

# Welcome In 2006

# Refrigeration Up-Date

The N.C. State Board of Refrigeration Examiners is pleased to welcome in 2006 by announcing the details of Refrigeration Up-Date 2006. The Up-Date is scheduled for Wednesday, March 15th from 8:00 a.m. until 4:30 p.m. at the Village Inn Golf and Conference Center in Clemmons, NC and is designed to meet the varied needs of licensees, inspectors and industry related personnel.

Up-Date 2006 has been organized to allow time to visit each of the 30+ vendors plus learn about the latest developments in the areas of refrigeration technology and safety.

You will have the opportunity to attend classes on EPA Regulation Up-Dates, R-22 Alternatives, Refrigerant Reclamation and The Move to HFC Refrigerants (A NATE Certified Course). Speakers include Jim Lovelle, National Refrigerants, Philadelphia, PA; Ken Parker, KMS of Georgia; and Walter Cooper, ICOR International, Indianapolis, IN.

Additionally an EPA Technician Certification program will be held in the morning for those persons wishing to test for their CFC certification or up-grade their present certification. The program will include a two hour lecture and the exam and will run from 8:00 a.m. until 12:30 p.m. The instructor will be Gary Ramsey, Board Treasurer, and a HVAC/R Career Technology Instructor at H.F. Woods Advanced Technology Center in Mooresville, NC.

You must register separately for the EPA Technician Certification Program. The cost for this course is \$25.00 which covers the testing fee. A study guide is available for an additional \$10.00. Please see page 3 for more information and a registration form.

While not in one of the classes, take the time to visit the exhibit area.

Learn about new products and the most innovative technology. Have your questions answered by company representatives. Exhibits will be open be-

tween 8:00 a.m. and 12:00 noon and again from 1:00 to 3:00 p.m. A list of exhibitors may be found on page 2.

**Win Door Prizes.** Many of our exhibitors have agreed to supply door prizes. Drawings will be held between each class and at the end of the day. You must be present to win.

Registration is free for both the Up-Date classes and exhibits. We expect a large crowd for this meeting and would appreciate your pre-registering for the event. By pre-registering you will receive your name tag and information brochure in the mail prior to the Up-Date.

A block of rooms has been reserved at the Village Inn for the evening March 14th at a rate of \$60. plus taxes. Individuals are responsible for making their own room reservations by calling the hotel direct at 336-766-9191. Room cut-off date is February 14, 2006.

If interested in attending, please complete and return the form on Page 3.

## Servicing Commercial Machines

*By Joe Marchese*

Examining the evaporator during the freeze cycle can aid in identifying many common problems associated with commercial ice machines. How ice is formed or not formed on the evaporator can allow a technician to

easily determine several common problems associated with ice machines.

For example, a slab of ice that is lopsided — heavy on one end and light on the other — usually indicates a shortage of refrigerant entering the evaporator. This can be the result of a low refrigerant

charge or a defective metering device.

One way to determine if the evaporator is being feed the proper amount of refrigerant is to look at the suction line leaving the evaporator midway through the freezer cycle. At that point there

*(Continued on page 2)*

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Suggestions for articles of interest for publication in this newsletter are welcome.

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## 2006 Refrigeration Up-Date Exhibitors

The following companies have contracted to exhibit at Refrigeration Up-Date 2006. These companies make it possible for the Board to present the Up-Date to you at no charge.

Please make your plans now to attend and visit each of these exhibitors.

ACR Supply Co.  
Aeroflex USA Inc.  
Baker Distributing  
Bitzer  
C. C. Dickson  
Cannon Marketing Inc.  
Chadwick and Associates  
Coastal Reps LLC  
Danfoss  
Empire Equipment Co.  
Engineering Equipment Sales  
E V Dunbar  
Fieldpiece Instruments  
Frank Door Co.  
Hill Phoenix  
ICOR International

Inficon  
Johnstone Supply  
Kysor Panel Systems/Kysor//Warren  
Linzmaier & Associates, Inc.  
Mec Tric Control Co.  
National Refrigerants  
Nu-Calgon  
Pro Sales  
Spectronics Corporation  
Sporlan Valve  
Steve Lee & Associates  
Supermarket Systems  
Tuttle, Inc.  
United Components  
United Refrigeration

## Servicing Commercial Machines

(Continued from page 1)

should be a coating of frost on the line. If no frost is present, it could indicate a shortage of refrigerant being fed into the evaporator.

