

# Today's Air Conditioning

Published Monthly in Florida for the HVACR Industry Since 1989

VOLUME 4/ NUMBER 12

July 1994

FLORIDA EDITION

Page 27

## Unlicensed Contractors Beware

Warning to Consumers: "Don't Get Nailed"



Ron Moss (Left) presents Ft. Myers contractor John Cole with one of the many door prizes awarded at the Gemaire Grenelife Tradeshow. Moss is the manufacturers rep for White-Rogers in Florida.

Tallahassee - Department of Business and Professional Regulation has long been criticized by the contractors that it regulates for not applying pressure to "Unlicensed Activity" around the state. Until now the Department had no real jurisdiction over unlicensed contractors with the exception of an occasional cease and desist order...which often went ignored.

Effective July 1, 1994, the DBPR has the authority to issue citations for those working without a license. The department has also launched an advertising campaign directed to the consumer to warn them about the dangers of dealing with an unlicensed contractors.

The "Don't Get Nailed" campaign will be aired on all three networks, in Florida. In cooperation with the Florida Radio and Television Broadcasters, the department will enjoy over \$300,000 worth of air time at a drastically Jack Maynard of the Construction Industry Licensing Board addressed a Press Conference held in Orlando, FL. to kickoff the Statewide Unlicensed Activity Public Awareness Campaign. Text of his opening statement follows:



Three members of the Department of Business and Professional Regulations' Task Force Against Unlicensed Activity. From (Left to Right) Jack Maynard, Richard Hickock and Warren Sutton.

Here in the State of Florida, the Construction Industry is a vital producer of jobs and has a tremendous impact on our economy. The Department of Business and Professional Regulation has been charged by the Legislature to license and regulate contractors in Florida. This provides a standard of excellence among our licensed contractors. However, there are those who illegally practice without a Florida license, and the damage they do is immeasurable.

We are here today to announce the kickoff of a major statewide public awareness campaign

Continued on page 3

## ASHRAE Meets in Orlando

The American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) held their 1994 Annual Meeting and Technical Session at the Buena Vista Palace Hotel, Orlando June 25th-29th.

The plenary session was held at 3:30 p.m. Saturday the 25th followed by a Welcome Party which preceded four days of technical sessions.

Continued on page 14



ACCA/CF Participating Employers in the Apprentice Program. (L-R) Chris Bright, Program Coordinator; Steve Ammon, Watts; Bob Rinaldi, Rinaldi's Heating & Air; Jim Mobley, Harper Mechanical; Bill Folsom, Folsom Electric; Chuck Kulp, Energy Air; Bill Ellis, Ellis Mechanical; Bob Dello Russo, Del Air; George Anderson, Anderson, Inc; Doyle James, Air Flow ;and Mike Boggs, Air Masters.



ACCA/CF  
ORLANDO  
4TH THURSDAY  
THE LANGFORD  
IN WINTER PARK  
[407] 260-2206

ACCA/GC  
GOLD COAST  
4TH TUESDAY

BBACCA  
TALLAHASSEE  
2ND TUESDAY

BACCA  
MELBOURNE  
LAST MONDAY 7 PM  
"C" VIERA COMPLEX

BSACCA  
OCALA  
4TH TUESDAY AT  
SPRINGS REST.  
IN SILVER SPRINGS

JACCA  
JACKSONVILLE  
3RD TUESDAY 6:30PM  
WEATHER ENGINEERS  
904 260-0392

PBACCA  
WEST PALM  
1ST THURSDAY 6:30PM  
RAMADA RESORT  
HOTEL  
OFF AUSTRALIAN  
407 586-7150

RACCA  
TAMPA BAY  
2ND THURSDAY  
12 NOON  
ASSN HDQS IN TAMPA  
813 870-2607

RACCA  
PASCO  
LOCATION TBA  
IN NEW PORT RICHEY  
813 870-2607

VACCA  
DAYTONA  
1ST TUES / SINBAD'S  
UNDER PT ORANGE  
BRIDGE  
[904]767-3900

TRACCA  
FT PIERCE  
3RD TUESDAY  
6:30 PM JOHNNY'S  
PORT ST LUCIE



Today's Air Conditioning

P.O. 521247  
Longwood, FL 32752

BULK RATE  
US POSTAGE  
PAID  
MID FLORIDA, FL  
PERMIT 0076

LOCAL POSTAL PATRON



## Indoor Air Quality and the Condensate Trap\*

by Warren C. Trent, P.E. and C. Curtis Trent, Ph.D. Trent Technologies, Inc.

