed a make-shift splint from branches and a belt stabilizing the leg fracture, all the while providing comfort and support to the injured rider until

emergency responders arrived and took over patient care. Steve also delivered two babies during his career. In the course of firefighting training and fire suppression activities, he routinely used Class B foam and wore turnouts that, unbeknownst to him contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Steve has been diagnosed with and treated for papillary thyroid cancer.

28. Moses Salas has been a CAL Fire firefighter and paramedic, and a firefighter/paramedic in the City of San Jose Fire Department for 12 years. He currently works at SJFD Fire Station 17 serving the Blossom Hill district of San Jose. Moses' firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; emergency medical training; advanced cardiac life support; and pediatric advanced life support. One of Moses's most memorable calls was a medical emergency for an unresponsive father of two girls. When he arrived, the girls said their father was dead. Moses assessed the man for cardiac arrhythmia and treated him with electrical defibrillation to return his heartrate to a normal heat beat and then gave him advanced life support. The man responded and survived this harrowing event. Moses has also delivered one baby during his career. In the course of firefighting training and fire suppression activities, he routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Moses has been diagnosed with and treated for testicular cancer.

29. Mike Sanchez was in the fire service for over 25 years in the City of San Jose Fire Department, working as a firefighter, fire engineer, and fire inspector. He spent many years working at SJFD Fire Station 14 serving San Jose's Westgate district. His firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. Mike also received specialized training in high-rise fires, and low-angle rope rescue

operations. Mike was recognized by the San Jose Rotary Club for his act of heroism, while off-duty, after he noticed a growing column of thick black smoke rising from a nearby apartment complex while driving to work. Mike followed the smoke column and discovered an apartment building on fire. He entered the burning apartment building to help the residents – including a mother and daughter unaware of the fire in their kitchen— exit the building to safety while Mike extinguished the fire. Mike also delivered two babies during his career. In the course of firefighting training and fire suppression activities, Mike routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Mike has been diagnosed with and treated for colon cancer.

30. Ed Solano worked as a firefighter and fire engineer for over 30 years in the City of San Jose Fire Department in SJFD's Truck 9 serving the Cambrian Park district of San Jose. Ed's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fires and low-angle rope rescue operations. One of Ed's most memorable calls was while working on SJFD Truck 9, when he fought a multiple alarm fire at a historical winery in south San Jose, where he and other firefighters successfully saved many historical landmarks and artifacts. In the course of firefighting training and fire suppression activities, Ed routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Ed has been diagnosed with and treated for prostate cancer.

31. Marc Stelling has been in the fire service for 32 years in the Gilroy Fire Department, serving as a volunteer firefighter, firefighter, fire engineer, and fire captain. Marc is currently working on Gilroy Engine 49 serving the Sunrise district of Gilroy. His firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of

foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also has received specialized training in low-angle rope rescue operations. As a captain, Marc goes to every single call to ensure the safety of his crew; he never sends his firefighters into dangerous situations unless he is with them. He received a commendation for his work on the Croy Fire in the Santa Cruz Mountains in which he had arrived at a small, rural housing development surrounded by a fast-approaching wildland fire and found that the pump for the 10,000-gallon water tank was broken. Though the area had been evacuated and the fire was threatening structures, Marc managed to fix the water pump under extreme weather and fire conditions and save four homes. Recently, Marc was deployed to fight fires and protect structures in the LNU Lighting Complex fires. In the course of firefighting training and fire suppression activities, Marc routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Marc has been diagnosed with and treated for kidney cancer.

32. Mike Tallerico worked as a firefighter and fire engineer for 22 years in the City of San Jose Fire Department on SJFD Engine 8 and Engine 14, serving San Jose's downtown and westside neighborhoods. Mike's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in ARFF, high-rise fires, and low-angle rope rescue operations. In his long career, one of Mike's most memorable moments was responding to a medical incident for an unresponsive man at a bank on Saratoga Ave. When Mike arrived, the man was in full cardiac arrest (no pulse and not breathing); Mike immediately began providing life support measures and the man survived. Mike also delivered three babies during his career. In the course of firefighting training and fire suppression activities, Mike routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Mike has been diagnosed with and treated for bladder

cancer.

33. Mike Tapia worked for 27 years in the City of San Jose Fire Department as a firefighter, fire paramedic, and provisional fire engineer, spending many years working at SJFD Engine Companies 4 and 24, which serve San Jose's Burbank and Evergreen neighborhoods. Mike's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in advanced cardiac life support, pediatric advanced life support, high-rise fires, and low-angle rope rescue operations. Mike earned two Medals of Valor and a service award. His most significant call was a response to a medical emergency, where he rescued a child who had drowned and was unconscious. Mike performed life saving measures and the child survived. He also delivered three babies during his career. In the course of firefighting training and fire suppression activities, Mike routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Mike has been diagnosed with and treated for essential thrombocythemia, a rare blood cancer.

34. Eunico ("Nick") Trinidad has worked as a firefighter paramedic for 13 years in the City of San Jose Fire Department. Currently, he is assigned to SJFD Truck 35 serving the Edendale district of San Jose. Nick's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He has also received specialized training in advance cardiac life support, pediatric advanced life support, high-rise fires, and low-angle rope rescue operations. One of Nick's most memorable calls was for a vehicle accident involving a young woman who was trapped in a crushed automobile and had a steel rod impaled through her leg. A field surgeon was on route to the scene to amputate her leg. Working quickly with the "jaws of life", Nick was able to free her. The woman survived and did not have to have her leg amputated. Nick also has the distinction of having delivered more than 25 babies during his career.

In the course of firefighting training and fire suppression activities, Nick routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Nick has been diagnosed with and treated for a rare salivary gland cancer.

35. George Vega has worked in the fire service for 32 years in the Redwood City Fire Department and the City of San Jose Fire Department as a firefighter, fire engineer, fire captain and battalion chief, with the majority of his career working at SJFD Fire Station 1 serving downtown San Jose. George's firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fire operations, low-angle rope rescue operations, and fire administration. As a battalion chief, George was responsible for 6-8 stations, as well as strategic command and tactical operations for hazmat incidents, multiple vehicle accidents, and any fires over 1-alarm, including the notorious Santana Row Fire and the Unity Church fire near St. James Park, where George commanded the 4-alarm fire responsible for 50 firefighters saving the beloved church. In the course of firefighting training and fire suppression activities, George routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. George has been diagnosed with and is currently being treated for prostate cancer.

36. William ("Bruce") Staples worked in the fire service for 30 years in the City of San Jose Fire Department as a firefighter, fire engineer, fire prevention inspector, fire captain, battalion chief, deputy fire chief, assistant fire chief, and acting fire chief. Bruce spent many years working at Fire Station 13 serving the Santa Teresa district of San Jose. His firefighter training included incident command; fire suppression for structures, vehicles and grassland (including use and application of foam); search and rescue; ventilation operations; salvage and overhaul; and emergency medical training. He also received specialized training in high-rise fire operations, and fire administration.

Bruce's most significant contribution to the SJFD and the City of San Jose was overseeing the development and implementation of SJFD's paramedic program, which provided staffing of a cross-trained firefighter/paramedic at every engine and truck company in the City. In the course of firefighting training and fire suppression activities, Bruce routinely used Class B foam and wore turnouts that, unbeknownst to him, contained PFAS or PFAS-containing materials. He was unaware that the Class B foam he used and the turnouts he wore contained PFAS or PFAS-containing materials. Blood serum testing conducted in July 2020 show his PFAS levels are significantly elevated. Bruce has been diagnosed with and treated for kidney cancer, and is currently being treated for cancerous nodules in his lungs.

37. The Firefighter Plaintiffs, individually and collectively, allege that PFAS or PFAS-containing materials developed, manufactured, marketed distributed, released, sold, and/or used by Defendants in Class B foam and turnouts, as herein alleged, caused them to be exposed to PFAS and/or PFAS-containing materials. Such exposure was a substantial factor and proximate cause of the cancers, serious illnesses and bodily injuries suffered by the Firefighter Plaintiffs, as alleged herein.

B. The Spouse Plaintiffs

38. Bridget Tapia is the spouse of Firefighter Plaintiff Mike Tapia. Bridget and Mike were lawfully married at all times relevant to this action, and now are husband and wife.

39. Victoria Bebee is the spouse of Firefighter Plaintiff Kevin Bebee. Victoria and Kevin were lawfully married at all times relevant to this action, and now are husband and wife.

40. Kathy Piper is the spouse of Firefighter Plaintiff Rob Piper. Kathy and Rob were lawfully married at all times relevant to this action, and now are husband and wife.

Defendants

41. Defendant 3M Company (a/k/a Minnesota Mining and Manufacturing Company) ("3M") is a Delaware corporation that does business throughout the United States, including conducting business in California. 3M has its principal place of business in St. Paul, Minnesota. 3M developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the

County of Santa Clara.

42. Defendant E. I. du Pont de Nemours & Co. ("DuPont") is a Delaware corporation that does business throughout the United States, including conducting business in California. DuPont has its principal place of business in Wilmington, Delaware. DuPont developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

43. Defendant The Chemours Company, L.L.C. ("Chemours") is a Delaware corporation that does business throughout the United States, including conducting business in California. Chemours has its principal place of business in Wilmington, Delaware. Chemours developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

44. Defendant Archroma U.S., Inc. ("Archroma") is a North Carolina corporation that does business throughout the United States, including conducting business in California. Archroma has its principal place of business in Charlotte, North Carolina. Archroma developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

45. Defendant Arkema, Inc. ("Arkema") is a Pennsylvania corporation that does business throughout the United States, including conducting business in California. Arkema has its principal place of business in King of Prussia, Pennsylvania. Arkema developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

46. Defendant AGC Chemicals Americas, Inc. ("AGC") is a Delaware corporation that does business throughout the United States, including conducting business in California. AGC has its principal place of business in Exton, Pennsylvania. AGC developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

47. Defendant Daikin America, Inc. ("Daikin America") is a Delaware corporation that

does business throughout the United States, including conducting business in California. Daikin America has its principal place of business in Orangeburg, New York. Daikin America developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

48. Defendant Solvay Specialty Polymers, USA, L.L.C. ("Solvay") is a Delaware corporation that does business throughout the United States, including conducting business in California. Solvay has its principal place of business in Alpharetta, Georgia. Solvay developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

49. Defendant Dynax Corporation ("Dynax") is a New York corporation that does business throughout the United States, including conducting business in California. Dynax has its principal place of business in Pound Ridge, New York. Dynax developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

50. Defendant Johnson Controls, Inc. ("Johnson Controls") is a Delaware corporation that does business throughout the United States, including conducting business in California. Johnson Controls has its principal place of business in Milwaukee, Wisconsin. Johnson Controls is the parent of Defendants Tyco Fire Products, LP and Chemguard, Inc. Johnson Controls developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

51. Defendant Tyco Fire Products, L.P. ("Tyco") is a Delaware corporation that does business throughout the United States, including conducting business in California. Tyco has its principal place of business in Exeter, New Hampshire. Tyco developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

52. Defendant Chemguard, Inc. ("Chemguard") is a Wisconsin corporation that does business throughout the United States, including conducting business in California. Chemguard has its principal place of business in Marinette, Wisconsin. Chemguard developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

53. Defendant National Foam, Inc., ("National Foam") is a Pennsylvania corporation that does business throughout the United States, including conducting business in California. National Foam has its principal place of business in West Chester, Pennsylvania. National Foam developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

54. Defendant Carrier Global Corporation ("Carrier") is a Delaware corporation that does business throughout the United States, including conducting business in California. Carrier has its principal place of business in Palm Beach Gardens, Florida. Carrier is the parent of Defendant Kidde-Fenwal, Inc. Carrier developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

55. Defendant Kidde-Fenwal, Inc. ("Kidde-Fenwal") is a Delaware corporation that does business throughout the United States, including conducting business in California. Kidde-Fenwal has its principal place of business in Ashland, Massachusetts. Kidde-Fenwal developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

56. Defendant Kidde Fire Fighting Inc., ("Kidde") is a Pennsylvania corporation that does business throughout the United States, including conducting business in California. Kidde has its principal place of business in Exton, Pennsylvania. Kidde developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

57. Defendant Perimeter Solutions, LP, ("Perimeter Solutions") is a Delaware corporation that does business throughout the United States, including conducting business in California. Perimeter Solutions has a principal place of business in Rancho Cucamonga, California. Perimeter developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

58. Defendant Fire Service Plus, Inc. ("Fire Service Plus") is a Georgia corporation that does business throughout the United States, including conducting business in California. Fire Service Plus has its principal place of business in Simi Valley, California. Fire Service Plus developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

59. Defendant Buckeye Fire Equipment ("Buckeye") is a North Carolina corporation that does business throughout the United States, including conducting business in California. Buckeye has its principal place of business in Kings Mountain, North Carolina. Buckeye developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

60. Defendant Amerex Corporation, also known as Alabama Amerex Corporation, ("Amerex") is an Alabama corporation that does business throughout the United States, including conducting business in California. Amerex has its principal place of business in Trussville, Alabama. Amerex developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

61. Defendant MSA Safety, Inc., ("MSA") is a Pennsylvania corporation that does business throughout the United States, including conducting business in California. MSA has its principal place of business in Cranberry Township, Pennsylvania. MSA acquired Globe Holding Company, LLC and its subsidiaries (collectively, "Globe") in 2017 and continues to do business

under the Globe name. MSA developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

62. Defendant Lion Group, Inc., ("Lion") is an Ohio corporation that does business throughout the United States, including conducting business in California. Lion has its principal place of business in Dayton, Ohio. Lion developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

63. Defendant W. L. Gore & Associates, Inc., ("Gore") is a Delaware corporation that does business throughout the United States, including conducting business in California. Gore has its principal place of business in Newark, Delaware. Gore developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

64. Defendant Royal Ten Cate US, Inc. ("Tencate") is a Delaware corporation that does business throughout the United States, including conducting business in California. Tencate has its principal place of business in Pendergrass, Georgia. Tencate developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

65. Defendant PBI Performance Products, Inc., ("PBI") is a Delaware corporation that does business throughout the United States, including conducting business in California. PBI has its principal place of business in Charlotte, North Carolina. PBI developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

66. Defendant L.N. Curtis & Sons ("LN Curtis") is a California corporation that does business in California. LN Curtis has its principal place of business is Walnut Creek, California. LN Curtis developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

67. Defendant AllStar Fire Equipment ("AllStar") is a California corporation that does business in California. AllStar has its principal place of business in Arcadia, California. AllStar developed, manufactured, marketed, distributed, released, sold, and/or used PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts, including in California and in the County of Santa Clara.

