



THIN-AIR BULLETIN

American Society of Heating, Refrigeration, and Air Conditioning Engineers NM Chapter Region IX Albuquerque, NM

January Meeting 2014

Subject:
Fundamentals of Air Handler Component Design

Synopsis: We will discuss the fundamental and proper design of common air handler components such as dampers, filters, coils, heaters, humidifiers and fans. We will also include common design deficiencies that are seen in specifications and/or design.

Speaker:
Allen Anaya
25+ Years of HVAC industry experience. 15+ years in custom and semi-custom air handler design and manufacturing with Q-Dot, Airfan, ECCI and United Metal Products. 11 years with WM Carroll / Climatec as a manufactures representative. Allen attended Texas Tech University's Mechanical Engineering school.

Allen is also the current ASHRAE Membership chair.

MEMBERSHIP:

Welcome to the New Year!
We need your help in trying to drive our membership numbers up. Please let us know how we can better encourage new members to participate.

Like most professional societies; it is your membership that allows for new research, updates and improvements to standards.

Please encourage your fellow peers to join (Nothing like a little peer pressure J). Does your company help you? Do you know of anyone we can / should be in contact that is not currently involved?

Please e-mail me @ Allen@wmcarroll.com or call me @ 505-385-7338 with any thoughts, questions and/or comments

Welcome to Stephen Onstad of EverGreen Building Solutions, LLC

President's Message

Dear ASHRAE Member,

Happy New Year! Welcome back from the holidays!

Hopefully everyone had a safe and happy introduction to the New Year.

We are starting off the year with a presentation focused on getting back to the basics. It should be a nice refresher with an open forum for questions and discussion.

I generally thank the Board of Governors for their continued efforts, but being a new year I would like to thank the members of the New Mexico Chapter for their continued support and involvement. I would also like to encourage those members interested to get involved by contacting any of the board member.

Warmest Regards,

Morgan Royce President 2013-2014

From the History Book

November 1981

President:	David Summers
President-Elect:	Dale Crews
Secretary:	Terry Walker
Treasurer:	Gary Grange



This month's speaker was Mark Buehlman of BAC. He spoke about cooling tower evaporative cooling, cooling tower heat exchanger, industrial fluid coolers and cooling tower filtration devices.

Account balance was \$2,547.60.

WHEN: Tuesday January 28, 2014 at 11:45 am **COST:** \$20 Members, \$25 for Guests

WHERE: Pappadeaux Seafood Kitchen, 5011 Pan American West Fwy NE, Albuquerque, NM

RSVP to Erin Coffman by Friday January 24th. Email: Erin.M.Coffman@jci.com or Register Online at newmexicoashrae.org.

Society News Release

Dec 30, 2013

ASHRAE Publishes Revised Standard on Ventilation in Health Care Facilities

ATLANTA—In some sense, designers of health care facilities must follow the same creed as health care professionals: to first do no harm. A newly revised standard for ventilation of health care facilities, can help designers by providing the minimum requirements for the design of ventilation systems for health care facilities to provide environmental control for comfort, as well as infection and odor control.

ANSI/ASHRAE/ASHE Standard 170-2013, *Ventilation of Health Care Facilities*, was written by ASHRAE and the American Society for Healthcare Engineering (ASHE). When the standard was first published in 2008, it was the first American National Standards Institute (ANSI) standard in the nation to specifically address ventilation in health care facilities.

“Without high-quality ventilation in health care facilities, patients, health care workers and visitors can become exposed to contaminants through normal respiration of particles in the air.” Paul Ninomura, chair of the 170 committee, said. “Ventilation systems and designs for health care facilities are intended to provide a comfortable environment for patients, health care workers and visitors while diluting, capturing and exhausting airborne contaminants including potentially infectious airborne agents.”

Standard 170 has been in constant maintenance since 2008 and the past five years have provided an opportunity to review and further improve it. The revised standard features updates, changes and clarifications dealing with humidity, ducted returns, recirculating rooms units and duct lining, to name just a few refinements.

One trend that almost all classes of buildings have seen on the rise lately has been energy efficiency. Health care facilities can be energy extensive buildings and energy recovery can provide significant savings. Provisions for the application of energy recovery are now specifically addressed in 170-2013. However, as the standard stipulates, if energy recovery systems are utilized, the systems cannot allow for any cross-contamination of exhaust air back to the supply airstream. Run around coils are just one example of a system that is permitted, according to Ninomura.

The standard also addresses some issues that may reduce costs to build and operate health care facilities. Standard 170 allows relative humidities as low of 20 percent for some rooms. This may result in smaller capacity of humidification equipment, lower operating costs and reduced maintenance costs. The standard permits some use of plenum returns in outpatient facilities, which in turn may result in lower construction cost and operating costs.

Additionally, some hospitals are interested in utilizing displacement ventilation to reduce operating costs. The standard addresses the application of displacement ventilation within patient rooms.

Poorly ventilated health care facilities may increase the concentration of airborne contaminants including fungi or mold, which may cause allergic responses in even healthy workers and occupants. Considering the various occupancies and patient populations, great care must be taken in the design of health care ventilation systems.

The cost of ANSI/ASHRAE/ASHE Approved Standard 170-2013, *Ventilation of Health Care Facilities*, is \$58 (\$48, ASHRAE members). To order, contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 678-539-2129, or visit www.ashrae.org/bookstore.

ASHRAE, founded in 1894, is a building technology society with more than 50,000 members worldwide. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, ASHRAE shapes tomorrow's built environment today.
