

**CENTRAL TEXAS COLLEGE
INDUSTRIAL TECHNOLOGY DEPARTMENT
AIR CONDITIONING AND REFRIGERATION ADVISORY COMMITTEE
February 22, 2007**

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Artie & Michelle Jackson
Artie's Heating & Air Conditioning
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Monte Henning
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Mr. Tony Williams
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Mr. Wilson Rivera
112 South Drive
Copperas Cove, TX 76522

Ex-Officio Members

Timothy Gohdes, Instructor
Becquer Erribarren, Lab Assistant
John Pendleton, Instructor
Dean Mikles, Dean, Central Campus
Billy E. Hazzard, Department Chair
Dianne Dudley, Department Assistant
Duane Sexton, Instructor, Gatesville, TDC

HVAC ADVISORY COMMITTEE
February 22, 2007

MEMBERS PRESENT:

Will Riveria, CCISD, Copperas Cove, TX
Tony Williams, Owner, Homemakers Heating & A/C Inc, Killeen, TX
Artie Jackson, Arties Heating and Air Conditioning, Killeen, TX
Monte Henning, Foreman Mechanical Maintenance, Central Texas College, Killeen, TX
Jim Hatfield, Supervisor, HVAC, Central Texas College, Killeen, TX

MEMBERS ABSENT:

Terry Neiman, Neiman's Plumbing, Air Conditioning and Heating, Copperas Cove, TX

EX-OFFICIO MEMBERS PRESENT

John Pendleton, Instructor, Central Texas College, Killeen, TX
Timothy Gohdes, Instructor, Central Texas College, Killeen, TX
Becquer Erribarren, Lab Assistant, Central Texas College, Killeen, TX
Billy Hazzard, Department Chair, Central Texas College, Killeen, TX
Duane Sexton, Instructor, Gatesville TDC, Gatesville, TX.
Dianne Dudley, Departmental Assistant, Central Texas College, Killeen, TX

EX-OFFICIO MEMBERS ABSENT

Don Mikles, Dean of Central Campus, Central Texas College, Killeen, TX

The meeting was called to order by Mr. Hazzard who welcomed the committee members on behalf of Dr. Anderson, CTC Chancellor and Mr. Mikles, Dean of Central Campus and thanked the committee for their continued support of the HVAC program and the Advisory Committee. He stated that their input was very important to the HVAC Program. Mr. Hazzard also welcomed Mr. Becquer Erribarren, the new lab assistant in the Heating and Air Conditioning program who completed our program in December. As the lab assistant he keeps the equipment working and is another set of eyes to keep students from damaging the equipment. Becquer has his own business where he repairs small appliances.

Mr. Pendleton stated that we have students that drive down from Waco. The students will not go to State Technical College (TSTC). Students that are halfway through TSTC transferred to CTC once they saw our program and the hands on requirements. Mr. Pendleton stated the students will start hooking up the 410 systems when there is enough space. The department has the equipment but not enough room to install them. Mr. Gohdes has taken over the EPA certification. When he gets a quorum for a class, he convenes it. According to Mr. Pendleton, we have a pretty good track record of getting the technicians universally certified.

Mr. Rivera stated that CCISD will be installing new systems during the summer school. He will accept bids of the job and if anyone was interested to please submit a bid. He said that whoever received the contract would require a big crane.

Mr. Jackson stated that we need to look at training in air balancing. Secondly, it is important that technicians be able to read the charging charts. You can't go by how it used to work because the 13/14 SEER series have changed a lot of the system pressures. Technicians need to be knowledgeable and that they need to stay in school because technology is changing all the time. No one knows it all,

he is constantly learning himself so when there is a workshop or seminar to attend. Mr. Pendleton asked how they are staying up with continuing education. Mr. Jackson stated that he goes to Austin and that there is a course in Copperas Cove given every so often. There are online courses that technicians can take. Some supply houses offer different courses, such as heat pump classes. These two-hour courses could go towards continuing education as long as it is certified. Agencies that offer the continuing education classes are (TACCA), Texas Air Conditioning Contractors Association. To get more information on the agencies, it can be found under the Texas Regulation License on the internet. Some classes are offered in the evening or can be taken on-line.

Mr. Hatfield said that continuing education is important. Their employees go to school at National Technology Transfer for a 3-day class on boilers and chillers. He stated that our students in the commercial air conditioning class do a walk through of the central plant which introduces them to the chillers. This walk through gives them a feel of what exists out in the field. Additionally, if students wanted to observe the real world, they were doing some advance brazing; brazing a 3-inch underground steam line.

Mr. Henning supported Mr. Hatfield about the need for continuing education.

Mr. Sexton, Gatesville service area, offers a 24 week class to the offender in the Texas Department of Criminal Justice. These classes provide an opportunity for the offenders to learn a trade so they will have a marketable skill and trade when they get out. The program has from 19 to 20 students during each six month time frame. Like CTC, he also needs more space.

Mr. Williams said that one of the biggest changes affecting their business was variable speed technology. If we are interested, he is willing to help acquire some of these products. Secondly, manufacturers are getting more brand specific on services issues and need people that are able to work on their equipment. He runs the installation department in their business and sees load calculation programs becoming a mandatory requirement. Air balance and testing is becoming common practice in residential installations. Two and three speed cooling and heating technology is here. Mr. Williams asked if we had any experience or looked at any of the (NATE) North American Technician Excellence testing questions. Mr. Hazzard stated that we were familiar but NATE appeared to be just another organization trying to get the technician's money. One thing Mr. Williams suggested which would help the industry tremendously is a business training course. He said there are a lot of people that do not know the business side. There is a lot of information a technician need to know in running a business. The manufacturers want full blown dealership, brand specification, layers of management between owners and the technician in the field. Mr. Hazzard stated the only thing that comes close to that was some discussion about the ethics piece of the business which was in the troubleshooting class. It does not tell the student how to run a business but customer relation and ethics. Mr. Hazzard stated that our focus is the residential technician apprentice; a person that is knowledgeable, can hand the right tools to the technician, and can anticipate what is needed next.

Mr. Williams said that he appreciated what CTC was doing in preparing students to go into the workplace. Unfortunately, there is a shortage of qualified technicians with few young people coming into the industry. Mr. Gohdes asked Mr. Jackson how many systems that they were installing variable speed. Mr. Jackson stated about 14 to 15 per year.

Mr. Ghodes stated that a contractor had hired two people out of the classroom within the last week and that we cannot produce enough technicians to meet the demand. The Heating and Air

Conditioning department had nine completers in December; all were employed with seven working in the industry. Mr. Jackson stated that all of our students he had hired were good.

Mr. Hazzard asked if there was a need to continue the program. The committee agreed that there was a definite need for the program. There was a discussion about program expansion. All members present stated that the HVAC program needed more classroom, lab space and some equipment.

The committee members completed the annual evaluation and the contact information form for the HVAC program.

Mr. Hazzard thanked everyone for attending the meeting and expressed his appreciation for their assistance and support of the HVAC Program. Everyone was invited to tour the facilities. Several members went through the shop.

Mr. Hazzard adjourned the meeting.

Dianne Dudley
Departmental Assistant
Industrial Technology Department

Billy E. Hazzard
Department Chair
Industrial Technology Department