Indoor air quality has become and remains a major health issue, worldwide. The Environmental Protection Agency estimates that one in three buildings in the United States is "sick". Others have estimated 50 percent of the work force in the North America and Europe suffers from "sick building syndrome".

The contaminants responsible for poor indoor air quality are numerous. From time to time, one or more of these contaminants has been implicated in building-related illnesses. However, according to one authority, "Some 40 percent of ailments in most buildings are attributable to bacteria, mold, yeast, algae and other biological contaminants...".

Sources of these biological contaminants are found in many buildings, some more frequently than others. But there is a source of certain biological contaminants that is almost always present: Wet and moist surfaces inside heating, ventilating and air conditioning (HVAC) systems.

Current practice in the industry practically ensures wet and moist surfaces inside most HVAC systems. That practice is the use of a condensate trap to provide a seal against air ingestion through the condensate drain line and to control the flow

of condensate from draw-through type HVAC systems virtually ensures wet and moist inside surfaces, and that these systems will become generators and disseminators of biological agents (bacteria, mold, mildew, yeasts and other fungi).

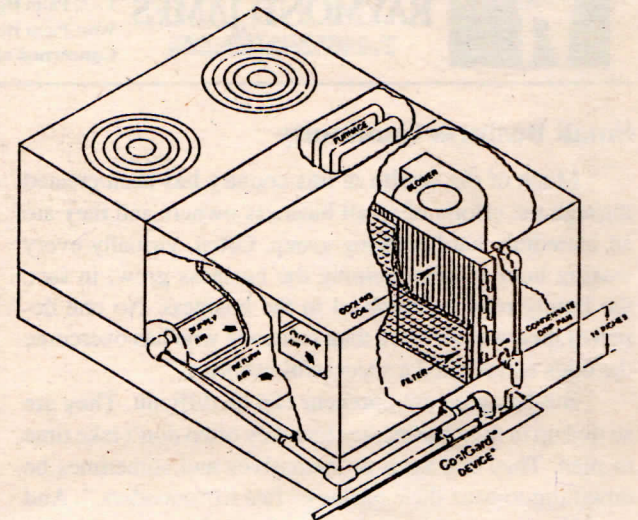
Until recently, few in the industry have associated the problems of indoor air quality with the mundane HVAC condensate trap. Yet, its use and misuse may cause more indoor air pollution than any other component in the entire system.

Unfortunately, despite extensive studies and other efforts by many government and private agencies during the past few years, no measurable and documented improvement in building indoor air quality has been reported. In fact, the incidence of reported illnesses, building closings, and costly health related litigation cases are proliferating.

A lot has been learned about the causes and sources of indoor air pollution, but remarkably little, it seems, has been learned about how to achieve suitable indoor air quality.

When building-related illnesses do occur, it is often possible to identify the contaminants and eliminate (or neutralize) their sources.

In certain buildings, however, it may be extremely difficult to identify and eliminate the source of biological agents (bacteria, mold, mildew, yeast



and other fungi). These biological agents live and propagate on wet and moist surfaces such as walls, ceilings, carpets, furniture and the internal components of the HVAC system.

When walls, ceilings, carpets, and furniture are involved, it is usually possible to find the cause of wetness and eliminate it.

