



Vol. 9

June 2007

Greg Goater, CARE President

I was very happy to see so many of you at the recent Workshop. As usual, I came away with more than enough to justify my continued attendance and involvement in the CARE organization, and I hope each of you came away feeling the same. While we had a little glitch getting all of the presentations available on line, it was quickly accomplished once everyone got back to the office. Thanks to all of our presenters for their time and effort, as well as the presentations!

Your CARE Board of Directors convened their first meeting via teleconference at the end of April, and the wheels are turning to get prepared for next year's workshop. We have not yet received the results from the survey, but that information will be available shortly, and I can assure you that the comments and suggestions you all made will be considered very seriously by your board. Just as this year's event was a step up from previous years, so too do we expect next year's to be that much better.

As most of you are winding down your class year, many of you will be doing some "in the field work" for the summer to keep up your skills. Please take the opportunity to familiarize yourself with the new ANSI/ACCA Standard regarding the Quality Installation protocol. Implementing new standards in our industry most often starts with instructors such as you teaching the information. It sure would be great if all of the instructors who are on this newsletter distribution list were to incorporate this new standard into their curriculum.

Care Officers:

President ggoater@isaacheating.com	Greg Goater
Past President bob.feathers@sbcglobal.net	Bob Feathers
Vice President/Post Secondary mpeila@bates.ctc.edu	Mark Peila
Vice President/Secondary kcouch@drage.stark.k12.oh.us	Kevin Couch
Vice President/Proprietary-Secondary mdeboe@atlanticbb.net	Mark DeBoe
Secretary mcwhortj@dekalbtech.edu	Jeryll McWhorter
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From the entire CARE Board, let me wish you all a well deserved vacation from classes for the summer, and we will keep you posted as our agenda progresses.

Greg Goater



HVAC Industry Professionalism and The ACCA “HVAC Quality Installation Specification” by Wes Davis, ACCA Staff

“The foundation of every state is the education of its youth.” Diogenes Laertius

About 7.1 million unitary shipments were reported by ARI for 2006. About 60% were replacements for existing systems and the other 40% were used in new construction. Many of the replacement installations were the result of equipment failures during peak periods (i.e., winter for furnaces and summer for air conditioners). During these high stress times consumers want the heating or cooling restored immediately, contractors feel pressure to install the new equipment quickly, and many pressure their technicians to focus more on the turn-around time of the jobs rather than on the quality of the jobs. Some of the new equipment was for new homes, the systems were installed by contractors using production oriented compensation. Production oriented installations do not always receive the oversight necessary to ensure a quality installation.

The high-volume fast season and the production oriented construction market also create a market for poorly trained, or unlicensed, or otherwise unqualified businesses (or individuals) to install HVAC systems. These unlicensed, unskilled, unscrupulous, or non-caring contractors are inclined to cut corners and to offer prices and performance promises that are unfounded or imagined. Uninformed consumers are left to experience the inevitable inconveniences and expenses of a poorly-designed and poorly-functioning HVAC system. Manufacturers experience higher warranty costs, and utilities face an escalating demand for peak-demand power production. These low-budget contractors hurt the image of professional contractors and squander the benefits of a properly installed HVAC system.

Recently, during a conference call, a person referenced the career paths their local high school students choose ... HVAC was chosen below morticians. In the name of expediency, costs, and competition many contractors cut corners, install equipment that does not perform as specified, and does not meet customer expectations. Our industry needs a boost, it needs to change its image, and it needs professionalism. As educators you want your graduating students to be viewed as professionals and assets to the community generally and the HVAC industry specifically. Could you use a nationally-approved, industry-accepted, contractor-oriented “measuring stick” to promote technician professionalism? Would an objective, credible resource that provides a way for them (and perhaps you) to tell the “good contractors” from the not-so-good contractors be of value? This resource would be a way to measure a contractor’s concern about installation quality, their corporate professionalism, and perhaps their personal regard as HVAC industry representatives.

ACCA contractors saw a need for such a resource and set in motion the development of an installation specification for new construction and replacement markets. This specification was meant to be a method to evaluate the quality of an installation. ACCA served as the catalyst that brought together a coalition of contractors, equipment manufacturers, utilities, and industry associations to collaborate and establish a set of nationally accepted requirements for “quality installations.” The HVAC Quality Installation (QI) Specification was developed after many long hours from these interested industry stakeholders.

