

## CASE STUDY

# California Wildfires and the Summer of 2020

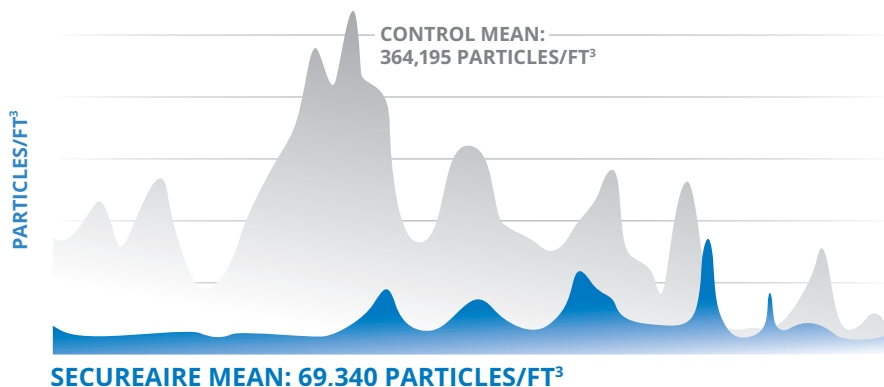
Northern California Wildfire smoke mitigation during the summer of 2020 was a challenge, to say the least. The Sacramento Valley suffered from the “Worst Air Quality in The World,” precipitated by multiple wildfires burning in Northern California counties for several weeks.


The California economy suffered due to loss of productivity and increased health issues among the population. For example, the smoke-laden air caused significant damage and loss of business to several Northern California data centers that rely on 100% outside air exchange.

Numerous medical facilities in the Sacramento and San Francisco areas were closed due to smoke and odor inside their facilities. The health of healthcare employees and their patients were jeopardized because existing HVAC systems with outdated HEPA filtration were unable to maintain and purify safe indoor air quality (IAQ).

As with most medical facilities, HVAC systems serving these buildings are designed to provide a fixed amount of outside air. During these wildfires, the indoor air quality was particularly poor with some measurements estimating that 50% of indoor air was contaminated with smoke laden particulates.

### ACTIVE Particle Control Reduces Ultra-Fine Particles by 81%





Like the data center example above, hospitals in the Sacramento area that were impacted the most were the ones with HVAC systems that bring in 100% outside air. Conversely, one of the largest medical centers in the Sacramento area was able to remain fully operational during the wildfire season, maintaining the health and safety of its patients and staff without interruption. They had installed SecureAire's ACTIVE Particle Control™ Technology systems into both of their 44,000 cubic feet per minute (cfm) rooftop air handlers that provided smoke-free indoor air. This Placerville, CA facility was able to remain fully operational in spite of the dangerous outside air. SecureAire's systems ensured safe and healthy indoor air for all. During the "Worst-Air-Quality-in-The-World" summer, the medical center served by SecureAire air purification technology did not experience a single complaint involving smoke or odor. Other hospitals employing outdated HEPA filtration had little to no protection from wildfire smoke.

SecureAire's ACTIVE Particle Control™ Technology is designed to remove sub-micron contaminants and is the only system with the ability to inactivate or kill virtually all airborne pathogens. It does this all while providing peak efficiency and airflow that optimizes the performance and life expectancy of the HVAC System.

SecureAire's ACTIVE Particle Control™ Technology is proven to reduce fine and ultra-fine airborne pathogens in operating rooms, reduce bacterial contamination in hospital compounding pharmacies, and rapidly inactivate or kill the highly resistant anthrax surrogate (*Bacillus sub-tilis*) [Ereth, *American Journal of Infection Control*, 2020]. Successfully inactivating or killing the anthrax surrogate is an extraordinary achievement since it is one of the most durable of all pathogens. It's much easier to kill or inactivate most every other bacteria and virus and SecureAire's success here almost ensures its success in killing or inactivating all pathogens including the SARS-CoV-2 virus.

No competing technology has ever demonstrated real-world evidence of facility-wide infection control. In a live 124 bed hospital, our ACTIVE Particle Control™ Technology cut health care associated infections by 45% [Ereth, *Journal of Hospital Infection*, 2021].

As California plans for more wildfires in the future, SecureAire's ACTIVE Particle Control™ Technology is the most effective technology to remove airborne contaminants including smoke, odors, and pathogens, keeping building occupants breathing easy!

*The  
SecureAire  
ACTIVE Particle  
Control System  
installed within an  
Outside Air Intake.*

**To learn more about the SecureAire ACTIVE Particle Control™ Technology and the future of indoor air quality (IAQ), visit: [www.secureaire.com](http://www.secureaire.com) or contact your local SecureAire Representative.**

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