68. Plaintiffs are currently unaware of the true names and capacities of Defendants named herein as DOES 1 through 25, inclusive, and Plaintiffs therefore sue those Defendants by fictitious names pursuant to California Code of Civil Procedure § 474. Plaintiffs will amend this complaint to state the true names and capacities of those Defendants sued herein as DOES when ascertained. Plaintiffs allege that each fictitiously named Defendant is in some manner responsible for the acts alleged herein and that they proximately caused the injuries to Plaintiffs as alleged herein.

69. Defendants DOES 1 through 25 are subsidiaries, partners, or other entities that were involved in the design, development, manufacture, testing, packaging, promotion, marketing, advertising, distribution, labeling, and/or sale of PFAS, PFAS materials, and products containing PFAS in the Class B foam and/or turnouts that Firefighter Plaintiffs used, as alleged herein.

70. Plaintiffs allege that each named Defendant is in some manner responsible for the acts alleged herein and that they proximately caused the injuries to Plaintiffs, as alleged herein.

71. Plaintiffs allege that each named Defendant derived substantial revenue from the PFAS, PFAS materials, and products containing PFAS in Class B foams and/or turnouts that Defendants designed, developed, manufactured, tested, packaged, promoted, marketed, advertised, distributed, labeled and/or sold within California, and that were used by Firefighter Plaintiffs herein within Santa Clara County, California.

72. Defendants expected or should have expected their acts to have consequences within the State of California, and derived substantial revenue from interstate commerce.

73. Defendants purposefully availed themselves of the privilege of conducting activities within the State of California, thus invoking the benefits and protections of its laws.

JURISDICTION AND VENUE

74. This Court has jurisdiction over this action under California Code of Civil Procedure

§ 410.10 and Article VI, § 10 of the California Constitution. The injuries and damages alleged herein are in an amount within the jurisdiction of this Court.

75. The Firefighter Plaintiffs' exposure and Plaintiffs' injuries, resulting from the acts of Defendants alleged herein, occurred in Santa Clara County, California. Venue is proper is this Court under California Code of Civil Procedure § 395(a).

SUBSTANTIVE ALLEGATIONS

A. The Firefighters Plaintiffs' Use of and Exposure to PFAS-Containing Products

76. The Firefighter Plaintiffs are 24 firefighters who have served the San Jose, Santa Clara and Gilroy communities and worked in various fire stations and engine companies in the County of Santa Clara for decades.[4]

77. As first responders to fire, hazardous materials incidents, and other emergency and medical calls, the Firefighter Plaintiffs risk their lives on a daily basis. They not only save lives and homes, they provide emergency services and medical care, perform rescues, and offer support to people in traumatic circumstances. To prepare them for this enormously challenging work, the Firefighter Plaintiffs receive extensive and ongoing training in fire suppression (including the preparation and use of Class B foam), fire prevention, rescue, and emergency medical care action to protect and/or minimize the loss of life, property, and damage to the environment.

78. The City of San Jose Fire Department protects over one million residents and 200 square miles in the third largest city in California and the tenth largest city in the nation. The SJFD is also the emergency service provider for many high-hazard occupancies, including the Norman Y. Mineta San Jose International Airport; a municipal airport; 7 major hospitals (including 3 trauma centers, and 7 emergency departments); the SAP Center, and home to the NHL San Jose Sharks; San Jose State University (which has a student population of 31,906); three regional super malls; and over 516 high-rise structures.[5] In 2017-2018, the SJFD responded to 94,500 calls.

79. The City of Santa Clara Fire Department ("SCFD") serves 175,000 residents, and

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[4] Three of these firefighters' spouses, referred to collectively herein as Spouse Plaintiffs, independently assert claims for loss of consortium as detailed more fully at ¶¶ 247-252, below.

[5] San Jose Fire Department Website, (last visited September 7, 2020), https://sjff.org/sjfd.

responds to over 9,000 calls a year, protecting a wide array of occupancies including Silicon Valley businesses, Levi's Stadium, Santa Clara University, Mission College, the Santa Clara Convention Center, Westfield Valley Fair Mall, and several high-rise hotels, as well as being at the intersection of several main freeways. The SCFD also provides mutual aid response annually for local and regional wildfires across California by staffing three fire engines designated for this response.

80. The City of Gilroy Fire Department ("GFD") serves a tight-knit community of 55,000 people and responds to over 5,500 calls a year with just 35 full-time firefighters.

81. For decades, Defendants, either individually or through their predecessors or subsidiaries, have manufactured, designed, sold, supplied, and distributed chemical feedstock and/or Class B foam and turnouts containing PFAS to firefighting training facilities and fire departments globally, including within the State of California and the cities of San Jose, Santa Clara and Gilroy, California.

82. With over 5,000 individual chemicals, PFAS is a large and ever-growing category of human-made chemicals, consisting of a nearly indestructible chain of carbon and fluorine atoms that are widely used in products to, *inter alia*, resist and repel oil, heat and water, and have been found to have negative health effects. As detailed below, these toxic chemicals are present in Class B foam and firefighter turnouts.

(1) PFAS-Containing Class B Foam

83. Class B foam is one of the primary tools used by firefighters for fire suppression and is particularly effective for extinguishing fires involving oil and/or chemicals common at transportation accidents, aircraft accidents, chemical spills, and Hazmat incidents. Class B foam is also used in structural or other types of non-chemical fires when water cannot penetrate deeply enough to ensure that unseen fire is extinguished. The most common Class B foam is aqueous film-forming foam ("AFFF"). AFFF and other Class B foams contain PFAS.

84. To use Class B foam, a Class B foam concentrate must first be mixed with water.

85. Class B foam concentrate is typically sold in five-gallon containers that a fire

engineer[6] is responsible for storing on the engine and/or pouring into the bladder of engine. To mix the foam concentrate and water in an engine that is not pre-plumbed, an eductor must be placed in the foam concentrate to draw up the concentrate and mix it with water to create a thick, white, foamy substance. The fire engineer is responsible for this process of preparing the foam and for cleaning the equipment (bladders, hoses, nozzles, etc.) after use.

86. The process of mixing Class B foam, plumbing and preparing it, and cleaning the equipment after foam use causes exposure to PFAS through skin contact, inhalation, or ingestion (e.g., hand-to-mouth contact). The Class B foam containers used by the Firefighter Plaintiffs and their fire departments to mix and prepare the Class B foam for use did not say that the foam contains PFAS, and did not warn the Firefighter Plaintiffs of the serious health risks associated with exposure to PFAS.

87. Class B foam is used in fire extinguishment in a manner typical of routine methods of fire extinguishment—by being sprayed through a fire hose.

88. The techniques used for "laying a blanket" of Class B foam in fire extinguishment include: banking the foam off a wall or vertical surface to agitate the foam before it covers the fire; or applying it to the ground surface where the fire is burning. In structure fires, it can also be necessary to spray the ceilings, walls and floors. Reapplication of foam is often necessary because the foam blanket will break down over time.

89. These techniques are used routinely in firefighting training as well as in real-world fire extinguishment, and result in firefighters being sprayed or entirely soaked with Class B foam, walking in and through Class B foam (which can reach thigh- or even waist-high), or kneeling in Class B foam during use – all as depicted in the exemplar photographs below. As a result, the techniques cause exposure to PFAS through skin contact, inhalation, or ingestion (e.g., hand-to-mouth contact).

[6] Fire engineers are typically responsible for firefighting vehicles, such as fire engines, that transport firefighters, carry equipment and pump water at fire scenes.

90. As alleged herein, the Firefighter Plaintiffs use or used Class B foam in the ordinary course of performing their duties as it was intended to be used and in a foreseeable manner which exposed them to significant levels of PFAS.

91. The Firefighter Plaintiffs did not know, and in the exercise of reasonable diligence, could not have known that the Class B foam they used in the course of performing their duties contained PFAS or PFAS-containing materials, and similarly did not know and could not have known that they routinely suffered exposure to PFAS or PFAS-containing materials in the Class B foam they

used in performing their duties.

92. These exposures to PFAS or PFAS-containing materials resulted in serious and life-threatening diseases to the Firefighter Plaintiffs, and continue to pose a significant health threat to them given the bioaccumulation, pervasiveness and persistence of PFAS.

(2) PFAS-Containing Turnout Gear

93. During firefighting training and when responding to fires and performing fire extinguishment, firefighters wear turnouts that provide a degree of thermal, chemical, and biological protection for a firefighter. Turnout gear components include a helmet, hood, jacket, pants, boots, and gloves. Each component is made of an outer layer, as well as several inner layers that include a moisture barrier and thermal liner to protect the firefighter from ambient heat.[7]

94. PFAS chemicals are used in turnout gear to impart heat, water, and stain resistance to the outer shell of turnout gear. Due to exposure to heat, these chemicals off-gas, break down, and degrade. During the process, firefighters are exposed to PFAS chemicals contained in turnout gear, including through skin contact/absorption or ingestion (e.g., hand-to-mouth contact).[8]

95. A June 2020 study of turnout gear by researchers at the University of Notre Dame analyzed 30 new and used turnout jackets and pants originally marketed, distributed and sold in 2008, 2014, and 2017, by six turnout gear makers, including Defendants MSA (under the Globe name) and Lion, and found high levels of PFAS in turnout gear worn, used, or handled by firefighters, including the Firefighter Plaintiffs.

96. As alleged herein, the Firefighter Plaintiffs wear or wore turnouts in the ordinary course of performing their duties, as the turnouts were intended to be used and in a foreseeable manner, which exposed them to significant levels of PFAS.

97. The Firefighter Plaintiffs did not know, and in the exercise of reasonable diligence

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[7] *What Materials Go Into Making Turnout Gear?*, Globe MSA Safety Website, (last visited September 7, 2020), https://globe.msasafety.com/selecting-your-gear/materials.

[8] Peaslee, Graham, *et al.*, "Another Pathway for Firefighter Exposure to Per- and Polyfluoroalkyl Substances: Firefighter Textiles, *Environmental Science & Technology Letters* 2020, 7, 8, 594-599 (Ecotoxicology and Public Health) (June 23, 2020) (hereinafter, "the Notre Dame Turnout Study").

could not have known, that the turnouts they wore or used in the course of performing their duties contained PFAS or PFAS-containing materials, and similarly did not know and could not have known that they routinely suffered exposure to PFAS or PFAS-containing materials in the turnouts they wore or used in performing their duties. The turnout gear worn or used by the Firefighter Plaintiffs did not and does not contain labeling information saying that the gear contains PFAS, and similarly did not and does not warn the Firefighter Plaintiffs of the health risks associated with exposure to PFAS.

98. Like many fire departments across the country, the Firefighter Plaintiffs only had one set of turnouts to wear until the mid-2000s, when some were issued a second set of turnouts. For years and, indeed, throughout the majority of their careers, the Firefighter Plaintiffs took their turnouts home and cleaned them in their home washing machines – unknowingly exposing their spouses, children and home to the highly mobile and pernicious PFAS chemicals contained in and on Firefighter Plaintiffs' turnout gear.

B. The Chemical Structure of PFAS Makes Them Harmful to Human Health

99. PFAS are known as "forever chemicals" because they are immune to degradation, bio-accumulate in individual organisms and humans, and increase in concentration up the food chain.[9] Indeed, scientists are unable to estimate an environmental half-life (i.e. the time it takes for 50% of the chemical to disappear) for PFAS.[10] Even worse, some PFAS chemicals degrade into different PFAS chemicals.

100. PFAS are nearly indestructible and are highly transportable.[11] PFAS exposure to humans can occur through inhalation, ingestion, or dermal contact.[12]

101. PFAS chemicals include "older" long-chain PFAS like PFOA, PFOS, and PFNA that have eight or more carbon atoms, and "newer" short-chain PFAS, like PFBA, PFBS, PFHxA, and

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[9] *Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)*, National Institute of Environmental Health Sciences (last visited September 7, 2020), https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm.

[10] *Id*.

[11] *Toxicological Profile for Perfluoroalkyls*, *see* Relevance to Public Health, Agency for Toxic Substances & Disease Registry, (last visited September 7, 2020), https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=1117&tid=237.

[12] *Id*. at Health Effects pg. 439-440.

PFHxS. The PFAS chemical industry has repeatedly asserted that short-chain PFAS are safer and bio-degrade more easily than long-chain PFAS. However, recent scientific research conducted in 2020 shows that short-chain PFAS are in fact extremely persistent, highly mobile and transportable, almost impossible to remove from water, bio-accumulate in humans and the environment, and show similar toxicity as long-chain PFAS.[13]

102. To date, there is no safe, acceptable or "normal" level of PFAS in the human body. Further, the fact that PFOA, PFOS, PFHxS, PFHpA, and PFNA are often found together presents a substantial risk to human health.