On 23 March 2007, the American National Standards Institute recognized the QI Specification as an American National Standard, another step forward in promoting real, quantifiable, quality HVAC installations. This creates an opportunity to improve the quality of HVAC equipment installations and to increase the professionalism within the HVAC trade. HVAC educators and trainers may freely use this standard to raise the awareness among future installing and servicing technicians of the benefits and elements of quality installation practices. When all the elements of a QI are met the customer enjoys comfort, proper humidity levels, lower utility bills, and indoor air quality. Contractors enjoy a steadier, more profitable business and the best advertising you cannot buy – word-of-mouth referrals. Technicians and installers who understand the value of a properly installed high performance system will understand a key part of what is necessary to be viewed as a professional. Your graduating students will also have a tool to help them differentiate among prospective employers for those who will best position them to grow in their careers. Hence, this specification can immediately benefit your students and their future employers.

The QI Specification contains no magic formulas or extreme requirements. It simply identifies well-recognized industry practices that somehow, over time, ceased to be the norms. In the name of “we’ve always done it this way” contractors have cut corners. To such an extent, that today’s installations yield poorly performing HVAC systems that use too much energy to produce too little comfort, and possibly create health hazards, for dissatisfied customers.

The QI Spec focuses on the actual installation and how well the equipment is selected and installed. You know that a high-efficiency installation is more than just using high-efficiency equipment and systems. You want your students to recognize all the factors which have a large impact on occupant satisfaction and energy savings. The ACCA QI Specification brings this all together into one short, concise document. The core areas addressed by the quality installation include:



Equipment Aspects:
Building heat gain/loss load calculations
Proper equipment capacity selection
Matched systems (splits only)

Duct Distribution Aspects:
Duct leakage
Airflow balance

Equipment Installation Aspects:
Airflow across the indoor coil
Refrigerant charge
Electrical requirements
On-rate for gas-fired equipment
Combustion venting system
System controls

System Documentation and Owner Education Aspects:
Proper system documentation to the owner
Owner/operator education

The QI Specification is a key step in raising contractor professionalism. It establishes a performance bar by which HVAC installations will be measured. ACCA believes so strongly in this proposition that it has made the ANSI/ACCA 5 QI Specification free to anyone with an internet connection available for free download from <http://www.acca.org/tech/qispec.pdf>. Interested parties are invited to download the specification. Additionally, for those who desire printed versions,

ACCA is making those available from its bookstore. If you want to obtain printed versions from ACCA for your classes (as opposed to making your own sets from the free PDF), please contact **Chris Hoelzel** (chris.hoelzer@acca.org; tel: **703/824-8851**) for special quantity pricing.

As we move towards restoring professionalism into the HVAC industry through quality installations, ACCA is currently working on several developments to support the adoption of the standard:

Verification protocols to inform those enforcing the standard of how to ensure the contractor/ installer adhered to the standard's installation requirements.

QI procedures to help educate those who install equipment according to the standard of how to properly perform the various tasks (e.g., measure airflow, refrigerant charge, combustion rate, etc.).

Quality contractor procedures to inform contractors of the business practices they should have in place to protect themselves and their customers (e.g., insurance, licensing, code requirements, etc.).

As educators you provide great influence over how future installers and technicians view the industry. You direct and guide these future contractors to do things right. Please share this standard as a way to raise the bar – for the overall professionalism of the industry, and for the future profitability of your students.

“It's not enough that we do our best; sometimes we have to do what's required.” Sir Winston Churchill (1874 - 1965)

Now that the end of the school year is here, and you are getting your lab ready for the summer, have you spent time on thinking about what should be going on now till the first week of school next year?

Yes, you have your consumables ordered, books ordered, and first week of handouts are copied and are ready to go.

Now have you looked at the list of new students for next year yet? Have you communicated with them?

I send out a couple of letters during the summer. The first will congratulate them on being accepted to the program.

Within the first letter, I will place a list of tools that the student needs to have with them the first week of school. My wholesaler will give the students a discount if the order by a certain date. (This will help insure that they will get ordered)

I have a local uniform shop that the students are to order uniforms from. If your school doesn't do this, you should consider it. You can have an embroider design a logo for the program to place on the uniforms. When my students compete in local skills competitions, we often get many positive comments on the appearance of the students. It can help with the community to when the students job shadow or work in the field. The school's name it out there!