Continued on page 28

## SERVICE MANAGEMENT SOFTWARE!



Increase efficiency, productivity and **PROFITS** with H2's Service Manager

Service Manager's comprehensive features include:

- ✓ **Service Call Entry** - Enter calls in seconds for fast and accurate dispatching! See all service & payment history instantly!
- ✓ **Invoicing** - Fast & reliable invoicing that eliminates accounts receivable problems. Calculates profitability by service call - monitor tech performance.
- ✓ **Maintenance Agreements** - Plan and track all maintenance due for service agreements. Automates sending of renewal notices.
- ✓ **Inventory** - Maintain parts & equipment inventory for optimal control and profit! Update parts lists instantly!
- ✓ **Marketing** - Complete customer database permits easy marketing of all company services - insures top dollars from the sale of maintenance agreements.
- ✓ **Management Reports** - Get service history reports, revenue/technician, service call profitability & analysis, warranty expirations & much more!
- ✓ **Full Training Available** - Easy to use and afford!
- ✓ **Prices start at \$995**

**H2 SOFTWARE**



5500 Oakbrook Pkwy. • Suite 290 • Norcross, GA 30093 • 404-368-1800

**1-800-476-2796**

## HEAT RECOVERY

# Plus

A NEW HEAT RECOVERY UNIT THAT WORKS ON HIGH SEER AIR-CONDITIONERS.

"PLUS" Control Valve circulates water through the heat exchanger until it heats to 120°, then releases it.

Available from Distributors of:  
DYNAMAX, ENCON, LECTRA-SAVER, and ULTRA SAVER.

Manufactured by:  
**AMERICAN EQUIPMENT SYSTEMS CORP.**  
190 Scarlet Blvd., Oldsmar, FL 34677 (813) 854-5411





Presented by  
Tucker P. Cory, Investment Consultant

**RAYMOND JAMES**  
S. ASSOCIATES, INC.  
Member New York Stock Exchange/NYSE

1700 Palm Beach Lakes Blvd., Suite 150  
West Palm Beach, FL 33401-2017 407-684-0350 • 800-351-5400  
Concerned about you and your financial well-being.



## Hot Investment Topics for Cool Air Professionals

### Small Business Continuity

Much of the wealth in this country has been created through the efforts of small business owners and they are an incredibly hard working group. Often, virtually every waking hour is spent helping the business grow; in fact, the family may be involved in the business. No one deserves their wealth more than someone who has overcome the odds and created a successful business.

But being an entrepreneur can be difficult. They are so tied up in their businesses that they often don't take time to plan. They can keep to themselves and sometimes be unwilling to trust their business' fate to "outsiders." And yet, if business owners fail to plan for their eventual deaths or retirements, or the possibility that they may become disabled, they are literally risking that which they hold so dear... the business itself and its benefit to their families.

Buy/sell agreements can help.

Simply stated, a buy/sell agreement obligates one party to sell and another to buy some or all of a business interest upon a designated event's occurrence, typically death, disability and/or retirement. To be most effective, buy/sell agreements should be accompanied by some type of a fund-

ing mechanism to provide the buyer with the cash needed to meet the obligation.

Life insurance and disability insurance are most often used to fund buy/sell agreements in the event of death and disability, respectively. A cash value life insurance policy can also be used to provide cash to the buyer in the event of retirement. A buy/sell agreement may also be structured to provide for installment payments from the buyer to the seller and can be created for both incorporated and un-incorporated businesses. For federal estate tax purposes, the buy/sell agreement must be structured as an arm's length agreement, providing for a fair price to be paid. Some fairly recent changes to the estate tax rules have made this a bit more challenging.

There are two basic forms for the buy/sell agreement. The first is the cross purchase agreement. Under a cross purchase agreement, the owners of the business enter into the buy/sell agreement among themselves obligating each other. For example, Winken and Blinken are equal shareholders of X Inc. Under the cross purchase agreement, Winken and Blinken each agree to buy the other's half of

the business in the event of the other's death, disability or retirement. To fund the agreement, each buys a cash value life insurance policy on the life of the other.

