

HOW THE SAN FRANCISCO FIRE DEPARTMENT MADE THE SHIFT TO NON-PFAS TURNOUT GEAR

Milliken

A 5 Step Model any Department can Follow

San Francisco, CA
Fire Department



FIREFIGHTERS

1,700 Full-Time

STATIONS

45

RESPONSIBLE AREA

231.89 square miles

GEAR DETAILS

Fire-Dex turnout gear featuring Milliken Assure™ moisture barrier.



\$3 MILLION

Total Investment in New Gear

Funded in part through a \$2.35 million Assistance to Firefighters Grant (AFG) from FEMA and matching funds from the department.



THE CHALLENGE

Across the fire service, leaders are facing a rising concern: how to move their departments away from turnout gear made with PFAS and brominated chemistries. San Francisco was no different. As one of the largest and busiest departments in the country, SFFD needed a solution that would not compromise on quality or performance. They also faced a tight deadline and needed gear in hand by December 2025 to maintain funding.

The approach they used became a repeatable path for any department ready to make the same shift.

"San Francisco Fire Department is one of the busiest fire departments in America, and we have hundreds of members every day putting on turnouts, taking turnouts off, responding to fires, multiple fires a day. We need a product that can keep up with our pace."

John Harris

SFFD Captain

“Do your due diligence and confirm that these turnouts are going to meet your needs. We heard rumors from the industry that that these things were going to hold more heat because of the change of the makeup of the moisture barrier. And we found that from our survey results that that was not the case. We got overwhelming majority of our survey results were little to no difference in heat retention from the old turnouts.”

Mike Mullen

Assistant Deputy Chief of Support Services, SFFD

STEP 1:

BRING YOUR CITY LEADERS INTO THE CONVERSATION EARLY

As concerns about PFAS grew, San Francisco’s leaders did something essential: they listened. They listened to firefighters who wanted clarity about their gear, to union leaders advocating for their members, and to constituents demanding action. Those early conversations helped build momentum.

What followed was a wave of legislation across California and San Francisco that established statewide restrictions and accelerated local action on PFAS in turnout gear.

PFAS LEGISLATION MILESTONES

Sept. 2022: California passes **AB 1817**, requiring manufacturers of turnout gear sold in California to **disclose whether PFAS was used** (effective 1/1/23).

Oct. 2023: California passes **AB 2491**, prohibiting the **manufacturing, sale, or distribution of new turnout gear** in California containing **intentionally added PFAS** (effective 1/1/27).

May 2024: San Francisco Board of Supervisors passes an ordinance **banning PFAS in firefighter gear** (effective 6/30/2026), the **first municipal ban in the United States**.

“Courage is a fire chief who stands up to the status quo and says, my firefighters deserve better. Courage is a city council member, a county Board of Supervisors member who will settle for nothing less but the health and safety of the members who protect the public. And courage is a local union that fights relentlessly, refuses to be silenced and demands action because lives are on the line.”

Steve Gilman

IAFF

STEP 2:

LEVERAGE CITY SUPPORT TO SECURE FUNDING

Once San Francisco had its city leaders aligned, the next challenge was the one every chief recognizes: funding. By clearly showing why the transition mattered through member concerns, union advocacy, and city-level support SFFD positioned itself to secure the resources it needed. The city responded by dedicating funding, pursuing available grant opportunities, and aligning budget cycles with procurement and vendor lead times.

In SFFD’s case, a significant portion of funding came from FEMA’s Assistance to Firefighters Grant (AFG), highlighting the importance for departments to actively research and pursue state and federal grant opportunities early in the process.

STEP 3:

EDUCATE YOURSELF AND TRUST VERIFIED SCIENCE

There's a familiar story permeating through the fire service industry, one of bait and switch tactics that promise non-PFAS only to find out later through third-party testing these chemistries are still present. San Francisco lived that experience. They believed they had finally found the gear they'd been waiting for, but through deeper research and independent evaluation, determined that the first materials recommended to them did not meet all of their requirements.

That moment made one thing clear. To get a truly non-PFAS system, they needed a gear manufacturer backed by fabric partners who let material science lead.

The lesson is simple. Don't let unproven claims dictate your path. Lean on independent research, seek out your own technical education options, and trust the technical experts who can show the data and solve the chemistry at the heart of the problem.

"If you don't have time constraints, take your time. Analyze what's out there. Send your people through the testing with the different turnouts and then trust but verify. Send them out for independent testing. We did and we were happy with the results."

Mike Mullen

Assistant Deputy Chief of Support Services, SFFD



STEP 4:

START SMALL AND PROVE IT IN REAL CONDITIONS

Once Fire-Dex recommended the verified moisture barrier, Milliken Assure™, SFFD sent the composite out for independent testing, and the results came back with flying colors. Only then did they move forward. They started small and purchased 50 sets of turnouts and gave them to their highest utilized companies, the rescue squad members who go to the most fires. Those crews reported back using a clear checklist on the pros and cons of the gear. It was a simple approach with a clear purpose: prove the gear in the exact conditions San Francisco faces every day.

WHAT SFFD FIREFIGHTERS REPORTED

"This material is equally or better than what we've used before. It's more breathable and it has better performance."

"The first thing you're going to notice when you put it on is that it's really comfortable."

"You feel like you're in jammies."

"I'm noticing little to no difference from what we have been wearing, which is what we're looking for."

"It didn't feel, weird or restrictive."



STEP 5:

**COMMIT, IMPLEMENT,
AND BE AN ADVOCATE
FOR OTHER DEPARTMENTS**

With successful testing, positive wear-trial feedback, and verified results in hand, SFFD moved forward with confidence. The department purchased the gear, implemented it across the organization, and then shared their experience openly so other departments could learn from their process. Their transparency helped spread awareness and gave other chiefs a clearer path forward.

“We know it’s a dangerous job, and I think a lot of us tend to not consider our own safety and consider the safety of others first. And it’s a change in mindset for us to really take a look inside our department and within our own individual choices to keep ourselves safe.”

Dean Crispin

SFFD Chief



Interested in non-PFAS materials that perform? Contact the Milliken Fire Service team today to set up a wear trial.



For more information on the Milliken Assure™ moisture barrier and our line of high-performance fabrics, go to contact.milliken.com/fire-service.