



Occupants First: Manual turndown?

Not on this campus.

Aircuity has operated in a customers' two very large lab buildings for over 7 years, and according to the client's calculations, saved over \$950,000. Prior to Aircuity the labs were operating at 12 ACH and with Aircuity are running safely at 4 ACH, with rates increasing when there is an event detected. Recently, however, the customer was contemplating setting their system to operate all their labs at 6 ACH and do so without Aircuity. They estimated that the savings from Aircuity would be about the same as the cost to purchase the Aircuity Services Commitment to maintain the system, and setting ventilation rates to a constant 6 ACH would work just as well.

At first pass the manual turndown seemed like a suitable option, however after more examination it was found that this route would risk occupant safety (around 17,000 times a year!) and sacrifice energy savings.

A Deeper Look

Aircuity Client Services and the local Partner analyzed the building and found two critical pieces of information:

1. A 60- day analysis of each building identified the number of "events" (defined as high TVOC or Particle readings) in each building.
 - a. Building A had 157 lab rooms and averaged 7.6 events per room/month:
approx. 1,193 events monthly
 - b. Building B had 70 lab rooms and averaged 3.6 events per room/month:
approx. 252 events monthly
2. Many of the labs could be operated at **2 ACH during unoccupied hours** which would increase the energy savings

Fortunately, during all events, Aircuity increased the ACH in the lab rooms to ventilate the "event" and maintain a safe lab environment. After reviewing the data, the customer recognized that operating at a constant 6 ACH would not be as safe as continuing to use the Aircuity System to dynamically increase the ACH rate when a high TVOC or Particle reading was detected. The additional energy saved through the ability to operate several labs at 2 ACH during unoccupied hours also more than offsets the cost of the Aircuity Services Commitment.

With Aircuity 2.0 recently released, the customer is now also in the process of upgrading. The upgrade will provide the Environmental Health and Safety

Department access to the Aircuity Analytic Dashboard to help them ensure the labs are operating safely. Personnel can use the dashboard to identify when and how often events are occurring in each lab and they can share this information with the lab users to determine why the event occurred and make the appropriate changes.

With this key EH&S data, protection of occupants during lab "events" and the additional energy savings, it was a win all around for the customer who signed a multi-year Aircuity Services Commitment and is currently looking forward to using Aircuity 2.0 for the first time.