



PermaCold

Engineering News

"Because Refrigeration Is Still An Engineered Product"

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What's Up With R-22

By: Ward W. Ristau, P.E.

Upcoming Shows And Events

December 3-6, 2006

Northwest Hort Expo

Yakima Convention Center
Yakima, Washington
(800) 221-0751

January 15-17, 2007

93rd Annual Northwest Food Manufacturing & Packaging Expo

Oregon Convention Center
Booth #437
Portland, Oregon
www.nwfpa.org

January 27-31, 2007

ASHRAE Winter Meeting

Dallas Convention Center
Dallas, Texas
www.ashrae.org/dallas

January 29-31, 2007

AHR Exposition

Dallas Convention Center
Dallas, Texas
www.ahrexpo.com

March 18-21, 2007

IAR Ammonia Refrigeration Conference & Tradeshow

Renaissance Hotel
Nashville, Tennessee
www.iar.org

We all know that the ultimate fate of R-22 is extinction. The EPA assigned that fate to this tried and true refrigerant in 2004 or before. R-22 is an HCFC refrigerant. It and other refrigerants of this class are contributors to the ozone depletion issue. Accordingly, they are scheduled to go away.

Conversion Timelines

The elimination of R-22 is going to be a staged program. The master plan is still for its total elimination by the year 2030. At this point in time, it is expected that a major new EPA regulation will be put in place and in force as of 2009. If this comes to pass, R-22 will be banned from use in all new cooling equipment starting in 2009. Its use will continue for the servicing of R-22 equipment into the foreseeable future. It is estimated that most of its use in service operations will end in the period from 2015 to 2020.

Current regulations allow for the continued production of R-22 for service operations until the end of 2019. Beyond that time, availability will be from reclaim and recycle sources only. So, R-22 will go through its final disappearing act between 2020 and 2030.

Obviously, all of this is going to impact our industry in many ways. The biggest change will likely be the move away from R-22 for all new systems in 2009. This will force the new systems into the more expensive non-ozone depleting family of refrigerants. One of the leading candidates to replace R-22 in the new equipment is R-410A.

Many of the R-22 systems being installed now or already in operation will continue to operate very nicely for a number of years to come. Some of these may live out their lives before a conversion becomes necessary. Others will still be in operation when the time comes for conversion to make sense. A service conversion will be a matter of the continued availability of R-22 for service operations, its cost and the options available at any particular point in time.

R-22 Replacements

As all of this timing moves forward, science will continue to be at work. Obviously, the chemical industry has already provided us with many, many options with an array of new refrigerants. Some of these are interim and some permanent. Some are offered as "drop-in" replacements for R-22. However, at least for now, the pricing of R-22 continues to be less expensive than any of the possible alternates. So, it is hard to justify a conversion to another refrigerant now. The time will come when conversions will make sense.

Given the fact that the chemical industry continues to work hard on its offerings to our industry, it is likely that new refrigerants will be introduced in future years. Perhaps one of these will become the most logical "drop-in" replacement. The key to having a good "drop-in" substitute is having one that does not adversely affect the operational parameters, such as pressures and temperatures, etc., or the efficiency.

(continued on page 4)

RETA'S CERTIFICATION PROGRAM IS IN TRANSITION

Don Tragethon, Executive Director

The transition that happens when change occurs is a time when all of the questions and worries about what the adjustments might bring get worked out. RETA is in such a transition right now with our certification program. For years, we've been working on becoming accredited by the American National Standards Institute (ANSI). In the last few months, we've realized that, at long last, ANSI accreditation of our certification program is in the near, rather than the distant, future. In our efforts to keep all of our members aware of what this change will bring, we sent out letters of announcement and explanation to 1,930 certified operators the last week of June (see this month's Tech Report).



That letter indicated that RETA needs to make certain changes in policy and program to follow the minimum requirements of ANSI. The greatest change is the necessity to have a renewal program for maintaining a current certification. The chair people of the standing committees and the executive committee are serving as an adhoc group to determine the activities and studies that will apply to the professional development hours and continuing education units (PDH / CEU) that support certification status.

We had some other information to explain as well. The long and short of it is this: the PDH and CEU activities apply to maintaining the exams that are developed to the standards of certification and credentialing by ANSI. These standards assure proper applicability of the question make up, protection of security of the exam content to keep the value of your achievement the highest, and that those



who want to test receive equal opportunity to access the test. The hard news is that people who tested prior to the availability of the current exams will have to decide whether or not they will test again when their current credential deadline comes. So, you ask – how does this affect ME?

Some of you hold a certificate at both the entry level and the operator level. You will have a choice of selecting at which level to renew. It is not necessary to upgrade both levels unless you so choose. Membership cards will still show certification accomplishments as they do now.

The date that the credential is current through will be included as well. So, if you hold a Level B and a CIRO, both of these will be reflected on the card. Everybody is current through June 30, 2007.

