

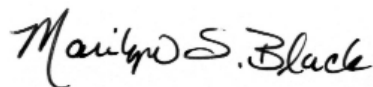
Welcome to 2005!

The new year is a great time to make a commitment to maximizing the quality of your indoor environment! Whether a manufacturer, building owner, school nurse, or business manager, you can play a role in improving indoor air quality in your place of work, home, school or recreation center in 2005.

AQS undertook significant research efforts in 2004 to develop innovative products and services to support businesses in their efforts to protect, measure and improve indoor air quality. With the release of new products and services such as MoldMAP™, the GREENGUARD Microbial Resistance pilot study, and the new school test kits, we are better equipped than ever to support indoor air quality management efforts in any environment. The whole point is to make it easy and convenient for businesses to champion indoor air quality and create better, healthier indoor environments where people live and work.

This issue of airfAQS focuses on the many ways to improve indoor air quality in products and areas that you may not have previously considered. We hope this will get you thinking about ways to create great indoor environments!

Best wishes for a happy, healthy 2005!



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FROM THE FIELD

National Health and Nutrition Examination Survey studies household allergens in participant homes for first time ever

The National Health and Nutrition Examination Survey (NHANES) is an ongoing program of the Center for Disease Control and Prevention. The Survey has been conducted since 1960 and tracks trends and provides information about the health and nutritional status of the US population. The study selects 5,000 participants of all ages from across the United States representing a



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INSIDE AIR

New age of green building calls for low emitting cleaning products



As the cleaning products industry moves into the new age of green building, it will be increasingly important for products that eliminate problems on the bacterial and odor side to also contribute only minimally to chemical pollutants indoors. Cleaning product manufacturers face new challenges when selling their products to businesses and consumers that are focused on maximizing indoor air quality. Emphasized as a major component of sustainable buildings, indoor environmental quality must be managed not only during the design and construction process, but also throughout the life of the building. Cleaning products represent the yin and yang

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AQS happenings

New microbial resistance study offers manufacturers an opportunity to help set the standard for microbial resistance

In August of 2004, the GREENGUARD Environmental Institute in coordination with AQS, launched a pilot study for microbial resistance testing. While there are several popular ASTM microbial resistance testing methods, it can be difficult for manufacturers to compare the performance of their products based on the results. Using the ASTM D 6329-98(2003), a method developed specifically for products in indoor environments, this pilot program will create a product ranking system using data collected from participating products. Scales will be developed for

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For more information go to www.aqs.com

FROM THE FIELD

National Health and Nutrition Examination Study

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cross-section of the US population. Participants undergo extensive interviews, medical examinations, and specimen collection and analysis, which are all used to compile a detailed health profile that tracks everything from nutrition, vision and psychological health to reproductive health and bone density.

Beginning in 2005, for the first time ever, the National Health and Nutrition Study will include dust sampling for allergens and endotoxin in participants' homes. Air Quality Sciences is proud to have been selected as the sole laboratory to provide analysis of all allergen dust samples collected for the NHANES survey over the next four years. The analysis provided by AQS will help health professionals understand the types and levels of allergens present in homes and how these levels impact occupant health. The inclusion of data on environmental pollutants is a very important step in generating a better understanding of the relationship between household allergens, the indoor environment, and respiratory illnesses like asthma and allergies.

AQS was selected based on our extensive quality assurance programs, high quality customer service, and cutting-edge laboratory facilities. AQS will process thousands of samples for NHANES for the study in a timely manner and will provide customized tracking and customer service to meet the demanding needs of the program.

In addition, AQS continues to lead the way

with studies related to indoor environments and health. Throughout its 15-year history, AQS has been actively involved in key indoor air quality studies and research. In the summer of 2003, AQS participated in a study sponsored by the US Department of Housing and Urban Development (HUD), examining the levels and types of molds prevalent in homes. In November of 2004, the research findings from the study was released in Applied and Environmental Microbiology. The results take an important step in documenting types and groups of mold typically found in homes in the southeast that have not had water damage. By establishing a baseline of what is typical with regard to mold types indoors, it will be easier to determine what is atypical,



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based on comparison. While we still have a long way to go, this study and others like it will be important in defining acceptable profiles of mold and hopefully, one day,

health-based guidelines. The complete report is available for purchase at <http://aem.asm.org/>. Single copies can be purchased by clicking on "Reprints" and ordering your copy from Thomson Scientific Document Solution.

AQS continues to expand its work with allergens in many arenas. As a leading participant in the ongoing discussions about indoor pollutants and health, Dr. Elliott Horner, Director of the Microbial Laboratory at AQS, published an editorial which will appear in the February issue of the Annals of Allergy. Dr. Horner suggests that recent evidence involving damp buildings has shown them to have a negative impact on occupants. He encourages subsequent studies to further determine the specific causes of health problems. He also proposes practical solutions for identifying and preventing moisture conditions in a building that lead the health problems among occupants.

AQS will continue to chart new territory in indoor air quality investigations, pressing forward with studies that consider the impact of indoor environmental conditions on health through participation in research studies, education of our customers, and through the services that we provide to create healthier indoor environments.

To learn more about the NHANES program, visit www.nhanes.org. To learn more about AQS' allergen testing services, please contact our Customer Care Group at 1-800-789-0419 or email info@aq.com.

Did you Know ?

With a proven 15-year track record of solving complex indoor air quality issues, AQS is the industry leader in providing due diligence for real estate transactions; resolution of sickbuilding syndrome, occupant complaints, mold and chemical contamination; corrective strategies; and development of IAQ management plans that create healthy buildings. We also provide product evaluations and emissions testing to help manufacturers produce low emitting products. As the only indoor air quality firm with internal labs that are both ISO 9001:2000 registered and AIHA EMLAP accredited, AQS sets the standard for effective diagnoses and solutions. Contact us at 1-800-789-0419 to learn more about how we can help you create better indoor environments!