This usually can be verified by measuring the superheat at this location. A superheat reading higher than what is recommended by the manufacturer will confirm that the evaporator is starved for refrigerant.

### Loss of Water

Another common service problem with ice machines is loss of water during the freeze cycle. If the water in the sump is lost either down a drain or into the ice bin during the freeze cycle, the evaporator will be starved for water.

Depending on the design of the machine, one of two things can happen: either the machine will produce very thin ice shells or no ice at all, or the freeze cycle will be much longer than normal.

Loss of water can result in several problems.

One common cause of this problem is a cracked sump pan. This normally will require the sump pan to be replaced. Occasionally it can be repaired using some type of approved sealant. Always verify that any sealant used in an ice machine is approved for that usage.

**Some ice machine manufacturers incorporate a dump valve to purge the remaining water in the sump during the harvest cycle.**

Another common cause of losing water during the freeze cycle is water flowing down a drain. This can cause several different problems with an ice machine depending on its design.

Some ice machine manufacturers incorporate a dump valve to purge the remaining water in the sump during the harvest cycle. If the dump valve is stuck open or leaking, it can cause water to continually drain during both the freeze and harvest cycles.

Some ice machine designs incorporate an inlet water float to fill the sump with water during the harvest and

(Continued on page 4)

# UP-DATE REGISTRATION

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Please register me for Refrigerant Up-Date 2006 (copies of this form may be made as needed).

PLEASE PRINT

Name \_\_\_\_\_ Nickname \_\_\_\_\_

Name \_\_\_\_\_ Nickname \_\_\_\_\_

Name \_\_\_\_\_ Nickname \_\_\_\_\_

Company Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Return To: SBRE, Suite 208, 893 Highway 70 W., Garner, NC 27529

## EPA TECHICIAN CERTIFICATION PROGRAM

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An EPA Technician Certification Program has been scheduled for Wednesday, March 15, 2006 during the annual Refrigeration Up-Date. The EPA program will run from 800 a.m. until 12:30 noon at the Village Inn Golf and Conference Center in Clemmons, NC. Time will be available in the afternoon for visiting the exhibit hall or attending one of the Up-Date seminars.

This program will include a two hour lecture and the exam and is designed to assist those persons wishing to test for their CFC certification or up-grade their present certification. The instructor will

be Gary Ramsey, Board Treasurer.

Pre-registration is required and those ordering a study guide will receive it approximately one week prior to the class. Registration for the EPA program is \$25.00 which includes the testing fee. The study guide is available for an additional \$10.00.

The study guide was written around the EPA test bank and includes much of the material that will be on the test. However, it does not cover all the fundamentals a competent technician is expected to

know. Some of the important facts are in **bold face**. This is a closed book exam and registrants should study the guide as much as possible prior to the course.

***Pre-registration is a must for this class. No walk-ins will be allowed***

Please note this class will not be held without a pre-registration of at least ten persons so please register early. If the class is cancelled

all registration fees will be returned.

If interested, please complete and return the form below.

## REGISTRATION FOR TECHNICIAN CERTIFICATION PROGRAM

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Please register me for the EPA Technician Program. (Please bring two pieces of ID; one with photo ID)

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Telephone # \_\_\_\_\_ Social Security # \_\_\_\_\_

Signature \_\_\_\_\_

Total Amount Enclosed: \$25 \_\_\_\_\_ (covers testing fees) or \$35 \_\_\_\_\_ (to include manual)

Return To: SBRE, Suite 208, 893 Highway 70 W., Garner, NC 27529



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## Commercial Machines

*(Continued from page 2)*

freeze cycles. If the water valve sticks open or leaks, it will cause the sump to overflow with water, causing water to flow down an overflow drain. Depending on the severity of the water loss, this situation will cause either a longer-than-normal freeze cycle or no ice to be produced.

Another possible cause of water loss is an ice machine that is not level. This could cause water to be lost into the

ice bin or down a drain.

No matter the cause, a technician should be able to examine the evaporator and water flow during the freeze cycle and look for signs of water loss from the sump. Once he identifies this problem, he can investigate the cause and resolve it.

*Marchese is owner of Coldtronics of Pittsburgh. He can be reached at 412-734-4433, joe@coldtronics.com, or www.coldtronics.com.*

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IT'S YOUR LIVELIHOOD  
KEEP UP-TO-DATE  
GET A LEG UP ON YOUR COMPETITORS  
FIND OUT WHAT'S NEW IN THE MARKETPLACE.**