

ASHRAE  
TC-9.12 Tall Buildings

January 26, 2010

1. Call to order 3:30
2. Attendance:
  - a. Voting Members: Webb, Herrera, Fly, Werman, , Sinclair,
  - b. Non Voting: Brickman, Wessel, Carter,
  - c. Visitors: Van Baxter, Alejandro, Novoselac
3. Minutes of Louisville meeting Motion- Werman, second Webb to accept the minutes of the Louisville meeting. The motion passed
  - a. The minutes were posted in the web site but were not mailed. They will be distributed with the minutes form this meeting.
4. Chairman comments
  - a. The significant issue in the TC breakfast was the discussion against the CEC and he program policies.
  - b. RAC (Carl Lawson) research funding is available but very few RTARs were submitted. RTARs should be first sent to Lawson for pre-review to attempt to improve the quality of the RTARs.
5. Membership
  - a. We have no one rolling off this year so new members were solicited.
  - b. Not sure of Tom Kroschell's interest as a voting member.
6. Research
  - a. RP-1478 John Carter reporting. The project is testing of air tightness in mid rise buildings. Apparently 24 buildings have been identified for test.
  - b. Werman and Sinclair were going to write an RTAR on differential pressures in tall building. It seems that perhaps RP-1478 will do this to some extend and therefore the suggested WS be put on hold until 1478 results are available.
  - c. The possibility of installing sensors in Trump Tower was discussed in Louisville. It is believed that Tom Kroschell was the contact on this issue.
  - d. John Carter will attempt to find out about some possible instrumentation in the Berj Kahlifa (formerly Dubai) Tower to test differential pressures.
  - e. Harvey Brickman has not yet had an opportunity to develop an RTAR for validation of CFD analysis in tall atria vs. actual conditions.
    - i. It seems that the notion of the provision of smoke exhaust in a space based on the volume is counterintuitive since the exhaust should be based on the smoke production rate.
    - ii. The dilution of smoke n a very large volume should be such that the smoke is diluted to the point that travel through the dilute smoke is possible.
    - iii. There is also a question if the permissible limit of smoke accumulation suggested in NFPA is correct.

- f. RP-1328 (by NRCC) delivered a final report on a computing model that predicts a fire and smoke migration in a building, sponsored by TC-5.6. ASHRAE and TC-5.6 now has the algorithm that does this prediction. Ray Sinclair suggested that we alert global academics of the availability of this algorithm for their use and experimentation. Lynn Werman will contact Carl Lawson to attempt to get a copy of the final report. It might be a good masters project for a student to develop a program using this algorithm.
  - g. Harvey Brickman previously volunteered to develop an RTAR for the production of a design guide for high rise mixed use (retail and residential) buildings. Nothing has been completed on this subject.
7. Program (Simmonds is absent)
- a. Ray Sinclair chaired a program on humidity control that addressed the difficulty of controlling humidity when large amounts of sensible infiltration cause humidity control to be difficult.
  - b. John Carter said that TC-4.3 has proposed a session in Albuquerque on Humidity control basics.
  - c. We had no programs at this meeting
  - d. Proposed:
    - i. Albuquerque – None proposed
    - ii. Las Vegas
      - 1. Harvey will try for a session on Freedom Tower Probably for Las Vegas
      - 2. What about a program on Berj Kahlifa – Luke Leung was involved on the building as was Ray Sinclair. Perhaps a speaker from the Center for Tall Buildings and the Urban Habitat. Ray Sinclair to approach someone from CTBUH. **DJW to pursue.**
      - 3. Possible program on the MGM City Center in Las Vegas. TC-5.6 may have a possible program on this project and perhaps a tour. Tishman was constructor, Doug Meyers was the Fire Protection engineer. It would be interesting to do a presentation and then a tour. Ray Sinclair will pursue program. Mechanical engineer was Rich Montaigne. The chair to remind Ray in May or June.
    - iii. Future possibilities
      - 1. Seminar on the comparison of stack effect design calculations vs actual testing. Perhaps roll this into another topic. Sinclair
      - 2. Rehabilitation of two old buildings in Chicago Simmonds

3. Natural Ventilation in tall buildings for Chicago. This topic may have been suggested by Duncan Phillips. Ray Sinclair will check with Duncan.
  
8. Publications – Harvey questioned if we want to pursue an update of the Tall Building design guide. We can either solicit a research project or have Don Ross submit a URP to do an update of the book. Harvey will discuss with Don Ross to determine if anything needs to be updated.
  
9. Journal/Insights Fly will be requested to put is a call for members.
  
10. Handbook
  - a. Webb will complete the FPO section, Werman will do Water Distribution and DJW will do Plumbing and Electrical.
  - b. This information is required back to DJW by mid March for turn around and distribution to the TC April 1 for review and vote.
  - c. Final chapter is to be submitted to Handbook by mid May.
  
11. Ray Sinclair questioned what our goal as a TC is headed. What is our vision for the Tall Building committee: reduced litigation, improved energy efficiency? We have to know where we are going in order to have a goal to work toward. It seems that ASHRAE's primary focus right now is energy and a Tall Building is extremely energy inefficient. Can a tall building be built that meets specific energy goals? We need to answer these questions if we are going to continue to be a viable committee.

The meeting was adjourned at 5:00 PM

Respectfully Submitted



Dennis J. Wessel