

DRAFT Agenda

ASHRAE SSPC 52.2

MOT - General Ventilation Air-Cleaning Devices for Removal Eff. by Particle Size
June 25, 2023 9:00:00 AM– 12:00:00 PM EDT – JW Marriott Tampa, Adamo (3)
<https://events.rdmobile.com/Sessions/Details/1780343>

Votes: Font is Bold, Black
Task Groups: Font is Bold, Blue

Action Items: Font is Bold, Red

Minutes: Font is Italic, Green, 52.2 Secretary: Jenny Berens

Additional comments in Italic, Orange

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- 1) Call to Order – 5 min ✓
- 2) Chair Remarks – 12 min ✓
 - a) Code of Ethics - “As members of ASHRAE or participants in ASHRAE activities, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct. We will avoid conflicts of interest, and behavior that is discriminatory and/or harassing.” For more, read here: <https://www.ashrae.org/about/governance/code-of-ethics>

b) MERV 17-20 letter going on website *Jenny to check with Todd*

c) The reach and understanding of 52.2 *Jenny to check with Todd*

- 3) Roll call for voting committee members - 7 min *Secretary arrives in time for roll call*

See attachment

- 4) Review of this agenda – 1 min ✓
- 5) Review of “Draft” Atlanta 2023 Minutes – 5 min ✓
 - a) <http://sspc522.ashraepcs.org/> to find minutes, agendas

Mike Corbat moves to approve Minutes from 2023 Winter meeting

Jim Rosenthal seconds

Approved

- 6) Membership – 10 min ✓

User	2
General	7
Filter Manu	9
Media Manu	2
<hr/>	
Total	20

Need more users and Media manufacturers.

- 7) Website – Todd McGrath – 3 min ✓
- 8) Liaison Report – Jerry Kettler gikettler@air-engineer.com – 5 m ✗
No liaison present.
- 9) 62.2 & 62.1 Liaison report – Vijay / Wane Baker – 5 min ✗

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10) Open Action Items – 31 min

a) Revisions to 52.2 Document – 12m ✓

- Public review was submitted

Todd: Standard needs to be reprinted every 5 years. An extension to 6 years was accepted by ASHRAE. We are quickly approaching the deadline for the extension.

- ASHRAE came back and didn't like the formatting and we need to redo it

Todd: ASHRAE wanted 1 column instead of 2. When reformatted, none of the formulas were accepted.

Gemma: Will try to get back out for Public Review within 1 month from today.

b) Youtube videos. 1) Explain MERV table, 2) MERV 17-20 don't exist **WG: Zied D, Marisa J-S, - 14m ✓**

- ASHRAE Wants to limit exposure of "content"

Todd: ASHRAE did not like that the ASHRAE logo was included together with too much detailed information.

Gemma: Proposes to take out Table number.

Todd: Proposes to send out the link to the YouTube video to the voting members again

Jenny: Proposes a Workgroup 2 to review.

Marisa agrees

WG2 formed: Jenny Berens chair, supported by Jonathan Rajala, Brian Krafthefer, Brian Gerhart (3M – Jenny to find email address). No due-by date is decided.

Jenny: Points out that ASHRAE is generous when it comes to reprinting parts of their standards for a fairly low, flat fee. Example, 170's tables in FFT Hospital brochure. Would this path work for a YouTube video?

Don: 16890 committee got permission from ASHRAE to pretty much copy and paste large parts of the 52.2 standard directly into the 16890 document.

c) 5 Year ANSI Reprint Discussion – 05 m ✓ (See 10a above)

11) New Business – 90 min

a) ASHRAE 241p – 82m

- Open discussions on the new ASHRAE Standard

241P was published on 6/24, so now Standard 241.

241 is now officially a Standards Committee.

- Mike C Presentation **Todd to send the presentation to Jenny so that it can get attached in the Draft Minute Appendix**

- Discussion

General information:

- *No Public Comment responses were required since not ANSI. Many Public Comments were received; some ignored, some included. Final, published version looks very different than the Public Review draft.*

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- *When asked whether the final version/draft before publication would be available for review, we got a mixed response: “No, you have to purchase the e-version” and “Yes, electronic review document will be made available to 62.2 (?)”*

Todd to see if he can get a link to the electronic review document to share with 52.2.