Later in the summer I try to personally phone call each student. I will have a list of who has ordered the tools and uniforms and remind them that this needs to be done for a successful start of the school year. Also during this phone call, I will remind them of the orientation night before the start of the school year.

This should take care of the new students, but don't forget about the seniors. Call them and remind them when school starts. Sometime they will forget that. Remind them of the medical forms that need to be filled out before the first day or they can't work in the lab. This could affect the future placement of the students if they don't have their things in order.

I hope you can use one of the above ideas for your program to have a successful start of the next school year.



Is it time to think out of the Box?

By Mark S. Peila

In our short history, CARE has many accomplishments to be proud of. The 2007 Workshop was a testimony to this. We have a new slate of Directors that are energetic and dedicated to promoting quality training, supply the industry with high quality technicians and providing the members with services to meet the demanding needs of today's educators. The ever changing demographics, educational requirements and industry technologies will always keep these issues a priority. We all are aware of the challenges we will be facing to meet the employment need of our industry in the very near future. We can not remain stationary. What can CARE do to lead our members into the future? It is my hope that something in this article will stir some "out of the box" ideas for CARE to adopt.

We have been closing programs across the nation at the same time as the demand for technician is increasing. How can we keep programs open? The number one answer is attracting high quality students to fill the vacant seats. How can CARE help? Maybe we need to form a committee to develop some marketing strategies. Marketing to the iPod, My Space, U Tube generation. Providing Podcasts that can be down loaded, links to the CARE web site where we have information and presentation that will appeal to this group. Could CARE put together a team of members that could come to a school with a program to go out into the community to promote the Heating and Cooling industry? Could this team be the catalyst to bring area PHCC, ACCA, RSES, HARDI and CARE members together to start a promotional program? Hopefully, active members of these organizations would take up the cause and continue to improve the program after the team left. Could we attract employees from other occupations? People separating from the military or nontraditional workers reentering the workforce. How do we market to these individuals?

Our members have the expertise in the industry. How can CARE help them develop their teaching skills? Keep their curriculum up to date. Make sure they are aware of the latest teaching aids. How to deal with today's students? Should we be encouraging the transition from traditional education to competency base education? How do we deal with the "assessment model" of delivering education to our students? Our workshop is a great step in meeting these challenges but what must we do to improve it?

We need to promote life long learners. This is more important now than it has ever been in our industry. NATE is the cornerstone for bring technician back into the classroom to improve their skills. In some cases learning new skills. How can CARE members increase the number of technicians and employers participating in NATE certification? Could or should CARE develop or provide training programs for our member to use to retrain technicians? Could CARE participate in providing employers with in house training for employees?

No educational organization does a better job of providing direct contacts with industry, providing the latest information on emerging technologies, training and resources than CARE. At the early workshops this was a major issue. CARE sent the message, if you want us to train students to industry standards, you must provide us with current information and tools to do it. We now have a flood of information coming to our members. Our workshop is full of industry representatives willing to pass on information. As fast as this industry is changing we must continue to open lines of communication between all facets of this industry.

CARE has launched it new web site. It is obviously the beginnings of a fantastic new tool. What can we place on the site to help our members?

And now for the million dollar question. Are CARE members willing to pay a higher membership fee to fund expanding programs? How do we make members feel they are receiving a high value for their membership? What do you feel it a fair dues rate?

If you have any ideas, please forward them on to one of the Board members.



NATE Update: 8 May 2007

NATE's most recent test releases, Oil Hydronic Service and Gas Hydronic Service, lead the way for tests currently in beta testing—Oil Hydronic Install and Gas Hydronic Install and senior level HVAC Efficiency Analyst. This will be a busy spring and summer because four Commercial Refrigeration tests go into beta testing late May and are planned for August release. These tests are: Light Commercial Service (fractional hp up to 7.5hp); Light Commercial Install (fractional hp up to 7.5hp); Commercial Service (7.rhp up to 80hp); and Commercial Service (7.rhp up to 80hp).