103. PFAS exposure affects nearly every system in the body.[14] It has been associated with multiple and serious adverse health effects in humans including, but not limited to, cancer, liver damage, immune system and endocrine disorders, thyroid disease, ulcerative colitis, birth defects, decreased fertility, pregnancy-induced hypertension, accelerated changes in gene expression, and increases in oxidative stress which can contribute to DNA changes, tumor promotion, and other health conditions.[15] It has also been found to concentrate in human blood, bones and organs.[16]

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[13] Cheryl Hogue, *Short-chain and long-chain PFAS show similar toxicity, US National Toxicology Program says*, Chemical and Engineering News, (August 24, 2019), https://cen.acs.org/environment/persistent-pollutants/Short-chain-long-chain-PFAS/97/i33; David Andrews, PhD, *FDA Studies: 'Short-Chain' PFAS Chemicals More Toxic Than Previously Thought*, Environmental Working Group (March 9, 2020), https://tinyurl.com/y3lbq7by; Brendel, Stephan et al. *Short-chain perfluoroalkyl acids: environmental concerns and a regulatory strategy under REACH*, Environmental Sciences Europe, Vol. 30,1 (2018), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5834591/; Tom Neltner, *The Elephant in the Room: Potential Biopersistence of Short-Chain PFAS*, Environmental Defense Fund, (February 20, 2019), http://blogs.edf.org/health/2019/02/20/potential-biopersistence-short-chain-pfas/.

[14] Kelly Lenox, *PFAS Senate Hearing, Birnbaum's Expert Scientific Testimony*, Environmental Factor, National Institute of Environmental Health Sciences (May 2019), https://factor.niehs.nih.gov/2019/5/feature/1-feature-pfas/index.htm.

[15] Koskela, A. et al., *Perfluoroalkyl substances in human bone: concentrations in bones and effects on bone cell differentiation*, Scientific Reports, (July 28, 2017), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5533791/pdf/41598_2017_Article_7359.pdf; *National Toxicology Program Technical Report on the Toxicology and Carcinogenesis Studies of Perfluorooctanoic Acid Administered in Feed to Sprague Dawley (Hsd: Sprague Dawley SD) Rats*, National Toxicology Program, (May 2020), https://ntp.niehs.nih.gov/ntp/htdocs/lt_rpts/tr598_508.pdf.

[16] *Id*. at fn. 15 (Koskela study).

C. Defendants Knowingly Manufactured, Developed, Marketed, Distributed, Supplied and/or Sold Toxic PFAS and/or Products Containing PFAS

104. Defendants have each marketed, developed, distributed, sold, promoted, manufactured, released, or otherwise used PFAS chemicals in products, including in PFAS-containing Class B foam and turnout gear, throughout the United States and in California.

105. PFAS were first developed in the 1930s and 1940s. Soon after, 3M began manufacturing a PFAS material called perfluorooctanoic acid ("PFOA"), selling it to other companies, including DuPont.

106. By the 1950s, PFAS were widely used in large-scale manufacturing. Prior to this, PFAS had never been detected in nor were present in human blood or bodies.

107. In the 1960s, Class B foam containing PFAS entered the global market and became the primary firefighting foam all over the world, with 3M as one of the largest manufacturers.

108. In the 1970s, Defendants National Foam and Tyco began to manufacture, market and sell Class B foam containing PFAS, followed by Defendants Chemguard and Dynax in the 1990s, and Defendant Buckeye in the 2000s.

109. Founded in 1918, Defendant MSA (under the Globe name) began manufacturing, marketing and selling turnout gear with DuPont's NOMEX® PFAS-containing flame resistant fabric in 1966. MSA (under the Globe name) continues to manufacture, market and sell turnout gear using PFAS-containing fabrics supplied by its partners, DuPont, Gore, Tencate, and PBI.[17]

110. Defendant Lion began to manufacture, market and sell turnout gear in 1970. Since its founding, and continuing through to the present, Lion makes, markets and sells turnout gear using PFAS-containing fabrics, including Teflon® F-PPE-treated thermal lining material supplied by Defendant Chemours (a spin-off from Defendant DuPont), DuPont's NOMEX® PFAS-containing flame/water/oil-resistant fabric, and moisture barrier fabrics supplied by Defendant Gore.[18]

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[17] *See Globe History*, Globe MSA Safety Website, (last visited September 7, 2020), https://globe.msasafety.com/history; *Turnout Gear Materials*, Globe MSA Safety Website, (last visited September 7, 2020), https://globe.msasafety.com/materials.

[18] *See Our History*, Lion Website (last visited September 7, 2020), www.lionprotects.com/lion-history; *Firefighter Turnouts*, Lion Website (last visited September 7, 2020), www.lionprotects.com/lion-history.

D. Defendants Know Exposure to PFAS Causes Serious Health Impacts

111. Defendants, including specifically 3M and DuPont, have long known about the serious and significant impacts to health caused by exposure to PFAS, having conducted study after study on the exposure and health effects of PFAS on animals, and in some cases, even on their own employees. The findings of these studies were discussed within the companies internally, yet were never made public or shared with any regulatory agencies. Among the findings:

a. A 1950 3M study showed that PFAS could build up in the blood of mice and that PFAS could bind to proteins in human blood suggesting that PFAS would not only remain, but also persist and accumulate in the body of the exposed individuals with each additional exposure.[19]

b. In 1961, a DuPont toxicologist warned that PFAS chemicals enlarge rat and rabbit livers.[20] A year later, these results were replicated in studies with dogs.[21]

c. In 1963, 3M's technical handbook classified PFAS as toxic and advised that "due care should be exercised in handling these materials."[22]

d. In 1970, a company that purchased 3M's firefighting foam had to abandon a test of the product because all the fish died.[23]

e. In the 1970s, DuPont discovered that there were high concentrations of PFOA in the blood samples of factory workers at DuPont's Washington Works site.[24]

f. By the end of the 1970s, studies performed by, at least 3M, indicated that PFAS materials were resistant to environmental degradation and would persist in the environment.[25]

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[19] Timeline - *For 50 Years, Polluters Knew PFAS Chemicals Were Dangerous But Hid Risks From Public*, Environmental Working Group, (2019), https://static.ewg.org/reports/2019/pfa-timeline/3M-DuPont-Timeline_sm.pdf; *see also*, https://www.ewg.org/pfastimeline/.

[20] *Id.*

[21] Nathaniel Rich, *The Lawyer Who Became DuPont's Worst Nightmare*, New York Times (June 6, 2016),https://www.nytimes.com/2016/01/10/magazine/the-lawyer-who-became-duponts-worst-nightmare.html.

[22] *Id.* at fn. 19.

[23] *Id.*

[24] *Id.* at fn. 21.

[25] *PFCS: Global Contaminants: PFCs Last Forever***,** Environmental Working Group, (last visited September 9, 2020), https://www.ewg.org/research/pfcs-global-contaminants/pfcs-last-forever.

g. In 1981, 3M, which still supplied PFOA to DuPont and other corporations, found that ingestion of PFOA caused birth defects in rats. 3M reported this information to DuPont. DuPont then tested the children of pregnant employees in their Teflon division and found that of seven births, two children had eye defects. Defendants reassigned the female employees, but did not inform the EPA or make this information public.[26]

h. In 1988, a company that purchased PFAS firefighting foam complained to 3M because the product was not biodegradable as 3M represented.[27] Subsequently, a 3M employee wrote an internal memo that "3M should stop perpetrating the myth that these fluorochemical surfactants are biodegradable, but the company continued to sell them."[28]

i. By at least the end of the 1980s, research performed by Defendants, including specifically, Defendants 3M and DuPont, manufacturing and/or using PFAS materials indicated that at least one such PFAS material, PFOA, caused testicular tumors in a chronic cancer study in rats, resulting in at least Defendant DuPont classifying such PFAS material internally as a confirmed animal carcinogen and possible human carcinogen.[29]

j. In the 1990s, Defendant DuPont knew that PFOA caused cancerous testicular, pancreatic and liver tumors in lab animals. One study also suggested that PFOA exposure could cause possible DNA damage.[30] Another study of workers found a link between PFOA exposure and prostate cancer.[31]

k. In response to the alarming and detrimental health impact, DuPont began to develop an alternative to PFOA and in 1993, an internal memo announced that "for the first time, we have a viable candidate" that appeared to be less toxic and showed less bioaccumulation.[32] DuPont decided against using this potentially safer alternative, however, because products manufactured with PFOA were worth $1 billion in annual profit.[33]

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[26] *Id.* at fn. 21.
[27] *The Devil They Knew: PFAS Contamination and the Need for Corporate Accountability, Part II*, Transcript of Hearing Before the Subcommittee on Environment of the Committee on Oversight and Reform, House of Representatives (September 19, 2019), https://docs.house.gov/meetings/GO/GO28/20190910/109902/HHRG-116-GO28-Transcript-20190910.pdf.
[28] *Id.*
[29] *Id.* at fn. 19.
[30] *Id.* at fn. 21.
[31] *Id.*
[32] *Id.*
[33] *Id.*

l. On June 30, 2000, 3M and DuPont met to share 3M's "pertinent data on PFOA". 3M informed DuPont that the half-life of PFOA was much longer than animal studies showed.[34]

112. Additionally, approximately fifty years of studies by Defendants, including by 3M and DuPont, on human exposure to PFAS found unacceptable levels of toxicity and bio-accumulation, as well as a link to increased incidence of liver damage, various cancers, and birth defects in humans exposed to PFAS.[35] These studies also revealed that, once in the body, PFAS has a very long half-life and that it takes years before even one-half of the chemicals begin to be eliminated from the body—assuming, of course, the body experiences no additional PFAS chemical exposure.[36]

113. In the face of these findings, and despite passage of the Toxic Substances Control Act in 1976, which requires companies that manufacture, process or distribute chemicals to immediately report to the Environmental Protection Agency ("EPA") information that "reasonably supports the conclusion" that a chemical presents a substantial risk to health or the environment, Defendants did not inform the EPA, Plaintiffs, or the public about the health impacts resulting from exposure to PFAS.[37] Indeed, in at least some instances, Defendants' own attorneys advised the companies to conceal their damaging findings on PFAS, which they did for decades.[38]

114. In 2000, 3M announced that it would cease manufacturing a specific PFAS chemical, PFOS, as well as Class B foam, on the same day the EPA announced that PFOA and PFOS, two chemicals in the PFAS family, had a "strong tendency to accumulate in human and animal tissues and could potentially pose a risk to human health and the environment over the long term."[39]

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[34] Internal DuPont Memorandum, DuPont Haskell Laboratory Visit (June 30, 2000), https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1721.pdf.

[35] *Id*. at fn. 19, https://static.ewg.org/reports/2019/pfa-timeline/3M-DuPont-Timeline_sm.pdf; *Id*. at fn. 27.

[36] *Id*.

[37] *Id*. at fn. 21.

[38] *Id*. at fn. 27.

[39] *EPA and 3M Announce Phase Out of PFOS,* Press Release, United States Environmental Protection Agency (May 16, 2000), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/33aa946e6cb11f35852568e1005246b4.html.

115. However, 3M did not recall PFOS, its chemical feedstock, or any Class B foam that it had previously manufactured, sold, or distributed, or that was then stored at firehouses and being used by firefighters around the country. And, no other Defendant stopped manufacturing PFAS chemicals or products containing PFAS. Rather, Defendants continued to manufacture, develop, market, promote, distribute and sell PFAS chemicals and PFAS-containing products, including specifically Class B foam and PFAS-containing turnouts, and did so without any warning to firefighters or to the public concerning the fact that these foams and turnouts contained PFAS, or that they posed a serious health risk to human health. Defendants instead continued to claim their products were safe.

116. By the 2000s, Defendants' own research of its employees revealed multiple adverse health effects among workers who had been exposed to PFAS, including increased cancer incidence, hormone changes, lipid changes, and thyroid and liver impacts.[40]

117. In 2001, a class action lawsuit was filed in West Virginia against DuPont on behalf of people whose water had been contaminated by the nearby DuPont chemical plant where PFAS chemicals were manufactured.

118. Defendants continued to manufacture, market, promote, distribute, and sell PFAS and PFAS-containing products, including Class B foam and turnouts, and continued to publicly claim that these products were safe. Defendants affirmatively suppressed independent research on PFAS, and instead commissioned research and white papers to support their claims that PFAS and PFAS-containing products were safe to use, engaging consultants to further this strategy and ensure that they would continue to profit from these toxic chemicals and products.

119. As one consultant wrote in pitching its services to DuPont, it was critical that the PFAS industry develop an aggressive strategy to "[discourage] governmental agencies, the plaintiffs' bar and misguided environmental groups" and "[implement] a strategy to limit the effect of litigation and regulation on the revenue stream generated by PFOA." The strategy was further described by consultant as follows:

[40] *Id*. at fn. 19.