- *2 voting members on the 241 Standards Committee voted against the standard*
- *Kathleen asked the other 241 committee members to please let the 52.2 committee to decide on MERV.*
- *MERV11 is supposedly corresponding to ePM1 50% (or above), lower MERV ratings do not meet ePM1.*
- *No plan to necessarily comply with ANSI going forward, but will be following public review rules in the future.*
- *62.2 to review 241 to look at what can be harmonized between the standards.*
- *Not a legal document (yet), not a “lot of teeth”, however, request came from Washington D.C. (“White House”)*
- *How does the standard affect 52.2?*

Answer: “Only applicable when increased risks for infectious disease transfer”.

Response: “The issues with this statement is that it is not defined as pandemic, but could potentially be applicable to flu-season as well.”

- *Who activates the standard? Which entity?*

Answer: No answer.

Discussion:

- *Jim: Not a great standard for 52.2 Not filter efficiency, but filter effectiveness. Big picture missing: Filter, fit, flow, pressure drop*
Kathleen: MERV13 is already used in many houses. The flow is already addressed in the standard.
Todd: MERV is measured at specified flow rates.
Mike: The standard discusses many paths towards clean air
Kathleen: The user has the freedom to carry out more than one recommendation to improve the total air; ex add indoor air cleaners
- *Jenny: Question: Each building owner to generate an implementation plan, how is this envisioned for residential buildings? Answer: No answer*
Suggestion to committee: Generate a check-list/document for implementation in private residences to help the general public with the practical aspect.
- *Todd: Question: Is the literature references on charged media available?*
Mike: Answer: Not available, unfortunately
- *Jim: Question: Effectiveness is a relationship between efficiency and flow. How much do mechanical filters reduce flow? Jonathan:*
Answer: There is some anecdotal information, trying to find out more. MERV13, 300 fpm, -dP 1.5, so very low.
- *Don: 52.2 is not an applications standard. The filter is totally dependent on the system. Either constant flow or constant -dP. 241 is an applications standard, whether correctly generated or not. App J addresses how filters drop in efficiency based on flow over time.*

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- *Don: MERV is Minimum Efficiency Reporting value, but MERV is Maximum in reality. MERV-A is Minimum. If a filter drops from an 85% to a 15% efficiency, the user has to know. Ex. if a filter used in a hospital drops from MERV 15 to MERV 11. From this perspective, 241 has a point.*
- *Jonathan: Have seen MERV 15-A drop to a MERV 11.*
- *Don: ISO 16890 has helped.*
- *Charlie S: So many IAQ standards out there and they all call out different MERV ratings. Originally clean outside air (190s), now also improve buildings. Look at the systems' standards, MERV-A will come up. Lots of manufacturing politics in 52.2 and other committees recognizes that.*
- *Jim: We are all generating particles in this room right now, flow is critical.*
- *Tim: What kind of subcommittees are you looking for?*
- *Charlie S: Question: No progress in 52.2. Any other ideas? Jonathan & Jenni: Answer: 2.4 Planning meeting 9AM tomorrow morning (6/26)*
- *Sanjeev: AppJ is not real, nowhere close to a MERV-A drop in reality*
- *Mike: MERV6 used to be a standard efficiency, now quasi useless; MERV11 is now a new minimum.*
- *Kathleen: We could use IPA for AppJ instead. We need to move forward as an industry standard so that we provide the community of users what they need. If not, they will move forward without us. We should be doing better. We need to make the test shorter and less expensive.*
- *Charlie: We should aim for applications at MERV 13, 14. Can we make the chart more useful?*
- *Don: Lower MERV is used in residential.*
- *Todd: Does 52.2 need to do something in response to 241?*
- *Sanjeev: We need to tie it into the field.*
- *Jenni & Jonathan: We need to do something either way.*
- *Tom: MOT. Is AppJ a good method? Is ISO16890 a good method?*
- *Mike: If we do not move forward, we are discussing things that are not relevant to 52.2. Is 52.2 a mature standard?*
- *Todd: We are still waiting for the Round Robin data.*
- *Kathleen: I have suggestions for how the overload can be adjusted.*
- *Todd: Waiting for result from 1734 (salt)*
- *Marisa: We should review what Vijay did in the past to look at particle measurement.*
- *Todd: We voted to push up to 2.4. Nothing was done. Used PM sampler to measure particle count.*
- *Marisa: So then we just accept that nothing is done?*
- *Mike: That is aerosol distribution.*
- *Mike: Aerosol size distribution control in 2.4 research?*
- **Todd: Don started by a) bringing in App J in 52.2 (version 1) and b) shortening that overall test method (version 2) with the help of Todd, Mike and Kathleen.**
- *Don: Draft 1: Move AppJ into the standard. Draft 2: AppJ replaces the 30g loading. Don shares ppt summarizing changes in both versions. **Document to be added to minutes by Todd***
Draft 2:
 - a) AppJ replaces 30g dust loading
 - b) Positive or Negative pressure condition

