

# BALTIMORE COUNTY PUBLIC SCHOOLS

## *Preventive, Preemptive, Proactive IAQ Management*

### PROGRAM RESULTS

To respond to a County Council resolution, Baltimore County Public Schools (BCPS) Superintendent Dr. Joe A. Hairston formed an Environmental Assessment Advisory Committee to evaluate the district's IAQ management approach. Though BCPS' existing maintenance program was strong and did not face any serious IAQ problems, with the second oldest facilities inventory in Maryland, the district needed a concrete plan to manage its facilities effectively. On the advice of the Executive Director of the Department of Physical Facilities, Michael Sines, the Superintendent hired two Industrial Hygienists who serve as IAQ experts, David Glassman and Sean Joyce, to team with Environmental Services supervisor, Robert Merry, to develop a preventive, preemptive and proactive environmental management program. Using the *IAQ Tools for Schools* Program as a major component, BCPS initiated a school-driven, prevention-focused IAQ management program.

**Organize for Success — Develop a Systematic Approach:** BCPS assessed the strengths and weaknesses of their maintenance program and incorporated *IAQ Tools for Schools* guidance to address gaps in their IAQ management approach. For example, BCPS devised formal schedules for HVAC air filter replacements, walkthroughs and other maintenance activities to take the guesswork out of preventive action.

#### **Assess Your Environments Continuously — Identify and Prevent Risks:**

The Department of Physical Facilities compiles a list of campuses at risk for IAQ issues — due to building age, environmental conditions and other factors — and then works with the multi-disciplinary Environmental Action Team to review conditions and develop solutions to manage and solve each issue. The Department of Physical Facilities communicates diligently with school communities throughout the year regarding the progress of the plan. This communication transforms school-based *IAQ Tools for Schools* Teams into sentinels for environmental issues on their campuses so that the Department of Physical Facilities can act at the first sign of a problem — before little issues become big expensive ones. *“We’re a low-cost, no-cost program, which means communication is our most important prevention tool. We tell our staff, ‘We love little problems!’ because we hate big problems. Creating that awareness, participation and two-way communication is absolutely critical to our success.”* — Sean Joyce, Industrial Hygienist

*BCPS tracks cost savings, IAQ complaints and the number of disruptions to school building operations to continually communicate the IAQ management program's value to the district.*

- ▲ Reduced average expenditures on mold remediation activities from \$513,000 to \$150,000 within one year of program implementation.
- ▲ Observed a significant reduction in both number and severity of IAQ-related work orders and complaints.
- ▲ Reduced the number of remediation projects that delayed school openings from between 30-40 to just a single incident since program implementation.

#### **ORGANIZE FOR SUCCESS: Create Champions**

BCPS doesn't mandate participation on campus-level *IAQ Tools for Schools* Teams; anyone can play a part. Once teams are formed, BCPS trains members on IAQ fundamentals. Combining training with a volunteer's sense of initiative, leadership and commitment transforms “team members” into bona fide IAQ champions.

#### **Act to Address Structural, Institutional and Behavioral Issues — Address**

*Problems at their Source:* When the Department of Physical Facilities notices repeat issues in a space, they investigate how it is being used, cleaned and maintained. If any of these practices are causing or contributing to the problem, the Department of Physical Facilities and the campus *IAQ Tools for Schools* Team work together to communicate why the behavior is a problem and suggest alternatives. Keeping a blame-free, solution-focused approach ensures that occupants and staff are receptive to change, and digging deep to find the root cause of issues helps BCPS reduce the number of environmental issues.

#### **Evaluate Your Results for Continuous Improvement — Solicit Feedback:**

*BCPS* modified its walkthrough inspection report to include a summary that is submitted to the Department of Physical Facilities twice a year. Information on the summaries keeps the Department of Physical Facilities in the loop regarding the realities and perceptions at each campus. If there is the hint of a concern, action will be taken, often before the school community realizes the need for action. This early intervention is key to maintaining the confidence level critical to managing a large system. *“Evaluating our*

*program and sharing the results has allowed us to build a lot of confidence from our community — both our internal community and external community — that we have the ability one, to assess our air quality issues and two, to solve them.”* — David Glassman, Industrial Hygienist