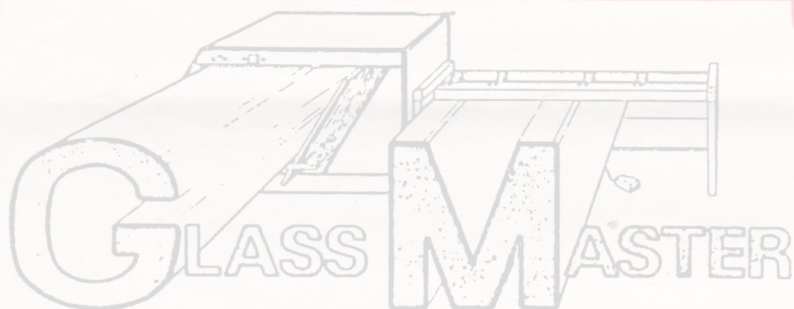
The cross purchase agreement is very popular with companies having few owners. The surviving owners benefit from an increase in their cost basis when the purchase is ultimately made. The cross purchase agreement becomes more difficult to fund when there are more than two owners. For example, if Winken and Blinken were joined by Nod a total of six life insurance policies would be required. Also, the premiums on the policy may vary based on the ages and health of the owners.

With an entity purchase agreement (also called a redemption agreement), the owners of the business contract with the company itself. The company is then obligated to buy the share of the owner who has died, retired or become disabled. If the agreement is funded, the policies are owned by the company. Redemption agreements can be structured to take advantage of special estate tax rules (Sec. 303) and they may reduce the number of policies required.

Of course, this brief article is no substitute for a careful consideration of this matter's advantages and disadvantages in light of personal circumstances. Before implementing any significant tax or financial planning strategy, contact a financial planner, attorney or tax advisor as appropriate.

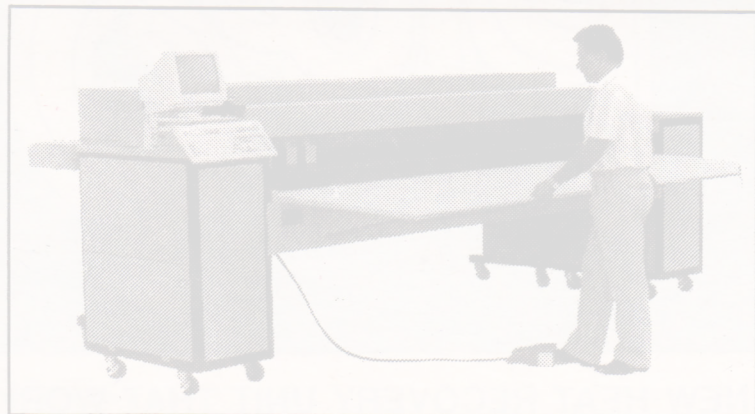
By utilizing some form of a buy/sell agreement, small business owners can ensure the continuance of the businesses they have worked so hard to create. This makes life much easier for the remaining partner(s) in the business as well as the family members.

For more information, please call Tucker Cory at 684-0350.



A division of NRG Industries

Still manufacturing the **ONLY** production quality equipment in the world for ALL thicknesses of Fiberglass duct board.



Ask about 1½" and 2" tools and blades. See our new line of 1½" Fab-Master hand tools. Visit our new World Wide Headquarters at:

1401 Dunn Dr., Suite 108  
Carrollton, TX 75006

Phone 214-245-2772 • Toll Free 1-800-874-9135

Fax 214-245-4361

"Ask for your **FREE** copy of the  
New GM Catalogue"

## Condensate Trap Continued from page 27

However, finding the cause of wet and moist components inside a HVAC system is not a simple task; because, wetness inside HVAC systems is caused by a number of very complex conditions, including the following:

- Excessive airflow
- Deficient airflow
- Non-insulated refrigerant lines in the airflow path
- Improper blower (fan) location
- Unduly large condensate pans
- Inadequate seals on condensate drain lines

Excessive airflow can cause condensate to be blown from the cooling coil and onto internal surfaces, before it can drain to the condensate pan. Too little airflow reduces the supply-air temperature and can cause moisture to form on supply grilles. Cool non-insulated refrigerant lines condense moisture that can drip onto the floor of the HVAC unit. An unduly large

condensate pan extends the wet surface area, which in addition to promoting growth of contaminating organisms, promotes the growth of algae. It also catches debris which can block flow through a condensate trap.

