

Steering Committee Meeting Notes from July 28, 2016 Teleconference

Meeting led by Lisa Rector of NESCAUM

Meeting Invitees (those present are in bold-face): Lisa Rector (NESCAUM), Bob Lebens (WESTAR), Rob Kaleel (LADCO), Mary Uhl (WESTAR), Arthur Marin (NESCAUM), **George Allen** (NESCAUM), Rod Tinnemore (Washington), Phil Swartzendruber (Puget Sound Clean Air Agency), **Cindy Heil** (Alaska), Dave Shephard (Vermont), **John Wakefield** (Vermont), **Lisa Herschberger** (Minnesota), **John Barnes** (New York), **Marc Cohen** (Massachusetts), **Jack Goldman** (HPBA, President & CEO), John Crouch (HPBA, Public Affairs Director), **Bob Ferguson** (Consultant to HPBA, President of Ferguson, Andors & Company), Adam Baumgart-Getz (EPA OAQPS, Wood Heater NSPS Group Leader), **Amanda Aldridge** (EPA OAQPS, Wood Heater NSPS Lead), **Stef Johnson** (EPA OAQPS, Measurement Group Leader), Mike Toney (EPA OAQPS, Measurement Group), **Jill Mozier** (EPA's Contractor, Meeting Note Taker)

Primary Conclusions from Meeting:

- The Steering Committee (SC) did not have any issues with the content or format of last week's meeting notes and therefore the July 21st meeting notes are considered final.
- The SC did not have any issues with Basecamp as a central repository. Lisa Rector will post all meeting notes there and e-mails will be sent out to alert the SC members of new notes and other new additions to the site. Task lists will also be developed based on the notes and the task list will generate reminders which also will be e-mailed to the relevant SC members.
- Marc Cohen from Massachusetts confirmed his voting membership on the Operations & Fueling (OF) work group and may be able to co-chair it representing the regulators, pending permission from his management.
- John Crouch from HPBA will be the co-chair of the OF work group representing industry.
- Regarding the draft framework and objectives of the OF work group, the SC agreed with the first objective Lisa had listed – that is, *“Develop a cord wood certification fueling/operational protocol that more closely aligns in-use emissions performance with lab certification tests.”* Specifically, both industry and regulators on the SC agreed with the use of the words “closely align”, as replicating the real-world is not possible technically or economically. It was noted that the definition of “closely align” clearly involves the use of cord wood, but beyond that it quickly becomes a more complex and nuanced discussion as to what is involved [in that alignment].
- Regarding the second draft objective which originally stated *“Develop a method that ensures good emission performance in a variety of burn conditions...”* the SC decided to revise the wording of this objective as follows: *“Develop a method that measures emission performance under a variety of burn conditions...”*
- Regarding whether or not a third objective should be added to the OF work group's list of objectives charging the OF work group with sketching out a cross-walk methodology from the current EPA method to the cord wood method being developed, the SC agreed this was a high

hurdle which would require data. This cross-walk might involve two leaps and two correction factors (x and y) – from crib to cord (correction factor x, to account for the fuel change) and then an operational leap (correction factor y, to account for the changes in the operational protocol). The use of a potentially conservative correction factor to lower the risk to industry and thereby provide incentives for industry to use the new method (and generate data) was discussed. Regarding whether this objective should be explicitly spelled out in the list of OF work group objectives, the SC noted that this research component aimed at a correction factor is known by virtue of the fact that the SC is discussing it. Including it more formally as an objective at this point in time (prior to the OF work group convening) may be premature. The SC agreed to keep discussing this issue but to simultaneously allow the OF work group to begin their work. The SC and OF work group will have a joint meeting in the future regarding how best to use the new cord wood-based method in a regulatory framework.