> DUPONT MUST SHAPE THE DEBATE AT ALL LEVELS. . . .The outcome of this process will result in the preparation of a multifaceted plan to take control of the ongoing risk assessment by the EPA, looming regulatory challenges, likely litigation, and almost certain medical monitoring hurdles. The primary focus of this endeavor is to strive to create the climate and conditions that will obviate, or at the very least, minimize ongoing litigation and contemplated regulation relating to PFOA. ***This would include facilitating the publication of papers and articles dispelling the alleged nexus between PFOA and teratogenicity as well as other claimed harm***. We would also lay the foundation for creating Daubert precedent to discourage additional lawsuits.[41]

120. Class B foam manufacturers and distributors adopted a similarly aggressive industry campaign to evade government oversight or public attention of the risks posed by their products. At a March 2001 meeting of the National Fire Protection Association's Technical Meeting on Foam, which included Defendant Class B foam manufacturers Tyco, Chemguard and National Foam, a 3M representative informed attendees that 3M had discontinued its Class B foam business, citing concerns about the "proven pervasiveness, persistence and toxicity" of PFOS.[42] Attendees also were informed of evidence that telomer-based fluorosurfactants (used by every Class B foam manufacture except 3M) degrade to PFOA and, worse, exhibit an even greater degree of pervasiveness and toxicity than PFOA.

121. On or about the same time, certain Defendants, including at least Tyco, DuPont, Dynax, Kidde, and Buckeye, founded and/or became members of the Fire Fighting Foam Coalition ("FFFC") – a non-profit organization of manufacturers, distributors and suppliers of Class B foam (specifically AFFF). The FFFC's self-described role was to be "the environmental voice for users and manufacturers of AFFF"[43] – one designed to ignore the health impacts of exposure to PFAS-containing Class B foams such as AFFF:

> Not too long ago, 3M had environmental concerns about a chemical in their product and decided to withdraw from the AFFF market. Even though no other manufacturers used the questionable chemical, the withdrawal of 3M from AFFF production raised a red flag. As a direct result, a lot of half-truths and misinformation published by

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[41] Letter from P. Terrence Gaffney, Esq of The Weinberg Group to Jane Brooks, Vice President, Special Initiatives, DuPont de Nemours & Company, regarding PFOA (April 29, 2003).

[42] NFPA-11 Technical Committee Meeting Notes (National Fire Protection Association for Standards on Low-, Medium- and High-Expansion Foam) (March 14-15, 2001), https://assets.documentcloud.org/documents/4178280/NFPA-Schedule.pdf.

[43] Fire Fighting Foam Council Website (last visited September 7, 2020), https://www.fffc.org/.

> some well-meaning, but misinformed, groups began to surface. One organization went so far as to label our products as "hazardous waste" and as posing an "occupational health or environmental hazard." At the same time, the Federal government was focusing its attention on the industry and needed to identify an industry representative that could provide fact-based information and serve as a focal point for dialogue. We decided, therefore, to form the FFFC in order to educate, inform and help persuade regulatory and legislative decision-makers that firefighting foams are a value-added component to any firefighting capability.[44]

122. Defendants also pivoted with a new industry strategy. Defendants continued to produce Class B foams containing PFAS and continued to publicly represent that PFAS and/or products containing PFAS were safe, while developing newer, "short-chain" PFAS alternatives.

123. In 2005, the EPA fined DuPont $16.5 million for failing to submit decades of toxicity studies of PFOA (one PFAS chemical manufactured by the company).[45] In the face of and undeterred by the EPA's action, Defendant turnout manufacturers, such as MSA (Globe) and LION, partnered with DuPont and with Defendant Gore to develop, manufacture, market, distribute and turnouts made with DuPont's and/or Gore's PFAS-based textile coatings (e.g., Nomex® and Gore® Protective Fabrics).[46]

124. In 2006, the EPA "invited" eight PFOA manufacturers, including Defendants DuPont, 3M, Arkema, Daikin and Solvay, to join in a "Global Stewardship Program" and phase out production of PFOA by 2015.[47]

125. By this time, Defendants had begun to aggressively market, distribute and short-chain

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[44] *Id*. at https://web.archive.org/web/20020811142253/http:/www.fffc.org/about.html (captured August 11, 2002).

[45] Michael Janofsky, *DuPont to Pay $16.5 Million for Unreported Risks*, New York Times (December 5, 2005), https://www.nytimes.com/2005/12/15/politics/dupont-to-pay-165-million-for-unreported-risks.html.

[46] *DuPont and LION Collaborate to Better Protect Firefighters and First Responders*, Press Release, DuPont and LION (January 30, 2013), https://www.prweb.com/releases/dupont_protection_tech/lion_turnout_gear/prweb10362363.htm; *Our Partners*, Globe Website (last visited September 7, 2020), https://globe.msasafety.com/our-partners; and *Firefighter & Emergency Response Protection*, DuPont Website (last visited September 7, 2020), https://www.dupont.com/personal-protection/firefighter-protection.html.

[47] *PFOA Stewardship Program*, United States Environmental Protection Agency (last visited September 7, 2020), https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-and-polyfluoroalkyl-substances-pfas#tab-3.

PFAS, such as Gen X, claiming that these alternative PFAS chemicals did not pose significant health risks to humans or the environment. But, these claims, too, were false. Defendants knew that certain of these short-chain PFAS chemicals had been found in human blood, and that at least one of them produces the same types of cancerous tumors (testicular, liver, and pancreatic) in rats as had been found in long-chain PFAS studies.[48]

126. In 2011, a C8 Science Panel convened as part of a settlement in the West Virginia DuPont water contamination case described in paragraph 117, above, began releasing its findings. The Panel had analyzed the blood serum of nearly 70,000 residents living in the water contamination area for two long-chain PFAS (PFOA and PFOS), and found significant negative human health effects (including, kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, high cholesterol and preeclampsia) associated with exposure to these PFAS chemicals in the area groundwater.

127. In 2013, DuPont entered an agreement with the EPA and ceased production and use of PFOA – just one of thousands of PFAS chemicals the company makes, promotes and sells. Defendants, however, continued manufacturing short-chain PFAS materials, chemical feedstock, and products—all the while peddling them as safer, and as more easily bio-degraded than long-chain PFAS, despite evidence to the contrary.[49]

128. In 2015, DuPont spun-off its PFAS chemicals business, as well two-thirds of its environmental liabilities and 90% of its active litigation, to Defendant Chemours. As part of the transaction, DuPont required Chemours to indemnify the "new" DuPont for all assigned environmental liabilities should a regulatory agency or plaintiff seek to hold the "new" DuPont accountable. As Chemours President Paul Kirsch testified before Congress: "DuPont designed the separation of Chemours to create a company where it could dump its liabilities to protect itself from environmental cleanup and related responsibilities."[50]

129. In June 2018, the Agency for Toxic Substances and Disease Registry (ASTDR), a division of the Centers for Disease Control and Prevention at the US Department of Health and

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[48] Sharon Lerner, *New Teflon Toxin Causes Cancer in Lab Animals*, The Intercept (March 3, 2016), https://theintercept.com/2016/03/03/new-teflon-toxin-causes-cancer-in-lab-animals/.
[49] *Id*. at fn. 13, http://blogs.edf.org/health/2019/02/20/potential-biopersistence-short-chain-pfas/.
[50] *Id*. at fn. 27.

Human Services released an 852-page draft toxicology report analyzing scientific data about the most common PFAS chemical variants, finding that PFAS "are potentially more hazardous than previously known, are particularly concerning because of these compounds' persistence in the environment and widespread prevalence—PFAS are extremely slow to biodegrade."[51]

130. In September 2019, DuPont chief operations and engineering officer Daryl Roberts testified before Congress that the "new DuPont" (to be distinguished from the "old DuPont" which manufactured and sold PFAS for decades before being spun-off to Chemours) no longer uses or manufactures PFAS and is no longer responsible for obligations and harms resulting from over 65 years of producing PFAS.[52] Roberts further testified that he knew nothing about "old DuPont's" efforts to suppress research on PFAS' toxicity as testified to by one of DuPont's former scientists only a few days earlier.[53] Finally, he stated that any liabilities from "old DuPont's" PFAS operations were now Chemours' problem because DuPont is essentially a completely new company with no past – only a bright future of doing good in the world.[54]

E. Defendants Failed to Warn Plaintiffs of the Dangers of Exposure to PFAS and Falsely Represented That Their PFAS Products Were Safe

131. As alleged above, Defendants knew that PFAS are persistent, toxic, and bio-accumulating with a very long half-life. They knew that exposure to PFAS can cause serious and life-threatening diseases, including cancer.

132. Yet, Defendants ***did not warn*** Plaintiffs that PFAS and Defendants' PFAS-containing products, including Class B foams and turnouts used by the Firefighter Plaintiffs, contained PFAS, or that exposure to PFAS in the normal and intended use of such products, causes serious bodily harm and illnesses, including cancer.

133. Instead, Defendants have falsely represented—and continue to falsely represent— that

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[51] *A Toxic Threat: Government Must Act Now on PFAS Contamination at Military Bases*, Center for Science and Democracy (September 2018), https://www.ucsusa.org/sites/default/files/attach/2018/09/a-toxic-threat-pfs-military-fact-sheet-ucs-2018.pdf.

[52] *Id*. at fn. 27.

[53] *Id*.

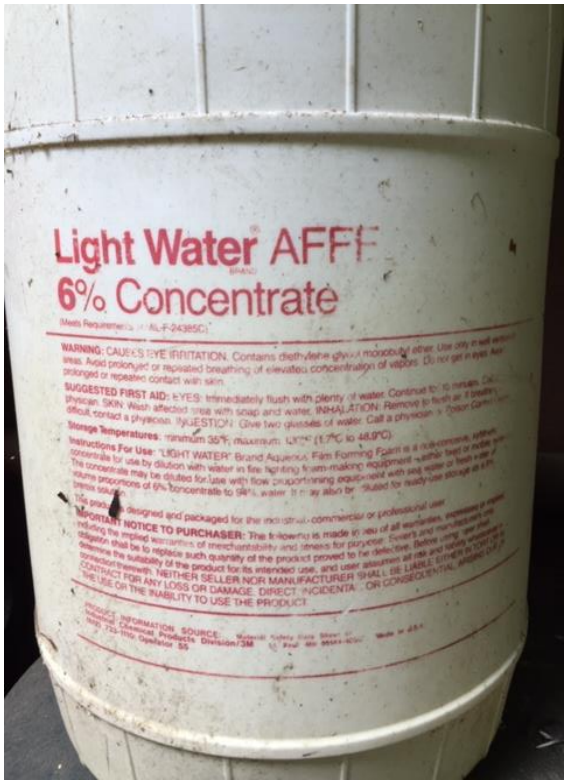
[54] *Id*.

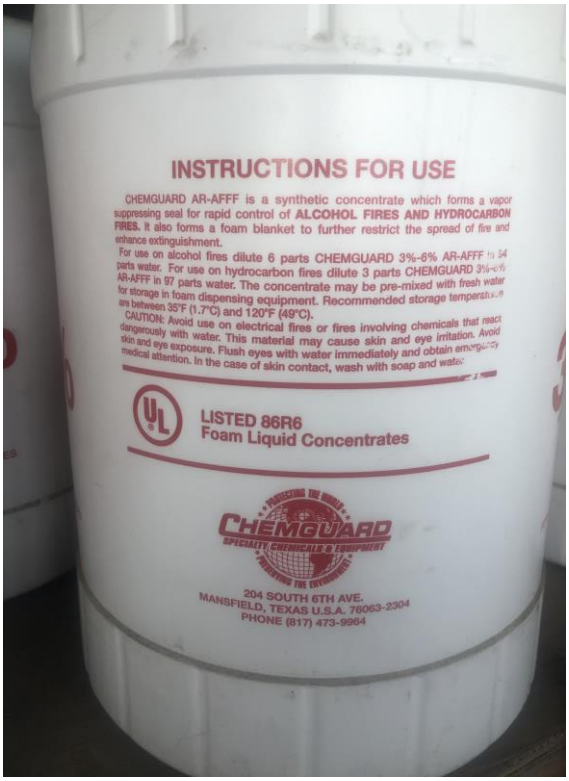
PFAS and PFAS-containing products, including Class B foams and turnouts, are safe and not harmful to humans or the environment.

(1) Defendants Provide No Safety Warnings on Product Labels

134. Plaintiffs allege that the packaging on the PFAS-containing Class B foam containers used for mixing Class B foam with water, pumping the mixture into engines, and for spraying and laying foam blankets for fire suppression or fire suppression training, contained no warning that the Class B foam contained PFAS, or informing persons handling or using the foam as it was intended to be handled or used that such use can result in exposure to PFAS and serious bodily harm.

