

## Optimizing Summertime School Performance

By: Maureen Lally - Monday, July 23, 2007

Source: Trane

### Referral Ads by Google

#### [250 Free Business Cards](#)

Top Quality. Full-Color.  
Easy to Order Online.

Just \$5.25 S&H.

[www.VistaPrint.com](http://www.VistaPrint.com)

School is out for summer, but it's no time to take a break from thinking about school building performance. Most school buildings will have reduced occupancy for the next two to three months. Many will undergo cleaning, construction and renovation projects during the break.

Use this summer season to maintain efficiency and ensure building systems are in top shape when students return.

#### [Solarize Your CA, CO Home](#)

Slash Your Energy Bill  
With Solar Power.

Request A Quote Today!

[www.RealGoodsSolar.com](http://www.RealGoodsSolar.com)

### **An ounce of prevention equals a pound of savings**

During the winter and spring facility managers have identified any major repairs that need to be done to heating equipment. Any repairs or upgrades to the cooling system are done.

Now it's time to focus on prevention.

Update your summertime operation and maintenance (O&M) plans and make sure personnel are informed about the tasks and procedures. Go over the plan with your

HVAC service provider to identify any gaps or opportunities to improve efficiency.

Some items to include in your latest preventive maintenance schedule:

- Change and clean filters regularly
- Make sure all vents are clean and not blocked
- Ensure drain pans are properly drained
- Check for piping damage and inspect condensate traps
- Keep air conditioning coils clean
- Inspect plumbing and conducting any repairs immediately.
- Eliminate roof leaks or other sources of moisture and inspect ceiling tiles
- Replace faulty lighting fixtures and burnt-out bulbs

**Summertime HVAC operation.** Identify the best summertime operating settings for the HVAC system according to occupancy schedules. To conserve energy, cool only the spaces that are in use.

However, do not turn off the HVAC system completely. Shutting down the system could result in moisture build-up that results in costly structural damage and indoor air quality problems. It is not necessary to run the HVAC at the same levels as when the building is in full use, just enough to control moisture.

**Take precautions during construction.** During construction projects take measures to make sure dirt and dust don't get into HVAC equipment. Consider any necessary adjustments during painting or cleaning projects. For example, during carpet cleaning, the HVAC system should be on and running additional fans, ventilation and dehumidification.

### **Summertime IAQ**

The summer months are important to maintaining IAQ. Many schools face problems with humidity and mold, which can be dangerous to the school building and to the health of students when they return in the fall.

Older schools suffer the worst IAQ problems. The Environmental Protection Agency (EPA) has found that schools built during the energy crisis of the 1970s have some of the poorest air quality, because they were designed to retain warm air in the winter and cool air in the summer but have limited air circulation.

**Don't let in the wet.** The EPA recommends keeping relative humidity below 60 percent. Mold can lead to dust mites and cause illnesses to building occupants as well as structural damage. Check the building envelope. Conduct repairs right away to avoid moisture from entering through window and door openings, seams, roofs or other openings.

**Invest in humidity control.** Consider equipping your HVAC system with humidity control equipment, an investment that could save major costs in mold removal and cleanup.

**Assess IAQ.** A walk-through of the building can target any potential areas where further IAQ testing is necessary, such as mold assessment or testing for toxic contaminants.

For more tips on IAQ, to the EPA's "[Tools for Schools](#)" kit.

### **Energy efficiency during the summer**

The U.S. Department of Energy's office of Energy Efficiency and renewable energy reports that an efficient O&M program can save school districts up to 20 percent in energy costs per year over similar buildings that do not have a program in place.

Take measures this summer to review and document last season's energy performance of building equipment and target areas for efficiency improvements.

**There are many simple measures to gain efficiency.** Programmable thermostats, lighting sensors, and carbon dioxide sensors are some examples of controls that can improve the indoor environment while saving energy.

For more ways to improve efficiency in building operations and maintenance, refer to Energy Star's Fifteen O&M Best Practices [booklet](#).

The summer slowdown also offers an opportunity to discuss with your service provider possibilities for major efficiency projects. There are many financing options and state programs to help improve performance and energy efficiency of school buildings. The LEED® for Schools program is the United States Green Building Council's nationally accepted rating system for high-performance buildings that meet the specific needs of learning facilities and student health.

Take advantage of the summer slowdown to get high grades for performance when things get back in swing this fall.

*Trane is a leading HVAC systems, solutions and service provider, including turnkey and contracting solutions. Trane has market leadership in high-performance buildings and energy efficient building systems and is a leader in energy efficiency solutions for schools.*