

REDUCING INTERNAL HEAT GAIN

By Alan Hugenot,

During cooling season much of the heat inside homes comes from internal heat sources. Dishwashers, clothes dryers, ovens, even the refrigerator unit with the heat dissipation coil on its back side, televisions, the coffee pot, incandescent light bulbs, and your computer, all add btuh's to the inside of the house, which the air conditioner then tries to remove.

PASSIVE COOLING: Yet organizing the heat flow without using fans and reducing solar heat gain during summer cooling season can create large internal heat reductions. Here are some practical ideas:

- **MORE EFFICIENT APPLIANCES:** Microwave ovens use less energy, and also create less internal heat gain than electric or gas ovens.
- **SEALING OFF HEAT SOURCES:** by placing the water heater, laundry and freezer in a separate room walled off from the house interior, and ventilated to the outside allows all this heat to dissipate, during summer, and by flipping a damper can be directed back into the building envelope to heat the house during winter
- **DUCTED HEAT VENTS:** Placing a built-in-the-cabinet kitchen refrigerator-freezer (sub-zero) unit on an exterior wall with a ducted vent allows the heat to escape to the outside during summer, and kept on the interior for heat gains during winter.
- **DRYING CLOTHES OUTSIDE:** on a line saves dryer energy and also freshens the clothes improving Indoor Air Quality.

REDUCING SOLAR HEAT GAIN: In the winter heating season low emission (low-E) glazing retains the solar heat and saves on our energy bill, but the following summer, during cooling season, that same low-E glass becomes a detriment. Now, we need to shade that glazing to prevent the heat build up by reflecting that solar heat. Adding retractable sun screen awnings, window overhangs, shutters, or in some specific cases internal cellular shades, can accomplish this, but such applications need to be integrated with the projects overall HVAC concept.

KNOWLEDGE IS POWER: Making sure that the particular application works with the overall HVAC concept and satisfies Title 24 compliance, while keeping up on new developments is a full time job....So, isn't it time for you to begin using your own "in-house" energy experts?That is who we are at GREEN COMPLIANCE PLUS..... your own, on call (24/7), Title 24, Green Energy Compliance Consultants.

Once we computer model your project for Title 24 compliance, our project specific energy analysis based on that model can point the way to that *Brighter Shade of Green* your clients are seeking.

Give Alan a call at *Green Compliance Plus* and we'll discuss your concerns.