

## AiroCide™ Air Quality-Improvement™ Systems

*AiroCide* is a unique airborne pathogen killing technology that uses a patented combination of ultraviolet light and a proprietary titanium based photocatalyst. The *AiroCide* technology and developing product line is clinically proven and field tested to kill/remove/eliminate airborne pathogenic and non-pathogenic microorganisms in vegetative and spore states (bacteria, mold & fungi, viruses and dust mites), allergens, odors and harmful volatile organic compounds (VOC's) in Medical/Healthcare, Child Care, Consumer Household, Mold Remediation, Athletic and Sports Facilities, Corrections Facilities and Food Preservation applications.

### Summary

A clinical test of the *AiroCide* system was conducted at a Georgia county corrections facility complex. The objective of the test was to determine the ability of the *AiroCide* technology to reduce the amount of airborne bacteria inside the facility.

The *AiroCide* system that was installed in the facility reduced the amount of airborne bacteria by 53% in 16 hours.

### Facility

The complex contains three separate buildings and houses the administrative offices of the sheriff's department, the county jail and a 911 emergency call center. It is approximately 700,000 ft.<sup>3</sup>

### Protocol

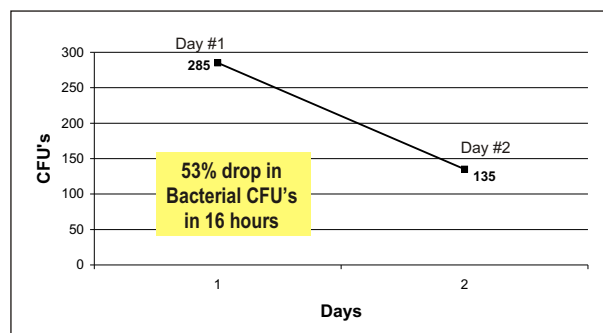
The test period consisted of two (2) consecutive days of air sampling. Air samples taken on Day #1 were used as a baseline for comparison to air samples taken on Day #2. No *AiroCide* units were operating on Day #1. The *AiroCide* system (7 ACS-100 units) was turned on after Day #1 air sampling was completed.

Day #2 "active on" air samples were taken the next day after the *AiroCide* system had been operating for 16 hours.

### Results

The *AiroCide* system reduced airborne bacteria from 284 CFU/m<sup>3</sup> on Day #1 to 135 CFU/m<sup>3</sup> on Day #2 or a 53% decrease in bacteria.

Based on suggested indoor air quality standards published by the World Health Organization (WHO) and the Indoor Air Quality Association (IAQA), KesAir considers  $\leq 150$  CFU/m<sup>3</sup> to be the guideline for permissible indoor bacteria levels in the air. The bacteria level was reduced to lower than this guideline by the *AiroCide* technology in this corrections facility 16 hours of operation.



Copies of tests mentioned in this paper can be obtained by writing KesAir, Research & Development, 3625 Kennesaw N. Ind. Pkwy., Kennesaw, GA 30144.

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