TC/TG/TRG NO__________TC9.2_________DATE__January 29, 2013___________

TC/TG/TRG TITLE_________Industrial Air Conditioning___________________

DATE OF MEETING___January 29, 2013_____LOCATION__Dallas, TX___

<table>
<thead>
<tr>
<th>MEMBERS PRESENT</th>
<th>YEAR APPTD</th>
<th>MEMBERS ABSENT</th>
<th>YEAR APPTD</th>
<th>EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waller Clements</td>
<td>2010</td>
<td>Charlie Shieh</td>
<td>2010</td>
<td>Norm Maxwell, CM</td>
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<tr>
<td>Vin Gupta</td>
<td>2010</td>
<td>Richard Evans</td>
<td>2011</td>
<td>Al Woody, CM</td>
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<td>Ravi Ganta</td>
<td>2011</td>
<td>Vladimir Fedkiw</td>
<td>2009</td>
<td>Erich Binder, CM</td>
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<td>Mike Connor</td>
<td>2011</td>
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<td>Leon Shapiro, CM</td>
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<tr>
<td>Deep Ghosh</td>
<td>2010</td>
<td></td>
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<td>Danielle Fox, Guest</td>
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<tr>
<td>Eileen Jensen</td>
<td>2012</td>
<td></td>
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<td>Tony Arens, Guest</td>
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<td>Tom Axley</td>
<td>2012</td>
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<td>Mike Baucom, CM</td>
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<td>Jan Fretthold</td>
<td>2010</td>
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<tr>
<td>William Kumpf</td>
<td>2012</td>
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<tr>
<td>Wayne Lawton</td>
<td>2010</td>
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M – NQ – Member Non-Quorom HBC – Handbook Committee
CM – Corresponding Member

DISTRIBUTION

All Members of TC/TG/TRG plus the following:

TAC Section Head: Tom Lawrence
TAC Chair: Bill McQuade
All Committee Liaison As Shown on TC/TG/MTG/TRG Rosters:
Manager of Standards Stephanie Reiniche
Manager of Research & Technical Services Mike Vaughn
Meeting Location:
Dallas, TX at the Sheraton Convention Center

Call to Order, Introductions & Acceptance of Previous Meeting Minutes:
Meeting was called to order by Chairman Deep Ghosh at 1:05 PM
The Chairman gave opening remarks and called for Introductions
The Sign-In sheet was distributed and returned to the Secretary.

Quorum was established with 10 voting members present out of 11.

Chairman called for acceptance of minutes for San Antonio; W. Clements requested that
his name be spelled correctly. W. Kumpf moved to accept the minutes with the
correction and M. Connor seconded the motion to approve the minutes as amended.
Vote: 10-0-0-0 CV

Chair Report:
M. Baucom reported on the TC Chair’s breakfast. They are encouraging members to
nominate people for the Hightower award. They also encouraged TC members to get
more involved with their local chapters to help drum up more participation in the
committees. They have developed a template for presentation by TC members.

ASHRAE is also asking members to update their bios so that their membership in TCs is
current.

ASHRAE is continuing to experiment with GoTo Meeting for electronic participation in
TC meetings; D. Ghosh asked if this committee would be interested in trying this in
Denver; the consensus was “yes”.

D. Ghosh asked if anyone has visited the TC9.2 website lately; only one person has. It
was noted that most people do not have the password to get into all of the site. M.
Baucom said that he is working with ASHRAE IT staff to improve some other problems
with access and as soon as that is resolved, he will resend the password to members.

The TC 9 Section Head asked subcommittees to report of any specific instances where
the new $95 speaker fee caused someone to bow out. One person indicated that they will
no longer present based on the fee requirement.

D. Ghosh shared that one TC is trying to keep a balance of consultants, users, academics,
and manufacturers. This committee has not done that in the past and likely will continue
this way as this is not an issue at this time.
D. Ghosh noted that there is $17 million available for research – they are asking for more project submittals. E. Binder also noted that TC members should be solicited for donating to research since they now have the ability to earmark their money to specific projects.

ASHRAEWiki.org is out with about 7500 definitions now.

TC9.5 (residential and small building applications) is being disbanded.

**Membership Report, D Ghosh:**

N. Maxwell, D. Abramson, and E. Binder requested that they be rolled onto the committee at the next opportunity.

**Nuclear Subcommittee Report, by R. Ganta:**

Eight members attended the Sunday meeting.

See attached report.

**Handbook Subcommittee Report, by M Connor:**

M Connor updated the status of each Chapter and the road map to the Chapter revisions.
There are three chapters that are slated for review at the Denver meeting: Industrial Air Conditioning, Power Plants, and Printing Plants. These need to be reviewed by the subcommittee by mid-May, to bring to the full committee for voting in Denver.

E. Woody anticipated few changes to the engine test facilities chapter.

**Research Report (W. Clements):**

W. Clements attended the research chair breakfast but didn’t have anything to report. D. Ghosh said that the Reuben and Hickock papers included some equipment that was not evaluated in the RP1104 and RP1395 projects. He asked Professor White to develop an unsolicited work statement to address those final pieces of equipment so that these papers can be retired.

**Programs Subcommittee Report (V. Gupta):**

ASHRAE theme for year 2012-13 per Tom Watson – “Broadening ASHRAE’s Horizon”.

