

TC 4.5- Computational Methods SC meeting - Sunday 1:00pm, Montreal, CA

MINUTES

Participants: Charlie Curcija, Willie DuPont, Thanos Tzempelikos, Dan State, Mike Collins, John Wright, Brian Crooks

The primary goal of the meeting is to document procedures from original standard from 1990s-2001

SPC 142, ISO 15099 were merged, there was a standing project committee in 2002 trying to harmonize standards with same basic algorithms

There has been new developments in scattering products, new procedures etc so we can try to include these in the ISO standard 15099- it has not been revised since 2003 and it has some limitations. There are also differences between approaches followed in Europe and north America like frame u-values with edge sealing calculations etc (in Europe they do an overall thermal u-factor with linear factors and products are categorized accordingly), or we can try to develop/resurrect a new north American standard.

The issue with ISO standards is political, where European Union standardization body (CEN) and their member states are voting as a block and can derail any effort to modify 15099 or even to reapprove it. They have 27 votes and growing. US and Canada have 1 vote each

Potential problems:

- 1) Liability (e.g. when downsizing chiller size to account for the impact of shading)
- 2) Not being international standard

Discussion on what is the right mechanism to do this: ASHRAE is preferred and considered as the right vehicle. People who should be involved: People from TC 4.5

One action item should be to collect and combine the related literature during the last ten years (new methods, new products, new calculations, new studies on the impact of shading on energy etc)

Start the process of developing a related subcommittee. It could be a "guidelines" subcommittee in the beginning. We will need a short scope of work.

Should daylighting devices be included? Maybe widely used products have to be used, based on their energy impact. Shading products should be the main focus.

Further research topics: convective heat transfer between shading devices and glass except for venetian blinds between glass units – experimental and numerical work; CFD studies; component models that can be used in building simulation models are necessary; new products.

End of meeting