Hi Tanja, Hi Adam,

please find below our first statement, comments, proposals and questions. Please note, that we are still working on several details as expressed in the draft, but we would need to have common internal understanding first.

We also have tests running for a heat recovery machine taking in considerations the draft 1 of Version 3.0 and the 2018 Version of the ASTM F 1696. Once results are available, we might reach out to you again.

Here is the 1st statement, bold letters are our wording:

**General questions:**

The already listed machines, what will happen to them once the Version 3.0 is in force?

What needs to be done to maintain those listed?

In case of re-testing for ES, it may be required to re-test them also for NSF 3. Does EPA has considered the financial burden to the manufacturers?

The further and further reduction of water consumption is a good idea in the sense of environmental protection. On the other hand, it may go close to the NSF requirements for sanitizing and hygienic safety and public health. Is EPA aware of such risks?

**Details of the Draft 1, Version 3.0:**

Line 14:
... and a sanitizing rinse.
**Either remove “sanitizing” or replace with “sanitized”**

Line 31:
... which requires the raising of a door
**Unnecessarily restrictive – replace “raising” with “opening”**.

Not clear what the difference is between “Door” and “hood” type machines.

Line 49:
Please define “power rinse”

Line 65:
**Remove “A sub-type of high temperature,” or why can low T machines not have heat recovery?**

Line 97 to 106:
**Does this include the energy consumption to return to active?**

Line 108:
“... while “washing” or “sanitizing dish loads,....”
**Change to “to wash, sanitize, and rinse dish loads.” Or “to wash and sanitize dish loads.”**
“…expressed in kWh/rack” and for flight types? Per square foot, or per hour?

Individual models represented by a product family must have the same sanitizing and post sanitizing rinse water and idle energy consumption. Forcing the measuring of every machine with a different water consumption represents an unfair advantage to companies offering only limited variety. We pride ourselves in offering a very wide spectrum of machines (some that have not even been built up to now). A fair solution would be to measure one machine in a family and scale the results (energy and water consumption) up and down for the rest of the family.

EPA is interested in stakeholder feedback regarding the removal of low temp PPU and low temp flight type machines from the Version 3.0 scope. Those machines should remain in the scope, but should be separated from the high temp machines. Since the sanitation process is mainly controlled by adding a certain amount of chlorine and/or a solution thereof, is EPA considering to include the energy and water consumption for production, distribution, storage, use, disposal, waste water plant treatment and other side effects of that chemical?

We believe, that all energy should be included. Question: Does the definition of an external booster heater include the in-building (in-house) heating system and the booster heater which is in or next to the machine?

Heat recovery machines When is EPA going to introduce in their listing (Product finder) the additional recognition for heat recovery models?

Heat recovery might need slightly more water but will benefit in the surroundings e.g. vent less, reduction of energy consumption of the HVAC system, better working condition etc. Is this or will this be part of EPA / EnergyStar considerations? We feel that especially if the HR machines are to be compared side-by-side with non-HR units then any energy for providing the machines with warm water (house generated) needs to be included.

Flight type machines What do you understand under Dual rinse machines / what is the exact definition?

Thanks again for giving us the chance to take part of the ENERGY STAR Eligibility Criteria development.

Looking forward to your reply at your earliest convenience! Wishing you all the best, a nice week and a relaxing weekend.

Kind regards Ingo