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Newsletter for the National School Plant Manager Association



James Martin, NSPMA President
South Carolina



Dr. John Bailey, CEO/Executive Director
NSPMA Past President
VSPMA Past President



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Healthy air for healthy schools

Three trusted leaders bring you a better approach to IAQ for schools and academic settings



Keep students and staff in academic settings healthy, engaged and confident with a better indoor air quality (IAQ) solution from three industry leaders: UL, the global safety science company, SafeTraces, a leader in DNA-based safety technology, and Johnson Controls, experts in smart, healthy buildings. Together we bring you:

- New aerosol-based diagnostics to measure IAQ and ventilation and filtration effectiveness
- Science-based data to build your business case and make the most of available funds
- A blueprint for lasting clean air improvements, tailored to your timeline and budget

The right starting point: an independent assessment

Just as a doctor needs a clear diagnosis to prescribe effective treatment, an independent assessment of your school's IAQ, ventilation and infection control systems shows where best to focus your time, effort and resources. Our real-world testing frequently results in net cost savings.

- **Enhance** safety with an evidence-based clean air strategy
- **Prevent** misdirected efforts and wasted spending
- **Verify** and justify resource use
- **Inspire** confidence in staff, students, parents and the community

The right providers: a unique partnership

This first-of-its-kind partnership among three industry leaders simplifies scope and pricing for K-12 schools, whether you've taken steps toward clean air or have yet to act.

UL has conducted tens of thousands of IAQ and IEQ assessments through its Healthy Building Program and tests to ASHRAE 62.1 standards.

SafeTraces is the developer of veriDART™, the first aerosol-based solution for verifying HVAC system performance. veriDART uses patented DNA-tagged bioaerosol tracers to test airflow patterns, identifying potential infection hotspots and informing safety and financial planning.

Johnson Controls is the industry leader in smart buildings, with proven solutions including OpenBlue Schools--integrating building IT, communications, administration and classroom learning systems with core building systems to create smart, connected schools.

Together we offer you a practical, turnkey service: experienced experts to help you find problems--and solve them.

The right time: a long-term view

While good IAQ is critical to mitigating the risk of airborne viruses like COVID-19 and the flu, clean air has even more far-reaching benefits:

- Proven to decrease absenteeism due to allergies and asthma
- Linked to improved cognitive ability, supporting learning
- Linked to increased engagement, enhancing productivity

In short, the importance of clean air is ongoing--and we can help you achieve it efficiently and effectively. With your assessment in hand, Johnson Controls experts help you create a comprehensive, long-term strategy that guides each step toward a healthier, more engaging learning environment.

Start now

Take a better approach to IAQ. Call Johnson Controls to schedule your independent assessment today.

The power behind your mission

Here's what you get

Your IAQ assessment provides details and recommendations you can't get elsewhere and delivers data in an easy-to-use format.

Detailed Building Data Summary Report

Data on building size and use, recent renovations, special use areas, number of AHUs, filtration type and schedule, air supply system type, and areas of concern.

HVAC Systems Inspection

Inspect representative AHUs, fan coils, induction units, filters, air supply diffusers, and return air grilles. Ensure proper control, sequencing, and operation at desired setpoint and schedule.

Air Quality Testing

Test for CO₂, CO, particulates (PM_{2.5}), temperature, relative humidity, NO₂, SO₂, O₃, VOCs, airflow vectors and air pressure differentials.

Ventilation Assessment

Ensure outside air intake, supply air fan, and/or ventilation system supplies minimum outdoor air ventilation rate detailed by ASHRAE 62.1-2016 (unique to this assessment) and meets needs for space type, square footage and occupancy.

Infection Risk Assessment

Unique DNA-tagged bioaerosol tracers safely simulate respiratory emissions to identify potential infection hotspots, verify ventilation and filtration system performance for mitigating airborne exposures, and optimize enhancements.

The 5 Pillars of Your Clean Air Strategy

OpenBlue Clean Air from Johnson Controls delivers more clean air in your building to create a safer, healthier environment. We help develop the right strategy for your facility, using five pillars aligned with ASHRAE and CDC guidelines.

Set a clear baseline.

Start with a science-based indoor air quality (IAQ) assessment, evaluating your mechanical systems and any needs for remediation. Then build on the five pillars.



Ventilation

What it does: Dilutes dirty air with clean air as available from the outside

How we do it: Ensure delivery of ASHRAE required ventilation rates through service and solutions such as Metasys clean air monitoring



Isolation

What it does: Contains particles to prevent them from going elsewhere in the building

How we do it: Create negative-pressure isolation environments with options such as IsoClean portable filtration units, Triatek room pressure controls and Metasys



Filtration

What it does: Mechanically removes particles from the air

How we do it: Increase particle collection with options such as Koch Filters, MAC-10 Fan Filter Units, Envirco IsoClean Portable HEPA Filtration Units



Monitoring and Maintenance

What it is: Inspect and service equipment at the recommended frequency

How we do it: Track results, holding ourselves accountable to ensure you meet your goals. Provide ongoing maintenance and monitoring to maintain clean air.



