by Phil Sprague

Energy savings comes from employee training

It is estimated that the annual cost of energy and water for a hotel can be reduced by as much as ten percent by training employees to operate the hotel efficiently. The following information will provide some suggestions in these various departments for training employees to reduce energy consumption without any capital investment.

Housekeeping

Housekeeping staff typically work throughout 80 percent of the hotel on a daily basis. Therefore, housekeeper training can be critical to the efficient operation of the guestroom block.

- Control of the heating, ventilation and cooling (HVAC) system of guestrooms is essential. Temperatures in vacant guestrooms should be set back according to season and geographic location parameters. Typically, HVAC settings should be 74ºF during cooling season and 68ºF during heating season. One important tool of housekeeping management is a weatherboard to visually post for room attendants the HVAC settings for the day.
- Room attendants should turn off all exhaust fans and close all windows in vacant guestrooms. Entry of outside air during heating/cooling seasons causes a huge waste of energy.
- Room attendants should open the drapes to use free daylight while cleaning but close the blackout drapes to within six inches before leaving the room.
- Coffeepots, hair dryers and irons should be unplugged before room attendants exit the guestroom. Disconnecting these items is a safety precaution as well as an energy saver. Room attendants should also turn off all lights in every room and ceiling fans and whirlpool tubs (when present) when they exit.
- Room attendants should clean all light fixtures in guestrooms on a regular basis. Especially ensure bathroom fluorescent fixtures with lenses are cleaned at least twice per year. This action will increase light output by approximately 25 percent.
- For hotels with through-the-wall heating/cooling units (PTACs), room attendants should ensure all discharge air grilles are free and clean and that drapes do not obstruct the flow of air from the unit.

Kitchen/laundry

The kitchen and the laundry are the most intensive energy users in the hotel. These areas use about five times more energy per square foot than the rest of the property. The managers of these areas must be very conscious of basic energy conservation strategies.

- Gas cooking equipment has a very quick recovery rate. Generally speaking, all gas appliances can be brought to cooking temperature within 15 minutes. Therefore, staff should keep this equipment turned off whenever possible throughout the day.
- Gas cooking equipment is dramatically affected by grease and dirt buildup in burners. Staff must use a wire brush and a small drill bit to clean burners on a regular basis. This action will improve efficiency by as much as 50 percent.

- A kitchen hood is the largest consumer of energy on the kitchen. It is extremely cost effective to use a timeclock to control the hood; however, if the hood must be shut off manually, a sign should instruct employees to ensure proper operation.
- A dish machine is often provided with an exhaust hood that unfortunately often runs continuously. It is recommended that this hood operate only when a cycle is in progress. Typically, dish machine hoods can be tied into the controller of the dish machine, or, if not, the hood should be controlled manually.
- Domestic hot water in the pot and pan sink should not exceed 140ºF and the booster heater on the dish machine should provide 160ºF water to the final rinse.
- Food should never be defrosted with hot water. Both the water used and the energy to heat the water are wasted when defrosting food.
- Lights in walk-in cooler and freezers should be turned off when not being used and strip curtains should be kept in good order. These actions will save energy and extend the life of the compressor.
- Continuously operating electric cooking equipment, such as electric toasters, cost twice as much to use as gas equipment. When practical, electric cooking equipment should be connected to natural gas. Where this is not practical extra effort should be taken to keep the electric equipment turned off when not in use.
- The fill valves on the dish machine and the laundry wash wheels should be checked on a regular basis. These valves typically stick and can unnecessarily waste water.
- Process full loads as recommended for both washers and dryers. If smaller loads are necessary, consider installing a residential- style washer and dryer.
- Lint screens and dryer exhausts must be cleaned on a frequent basis. Verifying that proper air flow is passing through the dryer will preserve the life of the burners.
- The flames on gas dryers should be checked regularly to ensure efficient burning. In conjunction, verify proper combustion air is provided to the dryer to ensure a complete combustion of natural gas.
- Construct a sheet rock plenum around commercial dryers to contain heat and serve as a form of heat recovery system.
- Clean light fixtures and discharge air grills throughout the kitchen and laundry on a regular basis. Lint buildup in the laundry area can reduce the efficiency of the equipment AND present a fire hazard.
- Verify the domestic hot water temperature for the wash wheel is set correctly and in accordance with detergent requirements.

These tips are highlights of energy saving items that can be brought to various departments within the hotel. Each hotel has its own personality and methods for conducting employee training and should design programs appropriate to its culture. ✧

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