Each of the above conditions, with the exception of an "inadequate seals on condensate drain lines," can be remedied by applying known design procedures. The current practice of installing a condensate trap on the drain line to form the required seal has been a dismal failure.

Under many field conditions. The condensate trap allows the ingestion of air and pollutant gases. At the same time, it allows the blowing of condensate into the HVAC system, creating serious health problems and causing excessive property damage.

Unfortunately, in addition to its effect on indoor air pollution and property damage, the condensate trap is responsible of undue and excessive service, maintenance, and litigation.

The problems caused by the condensate trap have been largely ignored by the HVAC industry and academia. The greatest awareness of the harm caused by the condensate trap is among owners and users, who generally assess the problem as a necessary evil and try to live with it. For them the trap creates serious and costly problems.

Fortunately, for the HVAC user, there is now a device on the market that negates the problems associated with the condensate trap. The device uses air (instead of water) as a seal to prevent the ingestion of outside air

Continued on page 29



## Condensate

continued from page 28

through the condensate drain line. The device, named CostGard™, is manufactured by Trent Technologies, Inc. of Tyler, Texas. It has no moving parts and is self regulating. For informa-

tion on the CostGard™ Condensate Control Device, contact Trent Technologies, Inc., 535 WSW Loop 323, Suite 301, Tyler, Texas

75701, Telephone: (903) 509-4843, Fax: (903) 561-0169.

Until the ingestion of outside air and gases through the drain line of

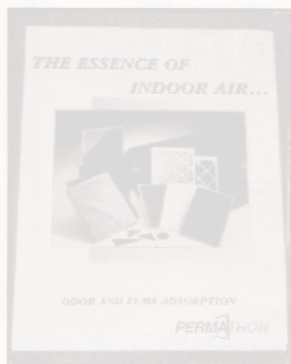
draw-through HVAC systems is controlled, suitable levels of indoor air quality cannot be achieved, excessive damage to the HVAC

system and its surroundings will continue unabated, and HVAC owners and users will continue to experience unnecessary mainte-

nance costs and exposure to costly litigation.

\*Based on a paper by the same authors presented at the "Ninth Symposium on Improving Building Systems in Hot and Humid Climates".

## Odor/Fume Brochure & Technical Spec Sheets



Permatron has a new Odor/Fume Brochure, "The Essence of Indoor Air". Read about indoor air quality...origins, causes and economic/health benefits. Find out about possible air filtration solutions for industrial, commercial and residential environments where odors/fumes are a concern. These include airports, hospitals, public restrooms, laboratories and many more. The brochure contains a handy activated carbon affinity chart for 300 types of odors/fumes.

Technical specification sheets are available on three odor/fume products: Activated Carbon Pleats, Activated Carbon and Zeolite Panels and High Density Activated Carbon Packs. Descriptive, application and performance information is given. The amount of carbon per square foot is listed for various air filter sizes to determine which product type should be ordered to meet specific application requirements.

Technical and OEM assistance is available by calling toll free: (800) 882-8012.

## FACCA-SIF is your Fund...



FACCA-SIF is proud of the safety, stability and profitability we've been able to achieve in meeting the workers' compensation needs of our rapidly-expanding membership.

Today, the fund boasts 1,350 satisfied members, with annual premium income of nearly \$27 million. The sound fiscal policies and operational efficiencies have produced undistributed excess earnings of \$4.2 million. Since we began catering to the needs of air conditioning contractors in 1982, FACCA-SIF has historically out-performed other funds, making us second to none when it comes to meeting your workers' compensation needs.

To find out how you can begin reaping the benefits of FACCA-SIF membership, call your local Independent Insurance Agent or contact Florida Administrators, Inc.

*Together, we make a terrific team.*



Self Insurers Fund

Florida Administrators, Inc.  
P.O. Box 14846  
North Palm Beach, Florida 33408  
or call 1-800-226-1898  
or (407) 840-7171