Throughout the years, many companies have included RETA certification (and course study) as training elements of their Process Safety Management programs. Some people believe, incorrectly, that a company that does not have RETA certified operators would not be in compliance with the requirements of PSM or RMP. Yes, facilities that have ammonia systems which must comply with PSM have to certify their operators. That is written pretty plainly in the regulations - the employer certifies.



The RETA certification vouches for understanding of the refrigeration process, the hazards of the chemical and other hazards found at a typical plant and the fundamental reporting requirements when a chemical release above the threshold quantity is realized. The site specific certification requirements address standard operating procedures and emergency action plan training (and other requirements), which is something that only the employer can do because every site and operation is unique. Please do not think that simply having RETA certified operators yields full compliance coverage for certification. There is more to it than that. Please review your program to assure that it does address the requirements in the Clean Air Act and the OSHA codes adequately.

I'm pretty sure that there will be additional questions, comments, thoughts and inquiries as we get closer to actualizing ANSI accreditation. Please keep them coming. We can make this transition as smooth as possible if we keep the lines of communication open.

PermaCold would like to thank RETA for the permission to publish their *Certification Transition* article.

Dear Don

This open letter serves to explain the upcoming changes of the RETA certification exam program required by the American National Standards Institute (ANSI) certification process. ANSI is a private, non-profit 501(c)(3) organization that administers and coordinates the U.S. voluntary standardization and conformity assessment system. ANSI standards are routinely applied in regulatory documents enforced by OSHA, the EPA and other agencies.

In 1999, the Association hired a management firm specializing in the certification process to help RETA redesign its certification program to enhance the professional development of people in the industrial refrigeration trade. This management firm identified weaknesses in our program that, if not corrected, would adversely affect the validity of the program.

The RETA Board of Directors decided in 2003 that the RETA membership would benefit if our certification program came into compliance with the standards established for certifications by ANSI. ANSI accreditation means we will have independent verification of the validity of our exam.

Currently, there is an industry-developed consensus guideline that establishes the responsibilities of operating personnel from entry classification through technical classification. It was presented to the Boards of Directors of both RETA AND IIR in October of 2005 and approved by both organizations.

With ANSI substantiation, the RETA certification program will be recognized as a valid program by government agencies and industry employers. This makes RETA certified operators more valuable to employers.

As a member of RETA and a certified operator, we hope that you will consider these changes integral to your continued success in the industry. However, you don't have to get certified by passing the current exam if your employer or potential employer accepts your existing RETA certification credentials.

RETA will, however, be responding to the personnel departments of companies checking your qualification claims. If you have not passed the current RETA certification exam, you will not be considered by us as holding a current certification classification after June 30, 2007. We will acknowledge the exams you have passed prior to ANSI accreditation, but you will not be considered current by our standards if you do not retest.

We hope you will consider the value of current certification as an investment into yourself. Please take advantage of the limited time, low price offer for testing and review material access.

Sincerely,

Dave Murphy
RETA - President

James A. Barron
RETA Certification Committee Chairman

Refrigerating Engineers & Technicians Association

Certification Examination Application

Please print or type all information.

Mail completed application to PermaCold Engineering, Inc.,
2945 NE Argyle, Portland, OR. 97211 or fax to 503-249-8322.

Name _____

Company _____

Business Address _____

City _____ State _____ Zip _____

Home Address _____

City _____ State _____ Zip _____

Home Phone _____ Work Phone _____

AMMONIA REFRIGERATION WORKSHOP

(Certification Preparation)

January 14 – 17th, 2007

The total reduced fee, which includes textbooks and class time, is \$525. This fee does not include LaserGrade Testing Fee or RETA Membership fee if you are not already a member.

Which test will you be preparing for?

Certified Assist. Refrig. Operator (CARO) _____

Certified Industrial Refrig Operator (CIRO) _____

Are you already a RETA Member? YES NO

If you are not a RETA member, log on to reta.com and complete their application. Please note – to take the test you must be an active RETA member.

R-22 (continued from page 1)

We'll Keep You Updated

This article is offered to alert everyone that these issues are now upon us. The next 3 to 15 years will dramatically affect the use of R-22 in our industry. Since all of this is still evolving and since EPA regulation is subject to change from time to time, we will try to keep an eye on this subject. If, when and as things change, we will do our best to keep you informed via future issues of our Newsletter. In the meantime, we are standing by for any questions that this may raise.

Check Your Mailbox for PermaCold Parts Discounts!

Preventative maintenance is the key to reducing equipment break-downs throughout the year. PermaCold will be sending you one postcard per month in 2007 that offers discounts on specific parts that are traditionally maintained during the month. It's our way of reducing your costs and thanking you for your business.



Bulk
Rate

To: Our Valued Customer

PERMITTED STANDARD
U.S. POSTAGE
PAID
PORTLAND, OR
PERMIT NO. #5

Industrial Refrigeration Contractors & Engineers
PermaCold Engineering, Inc.
2945 NE Argyle Street
Portland, Oregon 97211

