SAN-AIR™ perfect air 24/7

CASE STUDY - HOMELESS HOSTEL CS003

Client: Homeless Hostel - Sydney

Corridor in front of elevator

Lunch room

Dormitory

Situation:

A homeless hostel participated in a study measuring bio-burden levels found within buildings.

The hostel occupied a 5 storey block in Sydney. Every day the hostel would cater to 400 homeless people, with only some choosing to bathe before using the dormitory. The basement was used for receivables, food preparation, food storage, along with other services and functions. The ground floor featured the reception, a communal dining area, office space, a hospital, as well as several lavatories.

Each floor had two HVAC Plant Rooms. The fresh air intakes were soiled by pigeon droppings and positioned in close proximity to roads with a high level of motor vehicle traffic.

The building is older and given the multitude of occupants, the nature of the occupancy and the building's ambient control system, all contribute to the potential spread of microbial contamination.

The Indoor Air Quality (IAQ) was often challenged by the occupants, where the ambient odour of the internal spaces masked the odour of cooked food in the kitchen.

Treatment:

- A baseline reading was taken prior to introducing SAN-AIR into the system.
- The Biotest RCS Air Sampler collects airborne micro-organisms quantitatively onto a culture medium (agar strip). The air under examination is sucked into the sampler from a distance of at least 40cm by means of an impeller.
- Sampled agar strips are placed in an incubator set at 25°C for 24 hours, then 32°Cfor 48 hours.
- Colony forming units (CFU) are counted using the calculation: CFU/m^3 = Colonies on Agar strip X 25.
- Once a baseline sample was taken, SAN-AIR 500g and 75g Gel packs were placed in the Plant Rooms.

  The SAN-AIR gel relies on air contact time. There was a large amount of dust build up inside the ducts and outside the coils of the air conditioning unit and this dust acts as a carrier for the mould and microbial spores. By allowing the ingredients of SAN-AIR to evaporate and become mixed with the air stream the same way as dust and microbes do, the SAN-AIR vapours come into contact with the mould or microbes. Absorption of the vapours occur on the dust particles also, increasing the contact time and allowing SAN-AIR to inhibit growth of the organisms.

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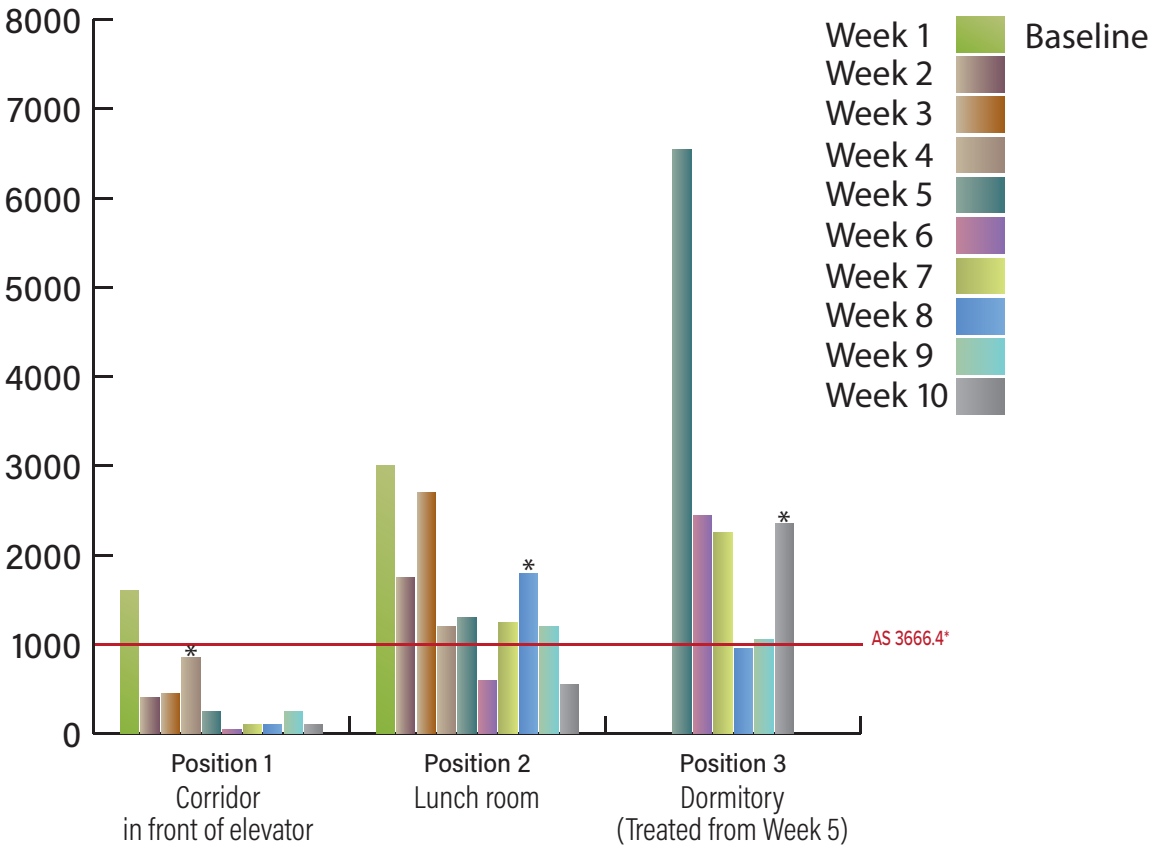
CASE STUDY - HOMELESS HOSTEL (Cont.) CS003

Result:

Colony Forming Units (CFU)

* Australian Standards AS3666.4 are set at 1000 CFU



* Indoor Air Quality (IAQ) is influenced by newly introduced contamination carried in by the wind and often, by humans. With the SAN-AIR gel working continuously throughout the indoor air space, new contamination is quickly controlled and treated. Without SAN-AIR, the contamination would proliferate and significantly impact IAQ.

Conclusion:

The introduction of SAN-AIR lead to a reduction of airborne contaminants.

This efficacy study highlights that SAN-AIR helped to:

- Address health and safety issues with respect to employees
- Remove liability risk from the company due to poor IAQ affecting the health of employees
- Meet indoor air quality microbial count guidelines as per AS3666.4
- Remove bad odours for the indoor environment.

Results show that SAN-AIR was effective in addressing contamination in the air systems which is a major source of respiratory infection triggers.

Of note was that several employees approached the SAN-AIR team towards the end of the test period, voluntarily sharing that they were no longer getting chest infections from working at the Hostel.

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