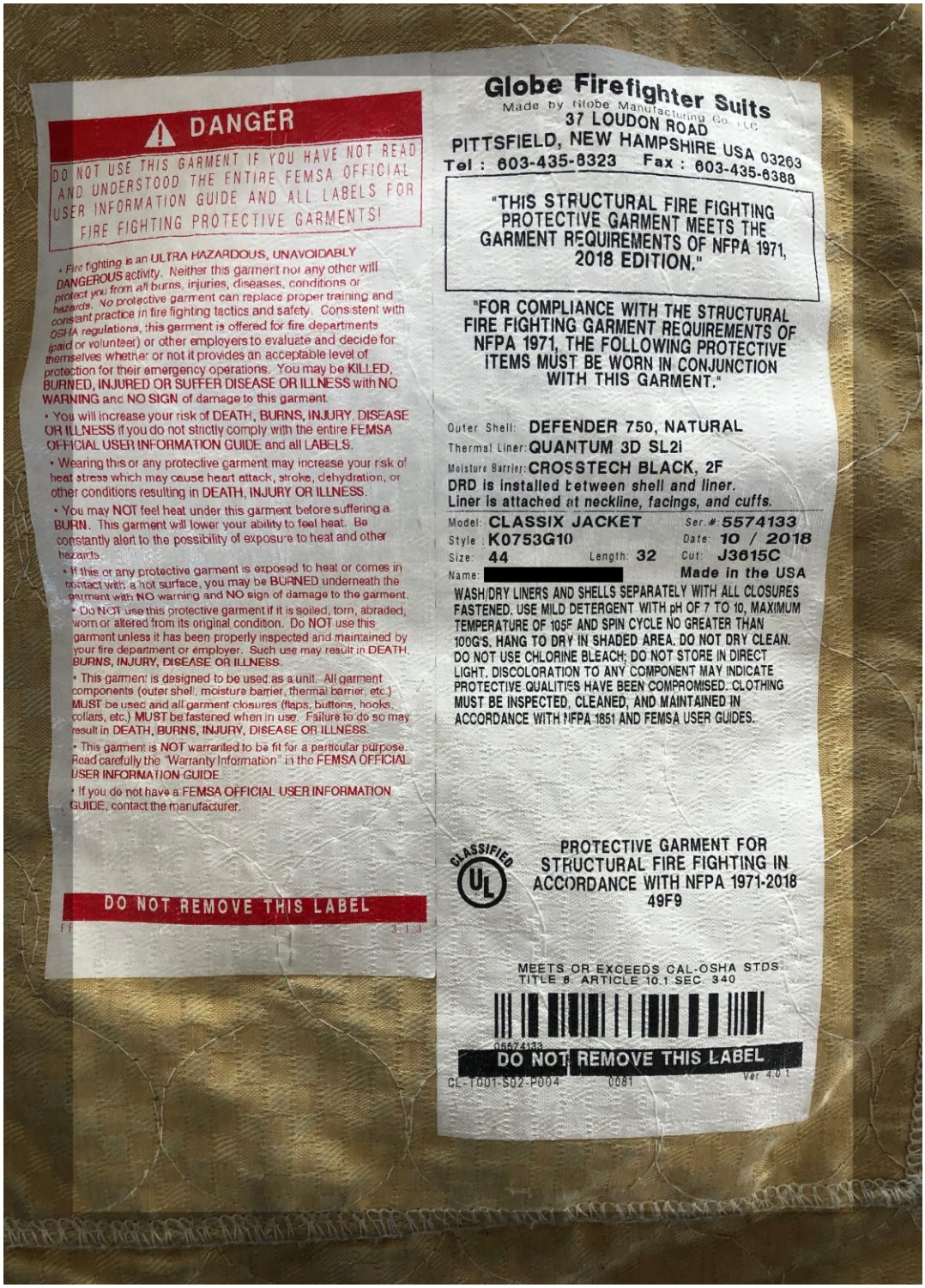
135. Below are pictures of some of the Class B foam containers manufactured, marketed, distributed, or sold by Defendants in California, and used by the Firefighter Plaintiffs in training or in fire suppression during their firefighting careers. The labels on the containers warn only of possible skin or eye irritation, and suggest rinsing areas of contact with water. They contain ***no information*** about the Class B foam containing PFAS or PFAS-containing materials, and provide ***no warning whatsoever*** of the human health risks and serious health conditions associated with PFAS exposure resulting from the normal and intended use of Class B foam in fire suppression or fire suppression training.



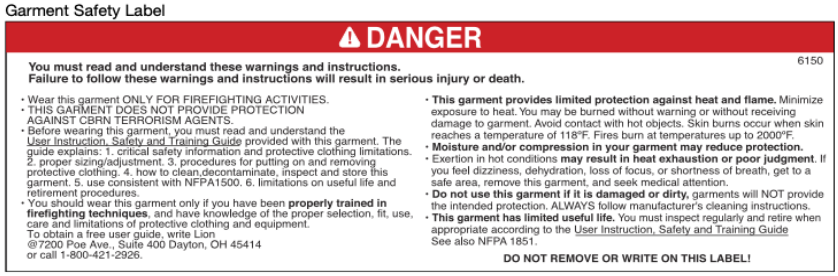


136. Plaintiffs further allege that turnouts containing PFAS or PFAS materials sold by Defendants into California, and used by the Firefighter Plaintiffs in training or in fire suppression during their firefighting careers, also contained no warning that the turnouts contain PFAS or PFAS materials. Nor did these labels inform persons handling, wearing, or using the turnouts as there were intended to be handled, worn or used can result in exposure to PFAS and serious bodily harm.

137. Below are pictures of warning labels for turnouts manufactured, marked, sold and distributed by Defendants MSA (Globe) and LION. As depicted below, the labels make no mention of PFAS, do not advise that the turnouts contain PFAS or PFAS materials, and contain no warning that handling, wearing, or using the turnouts as they were intended to be handled, worn or used can result in exposure to PFAS and serious bodily harm. Further, while the labels provide washing instructions, the instructions do not advise that turnouts should be washed in a commercial extractor to prevent cross-contamination and PFAS-exposure to family members who handle or wash the turnouts with other garments in home washing machines.

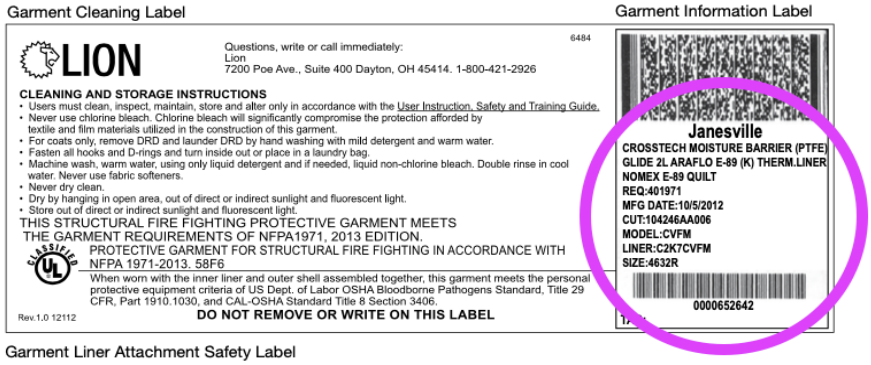

DANGER
DO NOT USE THIS GARMENT IF YOU HAVE NOT READ AND UNDERSTOOD THE ENTIRE FEMSA OFFICIAL USER INFORMATION GUIDE AND ALL LABELS FOR FIRE FIGHTING PROTECTIVE GARMENTS!
• Fire fighting is an ULTRA HAZARDOUS, UNAVOIDABLY DANGEROUS activity. Neither this garment nor any other will protect you from all burns, injuries, diseases, conditions or hazards. No protective garment can replace proper training and constant practice in fire fighting tactics and safety. Consistent with OSHA regulations, this garment is offered for fire departments (paid or volunteer) or other employers to evaluate and decide for themselves whether or not it provides an acceptable level of protection for their emergency operations. You may be KILLED, BURNED, INJURED OR SUFFER DISEASE OR ILLNESS with NO WARNING and NO SIGN of damage to this garment.
• You will increase your risk of DEATH, BURNS, INJURY, DISEASE OR ILLNESS if you do not strictly comply with the entire FEMSA OFFICIAL USER INFORMATION GUIDE and all LABELS.
• Wearing this or any protective garment may increase your risk of heat stress which may cause heart attack, stroke, dehydration, or other conditions resulting in DEATH, INJURY OR ILLNESS.
• You may NOT feel heat under this garment before suffering a BURN. This garment will lower your ability to feel heat. Be constantly alert to the possibility of exposure to heat and other hazards.
• If this or any protective garment is exposed to heat or comes in contact with a hot surface, you may be BURNED underneath the garment with NO warning and NO sign of damage to the garment.
• Do NOT use this protective garment if it is soiled, torn, abraded, worn or altered from its original condition. Do NOT use this garment unless it has been properly inspected and maintained by your fire department or employer. Such use may result in DEATH, BURNS, INJURY, DISEASE OR ILLNESS.
• This garment is designed to be used as a unit. All garment components (outer shell, moisture barrier, thermal barrier, etc.) MUST be used and all garment closures (flaps, buttons, hooks, collars, etc.) MUST be fastened when in use. Failure to do so may result in DEATH, BURNS, INJURY, DISEASE OR ILLNESS.
• This garment is NOT warranted to be fit for a particular purpose. Read carefully the "Warranty Information" in the FEMSA OFFICIAL USER INFORMATION GUIDE.
• If you do not have a FEMSA OFFICIAL USER INFORMATION GUIDE, contact the manufacturer.
DO NOT REMOVE THIS LABEL
Globe Firefighter Suits
Made by Globe Manufacturing Co. LLC
37 LOUDON ROAD
PITTSFIELD, NEW HAMPSHIRE USA 03263
Tel : 603-435-8323 Fax : 603-435-6388
"THIS STRUCTURAL FIRE FIGHTING PROTECTIVE GARMENT MEETS THE GARMENT REQUIREMENTS OF NFPA 1971, 2018 EDITION."
"FOR COMPLIANCE WITH THE STRUCTURAL FIRE FIGHTING GARMENT REQUIREMENTS OF NFPA 1971, THE FOLLOWING PROTECTIVE ITEMS MUST BE WORN IN CONJUNCTION WITH THIS GARMENT."
Outer Shell: DEFENDER 750, NATURAL
Thermal Liner: QUANTUM 3D SL2i
Moisture Barrier: CROSSTECH BLACK, 2F
DRD is installed between shell and liner.
Liner is attached at neckline, facings, and cuffs.
Model: CLASSIX JACKET
Ser.# 5574133
Style : K0753G10
Date: 10 / 2018
Size: 44
Length: 32
Cut: J3615C
Name: [redacted]
Made in the USA
WASH/DRY LINERS AND SHELLS SEPARATELY WITH ALL CLOSURES FASTENED. USE MILD DETERGENT WITH pH OF 7 TO 10, MAXIMUM TEMPERATURE OF 105F AND SPIN CYCLE NO GREATER THAN 100G'S. HANG TO DRY IN SHADED AREA. DO NOT DRY CLEAN. DO NOT USE CHLORINE BLEACH; DO NOT STORE IN DIRECT LIGHT. DISCOLORATION TO ANY COMPONENT MAY INDICATE PROTECTIVE QUALITIES HAVE BEEN COMPROMISED. CLOTHING MUST BE INSPECTED, CLEANED, AND MAINTAINED IN ACCORDANCE WITH NFPA 1851 AND FEMSA USER GUIDES.
CLASSIFIED UL
PROTECTIVE GARMENT FOR STRUCTURAL FIRE FIGHTING IN ACCORDANCE WITH NFPA 1971-2018
49F9
MEETS OR EXCEEDS CAL-OSHA STDS
TITLE 8 ARTICLE 10.1 SEC 340
05574133
DO NOT REMOVE THIS LABEL
CL-T001-S02-P004
0081
Ver 4.01

Garment Safety Label



Garment Cleaning Label

Garment Information Label



Garment Liner Attachment Safety Label

Drag Rescue Device (DRD) Label

Aspiration Hazard
Not an aspiration hazard.

(2) Defendants' MSDS Sheets Do Not Warn About PFAS or PFAS Exposure

138. A Material Safety Data Sheet (or "MSDS") is a document that provides health and safety information about products, substances or chemicals that are classified as hazardous substances or dangerous goods. Access to chemical information like safety data sheets is especially important for the Firefighter Plaintiffs, to provide a safe and effective response to Hazmat events.

139. The MSDS provided with Defendants' Class B foams did not – and to this day do not – state that these foams contain PFAS or PFAS-containing materials; that PFAS is persistent, toxic and bio-accumulating; or that PFAS exposure causes serious bodily harm. To the contrary, the MSDS falsely stated that the Class B foams and/or their contents were ***not*** known carcinogens and did not cause birth defects.

140. Even now, the MSDS do not reflect the known serious health risks and hazards

associated with exposure to PFAS in these Class B foams. For example, a MSDS issued on August 21, 2019 by Defendant National Foam for AFFF stated the product ***was not carcinogenic or toxic.***[55]

(3) Defendants' Misrepresentations About PFAS Continue to this Day

141. Despite their decades of knowledge about PFAS and its dangers, Defendants continue to make false claims, continue to misrepresent the safety of PFAS, and continue to minimize and fail to warn about the hazards of exposure to PFAS, or Class B foams and turnouts made with or containing PFAS.

142. Defendants' misinformation campaign is long-standing, and continues to this day. Some pertinent examples include:

a. 2017 – Defendant LION's President, Stephen Schwartz, wrote a letter to the editor of the Columbus Dispatch, expressing outrage at the assertion in a government filing that firefighters may have been exposed to PFAS through turnout gear. Schwartz called this assertion false, stating that LION's turn-out gear is not treated or made with PFOS or PFOA:. "PFOAs and PFOSs have never been components of LION's turn-out gear, either as a coating or as a textile." He acknowledged that turn-out gear is treated with PTFE to provide a durable water repellant, and that the textile industry in the past had used PFOA as a processing aid to manufacture PTFE moisture barrier films and repellants. "It is possible that trace amounts may have been present as a residue when the films and finishes were incorporated into LION's turn-out gear. ***However, based on all available scientific data, such nominal trace amounts, if they existed at all, would not have posed any health risk to firefighters. There is absolutely no connection at all between PFOS and firefighter turnout gear."*** (Emphasis added).[56]

b. 2018 – The National Fire Protection Association (which maintains committees on foams and turnouts that are comprised, in part, of certain Defendants) issued a publication listing 11 ways to minimize risk of occupational cancer – the

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[55] National Foam Safety Data Sheet for Centurion (TMC6) 6% Aqueous Film Forming Foam Concentrate (AFFF) (August 21, 2019), https://nationalfoam.com/wp-content/uploads/sites/4/NMS340-Centurion-6-AFFF.pdf.