Disinfection

What it does: Deactivates bacteria and viruses

How we do it: Add disinfection technologies such as ultraviolet C (UV-C) lighting



production code



Understanding IAQ Expert Advice

In the spirit of trying to help School Facility Directors and Administrators navigate through a sea of air purifying products, I'd like to address the following statement taken from a white paper from Johns Hopkins Bloomberg School of Public Health's Center for Health Security, May 2021:

"School systems should not use unproven technologies such as ozone generators, ionization, plasma, and air disinfection with chemical foggers and sprays. The effect of these cleaning methods on children has not been tested and may be detrimental to their health. The primary aim for improving air quality should be to remove contaminants and impurities from the air and not to introduce new substances into the air."

We could all agree ozone generators, chemical foggers and many sprays (ie ammonia based) can be harmful to children's health.

When we start referencing ionization and plasma, both being ion generators, we need to be careful as to what exactly these experts are referring to with regards to potentially harming a child's health. They are NOT referencing the actual ions being generated, rather they are referencing the potential byproducts that these ionizers may be producing in addition to the ions. The potentially negative byproducts are considered Volatile Organic Compounds or VOCs.

With this understanding, a patented technology is patented because it truly has a different way of achieving something- otherwise it would not be patentable.

AtmosAir's patented ionization technology actually reduces VOCs as proven in test after test including the attached. It is both the safest and the most effective active air purifying technology on the market because of its ability to safely generate millions of healthy ions that inactivate ANY virus, kills mold, bacteria and... reduces VOCs.

One last note, being that the statement above is from the Johns Hopkins Bloomberg School of Public Health, take a wild guess as to what active technology has been running in both Johns Hopkins and Bloomberg buildings worldwide for years...

Your
school
counts on



Superintendent Jeff Schwiebert in the fitness area of the all new Sartell High School.

Building for the future

Students in Sartell, Minn., now have room to grow thanks to a new 290,000 square foot high school. Balancing taxpayer expectations and school and student needs, school leaders turned to cooperative purchasing to procure quality products at an affordable cost.

With access to contracts for buildings, furnishings, and financing, your school can also build for the future with your government partner, Sourcewell.

Sourcewell is your government source for more than 400 cooperative contracts.

sourcewell-mn.gov

Watch this video to hear the superintendent's perspective on overcoming building challenges.



https://sourcewell.co/sartell_

Sourcewell 

Free Download: 11 School Maintenance Checklists

Keep your school safe, clean, and compliant with these 11 customizable maintenance inspection checklists created by other K-12 leaders.

Why do you need to plan for school maintenance?

Student and staff productivity is the foremost goal of [school facilities management](#).

To achieve ideal productivity levels, school personnel must be kept safe and healthy, all equipment and vehicles must run smoothly, and maintenance costs must be kept to a minimum. Smart facility maintenance practices tell us that having a proactive maintenance plan is the only way to achieve all your goals.

This level of responsibility is best achieved with a reliable checklist template to keep you on track and prevent details from slipping through the cracks.

What is a good maintenance strategy?

Aside from juggling the unpredictable and reactive maintenance requests that come through their inboxes, smart facility managers know that preventive measures keep that inbox to a minimum and reduce overall maintenance costs.

It may take some time to offset the current rhythms of incoming work, but eventually, a proactive schedule will allow you to have total control over your operations, intentionally scheduling work in the most efficient way possible.

[Preventive maintenance](#) can be split up into 3 categories:

1. **Inspection:** Sometimes your team can be so caught up putting out fires they don't get the chance to walk around your school building and grounds looking for potential problems or areas in need of repair before they become an issue. Inspection of your plumbing, roof, or light switches can be a huge step in reducing your risk of expensive damage or liabilities.
2. **Cleaning:** A great way to shorten your equipment lifespan or reduce your occupant comfort is by neglecting a school cleaning checklist. Removing dust, dirt, and debris from your school facilities is critical for student and staff comfort, productivity, and safety. Examples of school cleaning services can include restroom disinfection, removing graffiti, or cleaning up water and debris in the hallways.
3. **Service:** Equipment needs [routine maintenance](#) to continue running smoothly. Neglecting manufacturer guidelines is a surefire way to shorten lifespans and be forced to replace an asset sooner than you were anticipating. Not to mention, regular service improves asset efficiency and reduces energy usage and total costs. Planned maintenance can include tasks such as replacing an air filter, lubricating doorknobs, or changing spark plugs.

What is a building maintenance checklist?

When performing a regular inspection, cleaning, and repair, it's best to create a checklist template that your team can rely on. This way, you don't have to worry about tasks getting missed along the way. Facility maintenance checklists can either be completed on paper or digitally through [school facilities management software](#).

The following checklists are examples of inspection checklists, but the tasks that follow can often prompt cleaning or repair depending on the findings of the inspection. It's important to bolster these checklists with manufacturer-recommended service schedules for your vehicles, equipment, and assets.

Download the templates

[Here](#) you'll find templates for the following common school maintenance checklists:

1. Athletic facilities
2. Bleachers
3. Building exterior
4. Building interior
5. Chemicals
6. Fire systems
7. Fitness room
8. HVAC
9. Life safety
10. Playground
11. Roof

Note: Each school is different, so customizing your preventive maintenance checklist to fit your individual needs is important. [Click here](#) to customize the template, and then use "template" in the upper right corner to make edits.



