STROBIC AIR
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CASE STUDY:

Los Angeles Valley College Achieves LEED Certification on Newly Constructed Health and Science Center

New Technology and Energy-efficiency Standards

Founded in 1949 in the heart of California's San Fernando Valley, Los Angeles Valley College (LAVC) is a two-year institution that offers transfer education, job training and lifelong learning to residents of the area and beyond. With a beautiful campus located just minutes from Hollywood, Beverly Hills and downtown Los Angeles, and a reputation for providing education of the highest quality, LAVC has become a popular destination for students looking to pursue vocational work or fulfill their general education requirements in preparation for a four-year college or university.

As part of its mission to provide the best educational resources and facilities for students, faculty and staff, LAVC is currently in the midst of a $626 million expansion and renovation project funded by bonds that were supported by Los Angeles voters. Existing classroom buildings are being updated with new technology and energy-efficiency standards, and all-new campus structures are being built as LEED-certified (Leadership in Energy and Environmental Design) buildings.

Of the work that's been completed to date, one of the project's crown jewels is certainly LAVC's state-of-the-art Allied Health and Science Center — an energy-efficient facility that opened to the public in September of 2008. Today, this three-story, 131-room building houses teaching labs, classrooms and faculty offices for such departments as Life Science, Physical Science, Earth Science, Anthropology and Health Sciences.

When originally designing the Allied Health and Science Center, however, LAVC faced a significant challenge. In order to achieve the sought after LEED-certified status, the facility would have to be fitted with a next-generation industrial ventilation system that was as intelligent and economical as it was effective and durable. And the college would not be able to rely on past successes, as the previous exhaust configuration for its science buildings was decentralized and cumbersome.

Everything They Need on a Single Roof

According to John Beckers, a technician for LAVC's heating, ventilating and air conditioning (HVAC) and energy management systems (EMS), the college used to house its various science departments in different buildings across campus, and each building had its own exhaust configuration — which created complications around maintenance and energy consumption.

Los Angeles Valley College

CHALLENGE:

Find an intelligent and energy-efficient industrial ventilation system that enhances the safety and sustainability of a newly constructed health and science center.

SOLUTION:

Los Angeles Valley College (LAVC) centralized and improved its science lab exhaust capabilities with the Strobic Air Tri-Stack® Smart System™ from Met-Pro Corporation.

BENEFITS:

The Tri-Stack Smart System has helped LAVC:

- Reduce maintenance requirements and energy consumption
- Extend the life of its ventilation equipment
- Improve fan uptime and overall building safety
- Achieve LEED certification and other green initiatives

"The science buildings were just crowded with fans and ventilation equipment," says Beckers. "Each hood had its own stack — a fan, a squirrel cage blower, duct work, etc. — and most rooms had at least two hoods, so there was a lot of equipment for us to maintain. On top of that, the motors in those fans were almost always running, which equated to a lot of wasted energy and wear and tear on the machinery."

With the Allied Health and Science Center project bringing all of LAVC's science departments under a single roof, the college needed to find a fan system that would not only be robust enough to meet the building's extensive ventilation needs, but also do so in a way that minimized maintenance effort and eliminated wasteful power consumption. According to Beckers, LAVC found all of that and more in the Strobic Air Tri-Stack® Smart System™ from Met-Pro Corporation.

"The Smart System turned out to be exactly what we needed," says Beckers. "It works well, it's economical and the self-diagnostic capabilities provided by the Controller help ensure the fans are only running when they have to — which creates energy savings for us and extends the life of our equipment."

The Benefits of a Safer, More Secure Learning Environment

To date, the Smart System configuration LAVC chose for its Allied Health and Science Center — which includes four fan units, with two acting as redundant backup, and the Smart System Controller — has led to a number of impressive benefits for the college, the first of which resulted from being able to centralize and consolidate its science lab exhaust systems.

"If you look at it from a numbers perspective, my department is monitoring four fan units now, as opposed to the 40-plus we had before," says Beckers. "And when you consider that each of those 40-plus units had individual belts, motors and other moving parts that could fail, it really shows how streamlined our maintenance procedures are now. Bottom line: we won't have to get on as many roofs going forward."

Another benefit of the centralized Smart System is the effect it has on uptime for the science lab exhaust systems. Previously, if the Chemistry lab's fan went down, for example, classes would have to be moved or rescheduled while the issue was addressed, which could create complications for faculty and students. With the redundant setup of LAVC's Smart System configuration, however, a backup fan will automatically kick in any time a fan goes down, so the exhaust systems will continue to run without impacting lab activities.

What's more, with the 24x7 monitoring and automatic adjustment capabilities of the Smart System Controller, the Allied Health and Science Center is now a safer and more secure environment than the individual buildings that preceded it. "Any time something significant changes — say the water column height — I get a notification on my screen, and I know immediately whether the system can adjust itself or if additional action needs to be taken," says Beckers. "I'm also getting it set up so I receive notifications on my smartphone, so I'll always be aware of the safety conditions in that building."

Finally, the Smart System's energy-efficient design played a large role in LAVC achieving LEED-certified status on the Allied Health and Science Center, which is a significant feather in the cap for a college that plans to continue developing sustainable facilities and pursuing additional green initiatives into the future.

For additional product information, please visit our Business Unit web site (www.strobicair.com), or contact us at:

Strobic Air Corporation
A Subsidiary of Met-Pro Corporation
160 Cassell Road, P.O. Box 144
Harleysville, Pennsylvania 19438

Toll Free: 1- 800-SAC-FANS
Phone: 215-723-4700
Fax: 215-723-7401
E-mail: tristack@strobicair.com

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