FSTC GREEN SHEET

THE GREATEST JOB: Getting into Hot Water

What is the greatest job in the world? Is it travel-writer, wine taster, rock star? For many of you that greatest job is all about the satisfaction of serving the public in your restaurant. Indeed, "job satisfaction" is the true measure of a great job! For those of us in the energy efficiency/green building biz, job satisfaction comes from studying the way we use energy, teasing out ways to do it better, and sharing that information with you. The best days at the office are when we find easy, no-cost/low-cost ways to plug the "energy leaks" in your kitchen. This month, job satisfaction is running high as we offer you two of the easiest energy-savers ever!

NECK-DEEP IN HOT WATER

The researchers at the Food Service Technology Center decided that 2006 would be the year to start an in-depth study of hot water heaters. This made a lot of sense considering that the food service industry spends somewhere around $400 million dollars a year heating water! The researchers started by looking at the standard-efficiency water heater found in most restaurants but it didn't take long for them to shift their attention to the whole hot-water system – the tank, pumps, pipes and even the flue. The research project is ongoing but a couple of obvious results have turned up that are too good not to share.

PRACTICE WHAT WE PREACH

For years, energy efficiency types have been preaching the benefits of insulation on hot water lines. You pay good money to make hot water and the insulation keeps it from cooling off as it moves through the pipes. This is an obvious and accepted energy saver and now, thanks to our research project, we have a great example of just how much this can add to your bottom line. Our case-study casual dining restaurant uses about 2000 gallons of hot water a day, which is pretty typical for a full service restaurant. Measuring the gas use with and without the insulated hot water lines the researchers found that a few feet of insulation saved an easy $300 a year. We're talking about less then $20 worth of foam insulation and 10 minutes to slip it on the pipes! All hot water tanks start out with this insulation (at least they are supposed to) but over time, the insulation tends to disappear. So, have a look at your tank and see if you can pick up some easy money. Important note: make sure you insulate the correct pipes – insulating the cold-water line won't do you any good.

A SURPRISING SWITCH!

The best part of research is when you find things you weren't expecting. One of these "finds" came when the researchers starting asking questions about the automatic flue dampers on hot water heaters. This damper is supposed to close when the heater's burners are off, keeping the heat stored in the tank from escaping up the flue. A small motor with an on/off switch operates the damper. It's a great energy saving trick and one that the researchers found saved about $500 a year in our case-study restaurant. The real surprise came when a plumbing contractor installed a new hot water heater in the Food Service Technology Center lab but failed to enable the automatic flue damper. The light bulbs lit up as the researchers asked themselves if this was a typical mistake. Further fieldwork revealed that it is not unusual for this damper to be overlooked during the and start-up of a new water heater. So, check your water heater because turning on your auto-damper is simply one of the easiest ways you can save energy!

SATISFIED

For some of you, spending even a few minutes with your hot water heater may not be an easy task but, if a little insulation and the flick of a switch can potentially save you hundreds of dollars, then it's certainly worth making a date. In our case study restaurant these two items alone increased the efficiency of the hot water system by 7%! If we could replicate those savings throughout California food service, the savings would add up to millions of dollars a year, more profitable restaurateurs, and especially satisfied researchers!

These energy saving tips are offered by the Food Service Technology Center (FSTC), an unbiased food service resource center located in San Ramon, CA and funded by California utility ratepayers under the auspices of the California Public Utilities Commission. For more information on the FSTC and for our schedule of free energy efficiency seminars, please visit our website at www.Fishnick.com.