[56] Letter from LION president Stephen A. Schwartz to Ala D. Miller, Editor, The Columbus Dispatch (October 30, 2017), http://files.constantcontact.com/bf8abd7a001/01f5d727-d72e-42dc-971b-caa9c2855800.pdf.

suggestions centered on wearing turnouts for protection resulting from combustion or spills, and cleaning turnouts after exposure to chemicals. There was not a single mention of avoiding contact with foam and/or the risks of wearing turnouts containing PFAS or PFAS-containing materials.[57]

c. 2019 – Defendant 3M Vice President, Denise Rutherford, testified before Congress that she ***absolutely agreed with the statement that "the weight of current scientific evidence does not show that PFOS or PFOA cause adverse health effects in humans at current rates of exposure***." (emphasis added)[58]

d. 2019 - The Fire Fighting Foam Council (of which many Defendants have been members since its inception in 2001) wrote in their newsletter that: "Short-chain (C6) fluorosurfactants do not contain or breakdown in the environment to PFOS or PFOA and are currently considered lower in toxicity and have significantly reduced bio-accumulative potential than long-chain PFAS."[59]

e. 2020 - FluorCouncil – the lobbying arm of the PFAS industry – maintains that PFAS fluorotelomers that are in Class B foam and turnouts do not cause cancer, disrupt endocrine activity, negatively affect human development or reproductive systems, do not build up in the human body, and do not become concentrated in the bodies of living organisms.[60]

f. 2020 – The Fire Fighting Foam Council website states: "The short-chain (C6) fluorosurfactants that have been the predominant fluorochemicals used in fluorotelomer-based AFFF for the last 25 years are low in toxicity and not considered to be bio-accumulative based on current regulatory criteria."[61]

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[57] *11 Best Practices for Preventing Firefighter Cancer Outlined in New Report Put Out by VCOS and NVFC*, National Fire Protection Association Xchange (August 16, 2018), https://community.nfpa.org/community/nfpa-today/blog/2018/08/16/11-best-practices-for-preventing-firefighter-cancer-outlined-in-new-report-put-out-by-vcos-and-nvfc.

[58] Gabe Schneider, *3M Grilled over PFAS Chemicals at Congressional Hearing*, MinnPost (September 11, 2019), https://www.minnpost.com/national/2019/09/3m-grilled-over-pfas-chemicals-at-congressional-hearing/.

[59] *AFFF Update Newsletter*, Fire Fighting Foam Council (April 2019), https://tinyurl.com/y57c5jwx.

[60] *An Important Update About FluoroCouncil*, FluoroCouncil, Global Industry Council for Fluoro Technology (last visited September 7, 2020), https://fluorocouncil.com/important-update-about-fluorocouncil/.

[61] *Fact Sheet on AFFF Fire Fighting Agents*, Fire Fighting Foam Council (2017), https://tinyurl.com/yyxscyas.

g. 2020 – The Fire Fighting Foam Council's Best Practice Guidance for Use of Class B Foam focuses entirely on eliminating and containing foam to minimize impact on the environment. It makes no mention of how to minimize the impact on firefighters who routinely handle, prepare, spray, or use Class B foam during training or in firefighting.

143. As frequent sponsors and advertisers in fire service publications, Defendants have been so influential in the industry that fire service leadership have echoed these narratives.

144. For example, in 2017, the International Association of Fire Fighters issued a statement that both mischaracterizes and purports to state that the risks associated with exposure to PFAS and PFAS chemicals and materials in Class B foams and turnouts are minimal to non-existent. The statement even encourages firefighters to continue to use legacy Class B foams and wear turnouts, creating a false sense that these PFAS-containing foams and turnouts are safe. The statement reads, in relevant part:

> Importantly, PFOA use has been almost completely phased out in the US….Fire fighters may have additional PFOA exposure sources such as older Class B firefighting foams. If PFOA is a combustion product of PFOA-containing consumer products made prior to phasing out use of this chemical, fire fighters will be exposed in fire suppression activities. However, the data are too limited at present to determine this**.** PFOA is unlikely to be a component in recently US manufactured turnout gear. However, if PFOA is a combustion product, it may be present as a contaminant on turnout gear. PFOA may also be present as a manufactured component of legacy turnout gear….The exposure contribution from any such PFOA content is likely to be minimal since volatilization from the manufactured product would be required….**At this time, IAFF does not recommend that legacy turnout gear be replaced outside of its lifecycle. Fire fighters wishing to minimize PFOA exposure should continue to wear their PPE…and regularly decontaminate their turnout gear.** IAFF will continue to monitor developments and update this fact sheet should new information become available.[62]

145. Because of these and other false claims and misrepresentations on the part of Defendants, the Firefighter Plaintiffs did not know and, in the exercise of reasonable diligence, could

[62] *Statement on PFOA and Turnout Gear*, International Association of Firefighters, (May 2017), https://tinyurl.com/y29mfh69.

not have known that the Class B foams and turnouts they used contained PFAS or PFAS-containing materials, and caused the Firefighter Plaintiffs to be exposed to PFAS and/or PFAS-containing materials, causing them to suffer cancers and other serious illnesses as a result of such exposure.

146. The Firefighter Plaintiffs only learned for the first time that they had significantly elevated levels of PFAS in their blood in July 2020, when they received test results of their blood serum.

F. New Research Indicates That Firefighters are at Significant Risk of Harm From Exposure to PFAS in Class B Foams and Turnouts—But Defendants Continue to Discount or Deny These Risks

147. While historical research (and follow-on litigation) has centered on environmental impacts and environmental exposures associated with PFAS and PFAS-containing products, recent studies have focused specifically on the serious health impacts to firefighters stemming from their occupational exposure to Class B foams and turnouts containing PFAS.

148. In October 2019, for example, an expert panel of the International Pollutants Elimination Network (IPEN), an international non-profit organization comprised of over 600 public interest non-governmental organizations dedicated to improving global chemical waste policies, published a scientific paper that, in the words of its authors, "presents unequivocal evidence from recent studies that firefighters" using Class B foams (primarily AFFF) "have unexpectedly elevated blood levels" of PFAS, including, specifically, PFHxS and PFOS, with PFHxS (a short-chain, C6 PFAS) being "potentially of greater concern than PFOS given its much longer elimination half-life in humans."[63] The paper explains that "[f]irefighters can be significantly exposed to PFHxS and other PFAS from firefighting foam via various occupational mechanisms including direct exposure during use as well as exposure from contaminated personal protective equipment (PPE), handling of contaminated equipment, managing PFAS foam wastes, occupation of contaminated fire stations and consumption of contaminated local water and produce. Cross-contamination and legacy PFAS

[63] *Perfluorohexane Sulfonate (PFHxS) – Socio-Economic Impact, Exposure and the Precautionary Principle Report*, IPEN Expert Panel (October 2019), https://ipen.org/sites/default/files/documents/pfhxs_socio-economic_impact_final_oct.2019.pdf.

residues from inadequately decontaminated appliances after transitioning to fluorine-free foam can remain a long-term problem."[64] The panel concluded that "[o]ngoing exposure to PFHxS, PFOS and other PFAS amongst firefighters remains a major occupational health issue," noting that "[b]io-accumulation and very slow bio-elimination may be very significant influencing factors in PFHxS exposure" in firefighters[65]. "Of greater concern," the panel observed, "is that firefighter blood levels for PFOS and PFHxS are many times higher than the median values for the general…population."[66]

149. In June 2020, scientists at the University of Notre Dame published a ground-breaking study on PFAS in turnout gear, and the exposure risks posed to firefighters that wear, wore, or handle such gear ("Notre Dame Turnout Study"). The Notre Dame Turnout Study analyzed over 30 sets of used and unused (still in their original packaging) turnout gear made by six U.S. manufacturers, including Defendants MSA (Globe) and LION, over several production years, as listed below:[67]

PPE gear manufacturers sampled:	# samples
Globe Manufacturing (Pittsfield MA),	11
Lion Group (Dayton OH),	12
Honeywell First Responder (Dayton, OH),	2
Lakeland Fire (Decatur, AL)	2
Quest Fire Apparel (Saratoga Springs, NY)	1
Quaker Safety (Quakertown, PA)	2

The type and number of turnout gear samples used in this study.

150. The Notre Dame Turnout Study noted that these manufacturers' turnout gear (or personal protective equipment-PPE, as it is described in the study) are manufactured "from textiles that are made from fluoropolymers (one form of PFAS) or extensively treated by PFAS in the form

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[64] *Id.* at p. 25.

[65] *Id.*

[66] *Id.*

[67] *Id.* at fn. 8.

of side-chain fluoropolymers."[68] According to the researchers, "[t]hese PFAS include fluoropolymer materials such as PTFE used as a moisture barrier in the inner layers of turnout gear."[69] The study found significant levels of PFAS chemicals – including PFOA, PFOS, PFBA, PFPeA, PFHxA, PFHpA, PFNA, PFDA, PFUnA, PFDoA, PFTrDA, PFToDA, PFBS, PFOSA, N-EtFOSA, MeFOSAA, N-MeFOSE, N-EtFOSE and 6:20FTS – in both new and used turnout gear, and across layers, portions, and materials in the turnout gear, including in material layers that are not intentionally treated with PFAS by the manufacturer, thereby providing "the first evidence that suggests PFAS appear to migrate from the highly fluorinated layers and collect in the untreated layer of clothing worn against the skin."[70] These findings are summarized in the table below:

Table 2. Quantities of Target PFAS (in ppb) Found in US Turnout Gear by LC–MS/MS Analysis

	jacket 2008 unused			pants 2014 used			jacket 2008 used	jacket 2017 unused
values in ppb	thermal liner	moisture barrier	outer shell	thermal liner	moisture barrier	outer shell	moisture barrier	moisture barrier
PFBA	<MDL	12.8	10.6	139	615	21.5	20.5	991
PFPeA	<MDL	12.6	17.8	228	104	164	18.1	249
PFHxA	<MDL	30.5	36.9	199	28.6	10.9	35.8	36.9
PFHpA	<MDL	12.4	25.4	105	5.82	2.23	14.3	25.4
PFOA	78	46	182	850	71	97	37	<MDL
PFNA	2.63	<MDL	8.2	25.3	1.95	<MDL	2.76	<MDL
PFDA	2.98	6.51	5.51	133	<MDL	<MDL	23.7	<MDL
PFUnA	<MDL	<MDL	<MDL	7.96	<MDL	<MDL	2.51	<MDL
PFDoA	<MDL	5.01	<MDL	68.6	<MDL	<MDL	25.9	<MDL
PFBS	283	140	142	53 400	47 900	1050	230	90 400
PFOS	<MDL	<MDL	<MDL	7	<MDL	<MDL	2	<MDL
6:2 FTS	<MDL	<MDL	<MDL	259	129	<MDL	<MDL	<MDL
8:2 FTS	<MDL	<MDL	<MDL	111	<MDL	<MDL	<MDL	<MDL

151. "Startlingly," researchers reported, "garment to hand transfer of total fluorine in the ppm range was also observed when researchers simply manipulated the textiles in [the] laboratory."[71] The accumulation of PFAS on researchers' hands strongly suggests that transference of ppm levels of PFAS can occur merely by handling the turnouts. This finding poses a health exposure concern not only for firefighters that rely on turnouts to protect them from heat, fire, water and chemical

[68] *Id.* at p. A.

[69] *Id.*

[70] *Id.* at p. C.

[71] *Id.*

hazards in the field, but to family members who may be exposed to the PFAS in turnouts as the result of home washing or storage.

152. Defendants have been quick to mischaracterize, dismiss or downplay the significance of the Notre Dame Turnout Study. Defendant MSA (Globe), when contacted about the study and asked whether Globe planned to study this issue and find an alternative to PFAS for turnouts, merely responded thusly: "[P]rotecting (firefighters) is Globe's business; every piece of our turnout gear meets or exceeds applicable industry standards."[72]

153. Defendant Lion's responses have been similar, and have also dismissed or minimized the significance of the Notre Dame Turnout Study's findings. Lion issued a Customer Safety Alert for PFOA and Turnout Gear stating: "Your LION turnout gear continues to be safe and ready for action especially when properly maintained. It is extremely important that firefighters continue to wear and properly care for their gear to stay safe on the job."[73]

154. The Customer Safety Alert goes on to stress that Lion does not use PFOA or PFOS (two long-chain PFAS chemicals) in its turnouts.[74] It does not, however, address that the maker's turnouts in fact contain other PFAS chemicals, nor warn firefighters or the public about health harms associated with exposure to these toxic, bio-accumulating chemicals.

HERE'S ALL YOU NEED TO KNOW ABOUT PFOA AND YOUR TURNOUT GEAR.

What is PFOA and why are we talking about it?

Perfluorooctanic Acid (PFOA) is a chemical that until recently was used in the process to make many different industrial chemicals and products. The manufacture and use of PFOA was mostly phased out by major chemical companies by 2010. By 2015, its manufacture was eliminated in the United States.

In the firefighting protective clothing industry, PFOA was used as a processing agent in the manufacture of resins used to make PFTE films – the primary component of the moisture barrier used in turnout gear. While most residual PFOA was eliminated from the manufacturing process of PTFE, some tiny trace amounts remained.

LION does not use PFOA or PFOS in our turnout gear or any of our protective products.

PFOS has never been a component of turnout gear. PFOS health and environmental concerns are largely related to AFFF foams and are not connected to turnout gear.

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[72] Blair Miller, *Local Firefighters Concerned About Potentially Dangerous Chemicals on Gear*, Boston 25 News (February 26, 2019), https://www.boston25news.com/news/local-firefighters-facing-concerns-over-potentially-dangerous-chemicals-on-gear/92523612/..

[73] LION Customer Safety Alert – PFOA and Turnout Gear (April 24, 2019), https://cdn2.hubspot.net/hubfs/3475623/LION_PFOA_factsheet_042419.pdf.

