



Clearing the Air in Virginia Schools: What the New IAQ Law Means and How to Approach It

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A classroom can be comfortable, the HVAC system can appear to be operating normally, and the facilities department can be receiving no complaints, even though the space may not be receiving adequate outside air. Outside air plays an important role in indoor air quality (IAQ), helping dilute indoor contaminants and remove carbon dioxide (CO₂) and other pollutants that can build up in occupied spaces. With that in mind, Virginia's new indoor air quality requirements are prompting public school divisions across the Commonwealth to take a closer look at how their HVAC systems are performing.

As of July 1, 2025, [Virginia law](#) requires public school divisions to inspect and evaluate the HVAC systems in each school building at least once every four years (the requirement does not apply to a school building that will cease to be used as a school within one year of the planned inspection). The evaluations are focused on assessing ventilation and system performance against the most recent American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) indoor ventilation standards.

For school divisions, the practical challenge is determining how to address the requirement across an entire portfolio. Where do you start? What will the evaluations cost? How reliable is the documentation you already have? What happens when an evaluation uncovers a problem that requires additional investment? Working through these questions early can make the process more manageable and help school divisions connect the new requirements to the facility planning already underway.

WHAT EXACTLY DO WE HAVE TO DO?

The law outlines both who can perform the evaluation and what it must cover. Qualified professionals include certified testing, adjusting, and balancing (TAB) technicians, certified industrial hygienists, Master HVAC licensed technicians, and mechanical engineers. The evaluation includes physical measurement of outside air delivery, verification of ventilation component operation and condition, measurement of supply, return, and outside air and static pressure, verification of equipment operation and maintenance, CO₂ sensor and concentration verification, and evaluation of spaces without mechanical ventilation.

Existing records are a good place to start, but they may not tell you what is actually happening in the building. A TAB report, for example, tells you what was measured under the conditions when the TAB work was performed; it does not necessarily tell you how the system performs throughout the occupied operating cycle. TAB remains an

important part of verifying HVAC performance. Still, a recent [ASHRAE Journal article](#) highlights the important role that functional performance testing plays in verifying ventilation performance under occupied operating conditions.

For school divisions, existing documentation provides an important starting point, while field verification offers a clearer picture of how the building operates today.

WHAT ARE SCHOOL DIVISIONS LIKELY TO ENCOUNTER?

No two school portfolios look exactly alike. Virginia's schools span generations of construction, codes, technologies, and HVAC systems. Some have modern building automation systems and extensive documentation. Others have been operating for decades, have undergone numerous modifications, and have never been commissioned.

In older schools, some common obstacles can make the evaluation more complicated:

- **Incomplete or outdated documentation.** Original drawings may be incomplete, TAB reports may be outdated or unavailable, and equipment or controls may have changed without corresponding updates to the documentation.
- **Changes to the building over time.** Classrooms and other spaces may have been renovated or repurposed, creating differences between what is shown on paper and what actually exists today.
- **Limited system capabilities.** Older HVAC systems may provide substantially less outside air than would be expected of systems designed today, and some lack the controls or monitoring needed to demonstrate outside air delivery accurately.
- **Buildings that were never commissioned.** Without previous commissioning or functional performance testing, there may be less information available about how systems have historically performed.

Newer technology does not necessarily eliminate these concerns. Even buildings with automation systems and more sophisticated controls can have performance gaps that are difficult to spot without field verification.

We've seen this firsthand in our work. [Research](#) has shown that elevated CO₂ concentrations in classrooms, often a sign of inadequate ventilation, are associated with symptoms such as fatigue, drowsiness, headaches, and difficulty concentrating, as well as reductions in cognitive performance. During a recent investigation, measured classroom CO₂ levels exceeded 1,500 ppm daily and climbed above 2,000 ppm multiple times over a two-week period. The building automation system showed the outside air damper opening to introduce outside air as intended. Further investigation, however, revealed that the damper actuator was disconnected and the damper was actually closed. The controls showed outside air being introduced, even though the system was not physically doing so. This is an important distinction: a control system can indicate that ventilation is occurring even when the building does not receive the intended amount of outside air. Field verification is what reveals the difference.