AQS happenings

a variety of different categories of products including insulation, ceiling tiles and wallboard, just to name a few.

Leading manufacturers of all kinds of construction materials have already signed up to participate in the study and will lead the way in creating standards for their industries. These companies will benefit from the insights collected in this study and will have an opportunity to use that information to develop better products with a competitive advantage. Part I of the study, discussing methodology and outlining the program methods and objectives, is available at www.greenguard.org. We are still looking for manufacturers to participate in the pilot study. To learn more, please contact Melissa Haunson of the

GREENGUARD Environmental Institute at 1-800-427-9681.

AQS Welcomes New Staff

To keep pace with the growing demand for indoor air quality services, AQS is pleased to welcome several new employees and to announce the promotion of several of its team members! AQS has hired more than six new people in the last three months, all of whom will support AQS' goal of delivering the best possible service to our customers. Specifically, we'd like to make you aware of some changes in the Customer Care Group.

Scott Lawrence, Account Manager for the product evaluations team, has been promoted to Chambers Laboratory

Manager. Brad Fleckner and Scott Steady will be the new account managers for Product Evaluations customers. Ethleen Howell, previously Customer Care Specialist for lab services, has been promoted to Product Evaluations Sales Coordinator. Allison Stein will join us as the new Customer Care Specialist for the microbial laboratory.

Please join us in congratulating our employees on their promotions and in welcoming new staff to Air Quality Sciences.

AQS' New School Test Kit Helps Schools Guard Against Asthma

In response to recent groundbreaking studies on environmental triggers for

INSIDE AIR



of indoor air quality. Essential for reducing the presence of germs, dust, and particles, cleaning products play a very positive role in maintaining healthy indoor environments. At the same time, cleaning products emit volatile organic compounds (VOCs) into the air that can contribute to indoor air pollution, causing health problems and discomfort for occupants.

There are several steps manufacturers can take to make their cleaning products safer for indoor environments. Proper labeling of products is essential to ensure that users understand how to use the product to prevent excess pollutants from entering the air. One of

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the most common misconceptions among users is that the more of a cleaning product they use, the more effectively it will clean. However, using too much product simply releases more chemicals into the air unnecessarily and rarely improves effectiveness. Another common occurrence is the mixing of different solutions, which can result in the creation of harmful gases, causing irritation or even death in extreme cases.

Proper packaging and storage of cleaning products is another issue. Cleaning solutions should be recapped immediately after use and stored in an area away from occupants and preferably in a room ventilated directly outdoors.

Finally, and most importantly, cleaning product manufacturers can work to reduce emissions associated with their products. Through proactive product emissions testing, manufacturers can understand the chemicals that are being released from their products and can work to reduce emissions to formulate safer, lower emitting products. Sometimes modest adjustments in

formulation or manufacturing process can yield significant improvements in emissions.

Both business and consumer markets have demonstrated a demand for green products. This demand is supporting double-digit growth of the "green cleaning products" segment, which includes cleaning supplies made of all-natural ingredients. While recent figures show this market as a tiny fraction of the \$4 billion cleaning products industry, it is growing at an astounding rate. Those manufacturers that can deliver low emitting products that are both effective and safe, will ultimately grow their businesses and reach loyal green markets.

AQS offers product evaluation services and emissions testing for cleaning product manufacturers. As the testing partner of the GREENGUARD Environmental Institute, AQS can also help manufacturers earn the GREENGUARD Certified[®] label. To learn more or to submit a product for testing, please contact the Customer Care Group at 1-800-789-0419.

childhood asthma, Air Quality Sciences has released its advanced School Test Kit that now identifies the most critical environmental hazards for asthma sufferers. This easy-to-use kit allows school nurses, faculty, and staff to easily evaluate school facilities for the presence of indoor chemicals and allergens most likely to provoke asthma attacks.

Asthma is the most prevalent chronic disease among children and can be life-threatening. According to the CDC, asthma is the leading cause of hospitalization among children and nearly 1 in every 13 school-aged children has asthma. Asthma affects academic performance, with over 10 million school days missed each year by children experiencing asthma-related symptoms. This makes it very important for schools to routinely audit key indoor air pollutants in the classroom, to identify potential allergen triggers and their sources, and to minimize their presence. "By taking proactive steps to manage, protect and improve IAQ, schools can

help alleviate dangerous asthma attacks resulting in emergency room visits or hospitalization," said Tony Worthan, President at AQS.

The advanced test kit allows for the measurement of formaldehyde, other volatile organic chemicals, and dust mite allergens. Exposure levels in the school environment are measured and compared against normal or recommended standards. The kits can be used to test potential problem areas or they can be used as a proactive building management tool.

In conjunction with the new School Test Kit, AQS has issued a report on IAQ and Asthma in Schools. This informational white paper explains VOCs, dust mite allergens and their relationship to asthma. It also offers suggestions for improving and maintaining IAQ in schools and resources for more information. To download this report, please visit www.aerias.org, and register to access the complimentary Premium

Content section. To order a school or commercial test kit, contact our Customer Care Group at 1-800-789-0419.

On the Speaker Circuit

Dr. Elliott Horner will present at the Georgia Branch, Associated General Contractors of America's Safety and Health Committee in Atlanta, Georgia, March 4. The topic of discussion will be mold.

Dr. Horner will also be speaking at the 61st Annual Meeting of the American Academy of Allergy, Asthma and Immunology in San Antonio, TX, March 18-22. He will present an "Introduction to Fungal Aerobiology" and "Spore Morphology and Spore Identification."

For detailed information about AQS speaking engagements, please visit www.aqs.com or contact us at 1-800-789-0419.