KesAir Technologies

Research Summary
Child Care Facility

AiroCide® Photocatalytic Air Purifying Technology

AiroCide photocatalytic air purifying systems are 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 capable of killing a wide range of airborne pathogens including bacteria, viruses and molds, as well as breaking down volatile organic compounds (VOC's) in medical healthcare, residential, food storage, and a variety of other commercial applications.

Summary:

A clinical test of the *AiroCide* photocatalytic air purifying system was conducted at a national childcare facility over a 6-week period The objective of the test was to determine the ability of the technology to reduce the amount of airborne mold and bacteria inside the facility.

The system that was installed in the facility reduced the amount of airborne mold and bacteria by 60% and 28%, respectively over a 6-week test period. These results are significant considering that mold and bacteria levels tested in the air outside the facility increased over the same time period by 3% and more than 600%, respectively.

Facility

The facility is a two-story building of approximately 18,000 ft^2 with an open stairwell connecting the upper and lower levels. The building is about 17 years old and constructed of concrete block. The interior is carpeted throughout with the exception of five specialized rooms, which have a tile floor surface. All rooms on both floors have suspended ceiling tiles made of fibrous material. As reported, no windows were open in the facility on any of the test days.

Protocol

The test period consisted of five (5) individual days of air sampling and spanned a 6-week time frame. Test #1 was used as a baseline for comparison to Test #'s 2-5. No units were operating during Test #1. All eleven (11) units were turned on when Test #1 air sampling was completed.

Test #2 air samples were taken the next day after the AiroCide air purifying system was operating for 24 hours. Test #'s 3, 4 and 5 followed in two-week intervals while the system continued to run 24/7.

Results:

The air purifying system that was installed in the facility reduced the amount of airborne mold and bacteria by 60% and 28%, respectively over a 6-week test period. These results are significant considering that mold and bacteria levels tested in the air outside the facility increased over the same time period by 3% and more than 600%, respectively.

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

AiroCide, KesAir & KesAir Technologies, and Air Quality-Improvement are trademarks of KesAir Technologies, LLC

© *KesAir Technologies. July, 2003*

www.kesair.com 800-627-4913