- It was noted, regarding the OF work group’s draft guidelines, that a metric is needed that looks at both daily performance and annual performance (not only annual), since from a regulatory perspective the health relevance is based on daily performance.
- The SC agreed that the species and fuel characteristics questions will need to be answered by the OF work group prior to moving forward with any operational parameters.
- Regarding whether or not a single wood species exists that is common nationally, it was noted that this is not yet known but will be informed by a survey that EPA is sending to the certification labs. The local transportation limitation of cord wood was noted. It was also noted that the literature reviews to date reveal that while species has an effect, the data is all over the map (contradictory), so even the direction of this effect is not yet clear. It was also noted that appliance differences (not only species differences) are impacting the data in the literature.
- It was noted that the OF work group will ultimately need to review the draft objectives and guidelines document and will likely have changes to it, but it’s a good-enough starting point for them. It was further noted that the OF work group should come back to the SC with rationale for any changes or additions to the draft guidelines.
- The SC agreed that the first task for the OF work group should be taking the draft guidelines document and turning it into a work plan, including a prioritization of the guidelines.
- George Allen reviewed the progress made to-date by the PM Measurement work group regarding the following issues and recommendations:
 - dilution tunnel temperature and filter moisture issues, including ensuring the filter is kept at 90% RH by requiring the filter temperature to be 2 C degrees higher than the tunnel dewpoint;
 - residence time and tunnel temperatures, including the need to set the max tunnel temperature at 100 F;
 - more accurate temperature measurements using thermistors (rather than thermocouples);

- using a PM 10 size cut cyclone on the inlet to keep fly ash out;
- the use of field blanks, lab blanks, and dynamic blanks as well as a room air filter sample to get background PM in the lab (Note: Stef Johnson also recommended a proof blank);
- a balance resolution of 0.01 mg;
- automatic sample flow control;
- weighing room environmental conditions being based on actual measurements of RH and temperature (rather than the current use of a fixed correction for water);
- equilibrating at 35% RH using saturated salt solutions in the desiccator (rather than brute force desiccation);
- recording an initial off-weight before equilibration and then another weight after Day 1, before recording final weight, as this data may be useful in determining if the mass loss is due to SVOC or water.

The PM Measurement work group will have a final teleconference in early September.

- The SC decided to post the PM Measurement work group meeting notes to Basecamp.
- With next week's meeting, the SC is hoping the process can transition out of SC initiation duties and into the OF work group meetings.
- Next week's SC teleconference will be used for final changes to the draft OF work group guidelines document. In addition, the regulator co-chair of the OF work group will be finalized and the invitation to OF work group members will be finalized. Finally, the SC will also discuss what experts to bring into that work group as well as what stakeholder briefings to hold.

To-Do List:

- SC members should review and comment on the draft invitation Lisa e-mailed to the group (also attached to these notes) by Tuesday, August 2nd. Lisa will finalize the invitation after August 2nd and send it to any nominees still in need of an invitation (e.g., Tom Morrissey, Tom Butcher, Mark Champion).
- The regulators on the SC will finalize their choice for the OF work group co-chair by next week's SC meeting.
- Bob [Lebens](#) will review the draft guidelines document for the OF work group. Other SC members should also make one final review of this document and provide comments for next week's SC teleconference.
- Bob Ferguson will post data to the ASTM collaboration site that can also be posted to Basecamp. This is data and memo reports used in the ASTM development process pertaining to ~~specific gravity and moisture content ranges and also to operational issues~~ fueling and operation testing conducted specifically to inform the ASTM task group on various issues.

- Lisa Rector will post PM Measurement work group meeting notes to Basecamp and will also initiate the OF work group Basecamp site.

ATTACHMENT
Draft Invitation to OF Work Group Members

Greeting!

An effort has been set up to develop recommendations to EPA-OAQPS on a revised cordwood test method for residential wood heaters. This effort is setting up a workgroup to develop recommendations for fueling and operation protocols. Information on this effort can be found on the EPA released discussion paper on the project, at:

<https://www.epa.gov/burnwise/process-developing-improved-cordwood-test-methods-wood-heaters>

This paper lays out a process (Section 6) to revise test methods for residential wood heaters. A key component of that effort is developing recommendations for a revised protocol that not only moves the fuel from crib wood to cord wood but also creates an operational protocol that will create stronger links between certification results and field performance.

To complete that effort, we are first looking for workgroup participants with expertise in the field of regulatory testing and residential wood heating testing to participate on an Operation and Fuel Technical Workgroup. Your name was put forth by the Steering Committee as highly qualified for this effort. NESCAUM has been tasked with reaching out to you to see if you have interest in this effort.

The expected time commitment is 1-2 calls/month approximately 60-90 minutes in duration, and time to review and comment on draft documents over the next 8-12 months. This group might also be asked to comment/develop recommendations on research agendas, if EPA is able to fund evaluation testing.

Please let us know if you are able to participate in this process. Alternatively, if you are not able to participate, we would request nominations for other individuals whom you think would be well qualified. Thanks very much.