School Facilities Management



**Registration is now OPEN for the
2021 Virginia Plant Management Association
Annual Conference!**

October 17-20, 2021

**The Inn at Virginia Tech
Blacksburg, VA**

Register at <https://vspma.org/>



What Active Shooter Trainings Do Wrong & What Effective Training Looks Like

Active shooter training is an invaluable and critical investment for school districts across the country. When more expensive solutions are not an option, the best thing districts can do is prepare their team members to effectively respond in the event of an attack. The challenge with many of the programs on the market is the way that they approach training. A number of these companies have made waves with how controversial their training style can be. For this reason, we will explore what those companies do wrong and what effective training looks like.

Why Should Districts Consider Active Shooter Training?

Bottom line, school districts need to be proactive when it comes to active shooters. The complexity involved in mental health issues and gun rights means that a solution to active shooters is not on the horizon. These issues will be deeply discussed and argued for years to come. Being proactive means being prepared. While there are a number of solutions that go into a comprehensive active shooter preparation plan, active shooter training is one of the best, and most affordable, options. Until we can prevent them, we have to prepare for them.

The Problem With Active Shooter Training Programs

Many of the active shooter training programs on the market are hot-button, controversial issues, and for good reason. School districts across the country have contemplated whether or not they should invest in the training because of the negative experiences and stories from their peers in other districts.

Including Students

This is one of the most controversial parts of active shooter training programs. Many argue that active shooter drills meant to emulate actual attacks can be traumatic for children, especially those who are too young to understand the difference between real and fake. Many of these programs have caused outrage across the country when students believed the drills to be real attacks. Could you imagine your child in school thinking they were actually under attack?

Instilling Fear

Another criticism of active shooter programs is that they too realistically simulate an actual attack. Training that causes fear and physical discomfort or pain takes away from the important learning that needs to happen in order for people to respond effectively. Teachers in one district were physically harmed during a training session when trainers lined them up against a wall and shot plastic pellets into their backs. Those staff members even considered a lawsuit due to the traumatic experience. These types of trainings go too far, causing more harm than good.

What Effective Training Looks Like

While many of these companies utilize the fear-mongering methods of training, there are companies, like ONE Training, that take a different and more realistic approach.

Train Faculty & Staff

According to the National Safety Security Protection Association ([NSSPA](#)), 83% of past active shooters in schools were current or former students. This means that including students in the training is a critical misstep. Instead, ONE focuses on training just the faculty and staff in how to respond to an active shooter in their school.

Training should empower faculty and staff, not scare them. There's no doubt that an active shooter incident is horrific, however, when people feel empowered by what they know and can do, they are more likely to save their own life and the lives of others. By educating faculty and staff in different scenarios, showing them how they can run-hide-barricade-fight, as well as helping them understand their power as first responders, they will feel more confident in their ability to protect themselves and their students.

Customize to Specific Needs

Rather than providing a one-size-fits-all solution, ONE also customizes training to different roles within the district. From greeters to bus drivers, administrators to teachers, there are different scenarios and responses that each role would be more likely to experience. Creating this customized training helps them better understand and visualize how they can actually respond in the event of an attack.

Based on the History of Attacks

Another area where ONE stands out is that they've studied the history of active shooter attacks in schools to help inform their training. Understanding how attackers have gained entry into a building, how quickly and easily confusion resulted in more death or injury, and how effective SROs have or haven't been, all provide great insight into how districts can make strategic changes throughout their buildings. Critical Expertise

Lastly, ONE doesn't just rely on input from former law enforcement to inform their training. ONE knows that pulling expertise from a number of professionals is critical to create a more comprehensive solution. That pushed them to pull together experts from education, mental health, law enforcement, special forces, and governmental agencies. These layers of experience and critical thinking have contributed to a stronger understanding of physical security in a school setting.

Conclusion

School districts across the country need to consider active shooter prevention training in order to be proactive and protect the lives of their faculty, staff, and students. While training comes in various forms, selecting a program that empowers faculty and staff, and removes students from the training altogether, will prove to be the most valuable and effective kind. For more information about ONE Training, visit www.trainingone.org.



SAVE THE DATE

NSPMA & SCSPMA JOINT CONFERENCE & TRADESHOW EXPO

January 30th-February 2nd 2022

Registration Opens April 30th!!!

*Join us at the Kingston Plantation,
Myrtle Beach, South Carolina.*



James Martin
SCSPMA Executive Director
(843) 343-6660
JMartin09919@gmail.com
NSPMA & SCSPMA Past President

WWW.NSPMA.ORG WWW.SCSPMA.ORG



SAVE *the* DATE

NSPMA & SCSPMA JOINT CONFERENCE AND TRADE SHOW EXPO
JANUARY 30TH-FEBRUARY 2ND, 2022
MYRTLE BEACH, SOUTH CAROLINA



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vernonjackson@spsk12.net

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lnichols@pearl.k12.ms.us