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c) Remove the incremental PSE tests during dust loading (test duct clean-up is a huge cost). Use PSE_i = initial PSE and PSE_c = PSE for the conditioned filter. Use same filter, same airflow. Conditioning method might require multiple PSE tests, notes as PSE_{c1} ... PSE_{cn} , where n is number of conditioning steps.

d) Make dust loading optional for all products where $E3 \geq 20\%$. Benefits: Reduced time & cost (loading time, cleanup time, equipment run time)

e) Equipment: Dust feeder, near, dust in PC.

- *Todd: Comments from Test Lab representatives?*
- *Bobby: It all makes sense.*
- *Mike: This is not a response to 241, but AppJ is a long and expensive test.*
- *Todd: Feedback from other standards committees is that “we like MERV-A better than MERV”*
- *Bobby: We can raise the minimum dust loading to increase conditioning speed (?)*
- *Don: We don't need to dust-load, just one time and then run for 5-6 hrs*
- *Jenni: Let run overnight.*
- *Sanjeev: Do versions 1 and 2 mean that MERV goes away and is replaced with MERV-A?*
- *Don: Yes.*
- *Terri Self: The AppJ inclusion to 52.2 was voted down in the last meeting. Keep in mind carbon footprint and energy usage.*
- *Don: No, we voted on the public comment. Technicality, but inclusion of AppJ was not voted down.*
- *Tod: Easiest is to drop in AppJ and shorten the test. We can look at other methods as well and form a task group.*
- *Sanjeev: Other test dusts can be used. AppJ and dust loading do not replicate real life.*
- *Don: Agreed. AppJ is replicating the most challenging environments -> Minimum Efficiency Reporting Value. ISO data and MERV-A data is pretty much in line with each other.*
- *Jim: Look at impact of flow on filter and measure flow impact on pressure drop.*
- *Kathleen & Don: This is a systems effect; all factors are connected.*
- *Jim: Recommend to keep AppJ optional at this time.*
- *Jenni: Let's go back and review the scope of the test:*
- *Paolo & Todd: Reads scope of test out loud.*
- *Sanjeev: How many customers asks for AppJ testing?*
- *Bobby: Not many ask for AppJ testing.*
- *Sanjeev: Let the customer decide which rating they want to use.*
- *Jenni: The ratings are not clear.*
- *Sanjeev: Then let's clarify.*
- *Charlie: We can keep 52.2 and generate a 52.3 and customer can choose between these standards.*
- *Kathleen: The awareness in the community should drive the standard.*
- *Mike: We can just go from M.E.R.V. to MERV and drop the original meaning behind the abbreviation.*
- *Todd: When and where is the minimum?*
- *Tom: We have to keep in mind the impact on energy usage (?)*
- *Todd: Recommends to postpone topic.*
- *Don: The intent was not to vote on the versions now.*
- *Todd: Recommends on forming a Working Group with a clearly defined task*
- *Bobby: De we need to respond to 241?*
- *Todd: No, no formal requests to respond.*

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- *Mark: Proposal to form Working Group. Evaluate all conditioning methods. Educate the filter community.*
- *Mike: Second.*