[74] *Id.*

155. Defendant Lion's paid consultant, Dr. Paul Chrostowski, also has taken aim at the Notre Dame Turnout Study and its findings. Refuting a *Fire Rescue* magazine article about the study,[75] Chrostowski repeated Lion's website statement that "PFOA was never part of the gear itself and frequent independent testing has found only trace amounts of it in any of the gear – not nearly enough to cause concern, and in amounts similar to consumer products."[76] Chrostowski went on to say "[t]he fact is that one may find trace amounts of 'short-chain' PFAS such as PFBS and PFHxA in firefighting textiles, but the scientific research shows that these materials are far less toxic than even PFOA and at the tiny trace levels the risk are extremely low based on numerous credible published scientific research papers."[77] Finally, Chrostowski falsely stated that the link between PFAS exposure and cancer is "extremely weak."[78]

156. Defendants, including at least DuPont, Gore, Lion and MSA (Globe), have been regular sponsors of the International Association of Fire Fighters ("IAFF") Cancer Summit. At this event, as well as in firefighter cancer-related publications, programs and events, Defendants have repeatedly pushed the narrative that the high rate of cancer among firefighters is attributable either to ***other chemicals*** encountered in the line of duty, or firefighters' failure to wash their turnouts after every call. Not once have Defendants admitted that the PFAS materials in their products has been found to be carcinogenic, and that the very equipment that should be protecting firefighters are causing the most harm.

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[75] https://firerescuemagazine.firefighternation.com/2020/05/28/what-if-i-told-you-that-your-bunker-gear-was-causing-cancer/#gref

[76] Paul Chrostowski, Ph.D., QEP, *Research and Independent Testing Shows Firefighters' Turnout Gear Remains Safe Despite Claims*, Fire Rescue (June 3, 2020). https://firerescuemagazine.firefighternation.com/2020/06/03/research-and-independent-testing-shows-firefighters-turnout-gear-remains-safe-despite-claims/#gref.

[77] *Id.*

[78] *Id.*

157. The Firefighter Plaintiffs deserve more. They are the first to respond to emergencies faced by their community, and never hesitate to help. Whether delivering a baby, responding to a fire, medical emergency, accident, mass shooting, terrorist attack, natural disaster, or teaching kids about fire safety, firefighters always put the community first. When a child is drowning in a pool or a family is caught in a burning house, they do not stop to calculate whether they will benefit by doing the right thing. They are true public servants. They step in and do what is needed when it is needed the most. Their health, safety and well-being must be of the highest priority.

G. The Firefighter Plaintiffs Have Significant Levels of PFAS in their Blood

158. After years of Defendants suppressing research showing PFAS to be toxic and associated with cancer and other serious illnesses, misrepresenting the safety of PFAS and PFAS-containing Class B foam and turnouts, and attributing the cause of firefighters' cancers and other serious illnesses to factors other than Class B foams and turnouts (or the PFAS chemicals and materials in these foams and turnouts), the Firefighter Plaintiffs could not know and, in fact, did not know that significant levels of PFAS had bio-accumulated in their blood.

159. In July 2020, prior to filing this complaint, the Firefighter Plaintiffs submitted blood serum samples to public health professionals at the University of California, San Francisco (UCSF) for PFAS level testing and analysis. The results are startling.

160. The testing shows that all of the Firefighter Plaintiffs have significant levels of PFAS in their blood for several PFAS chemicals, including PFOA, PFNA, PFDA, PFUnDA, PFOS,

PFDOA, PFOS, PFBA, and PFBuS. The geometric mean[79] for the Firefighter Plaintiffs' PFAS blood levels across each of these PFAS chemicals is substantially higher, for each of the above-described PFAS chemicals, than PFAS levels found in the general public as reported by the National Health and Nutrition Examination Survey ("NHANES") of the Center for Disease Control for the most recent NHANES reporting period.

161. Importantly, the Firefighter Plaintiffs' blood samples showed especially significant levels of PFOA and PFOS – two PFAS chemicals contained in Class B foams and turnouts that are known carcinogens and have been found to cause cancer and other serious health illnesses in humans.

162. The Firefighter Plaintiffs only learned for the first time that they had significantly elevated levels of PFAS in their blood in July 2020, when they received testing results of their blood serum.

163. Based on all of the foregoing, the Firefighter Plaintiffs, and certain of their spouses, the Spouse Plaintiffs, bring this action for damages and for other appropriate relief sufficient to compensate them for the significant harm Defendants' PFAS chemicals and PFAS-containing products have caused.

EQUITABLE TOLLING OF APPLICABLE STATUE OF LIMITATIONS

164. Plaintiffs incorporate by reference all prior paragraphs of this complaint as though fully set forth herein.

A. Fraudulent Concealment

165. Defendants have known or should have known about the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS and PFAS-containing materials since at least the 1960s and as late as the early 1990s when study after study showed not only unacceptable levels of toxicity and bioaccumulation in human blood, but links to increased incidence of liver damage, various cancers and birth defects.

166. Through no fault or lack of diligence, Plaintiffs were deceived regarding the safety of

[79] The geometric mean is a mean or average, which indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum).

Class B foam and turnouts and could not reasonably discover the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts, nor Defendants' deception with respect to the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts.

167. Plaintiffs did not discover and did not know of any facts that would have caused a reasonable person to suspect that Defendants were concealing the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts. As alleged herein, the existence of the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts was material to Plaintiffs at all relevant times. Within the time period of any applicable statutes of limitations, Plaintiffs could not have discovered through the exercise of reasonable diligence the existence of the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts, nor that Defendants were concealing the fact of the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts.

168. Defendants did not fully disclose the seriousness of the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts, but instead ignored and/or concealed the defect from Plaintiffs and the public, and refused to provide safe alternatives to PFAS or PFAS-containing materials in Class B foam and turnouts.

169. At all times, Defendants are and were under a continuous duty to disclose to Plaintiffs the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts.

170. Defendants knowingly, actively, and affirmatively concealed the facts alleged herein. Plaintiffs reasonably relied on Defendants' knowing, active, and affirmative concealment.

171. For these reasons, any and all applicable statutes of limitations have been tolled as a consequence Defendants' ongoing knowledge, active concealment, and denial of the facts alleged

herein.

B. Estoppel

172. Defendants were and are under a continuous duty to disclose to Plaintiffs the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts.

173. Instead, Defendants actively concealed the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS and PFAS-containing materials in Class B foam and turnouts; and knowingly made misrepresentations about the quality, reliability, characteristics, safety and performance of Class B foam and turnouts.

174. Plaintiffs reasonably relied upon Defendants' knowing and affirmative misrepresentations, and/or active concealment, of these facts.

175. Based on the foregoing, Defendants are estopped from relying on any and all applicable statutes of limitations in defense of this action.

C. Discovery Rule

176. The causes of action alleged herein did not accrue until Plaintiffs discovered that the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts.

177. Plaintiffs, however, had no realistic ability to discern or suspect that the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts were a substantial cause of their injuries until—at the earliest— the Firefighter Plaintiffs received their test results revealing that they had significantly elevated levels of PFAS in July 2020.

178. Even then, Plaintiffs would have had no reason to discover their causes of action, because of Defendants' active and ongoing concealment of the true nature of the hazardous toxicity, persistence, and bioaccumulation associated with the use of PFAS or PFAS-containing materials in Class B foam and turnouts, and their prior knowledge of it.

179. Accordingly, Defendants are precluded by the Discovery Rule and/or doctrine of fraudulent concealment, and/or the doctrine of estoppel from relying upon any and all applicable

statutes of limitations.

FIRST CAUSE OF ACTION

STRICT LIABILITY - DESIGN DEFECT

180. This cause of action is asserted against all Defendants on behalf of all of the Firefighter Plaintiffs.

181. The Firefighter Plaintiffs incorporate by reference all prior paragraphs of this complaint, as though fully set forth herein.

182. Each Defendant, their predecessors-in-interest, and/or their alter egos, and/or entities they have acquired, have engaged in the business of manufacturing, distributing, supplying, testing, labeling, promoting, or advertising of Class B foam and/or turnouts and through that conduct have knowingly placed PFAS-containing products into the stream of commerce with full knowledge that they were sold to fire departments or to companies that sold Class B foam and/or turnouts to fire departments for use by firefighters such as the Firefighter Plaintiffs, who are exposed to PFAS through ordinary and foreseeable uses for the purpose of firefighting activities and training.

183. Defendants intended that the Class B foam and/or turnouts they were manufacturing, selling, distributing, supplying, promoting, and or selling would be used by firefighters, including the Firefighter Plaintiffs, without any substantial change in the condition of the products from when it was initially manufactured, sold, distributed, and marketed by Defendants. Class B foam and/or turnouts were not safe for use by firefighters even when used as directed by the manufacturer and for its intended purpose for firefighting activities which include training, extinguishment, ventilation, search-and-rescue, salvage, containment, and overhaul.

184. Further, knowing of the dangerous and hazardous properties of Class B foam and/or turnouts, Defendants could have manufactured, marketed, distributed, and sold alternative designs or formulations of Class B foam and/or turnouts that did not contain PFAS.

185. These alternative designs and/or formulations were already available, practical, similar in cost, and technologically feasible.

186. The use of these alternative designs would have reduced or prevented the reasonably foreseeable harm to the Firefighter Plaintiffs that was caused by the Defendants' manufacture,

marketing, and sale of Class B foam and/or turnouts containing PFAS and PFAS-containing materials.

187. Additionally, the Class B foam and/or turnouts that were designed, manufactured, marketed, tested, advertised, marketed, promoted, sold, and distributed by the Defendants contained PFAS or PFAS-containing materials that were so toxic and unreasonably dangerous to human health and the environment, with the toxic chemicals being so mobile and persistent, that the act of designing, formulating, manufacturing, marketing, distributing, and selling these products was unreasonably dangerous under the circumstances.

188. The Class B foam and/or turnouts designed, manufactured, marketed, tested, advertised, marketed, promoted, sold and distributed by the Defendants were dangerous and defective in design or formulation because, at the time in which the products left the hands of the manufacturer or distributors, the foreseeable risks exceeded the benefits associated with the design or formulation of Class B foam and/or turnouts.

189. The Class B foam and/or turnouts designed, manufactured, marketed, tested, advertised, marketed, promoted, sold, and distributed by the Defendants were dangerous and defective in design or formulation because, when the PFAS-containing products left the hands of the manufacturer or distributors, said products were unreasonably dangerous, unreasonably dangerous in normal use, and were more dangerous than an ordinary consumer-firefighter would expect.

190. The Class B foam and/or turnouts were in a defective condition and unsafe, and Defendants knew or had reason to know that these PFAS-containing products were defective and unsafe, especially when used in the form and manner as provided by Defendants. In particular, Defendants PFAS-containing products were defective in the following ways:

191. When placed in the stream of commerce, Defendants' PFAS-containing Class B foam and/or turnouts were defective in design and formulation and as a result failed to meet ordinary users' expectations as to their safety and failed to perform as an ordinary user would expect;

192. When placed in the stream of commerce, Defendants' PFAS-containing Class B foam and/or turnouts were defective in design and formulation, and as a result, dangerous to an extent beyond which an ordinary consumer-firefighter would anticipate.

193. When placed in the stream of commerce, Defendants' PFAS-containing Class B foam and/or turnouts were unreasonable dangers in that they were hazardous and posed a grave risk of cancer and other serious illnesses when used in a reasonably anticipated manner.

194. When placed in the stream of commerce, Defendants' PFAS-containing Class B foam and/or turnouts contained unreasonably dangerous design defects and were not reasonably safe when used in a reasonably anticipated manner.

195. When placed in the stream of commerce, Defendants' PFAS-containing Class B foam and/or turnouts did not provide an adequate warning of the potential harm that might result from exposure to PFAS and/or emitted from the Class B foam and/or turnouts and, alternatively, did not have adequate instructions for safe use of the products.

196. Exposure to PFAS presents a risk of grave and harmful side effects and injuries that outweigh any potential utility stemming from their use;

197. Defendants knew or should have known at the time of manufacturing, selling, distributing, promoting or marketing their PFAS-containing Class B foam and/or turnouts that exposure to PFAS could result in cancer and other grave and serious illnesses and injuries as alleged herein.

198. The foreseeable risk of harm could have been reduced or eliminated by the adoption of a reasonable, alternative design that was not unreasonably dangerous.

199. The Firefighter Plaintiffs used these PFAS-containing products in the ways that Defendants intended them to be used.

200. The Firefighter Plaintiffs' used these PFAS-containing produces in ways that were foreseeable to Defendants.

201. The Firefighter Plaintiffs were exposed to PFAS by using Defendants' Class B foam and/or turnouts in the course of their employment, as described above, without knowledge of Class B foam and/or turnouts' dangerous propensities.

202. The design defect in Class B foam and/or turnouts containing PFAS exposed the Firefighter Plaintiffs to toxic levels of PFAS and therefore, was a substantial factor in causing the Firefighter Plaintiffs' injuries and damages as described herein.

203. As a result of Defendants' design and formulation of a defective product, Defendants are strictly liable in damages to the Firefighter Plaintiffs.

204. As a direct and proximate result of the foregoing acts and omissions, the Firefighter Plaintiffs suffered the injuries and damages described herein.

205. Defendants acted with willful or conscious disregard for the rights, health, and safety of the Firefighter Plaintiffs, as described herein, thereby entitling the Firefighter Plaintiffs to an award of punitive damages.

