

Office of Facilities Planning Newsletter #70 – December 2005

Water Closet Compartment Sizes:

Just when you think by now you "know" the Code and ANSI (or ADDAG) something pops up that you've been missing. Yes, water closet compartment sizes. No, this is not another handicapped accessibility requirement. It affects all remaining toilet stalls, those that are not required to be accessible. Set aside the Manual of Planning Standards, take out the green NYS Plumbing Code book and open up to Section 405, Installation of Fixtures. Buried in the Plumbing Code book is a tidbit the architectural designers need to know about. This section requires a minimum water closet stall size of 30" x 60"! This is a little bit bigger than what we see on many architects' designs for those new stalls. The Plumbing Code book is so nice it even has a dimensioned drawing for clarity.

Testing Caulk for PCBs:

In a survey of the state's architecture and engineering firms, the State Education Department found that few have been testing for PCBs in caulk before renovating. Those that did said they also found asbestos and lead in the caulking and therefore used a careful abatement process. After further consultation with the Departments of Health and Environmental Conservation, SED will issue guidelines on how to address potential PCB containing caulk.

The Legislature may be considering plans to introduce a bill to require every district to test a sample of caulk in buildings constructed or substantially refurbished before January 1978. If this bill were signed into law, the state would aid the cost of the testing. Research suggests this cost would be about \$60 per sample.

NYSERDA's Energy Savings Tips:

These are simple principles you can apply for reducing energy consumption. Very timely considering the rise of energy prices.

https://www.p12.nysed.gov/facplan/Energy/NYSERDA_page.html#energy%20tips.

Lowering Thermostat Temperatures:

Many school districts are contemplating or already have lowered their thermostats for the ensuing fall and winter seasons to reduce energy consumption. The million dollar question is how far can the thermostat be lowered and still maintain 65 degrees when the building is occupied.

The minimum temperature required to be maintained in buildings while the building is occupied (including schools) is **65 degrees** and it must be maintained from **September 15th through May 31st**. This is a requirement of the Property Maintenance Code of New York State, Section 602.4. Buildings with ongoing construction projects must also meet this requirement for occupied portions of their buildings where there are students and/or staff. Therefore, reducing the interior temperature below 65 degrees or decreasing outside fresh air below the minimum required by code are not acceptable methods for reducing energy consumption.

The boiler capacity, efficiency, and distribution system for heat affects the number of BTUs (heat) that can be delivered to a room. An improperly balanced system will not enable some rooms to recover their room temperatures to 65 degrees. Therefore, setting the thermostat too low at night needs to be examined very closely. During extreme periods of cold some systems may not be able to recover the interior temperature to 65 degrees if the thermostat was set too low at night.

Thermostats are typically on the interior wall. Those students seated near the windows need to be considered. While the temperatures are still in the 40 to 50 degree range during the daytime the temperature near the window is easy to maintain. As winter hits and temperatures are in single digit ranges, the window side of a classroom can vary a couple degrees lower than the interior wall thermostat. Therefore, it is cooler/colder at the windows.

Also consider the design of each school building. The insulating quality of the walls and roof allow different amounts of heat to escape. You can deliver the heat to the classroom, but inefficient insulating systems will allow the heat to escape too fast to warm a space effectively. And lastly, buildings set in the sun could be aided by the Sun for solar gain. A cloudy day, coniferous trees or pulling shades and blinds down to block the sun can stop the same gain.

There is no standard formula to determine how much heat you will save for each degree you lower the thermostat. Not yet available is NYSERDA's basic energy calculator. This will help districts identify potential savings. We will provide you a direct web link when it becomes available. However, remember every building needs to be examined individually, including coil freeze protection, if larger temperature setbacks are desired. All of the topics above need to be placed in the formulas to determine the buildings capacity to re-heat and maintain the heat. With this you can determine the amount of fuel consumed at 70 vs. 68 degrees during the daytime or how much fuel is consumed to reheat each building in the morning after setting the thermostat back to 60 or 55 degrees at night.

An Index of our Newsletters is available on our web site at <https://www.p12.nysed.gov/facplan/NewsLetters.htm>.

If you would like to have this Newsletter sent directly to you by e-mail, please send your e-mail address to Joe Levy at jlevy@mail.nysed.gov

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