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<table>
<thead>
<tr>
<th>Chapter</th>
<th>Number</th>
<th>Lead</th>
<th>Target Date</th>
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<tbody>
<tr>
<td>Industrial Air Conditioning</td>
<td>14</td>
<td>Charlie Sheih</td>
<td>1/14</td>
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<td>Engine Test Facilities</td>
<td>17</td>
<td>Al Woody</td>
<td>1/14</td>
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<td>Printing Plants</td>
<td>20</td>
<td>Norm Maxwell</td>
<td>1/14</td>
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<tr>
<td>Textile Processing Plants</td>
<td>21</td>
<td>Mike Connor</td>
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<td>Photographic Material Facilities</td>
<td>22</td>
<td><em>Vote to Sunset</em></td>
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<tr>
<td>Air Conditioning of Wood and</td>
<td>26</td>
<td>TBD</td>
<td>1/14</td>
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<td>And Paper Facilities</td>
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<td>Power Plants</td>
<td>27</td>
<td>Eileen Jensen</td>
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<td>Nuclear Facilities</td>
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<td>Deep Ghosh</td>
<td>1/14</td>
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<tr>
<td>Mine AC and Ventilation</td>
<td>29</td>
<td>Erich Binder</td>
<td>1/14</td>
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<tr>
<td>Industrial Drying Systems</td>
<td>30</td>
<td>Doug Abramson</td>
<td>1/14</td>
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</tbody>
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**Key Dates:**

1. Final Identification of Leads 1/12 – Done
2. Scope of Revisions Defined 6/12
3. Start Revision of Chapters 6/12
4. Discuss Chapter revisions (1 hr subcommittee mtg.) 1/13
5. Discuss Chapter revisions (3 hr subcommittee mtg.) 6/13
6. Send Chapter for TC for review 6/13
7. Discuss Chapter revisions – Target Date #1 (3 hr subcommittee mtg.) 1/14
8. Vote on completed chapters 1/14
10. Galleys sent to TC Handbook chair 3/15
11. Handbook sent to Printer 4/15
One program was presented at this meeting: Seminar 01 (Chair – Connor), Topic – What You Can Do For Your Industrial Committee.

For Denver, there is one forum proposed, and one seminar:

Forum - “Use of Refrigerants in Ultra Low Dehumidification”. 2/11/13 deadline to submit for approval.
- Chair: Ganta

Seminar – “Heat Recovery from Process Applications”
- Speakers: Gupta, Connor
- Chair: Connor

For New York, the following seminar topics are proposed:

1. Battery ventilation and hazardous ventilation as a seminar
   - Speakers: Ghosh, Gupta, Connor, Binder

Future seminars under consideration:

1. Industrial Energy Generation and Savings for Sustainable Operations
   - Speakers: Arens, Binder
   - Chair: Woody
2. Will Green Technologies Affect Industrial Applications? (Joint w/TC5.8)
   - Speakers: Gupta, Binder

A suggestion was made in M. Connors seminar to develop a student design competition for an industrial application. There needs to be a responsible body to evaluate so TC9.2 would need to join with other TCs. V. Gupta will keep this as a line item to track, M. Connor will contact the Student Activities representative, and E. Binder will contact the appropriate ASHRAE president to see if this is possible. They will report back in Denver.

There was a general call for technical papers, none were brought forward.

Tracks for Denver and Chicago are already published. Any programs this committee wishes to propose should follow those tracks.

**Standards Subcommittee Report (N. Maxwell):**
There is nothing to report at this meeting.

D. Ghosh stated that the battery ventilation guideline (ASHRAE Guideline 21) has been published and a link has been sent to the committee.

**Standard 90.1 Liaison (L. Shapiro):**
SSPC90.1 is still reaching out to the industrial committees to see if they can avoid the problems they encountered when they brought data centers into Standard 90.1. There should be people from 5.4, 5.7, 5.8 and 9.2 to develop an ad hoc to work on any questions that come up.

T. Axley move to reaffirm L. Shapiro to be liaison to SSPC90.1 from TC9.2, W. Kumpf seconded. The motion passed 9 – 0 – 0 (CV). L. Shapiro will reach out to the other committees to develop the ad hoc.

W. Kumpf requested that the minutes reflect that members be requested to send suggestions of those items that can, and those that should not, be included in Standard 90.1 to L. Shapiro prior to Denver. This is for TC9.2’s use only at this time.

**Standard 62.1 Liaison (W. Clements):**
Heat recovery was a large topic of discussion, primarily around toilet rooms. There was also discussion about night turndown of OA systems. Right now, this is focused on commercial applications where the systems are used for human occupancy only. It was noted that this would not be a good application for many industrial applications. D. Ghosh asked W. Clements to continue to bring back any potential controversial problems to the committee for action.

**Webmaster (M. Baucom):**
The website will be undergoing a facelift. He will be working with Programs, Handbook, and Nuclear subcommittee chairs to build a page for each of them.

**Hazardous Spaces (M. Baucom):**
The Chair of TC5.8 was requested to send a letter to Mark Owens with the outline of a proposal for addressing hazardous spaces and ask for determination of whether it should be a handbook chapter or a design guide.

**Journal/Insights/ALI report (N. Maxwell):**
Nothing to report. These will be dropped from future agendas. He will still stay on as committee chair.

**New Business - High Performance Energy Guide (M. Connor):**
E. Binder reported that he co-chaired the Cold Climate Conference in November and they are working on a design guide. He would like to forward this information to the committee. D. Ghosh suggested this should be posted on the TC website.

The Chair then called for a Motion to Adjourn – Motion by N. Maxwell, Second by M. Connor.

Meeting Adjourned at 3:16 PM

Sincerely,
E. Jensen
TC 9.2 Secretary