Building pressurization can add another layer of complexity. Outside air, exhaust and relief air, fan operation, damper positions, and controls all interact. Increasing outside air without considering the system as a whole can affect building pressure, temperature, humidity, comfort, and energy use. ASHRAE guidance reinforces the need to maintain appropriate building pressurization while delivering minimum outside air during occupied conditions.

How the findings are addressed will depend on the building and what the evaluation identifies. For some schools, an adjustment or repair may address the issue. Others may need upgrades to equipment, controls, or monitoring systems.

HOW WILL SCHOOL DIVISIONS FUND THE REQUIREMENTS?

The challenge looks different depending on the size of the school division. Virginia's largest division operates hundreds of schools, while its smallest operates only a few. A large division may face significant logistical, staffing, and budget challenges when evaluating an extensive portfolio. A smaller division has fewer facilities to evaluate but may also have fewer internal resources and less financial flexibility.

Those demands come at a time when many school divisions are already balancing aging infrastructure, deferred maintenance, declining enrollment, constrained tax bases, and competing capital priorities. For many divisions, meeting the new IAQ requirement will mean finding room within already-constrained budgets for both the required evaluations and any resulting improvements.

The more important budget question may not be “What will the assessment cost?”, but “What might the assessment uncover, and how will we plan for it?” Maintenance needs, repairs, control changes, or system upgrades may all require additional funding. Considering those possibilities before evaluations begin gives school divisions more flexibility to prioritize and plan for the work rather than confronting the funding question only after deficiencies have been identified.

HOW SHOULD YOU APPROACH THE EVALUATIONS?

Before launching evaluations across an entire division, it can be useful to get the right people around the table. Facilities and operations teams will be central to the effort, but finance, procurement, and capital planning may also need to be part of the conversation. Together, they can establish what is already known, where information is missing, and how the work should be approached.

A Practical Approach:

- **Understand the Portfolio:** Inventory buildings, HVAC systems, documentation, age, condition, and planned projects.
- **Establish Priorities:** Identify which facilities warrant earlier evaluation based on system complexity, known issues, documentation gaps, and capital plans.
- **Evaluate Performance:** Perform the required field measurements and verification.
- **Prioritize Findings:** Separate routine maintenance from operational corrections, repairs, controls improvements, and capital projects.
- **Build the Budget:** Develop planning-level costs and incorporate them into operating and capital budgets.
- **Repeat:** Use the initial four-year cycle to establish a baseline and a repeatable process for future evaluations.

Upfront planning provides a school division with a framework for evaluating findings as they come in and deciding how to address them. Looking at the portfolio as a whole also helps avoid treating every school as though it has the same needs.

A recently constructed school with modern controls, current documentation, and commissioning records has a very different starting point from a decades-old school with limited documentation and an HVAC system with little ability to monitor or control outside air.

The same context matters after the evaluations. If a building is already scheduled for a major HVAC renovation, a deficiency may be handled differently than a similar issue in a school expected to operate with its existing systems for another decade. The evaluation gives school divisions the data they need to consider what the findings mean for maintenance, operations, budgets, and future capital investment.

WHAT HAPPENS AFTER THE INSPECTION?

Virginia’s new IAQ requirements are a significant undertaking, particularly for school divisions managing older facilities, limited documentation, and competing capital priorities. Starting early gives divisions time to understand the information they already have, identify what is missing, establish realistic budgets, determine how evaluations should be phased, and consider how potential findings fit within existing maintenance and capital plans.

The answers will not be the same for every school. Some findings may be addressed through routine maintenance or operational adjustments, while others may point to system upgrades or longer-term capital investment. Having

the larger facility picture in mind can help school divisions weigh those needs against available funding and other priorities.

There remains a great deal of uncertainty among school divisions about how they will meet this requirement across their portfolios and, importantly, how they will fund it. While implementation will present challenges, the requirement also creates an opportunity to better understand how Virginia's schools are performing, prioritize improvements, and develop a sustainable approach to maintaining healthier indoor environments. The goal is more than compliance. It is providing school divisions with the information they need to make better decisions about their buildings and, ultimately, to create learning environments where students and educators can thrive.

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