SECOND CAUSE OF ACTION

STRICT LIABILITY – FAILURE TO WARN

206. This cause of action is asserted against all Defendants on behalf of all of the Firefighter Plaintiffs.

207. The Firefighter Plaintiffs incorporate by reference all prior paragraphs of this complaint, as though fully set forth herein.

208. Each Defendant, their predecessors-in-interest, and/or their alter egos, and/or entities they have acquired, have engaged in the business of manufacturing, distributing, supplying, testing, labeling, promoting, or advertising of Class B foam and/or turnouts containing PFAS or PFAS-containing materials and, through that conduct, have knowingly placed PFAS-containing products into the stream of commerce with full knowledge that they were sold to fire departments or to companies that sold Class B foam and/or turnouts to fire departments for the use by firefighters such as the Firefighter Plaintiffs, who were exposed to PFAS through ordinary and foreseeable uses for the purpose of firefighting activities and training.

209. The products complained of were manufactured, designed, sold, supplied and/or distributed by each of the Defendants and used by and/or in the vicinity of the Firefighter Plaintiffs during their lifetime and/or they were exposed to PFAS while using Class B foam and/or turnouts in the ordinary course of performing their duties as firefighters.

210. Defendants expected that the PFAS-containing products they were manufacturing, selling, distributing, supplying, and/or promoting would reach firefighters, including the Firefighter Plaintiffs, without any substantial change in the condition of the products from when it was initially

manufactured, sold, distributed, and marketed by Defendants.

211. Defendants knew or should have reasonably known that the manner in which they were manufacturing, marketing, and selling Class B foam and/or turnouts containing PFAS was hazardous to human health.

212. The potential risks of using PFAS-containing products presented a substantial danger to firefighters, including the Firefighter Plaintiffs, when the Class B foam and/or turnouts were used or worn in an intended or reasonably foreseeable way.

213. The Firefighter Plaintiffs used Class B foam and wore turnouts in the intended or reasonably foreseeable way in the ordinary course of performing their duties as firefighters, including fire suppression and fire suppression training.

214. The Class B foam and/or turnouts manufactured, marketed, and sold by the Defendants was dangerous and defective because the foreseeable risk of harm could have been reduced or eliminated by the adoption of a reasonable, alternative design that was not unreasonably dangerous.

215. Defendants' products were in a defective condition and unreasonably dangerous, in that Class B foam and/or turnouts which, by design, contain PFAS or PFAS-containing products, are deleterious, toxic, and highly harmful to the Firefighter Plaintiffs.

216. Defendants knew or should have reasonably known that exposure to PFAS was hazardous to human health, but:

a. Did not provide an adequate warning of the potential harm that might result from exposure to PFAS or PFAS-containing materials in Class B foam and/or turnouts;

b. Did not have adequate instructions for safe use of the products;

c. Did not have warnings to persons, such as the Firefighter Plaintiffs, who had been, or reasonably may have been, exposed to Defendants' Class B foam and/or turnouts, of their disease potential, the proper steps to take to reduce the harmful effects of previous exposure, the need to have periodic medical examinations including the giving of histories which revealed the details of the

previous exposure, and the need to have immediate and vigorous medical treatment for all related adverse health effects;

d. Did not manufacture, market, promote, distribute or sell reasonably comparable products not containing PFAS when it became feasible to design.

217. At the time of manufacture, distribution, promotion, labeling, distribution, and/or sale, Defendants could have provided warnings or instructions regarding the full and complete risks of Class B foam and/or turnouts containing PFAS or PFAS-containing materials, because Defendants knew or should have known of the unreasonable risks of harm associated with the use of and/or exposure to such products.

218. At all relevant time, Defendants' Class B foam and/or turnouts did not contain an adequate warning or caution statement, which was necessary.

219. The Firefighter Plaintiffs were unaware of the defective and unreasonably dangerous condition of Defendants' products at a time when such products were being used for the purposes for which they were intended, and the Firefighter Plaintiffs were exposed to PFAS released from the Defendants' Class B foam and/or turnouts.

220. The Firefighter Plaintiffs did not and could not have known that the use of Class B foam and/or turnouts in the ordinary course of performing their duties as firefighters could be hazardous to their health, bio-accumulate in the blood, and cause serious health effects, including cancer.

221. Defendants knew that the use of Class B foam and/or turnouts, even when used as instructed by Defendants, subjected the Firefighter Plaintiffs and others to a substantial risk of harm and yet, failed to adequately warn the Firefighter Plaintiffs, the EPA or the public.

222. As a result of their inadequate warnings, Defendants' Class B foam and/or turnouts were defective and unreasonably dangerous when they left the possession and/or control of Defendants, were distributed by Defendants, and used or worn by the Firefighter Plaintiffs.

223. The lack of adequate and sufficient warnings was a substantial factor in causing the Firefighter Plaintiffs' harm and injuries, as described herein.

224. As a result of Defendants' failure to provide adequate and sufficient warnings,

Defendants are strictly liable in damages to the Firefighter Plaintiffs.

225. As a direct and proximate result of the foregoing acts and omissions, the Firefighter Plaintiffs suffered the injuries and damages described herein.

226. Defendants acted with willful or conscious disregard for the rights, health, and safety of the Firefighter Plaintiffs, as described herein, thereby entitling the Firefighter Plaintiffs to an award of punitive damages.

THIRD CAUSE OF ACTION

NEGLIGENCE

227. This cause of action is asserted against all Defendants on behalf of all of the Firefighter Plaintiffs.

228. The Firefighter Plaintiffs incorporate by reference all prior paragraphs of this complaint as though fully set forth herein.

229. Defendants owed a duty of care towards the Firefighter Plaintiffs that was commensurate with the inherently dangerous, harmful, injurious, bio-persistent, environmentally-persistent, toxic, and bio-accumulative nature of Class B foam and turnouts containing PFAS or PFAS-containing materials.

230. Defendants had a duty to exercise reasonable care in the design, research, testing, manufacture, marketing, formulation, supply, promotion, sale, labeling, training of users, production of information materials, use and/or distribution of Class B foam and/or turnouts into the stream of commerce, including a duty of care to ensure the PFAS did not infiltrate, persist in, accumulate in the blood and/or bodies of the Firefighter Plaintiffs and including a duty to assure their products would not cause users to suffer unreasonable, dangerous side effects.

231. Defendants had a duty to exercise reasonable care to ensure that Class B foam and/or turnouts were manufactured, marketed, and sold in such a way as to ensure that the end users of Class B foam and/or turnouts were aware of the potential harm PFAS can cause to human health, and were advised to use it in such a way that would not be hazardous to their health.

232. Defendants had a duty to warn of the hazards associated with PFAS and PFAS-containing materials and were in the best position to provide adequate instructions, proper labeling,

and sufficient warnings about the Class B foam and/or turnouts. However, Defendants knowingly and intentionally failed to do so.

233. Defendants failed to exercise ordinary care in the designing, researching, testing, manufacturing, formulating, marketing, testing, promotion, supply, sale, and/or distribution of their PFAS chemicals and PFAS-containing products in the regular course of business, in that Defendants knew or should have known that use and exposure to PFAS and PFAS-containing materials was hazardous to human health and created a high risk of unreasonable, dangerous side effects, including but not limited to severe personal injuries, as described herein.

234. Defendants also knew or should have known that the manner in which they were manufacturing, marketing, distributing, and selling Class B foam and/or turnouts containing PFAS or PFAS-containing materials was hazardous to human health, bio-accumulated in the blood, and caused serious health effects, including cancer.

235. Defendants negligently and deceptively underreported, underestimated, downplayed the serious health dangers of the Class B foam and/or turnouts products.

236. Defendants negligently, carelessly and recklessly recommended application and disposal techniques for PFAS and/or for products containing PFAS that directly and proximately caused harm to the Firefighter Plaintiffs.

237. Defendants knew or should have known that firefighters working with and using Class B foam and/or turnouts products would be exposed to PFAS.

238. At all times material, the Firefighter Plaintiffs inhaled, ingested and/or absorbed dermally hazardous PFAS contaminants released from the Defendants' Class B foam and/or turnouts.

239. The Firefighter Plaintiffs' exposure to Defendant's Class B foam and/or turnouts, which were connected to and incidental to Defendants' manufacture, design, sale, supply and/or distribution of its PFAS-containing products, was harmful and substantially increased the risk of injuries to the Firefighter Plaintiffs, and did cause injuries to the Firefighter Plaintiffs.

240. Defendants knew or should have known that the manner in which they were manufacturing, marketing, distributing and selling Class B foam and/or turnouts containing PFAS or PFAS-containing materials would result in harm to the Firefighter Plaintiffs as a result of using Class

B foam and/or turnouts in the ordinary course of performing the Firefighter Plaintiffs' duties as firefighters.

241. Defendants knew, foresaw, anticipated, and/or should have foreseen, anticipated, and/or known that the design, engineering, manufacture, fabrication, sale, release, handling, use, and/or distribution of PFAS or PFAS-containing materials in Class B foam and turnouts, and/or Defendants' other acts and/or omissions as described in this complaint, could likely result in PFAS exposure to the Firefighter Plaintiffs, the persistence and accumulation of toxic and harmful PFAS in their blood and/or bodies, and cause injuries to the Firefighter Plaintiffs as herein alleged.

242. Despite knowing, anticipating, and/or foreseeing the bio-persistent, bio- accumulative, toxic, and/or otherwise harmful and/or injurious nature of PFAS materials, Defendants, their agents, servants, and/or employees, committed negligent acts and/or omissions that resulted in PFAS exposure to the Firefighter Plaintiffs, the persistence and accumulation of toxic and harmful PFAS in their blood and/or bodies, and caused injuries to the Firefighter Plaintiffs as herein alleged.

243. Defendants, through their acts and/or omissions as described in this complaint, breached their duties to the Firefighter Plaintiffs.

244. It was reasonably foreseeable to Defendants that the Firefighter Plaintiffs would likely suffer the injuries and harm described in this complaint by virtue of Defendants' breach of their duty and failure to exercise ordinary care, as described herein.

245. As a direct and proximate result of the foregoing acts and omissions, the Firefighter Plaintiffs suffered the injuries described herein, which are permanent and lasting in nature, include physical pain and mental anguish, the need for lifelong medical treatment, monitoring, and/or medications. But for Defendants' negligent acts and/or omissions, the Firefighter Plaintiffs would not have been injured or harmed.

246. Defendants acted with willful or conscious disregard for the rights, health, and safety of the Firefighter Plaintiffs, as described herein, thereby entitling the Firefighter Plaintiffs to an award of punitive damages.

FOURTH CAUSE OF ACTION

LOSS OF CONSORTIUM

247. This cause of action is asserted against all Defendants on behalf of all of the Spouse Plaintiffs.

248. The Spouse Plaintiffs incorporate by reference all prior paragraphs of this complaint, as though fully set forth herein.

249. At all times relevant to this action, the following Plaintiffs were and are now lawfully married:

a. Firefighter Plaintiff Mike Tapia and Spouse Plaintiff Bridget Tapia;

b. Firefighter Plaintiff Kevin Bebee and Spouse Plaintiff Victoria Bebee;

c. Firefighter Plaintiff Rob Piper and Spouse Plaintiff Kathy Piper.

250. As alleged above, and as a result of the conduct of the Defendants, Firefighter Plaintiffs sustained severe and permanent injuries and damages.

251. As a proximate result of their husbands' injuries sustained from the exposure and use of Class B foam and/or turnouts in the ordinary course of performing their firefighting duties, The Spouse Plaintiffs were deprived of love, companionship, comfort, care, assistance, protection, affection, society, moral support, sexual relations and conjugal fellowship, during their husbands' illnesses, treatments and recoveries, which deprivation has caused, continues to cause, and in the future is expected to cause each of the Spouse Plaintiffs emotional distress; loss of earning capacity; past, present, and future, and other injuries – the full extent of which has not yet been ascertained, but which will be stated according to proof at trial.

252. As a further direct and proximate result of the aforesaid conduct of Defendants, each of the Spouse Plaintiffs has sustained a loss of consortium, love, society, comfort and affection, and has thereby sustained pecuniary losses, which losses will be stated according to proof at trial.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully prays that this Court grant the following relief:

(1) Compensatory damages, including but not limited to, pain, suffering, emotional distress, loss of enjoyment of life, and other non-economic damages in an amount

according to proof at time of trial;

(2) Compensatory damages for future damages, including but not limited to Plaintiffs' pain and suffering and for severe permanent personal injuries sustained by the Firefighter Plaintiffs, including for future health care costs, medical monitoring, and/or economic loss.

(3) Economic damages including but not limited to medical expenses, out of pocket expenses, lost earnings and other economic damages in an amount to be determined at trial;

(4) Punitive and/or exemplary damages for the wanton, willful, fraudulent, and reckless acts of the Defendants, who demonstrated a conscious disregard and reckless indifference for the safety and welfare of the public in general and of the Plaintiffs in particular, in an amount sufficient to punish Defendants and deter future similar conduct, to the extent allowed by applicable law;

(5) Pre-judgment and post-judgment interest, at the legal rate, on all amounts claimed;

(6) Attorneys' fees and costs pursuant to C.C.P. § 1021.5 and/or as permitted by law;

(7) For equitable and injunctive relief, as necessary, to ensure that Defendants refrain from continuing to harm others; and

(8) Any such further relief as this Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiffs hereby demand a jury trial for each cause of action for which they are entitled to a jury trial.

DATED: September 11, 2020.

PRITZKER LEVINE LLP

By: _____

Elizabeth C. Pritzker (SBN: 146267)
Jonathan K. Levine
Bethany Caracuzzo
Heather P. Haggarty
Richard R. Seal

Attorneys for Plaintiffs