

Ventilation Update: #2
FAQs: Certified Air Balancing Reports

The School District of Philadelphia is committed to providing safe environments for students and staff - including effective ventilation systems and healthy air quality in every building. The Chief Operating Office, in partnership with the Chief Schools Office, will be providing a series of FAQs and other information regarding the operations that are necessary for a safe return to in-person learning.

We have contracted with five vendors -- Goldner, Chadwick Service Company, Devine Brothers, EMCOR Services Fluidics, and Meehan & Son -- to perform ventilation assessments, or Air Balance Tests, at every school. These tests detect the number of cubic feet of outside air flowing through the room every minute (CFM), and determine the maximum occupancy of that room. The recommended standard, set by the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), is 15 CFM per person.

This Air Balancing Report lists the maximum occupancy of every room within your building based on a standard of 15 CFM per person. If the occupancy is zero (0), that room cannot be used for in-person instruction until a correction is made to the mechanical system, or facilities staff can provide additional means to bring in outside air.

| School: | School Name | | | | |
|-------------------------------|--------------------------------|-----------------------------|-------------------------|--|-----------------------|
| Vendor: | Vendor Name | | | | |
| Classroom ID / Area ID Number | Classroom / Area Type supplied | Actual Outside Air CFM (OA) | Occupancy (OA CFM / 15) | Air Balance Report Key | |
| Main Office | Office | 528.0 | 35 | CFM | Cubic Foot per Minute |
| 101 | Classroom | 100.0 | 6 | OA | Outside Air |
| 103 | Classroom | 76.0 | 5 | Occupancy | Number of people |
| 105 | Classroom | 238.0 | 15 | Formula to determine occupancy: $OA / 15CFM =$ Occupancy (number of people in a room) | |
| 107 | Classroom | 70.0 | 4 | | |

Question 1: What do the last two columns in the Certified Air Balancing Report actually mean?

Response: The Actual Outside Air CFM (OA) means sum of *fresh air* delivered through the ventilation system. The Occupancy (OA CFM/15) is the number of people that can be in the space at any given time.

Question 2: I did not receive a report for my school, what does that mean?

Response: Reports are still being generated by the certified air balancer and will be distributed upon receipt. It is our goal to have all reports online by mid November.

Question 3: As I plan for in-person learning, does the occupancy reflect the number of occupants that align to the health and safety measures?

Response: The Maximum Occupancy sign outside of each room reflects either the occupancy as determined by the Air Balance Test or the occupancy needed to maintain social distancing requirements (calculated as the room's square footage divided by 44 sq. ft.), whichever is lower. Social distancing protocols will always apply.

Question 4: Why weren't all of the spaces in the school building included in the report? For example, the Nurse's Office? Who do I need to contact for spaces that were not assessed?

Response: There is more than one reason why a room number was missing on the air balancer report. If there is not a ventilation system in place but there is at least one window in the space, then we will add a window fan to bring in fresh air. If there is no outside air source in a room, such as a window or univent, then no Air Balance Test would have been conducted. In these instances, the room will be taken offline and will not be used for in-person learning.

Question 5: I noticed that my school's Certified Air Balancing Report indicates a zero (0) occupancy number for certain classrooms. What does a zero mean and what are the steps for remediation?

Response: A zero occupancy number means that the room will not be used for person-to-person instruction until a correction is made to the ventilation system. However, the room *can* be used for virtual teaching, meaning that a teacher can be in the classroom delivering instruction virtually to students who remain remote. The facilities staff may be able to provide other means to bring in outside air to produce satisfactory occupancy numbers.

Question 6: What is the difference between a school that is non-operational where a certified air balancing report could not be completed, and a school that has zeros (0) as occupancy numbers in specific spaces?

Response: A non-operational school is a school in which the ventilation system can not be repaired at this time. There is more than one reason why a room number has a zero on the air balancer report. It could be that there was not a supply line in the room to measure air flow, or a mechanical adjustment would need to be made in order to measure air flow. If there is not a system in place but there is at least one window in the space, then we will add a window fan to bring in fresh air or if there is a mechanical adjustment needed, then we will proceed and again measure air flow.

Question 7: Is it safe to be in a school building with spaces that have zero occupancy or that has not been tested by an air balancer?

Response: Improving air flow is just one of the many health and safety measures being put in place to support healthy school environments. The Philadelphia Department of Public Health (PDPH) recommends increasing ventilation of indoor spaces whenever possible as an additional safety step and not as a replacement for wearing masks, social distancing, frequent handwashing and other safety precautions.

Question 8: Will we also receive information regarding our Annex building/Little School House?

Response: Locations that have other buildings, such as Little School Houses, will have data on one page and links to the certified PDF reports for the buildings. If your report is missing we will go back and correct it.