

Managing Lean and Green:
Training your Supers and Building Staff to Operate their Buildings Efficiently
Workshop presented by Andrew Padian, Steven Winters Associates, Inc.
10-1-08

Steven Winter Associates will provide classes on a building/organization basis. For more information, contact Andrew Padian at: Padian@swinter.com

The last time that NYC saw a flood of foreclosures, during the early 1970s, was the last time the price of oil tripled and credit was severely limited; some 11,000 buildings were taken over by the city. Andrew Padian of Steven Winter Associates started his provocative and lively presentation to the building managers and superintendents who attended the October 2008 session of Managing Lean and Green with that warning.

An important preventative measure that buildings can take is to stop wasting energy. “Your buildings are pigs!” says Padian, “Your buildings use twice as much energy as they should.”

Why do buildings waste energy? At least as important as the physical structure is the way that buildings are managed and maintained. Most buildings are not operated efficiently and every year, thousands of dollars are thrown away to pay for wasted heating fuel, electricity and water. An important way to address this waste of financial and environmental resources is to educate all the people that affect building management and maintenance: the building manager, accountant, purchasing staff, supers, porters, and tenants should all take a class, preferably together, about how to reduce energy use in their buildings.

Following are some of the ideas for reducing energy waste that Padian shared with *Managing Lean and Green* participants.

- 1) **Stop overheating your buildings:** It's the coldest day of the year and all over NYC you can look up to the top floors of most any building and the windows are opened!

- It cost about \$4000 to heat each apartment every year so the potential cost savings are significant. The most efficient buildings use about seven times less energy than the energy hogs. Know where you stand. Calculate how much energy each of your buildings uses per square foot per heating degree day to know where to give attention in your portfolio (see energy calculator).
- Supers should get, read and follow the instructions for all their equipment. Because supers don't know how to use their equipment, for example, their temperature calibrators are not adjusted each year to accurately read outside air temperature.
- Tenants need to be trained to turn off radiator valves rather than open windows. In every apartment should be a laminated plaque on the inside of the kitchen cabinets that directs tenants not to open the windows and instructs them about how to turn radiator valves off

Follow NYC rent laws but don't overheat!
Heating Season (October 1 to May 31)
Day (6 am to 10 pm): Heat to 68° F if the outside temperature is less than 55° F.
Night (10 pm to 6 am): Heat to 55° if the outside temperature is less than 40° F.

- 2) **Decrease water use:**

- Read the water meter at 3 a.m. Water leaks explain virtually all the water being used at that time. Leaks are typically 25% of your water bill.
- Toilets are the biggest water wasters in your buildings. The average person flushes the toilet five times per day; for a four-person household that uses 43,800 gallons of water costing about \$219 per apartment per year. Reducing the water use per flush can save up to half of that amount.
- The typical shower head runs at four gallons of water per minute. A low-flow showerhead runs at 1.75 gallons per minute. If each household runs the shower for 60 minutes per day (four people taking a 15 minute shower each day for 365 days) and each shower is saving 2.25 gallons per minute, 49,275 gallons will be saved per year per apartment. Water costs about \$5.00 per 1,000 gallons, therefore, *each apartment can save \$250 each year by switching to low-flow showerheads.* That does not include the cost of heating the water. Tip: Check out Niagra Earth 1.75gpm shower heads.
-
- Use aerators on bathroom sinks at .5 gallons per minute.
- Use Aerators on kitchen sinks at 1.5 gallons per minute.

3) Change your light bulbs to Compact Fluorescent (CFL) bulbs:

- A 100 watt incandescent bulb costs about \$200 per year if it's on 24/7 (\$2/watt). An equivalent CFL about \$66 per year. *You can save \$144 per year per bulb in electricity costs.*
- An incandescent light bulb costs about \$.50 per bulb vs. a CFL bulb costs about \$4.00 per bulb. However, because incandescent bulbs are replaced about eight times per year, the *annual cost* for the incandescent is about \$4.00. CFL bulbs will last at least two years (probably more) running 24-hours/day. So, over two years, *each CFL will save at least \$4.00 in purchasing costs and your super will be able to spend his time on other cost-saving measures instead of spending so much time changing light bulbs.*

4) Provide building/organization-wide training.

- Managers, supers, porters, purchasing agents, accountants, and tenants all need to get on board to dramatically and effectively reduce energy. It is best to train all the relevant staff, management and tenants at one time.

For information about energy and water-saving equipment see Energy Federation Inc. (<http://www.efi.org>).

###