

In our last Green Sheet we talked about the importance of water, a precious and limited resource that has a direct and sometimes surprising effect on your bottom line. For that issue we covered some of the typical ways that water is wasted in food service by smaller items like leaky faucets, dipper wells, and hoses. In this Green Sheet, we will look at some water-using appliances, fixtures, and systems that, once purchased, will probably be a part of your restaurant for a while. These bigger-ticket items require a little more purchasing and operations savvy because they all have the potential to consume significant amounts of water and energy. So pay attention because savvy saves you money!

STEAMERS – CUT THE CONNECTION

When it's time for a new steamer, purchase a connectionless ENERGY STAR® steamer. The connectionless models have a sealed steam cavity with no drain so they cannot waste any condensed steam down the drain and they do not require any drain-line cooling water either. Steamers with a drain will use anywhere from 20 to 150 gallons of water an hour. That's a lot of water and it also drives the energy use of the steamer. In one field test comparison of a three pan connectionless steamer with a traditional boiler-based steamer, under moderate-to-heavy usage in a full-service restaurant, the connectionless steamer saved about \$2000 a year in water and sewer and another \$3000 in electricity.

COMBINATION OVENS – DON'T BE CARELESS

Combination ovens are super versatile appliances that could make James Bond jealous but you must use the combination mode (convection oven plus steam) with care. Those advanced control panels are a clue that combination ovens are meant to be operated with finesse. Using the combination mode like a blunt tool will waste water, anywhere from 10 to 40 gallons per hour on a typical 10-pan unit, and can double the energy use of the oven. Refer to the manufacturer's recipes and recommendations for different food items and learn to program your oven so that you use the combination mode only as much as you really need to.

ICE MACHINES – CHOOSE WISELY

Ice machines and soft serve machines can either be air-cooled or water-cooled. A medium sized, 500 pound, water-cooled ice machine will use over 1000 gallons of water a day just for cooling and will cost you about \$2,500 more a year than the equivalent aircooled machine. Needless to say, you want to avoid water-cooled ice and soft serve machines and if you already have one, you definitely want to make sure it is wellmaintained and not dumping extra water down the drain.

DISH MACHINES – LESS IS MORE

A dish machine is a big investment and a piece of equipment you will be keeping for a while so take a close look at the long term cost to operate and remember that both the energy and chemical consumption of that appliance are directly driven by the water consumption. Study the NSF gallons-per-rack rating of your candidates, typically available from the manufacturer, and choose a dishmachine that uses the least amount water. Water efficient machines will be less than one gallon a rack. Do your homework and don't get stuck with a guzzler.

BRING IN THE EXPERTS

If you are a successful restaurant, then you will have lots of customers and that means lots of toilet flushes and hand washing so it makes good economic sense to replace your older, water-guzzling toilets with high-performance, low-flush units and to have aerators installed on all your hand sinks. (If you really want to impress your customers and promote better sanitation, then the hands-off, infrared faucets are for you.) This is where your local water company comes in. Most California water utilities have excellent water conservation programs that include toilets and sinks and help is only a phone call away. They will also be happy to help you locate any underground leaks and they can help you reduce the amount of water you use for outside irrigation. That is a great service because in some restaurants almost half the summer water bill will go to watering the plants (and too often the sidewalk as well).

KEEP TRACK

You need to record and keep track of your energy and water costs for the same reason that you track your labor and food costs – to get an idea of where the money goes and to spot waste. Simply plugging your information into a spreadsheet and plotting the month-by-month consumption of water, gas, and electricity will tell you an important story about your restaurant. You'll quickly figure out how much extra your irrigation is costing during the summer months and you'll be able to spot the toilet that constantly runs or the water-cooled condenser with a stuck solenoid valve. Remember, when it comes to your utilities, ignorance equals waste. So, get smart – find out where your water goes and don't let it go to waste. Get competitive – think like a corporation and don't make any purchasing decisions until you have considered the long-term, big-picture, water and energy implications. And, get help – your water utility is a great resource so give them a call. Then sit back, enjoy a big glass of fresh clean water and consider the important part water plays in the restaurant business. Let's all work together so our industry doesn't run dry!

If you'd like to calculate your own energy and water savings from purchasing a connectionless steamer, use the Life-cycle and Energy Cost Calculator for steamers, a simple online tool created by the Food Service Technology Center and located at www.fishnick.com/tools/calculators/. For more information on how to purchase an efficient ice machine, visit FEMP at www.eere.energy.gov/femp/technologies/eeep_ice_makers.cfm.

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.