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Position Paper

# Measuring Matters: Deploying the Indoor Air Quality Procedure with Confidence



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*smartIAQ™ is a breakthrough for confident adoption of the Indoor Air Quality Procedure (IAQP) by directly applying ASHRAE standards for indoor air quality. The solution goes further through closed loop air quality control ensuring air quality is never compromised while achieving energy efficiency and first cost savings.*

## **Indoor Air Quality Procedure and Ventilation System Design Considerations**

The Indoor Air Quality Procedure (IAQP) in ASHRAE Standard 62.1 is significantly more prescriptive following updates in 2019 and 2022. Evolving from an alternative approach to a tightly defined methodology for designing mechanical ventilation systems, the IAQP allows outdoor airflow rates lower than the Ventilation Rate Procedure (VRP). The IAQP directs that healthy indoor air quality is achieved in designs that deliver source control, air cleaning, and outdoor air in the right proportions to limit contaminant accumulation in the breathing zone. This is an appealing approach because ASHRAE and field experience demonstrate that the IAQP reduces mechanical equipment cost and complexity, lowers HVAC energy use, and achieves better indoor air. Yet, adoption of the IAQP remains limited.

The recent updates to Standard 62.1 in 2019 and 2022 have significantly enhanced the procedure's prescriptive nature. Under these updates, nearly every design variable has a defined target value, supported by an ASHRAE-developed calculator. The standard has been strengthened through requirements for third-party validation of air cleaner safety and effectiveness [1], a position paper on CO<sub>2</sub> [2], and specific guidance on objective evaluation methods. So outdoor air reduction under the IAQP approach has never been easier or lower risk.



## Adoption Slowed by Limited Validation

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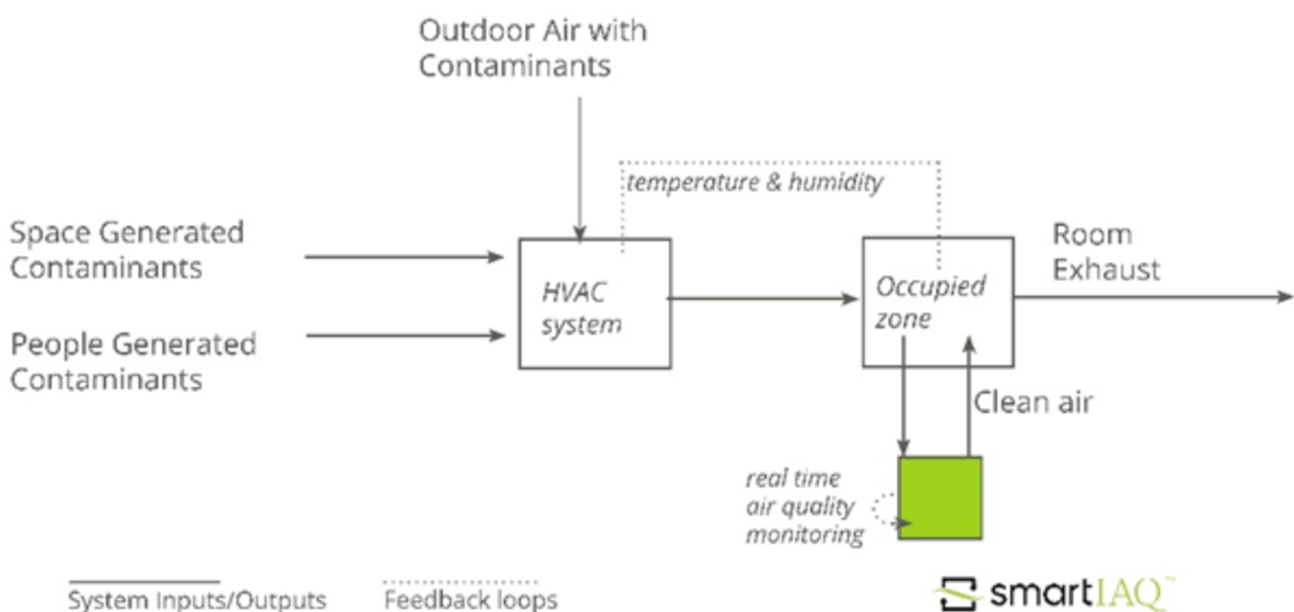
## IAQP with Sensing Builds Confidence with Closed-Loop Control

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## Beyond the IAQP

Going beyond the limits of the IAQP, other standards like LEED v5 and the WELL Building Standard provide additional thresholds for air quality. smartIAQ may be factory-configured to the levels specified in these standards. In that case, smartIAQ conditions and monitors air quality to those levels ensuring compliance and traceability.

## References

- [1] ASHRAE Standard 62.1-2022 Addendum N September 30, 2022
- [2] ASHRAE Position Paper on Indoor CO2 February 2, 2022