Beta tests detect and correct potential test ambiguities. Candidates taking a beta test do so free of charge and as incentive are also given an additional NATE test free (which must be taken at the same time as the beta test). Any TO can give a beta test, here's how: When TO's place a test order, they can also order beta tests by the normal test ordering procedure, just write the beta tests' names and quantities in the comments box.

TO's are not charged for beta tests. Results of beta tests are not released until all beta testing for a test is finished, and the finished test is finalized. Then results are mailed.

Spring and summer mark new promotional efforts. NATE's first television outing was on CNBC, at 8:19pm Saturday 27 April 2007. The audience was between over 84 million households. A 2-minute "Learning About..." segment will release to public television in May 2007 and will be available for their use throughout the next 12 months. Within the month a 1-minute spot also releases to public television.

NATE's series of 30-second public service announcements radio spots (monthly) and bi-monthly written public service announcements will be complemented by this television coverage. In 2006, over 149 million readers saw, and over 160 million radio listeners heard, a public service announcement.

Nothing lasts forever, and technicians need to recertify every five years. If their certification is still valid, technicians need only take the specialty test if testing for recertification. If using continuing education, there are two kinds of classes:

- (1) those which have earned NATE recognition and
- (2) those which are not NATE recognized.

If a technician's certification is allowed to expire, technicians have to retest in both core and specialty to reinstate their certification.

Training and courses that have earned NATE recognition means that NATE knows what the class content is and that the class' content directly relates to one or more areas of certification so technicians can use that training for recertification purposes. NATE retains information online for NATE recognized classes. After a NATE-recognized training session, trainers send NATE the attendance form containing the NATE certified technician's names and ID numbers.

If classes which are not NATE-recognized are used, candidates must retain verification of attendance and submit a 25-50 word description for each class they wish to use which is not NATE recognized at the time they file an application for recertification.

Candidates can check their hours of NATE-recognized training credit by going to **www.natetesting.com** and logging in with candidate ID and PIN (which candidate creates), and while there, technicians can change their addresses, telephone numbers, email addresses so recertification notices can be sent out, and employer information. Candidates should check out the website to view and update information.

Contractors who have 25% or more of their technicians NATE-certified can list their company free by filling in a Consumer-Contractor-Connection listing form. If companies are listed and change their status (employs 75% or more NATE certified technicians) they should contact NATE and have their status updated. Submit it to Carl Smith (fax 703 527 2316 or email to **casmith@natex.org**).

Anyone requesting the use of a NATE logo needs to complete a Logo Request Form and submit it to Carl Smith (fax 703 527 2316 or email to **casmith@natex.org**).



Clifford H. "Ted" Rees, Jr. Scholarship: The Clifford H. "Ted" Rees, Jr. Scholarship Foundation was established to assist with the recruitment and competency of future Heating, Ventilation, Air-Conditioning, and Refrigeration (HVACR) technicians by awarding scholarships to qualified students who are enrolled in an institutionally accredited school.

For More Information;
Clifford H. "Ted" Rees, Jr.
Scholarship Foundation
4100 North Fairfax Drive,
Suite 200
Arlington, VA 22203
Phone: 703-524-8800
Fax: 703-528-3816
HYPERLINK; kmartz@ari.org
Kate Martz

The following companies support HVACR Programs with discounts, etc.

Fluke 25% off
<https://support.fluke.com/register/register.asp>

Simutech 10% off for Workshop Attendees
www.simutechsystems.com/

Malco Tools 10% School Discount
Contact Mike Janey
www.Malco.com

Klenk Tools Student Award Program
Contact MartyMarcus
www.klenktools.com

A.W. Sperry Discounts, Samples
Contact Stephen DiRaffaele
stephend@awsperry.com

Fieldpiece 10% Discount
Contact Paula T. Gallegos
www.fieldpiece.com

Infinicon Discount on Tools
Contact JerryWander jerry.wander@infinicon.com

Elite software 50% Educator Discount
"http://www.elitesoft.com" www.elitesoft.com

Training Labs Inc. 25% Discount on new edition
Larry-c@traininglabs.com
CATTAX-R 5.0 & CATTAX-E 5.0 Offer good until May 31, 2007

Testo Discount on Tools Contact Bill Spohn
Bspohn@testo.com www.testo.com
(724) 443-7700

If you learn of a discount not on this list, please email it to me so we can add it.
mcwhortj@dekalbtech.edu