(Y-N-Abst-Absent-Tot) (16-0-1-3-20) CNV

- *Todd: **Reach out to people to form the group.** Likely the same people that were selected last time. Lots of interest, only a few got the opportunity to be involved. Large group is not practical.*

b) Other new business

- Brian K / 2.3 - We need particle measuring and possibly filtration expertise that could come from 52.2 members who could contribute to the TC2.3 Handbook Subcommittee currently reviewing Chapter 11 – “Air Contaminants” in the Fundamentals volume. Could volunteers come to the TC2.3 Handbook Subcommittee meetings?

c) Forum 1: Networking Forum for Researchers in the Built Environment

- Sunday June 25, 3:15-4:45, JW Marr, Tampa Bay 2
- Summary: Please join your colleagues working in research and development for a networking forum. All are welcome including students, faculty, engineers, scientists and other researchers conducting research to solve problems in the built environment in academia, at national laboratories, non-profits, industry and related areas. The outcome of this session will be new contacts in the R&D field with the goal of building new collaborations.

d) PP Numbers for Keith ✓

Harpoon Harry's Tuesday night.

12) Adjourn 52.2 Main meeting ✓

*Michael C moves to adjourn
Jim seconds.*

13) SSPC 52.2 Research – Jon R – 10 min

a) Update on current projects

- *Jonathan:*
 - (1) *Kathleen's research project hopefully be ready to present/review soon.*
 - (2) *RTAR: Crystal looking at methods to discharge filter media and specifically at effects of IPA on media.*
- *Terri: Kimberly-Clark has test data available.*

b) Additional discussion

- *Jonathan: Regarding Jim's comment on the Corsi-Rosenthal Box; Jim likely refers to room airflow change rates rather than flow. A HEPA filter in a Corsi-Rosenthal box would probably work really well. Keep 185.5 in mind, room air cleaners.*
- *Tom: There are user guide manuals for 62.1 and 62.2, so why not for 52.2? We have discussed in 2.4 after Jeff presented his research.*
- *Jim: Residential do not only apply to private homes, but also to malls and offices.*
- *Jenny: A filter cannot fix a poorly designed or run system. The HVAC filter will not reduce my chances of infecting a person who its right next to me in this conference room.*

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- *Don: Yes, putting a HEPA into HVAC does not work. This was a misconception both during the ANTRAX scare and during the peak of the COVID pandemic.*
- *Jenny: There is plenty of room for educating the end-user, so that they do understand the system limits and how the filter actually works.*
- *Jim: There will not be a difference between MERV13 and 16 if the filter is not used properly.*
- *Jonathan: * Adjourns the meeting **

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Attendance meeting June 25th, Tampa FL

	Name	Present (Y/N)	Roll-off date	
1	Michael Corbat	Y	6/30/2023	Filter Manu
2	Chrystal Jolliffe	Y	6/30/2023	Filter Manu
3	Matt Solis (NAFA)	Y	6/30/2023	General
4	Tim Ahn	Y	6/30/2023	Filter Manu
5	Christine Sun	N	6/30/2024	General
6	Michael Flom	Y	6/30/2024	Filter Manu
7	Bruce McDonald	Y (virtual)	6/30/2024	General
8	Randy Brannen	N	6/30/2024	Filter Manu
9	Donald Thornburg	Y	6/30/2024	Filter Manu
10	Todd McGrath - C	Y	6/30/2025	Filter Manu
11	Mark Tucker - VC	Y	6/30/2025	Media Manu
12	Jenny M Berens - Sec	Y	6/30/2025	Filter Manu
13	Sanjeev Hingorani	Y	6/30/2025	User
14	Rahul Bharadwaj	Y (virtual)	6/30/2025	Media Manu
15	Gemma Kerr	Y	6/30/2025	General
16	Jim Rosenthal	Y	6/30/2026	User
17	Brandon Boor	N	6/30/2026	General
18	Bobby Singer	Y	6/30/2026	General
19	Brian Krafthefer	Y (virtual)	6/30/2026	General
20	Marisa Jimenez-Segovia	Y	6/30/2026	Filter Manu

User	2
General	7
Filter Manu	9
Media Manu	2
Total	20

Attending
 17 out of 20 voting members
Quorum