

DeLoache, Kyle@DIR

From: Tom Phillips <tjp835@sbcglobal.net>
Sent: Wednesday, June 28, 2017 11:02 AM
To: Neidhardt, Amalia@DIR
Cc: Kumagai, Kazukiyo (CDPH-EHLB); Woo, Daniel (CDPH-OHE); Stephany Mason; Seth Holmes; Alex Wilson
Subject: Re: Cal OSHA Indoor heat standard- comments

Amalia:

thanks for the info. Unfortunately, I will be out of town until mid July and won't be able to review the draft until then.

My main concerns so far are as follows:

- 1) Sensitive populations: I presume the draft Cal OSHA indoor standard is consistent with the NIOSH recommended WBGT targets. As I recall, those targets are based on a study of healthy adult males. However, many indoor workers are more sensitive to heat exposure, e.g., diabetics, pregnant women, older persons, obese persons, users of certain medications etc. Does the draft standard address this issue?
- 2) Implementation: WBGT, let alone, radiant temperatures are rarely measured in indoor non-industrial workplaces, but such spaces are at risk for overheating due to poor building design & operation, climate change, and increasing rates of power outages. How will WBGT based standards be monitored & enforced in such spaces?

BTW, formulas for calculating WBGT for indoor spaces, and a method for can be estimating WBGT using indoor temperature and RH measurements, are discussed on p. 12+ in [Holmes, Phillips & Wilson, 2016](#). Such estimates can also be used in energy models for designing safe, comfortable buildings.

Tom

On Jun 27, 2017, at 9:16 AM, "Neidhardt, Amalia@DIR" <ANEidhardt@dir.ca.gov> wrote:

Good morning Tom. We will accept comments on the Discussion Draft until June 30th.

I'll add your e-mail to our Stakeholders list so that you will be notified once we have a date and location set for the next advisory meeting.

Amalia Neidhardt

From: Tom Phillips [mailto:tjp835@sbcglobal.net]
Sent: Thursday, June 22, 2017 5:49 PM
To: Neidhardt, Amalia@DIR <ANEidhardt@dir.ca.gov>
Subject: Cal OSHA Indoor heat standard

Hi Amalia:

I just heard about this project. This standard is greatly needed.

When is the next meeting on the draft standard?
Are you still accepting comments?

TIA,
Tom

Thomas J. Phillips
Healthy Building Research, Davis, CA (CARB - ret.)
tjp835@sbcglobal.net
530.220.4854 cell

The Heat is On: Future Proofing Buildings for Climate Change ([Phillips, 2017](#), presentation at Beyond Energy Efficiency 2017)

Future proofing buildings for extreme heat. [Phillips, 2013](#). Resilient Design Institute.

Reducing Outdoor Contaminants in Indoor Spaces ([ROCIS](#)) Initiative