

Gas-Phase Solutions for Medical Center Helipad Fumes

CASE STUDY – HEALTHCARE

Customer Profile

- € 94 billion state-of-the-art medical center located in southern California
- New 600+ bed facility opened in the fall 2008
- Rooftop air intakes located near emergency transport helipad

Introduction

In the fall of 2008, one of the busiest public hospitals in the western United States opened a new medical center complex. Shortly after its opening, employees began complaining about poor indoor air quality. Exhaust fumes from the rooftop helipad landings set off fire alarms and caused odors within the hospital.

The medical center's air handling units (AHUs), with outdoor air intakes, are located in the vicinity of the helipad. The air intake vents circulate air throughout the medical center's diagnostic and treatment tower, which houses emergency and operating rooms. A standard gas-phase filtration system was in place to remove odorous chemical contaminants, such as helicopter exhaust, but failed to provide sufficient protection for the facility's patients and staff.

After several months of working with the filter manufacturer to find a solution for the failing filtration system, the medical center closed the helipad in early February 2009. Within a few weeks, the State's Division of Occupational Safety and Health (DOSH) fined the medical center after validating employees' claims of poor air quality. The problem became so prominent that a local newspaper reported the issue and followed it until the helipad was reopened.

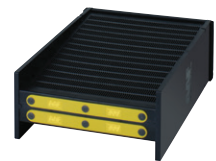


The AAF Solution

AAF was contacted to provide an on-site assessment of the affected rooftop AHUs to obtain a viable solution for the medical center.

Our gas-phase experts quickly identified an inferior gas-phase filtration product, and recommended a custom sized cassette to hold AAF proprietary SAAFBlend™ GP media as a solution. This project involved the selection of a unique metal cassette size that was successfully provided by AAF to replace the inferior system.

The cassettes filled with SAAFBlend GP media, consisting of a blend of activated carbon and a proprietary oxidant formulation, offer the most effective gaseous contaminant removal solution for helicopter exhaust.



Testing Confirms Superior Product

The medical center retained a third party environmental consultant who conducted monitoring and sampling for gaseous contaminants associated with helicopter exhaust. The contaminants include sulphur dioxide (SO₂), nitrogen dioxide (NO₂), and volatile organic compounds (total and speciated) during a helicopter landing event.

The medical center reviewed the results of the tests and concluded that our SAAF Cassettes with SAAFBlend GP media were superior. As a result, the medical center decided to use SAAF gas-phase filtration systems within all seventeen AHUs with outdoor air intakes in the vicinity of the helipad.

Helipad Reopens

AAF's gas-phase filtration system was installed in July 2009 and the helipad reopened. It has since remained operational. AAF continues to support the medical center with replacement filtration products, as well as media life analysis services, to best estimate when the media needs to be changed to ensure the hospital is providing a safe, odor free indoor environment.



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