



CLEVELAND *ASHRAE Newsletter*

October , 2005

OCTOBER MEETING NASA SMIRF REFRIGERATION TOUR October 18th , 2005



5:00-5:15 PM

5:30-6:15 PM

6:30-8:30 PM

Meet-UP (parking lot)

NASA SMIRF Tour

Dinner, 100th Bomber

Group Restaurant

NASA Parking Lot:

Brookpark Road Entrance

Past Security Entrance

*R.S.V.P. at (216)-373-0315 by 5:00 pm Wednesday October 12th for Reservations
TOUR SPACE IS LIMITED TO 30*

We are traveling to NASA Glen Research at Lewis Field on **Tuesday, October 18th** to learn more about the applications of liquid nitrogen, liquid hydrogen, liquid oxygen and sometimes even liquid methane! The work being done at NASA will freeze us in our tracks at -321°F ! Our tour will be of the newly constructed **Small Multipurpose Research Facility (SMiRF) and the Cryogenic Components Lab Cell 7**. Our local engineering firm, Middough Associates, designed these facilities. While at NASA, we will discuss cryogenic heat transfer fluids, pumping technologies and fuel measurement challenges involved with the space program. Some of the research that we will see will be utilized in space flights scheduled for 2010. **SPACE IS LIMITED...only the first 30** get to board the orbitor!

This Month's Sponsor:

*If you are interested in sponsoring the news letter,
please contact Matt Nelson at 440-243-3535.*

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Special Events (December Social)	Mike Denk
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The President's Corner by Brian Chambers

This October will a busy one for the Cleveland Chapter. We have two great events lined-up for the Chapter.

To start the month off right we are having the first Browns-Bears Tailgate party this weekend Sunday October 9th. This will be a very fun “December” social. Let’s hope the Browns bring home a victory. We need a pick-me-up since the Indians could not close the season. Please contact Mike Denk if you have any questions about the Browns Game.

The next big event will be a **Tour of NASA’s** new SMiRF and Cryogenic Components Lab Cell 7. This should prove to be a very educational trip. Please note that only the **first 30 people to register can go on the tour** do to limited space. Everyone is still invited to dinner at the newly constructed 100th Bomb Group.

I want to thank Dr. Jerry Sipes, PhD, PE on his presentation of Displacement Ventilation. The meeting was very well attended and many good questions were asked. Please see Rob Laneve’s “Cliff Notes” on the seminar in this newsletter.

In closing I want to remind everyone that Terry Kretch will be calling all the local companies for Research Donation. Everyone and every company benefits from ASHRAE Research, please be generous when Terry calls for a donation.



NASA Tour Participant Guidelines

The NASA John H. Glenn Research Center is pleased to have the opportunity to service you. **This letter confirms your reservation for a program at the Visitor Center.** The guidelines below **must** be adhered to so that your visit is a pleasant one.

ADMISSION REQUIREMENTS:

All adult visitors are **required** to present government-issued photo identification, such as a driver's license. Adults will not be permitted on NASA grounds without presenting proper identification. This includes teachers, chaperones, and bus drivers. Visitors should be advised that due to security procedures, they may experience a slight delay upon entering the Center. All vehicles are subject to inspection.

ADMISSION RESTRICTIONS:

Access to the Visitor Center is **restricted to United State citizens**. Foreign nationals will not be admitted. United State citizens employed by foreign-held companies may also be restricted.

In some cases, a list of participants with the declaration of Citizenship and the foreign companies affiliation must be made in advance. When this is done, no walk-on visitors will be permitted to attend.

RESTRICTED AREAS: Visitors must remain within designated buildings.

SMOKING: There is no smoking in any building or areas designated with "No Smoking" signs.

CAMERAS, VIDEO CAMERAS and CELLULAR PHONES: Cameras and video cameras are permitted at most facilities as long as their use does not interfere with other guests' enjoyment of the event. Specific facility restrictions will be announced prior to entering a facility. Cellular Phones (without camera functionality) are allowed as long as they do not distract from the enjoyment of the game by other guests. All such items are subject to inspection.

IN CASE OF EMERGENCY: In the event of an emergency situation which causes an evacuation of any or all facilities, please follow the direction of NASA staff and any safety and security personnel.



CLEVELAND ASHRAE IMPACT

Chapter Calendar:

Oct 9, 2005	Browns Vs. Bears
Location:	Cleveland Browns Stadium
Nov 17, 2005	CSI Master Format
Location:	Harry's (lunch meeting)
Dec:	No meeting, enjoy the holidays!
Jan 16, 2006	Joint meeting with IFMA
Location:	Harry's Steak House

September Meeting Recap, By: Rob Laneve

Our September 19th meeting topic was **Displacement Ventilation** and our speaker was **Dr. Jerry Sipes, from PRICE Industries**. Our topic brought in over 50 attendees...a good showing for the start of our new season! Jerry also provided our Chapter with an update on ASHRAE Standard 130: "Methods of Testing for Rating Ducted Air Terminal Units." Out of this update, it was noted that in the future, there might be an energy efficiency rating provided with fan powered terminal units. The Displacement Ventilation presentation provided an overview of a displacement system, available products, selection examples and design guidelines. A displacement system relies upon convective currents, in the occupied zone (0 to 6 ft above the floor) to disperse the conditioned air. Air is typically supplied above 63°F and low in the occupied zone. People and equipment create the necessary convective currents to effectively draw the conditioned air upwards and displace the contaminated air in the occupied zone. When compared to the traditional "overhead mixing system," some benefits of a displacement system include improved air quality in the occupied zone, increased occupant comfort, reduced noise and potential energy savings. The air devices can also be incorporated into the architectural features of the space. It should also be noted that heating is typically supplied by a second system, usually baseboard heating. In order to be effective, a displacement system generally requires ceiling heights of 8 feet and greater and the cooling load is usually greater than 38-40 Btu/hr/ft². We look forward to seeing everyone at the Browns game on October 9th and the NASA tour on October 18th...a Tuesday!