HOPKINS
FOODSERVICE
SPECIALISTS, INC.

F.Y.I.

FOOD SERVICE PLANNING AND ENGINEERING
Summertime 2001

Dear Associate,

Isn't sleeping fantastic!!! I mean the whole concept of retreating into a perfectly comfortable place free from the pressures of human interaction, personal grooming, physical exertion of any kind, and then…drug free (most of us anyway) to enter a world where the factors that form us and affect us (time, space, avocation, education, status) instantly change. Sublime! Do people take psychotropic drugs so they can attempt to be asleep and awake simultaneously?

As wonderful as it is, sleep is also asocial and unproductive. What sleeping person discovered the cure for polio, or hugged a grieving friend, or built a monument, or planted trees?

Besides being regenerative, perhaps one reason we have sleep is to be aware of 'waking up.' Waking up, going from dark to light, fantasy to reality, must be a fundamentally important process for us humans; so much so that we need to go through waking up daily. If there is a single unifying message in this FYI, it is to be keenly aware of 'waking up', the difference between sleep and wakefulness, darkness and light, ignorance and knowledge. The feature article this season describes a 'waking up' in the ventilation industry. I hope you find this information useful and that we will apply it together.

As designers of buildings we have so many opportunities to awaken ourselves and our world. Let us never side-step any chances to collaborate to improve the built environment we all live in and with, and let's always be grateful for sleep, but not too much.

Keep in touch!

Lynn Hopkins

KNOW LIGHT

DISASTER-FREE AIR

It's too bad that we don't play with dominos much anymore. There was something fun about watching all those little black blocks knocking each other down. The cause and effect whirlygig. Harvey's dog Trey was found dead in the middle of the road because when he walked by the burning restaurant his fur caught on fire, from the debris that fell off the roof when the grass canopy over the Polynesian Bar on top caught flames that were licking out of the shaft when it ignited because the cook walked away from the steak on the grill because he was about to faint from the heat and the stench of the kitchen and needed to step outside for a jolt of fresh air. The cook was overheated and could barely breathe because the ventilation system wasn't very good; consequently the whole grill caught on fire because the hood forced greasy air back into the hot kitchen with other greasy air. Spontaneous combustion. Is it possible that ignorance, and not the love of money is the root of all evil? Poor dog Trey. He will be missed.

The explosion of improvement that is raining hard on us has fallen on the ventilation industry. But the problem is that current building codes have not caught up

(Over...)

SUMMER FRUIT

A good reputation is gained one project at a time!

WORKPLACE

Ai -
Capital One
Mitre
Int'l Monetary Fund
Beyer Blinder Belle -
Teacher's Insurance & Annuity Association
Kling Lindquist -
FDA Consolidation
Gensler -
The New York Times Discovery
Moshe Safdie -
Alcohol Tobacco Firearms
SmithGroup -
Defense Intelligence

EDUCATION

Polshek Partnership -
High School for Law Enforcement
Beyer Blinder Belle -
SUNY at Stony Brook
Rafael Vinoly -
Brooklyn College

HEALTHCARE

Einhorn Yaffee Prescott -
Saint Elizabeth's
Lukmire Partnership -
NIH- Buildings 38 and 12

CORRECTIONS

Holmes King Kallquist -
Sullivan State Correctional
NBBJ -
Saint Bride's Medium Security Jail

RECREATION

Gruzen Samton -
El Museo del Barrio
Beyer Blinder Belle -
NY Historical Society
Muhammad Ali Center

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with engineering advancements. Knowledge is a burden and a blessing. The burden is that we know about what we can't yet have. The blessing is that we can still be innovative in creating ways to drastically reduce building energy costs, minimize the risk of fire, and enjoy cleaner air.

The Problem There are still no efficient, effective means for removing grease laden vapors from a kitchen. Current exhaust hood designs and typical fan styles are probably only 30% efficient although code compliant. While the primary concern in code enforcement is life safety (fire prevention), efficiency should be given nearly equal weight.

Currently, observation alone determines code compliant designs. A hood fails to pass inspection if cold smoke from a test bomb escapes the canopy area. The failure of this approach is that it cannot detect the release of grease laden vapors into the kitchen. Also, current code standards assume that higher exhaust volumes remove higher volumes of contaminated air. This apparently logical but mistaken assumption ignores the fact that (like jet wash from an airplane) higher air volumes increase turbulence, forcing contaminants back into the kitchen. Because inadequate designs are thus approved and installed, the kitchen air becomes contaminated, the kitchen HVAC system is overworked, and energy bills rise to offset the ineffective exhaust system.

To make matters worse, the little contaminated air removed by current hood filters is exhausted up building shafts where it cakes the sides with hazardous quantities of grease and emits fumes into the environment. This problem is compounded by the failure of most operators to clean their ducts regularly. Many systems are designed with long convoluted horizontal and vertical duct-runs that make cleaning exceptionally difficult. The resultant build-up of grease increases fire hazards until a diligent fire marshal orders the cleaning or a fire breaks out, damaging the building. Code standards are simply inadequate to ensure proper ventilation and fire protection. Moreover, current grease filters need improvement.

Good News The increasing power of relatively low cost computers enables commercial testing laboratories to use new observation techniques and testing criteria to detect exhaust air spillover. Manufacturers of exhaust hoods, filters, fans, and building duct systems can draw upon this new information to increase the capture rate of hot cooking fumes and decrease the cost of heating and cooling replacement air. Some of these new proprietary exhaust systems will shortly be available to the more energy conscious designers and engineers.

Remedial Steps in HOPKINS' New Designs
The full benefit of these systems will not be realized for two to five years because code writing authorities need to be informed and then will have to educate federal, state and local governments about their benefits. Until then, Hopkins is going forward, in these ways to maximize energy-efficiency, to keep air clean and to minimize fire hazards.

- The front overhang of hoods will increase to provide more space to contain surges of heat and steam.
- Cooking batteries will be equipped with modular bases and horizontal trim to prevent floor level air from reducing the efficiency of exhaust air moving across the cooking surface.
- Vertical end panels will be added not just as a last ditch effort to increase exhaust air velocity, but on all hoods to prevent end-roll-out and turbulence created by workers disturbing air patterns as they move along work aisles.
- End panels will be made of fireproof safety glass instead of stainless steel to maintain a visual communication sight line through the kitchen.
- Cooking batteries will be oriented to reduce radiant heat gain.
- Ultraviolet systems in some cases will replace water wash to eliminate costs associated with plumbing, wiring control panels, hot water and sewer use, large grease traps, and duct cleaning.
- Operations with multiple serving periods can benefit from variable speed fans. These fans not only reduce exhaust air quantities during idle periods but will be valuable during final construction when fine tuning and balancing exhaust and supply air volume begins.
- HOPKINS now has more interface with project engineers; no leaving the baby at the doorstep.

Happy Ending The hood system Hopkins designed into the new skyscraper's kitchen made it easy for the air conditioner to maintain 72 degrees. Cooks and servers bustled around present platters laden with the ripest, sweetest, most colorful summer fruits. Harvey, the facility manager, put some fruit on his lunch plate and went to sit with Zelda. He was nervous but feeling good because he had just gotten a raise as a reward for reducing building energy costs and was about to ask Zelda for her hand in marriage. Harvey, building up his courage to pop the question, took a deep breath and melted over the wonderful scent that Zelda was wearing that day.

Is there anything in the cafeteria design that will compel Zelda to say YES?

Art Credits: Wyeth, Distant Thunder; anon. Augustus Wearing Civic Crown; Grant Wood, Parson Weems Fable; Pieter Breughel, The Peasant Wedding; Salvadore Dali Two Heads