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Dear Rosalind,

Thank you for your reply.

I do appreciate the WHO’s 2021 5ug/m3 PM2.5 annual guideline is quite different compared to Tasmania’s hourly averaged categories and as you say the Who A/Q guidelines are not standards and are not legally binding but are a recommendation to work towards. This was the same back in 2005 with the 10ug/m3 figure as I understood it.

I am sorry if my correspondence appears to have linked the WHO’s A/Q guidelines and Tasmanian categories. This was not my intention.

As far as the WHO goes I have quoted, “*Particulate pollution has health impacts even at very low concentrations –* ***indeed no threshold has been identified below which no damage to health is observed****.*” This is not a standard or guideline but a scientific fact and I have applied this to our Tasmanian A/Q health-based categories.

With regards to my 5ug/m3 figure this has nothing to do with the WHO’s annual figure but comes from the EPA here in Tasmania where, “PM2.5 values below 5 µg m-3 signify very clear air”.

Further, when the WHO made the claim that there is no safe level of particulate matter they did not differentiate between health categories or susceptible groups but applied their extensive science research to all categories. In effect any level above zero is ‘unhealthy for everyone’.

Referring to my attached binary categories document, which has since been updated; it would be almost impossible to achieve a sustained AAQ of less than 5ug/m3 PM but we have shown **without deliberate wood burning** it is possible which you acknowledge. As indicated on my document I have set 5ug/m3 as a practical figure to provide some leeway and yet still achieve good A/Q for everyone.

The very basis of air monitoring is to protect health. It is pointless having various health categories extend beyond what is deemed to be very clean air (5ug/m3). i.e.

**Good:** 0 to 9 micrograms per cubic metre

**Fairly Good:** 10 to 24 micrograms per cubic metre

**Fairly Poor:** 25 to 49 micrograms per cubic metre

**Poor:** 50 to 99 micrograms per cubic metre

**Very Poor:** 100 to 299 micrograms per cubic metre

**Extremely Poor:** Over 300 micrograms per cubic metre.

Let me liken this to a speedometer on a car. I am only interested in what has been determined the safe level for me to travel. I am not interested in speeds above that, which could kill me. Likewise in fact there would be a serious failing by authorities if I was forced to put up with objects coming at me beyond that which has been determined to be safe.

This is no different to ambient or point sources of smoke.

I disagree when you say it is not possible to have a 5ug/m3 health-based category. We can achieve this level now **when there is no wood burning** but at the moment even the Good air category is set at 9ug/m3 and there are a further 5 categories extending upward beyond this. This is well above the WHO’s declaration.

Cleanairtas disagrees the extended health categories work well to protect health,

1. Because they do not mirror the latest science as mentioned previously where there is no safe level of PM2.5.
2. Because the public feels extended categories at or above Good are normalising harmful levels of PM2.5.
3. Because the 8+ year old system of tying AAQ health categories to levels which are not good is not safe for all people and needs to change.

Our health-based categories can all be changed by DHHS to fit the science because there are no legislative impediments not to do so. This is why I have proposed a simpler, more fitting, binary green/red method to achieve this.

Bushfire smoke is no different health-wise to other forms of wood smoke. Here again we should not be putting different sources of wood smoke into different boxes. Smoke is smoke. There should be no exceptions/exemptions.

You mention balancing the risks of bushfires close to communities against transient drops in air quality during burn offs and public health authorities have a role to play. Yes they do. You also mention planned burning but you do not mention there are ‘smokeless’ means for fuel reduction, it does not have to be done with fire first. There is plenty of evidence to suggest that planned burning does very little to stop the run of fire under climate change.

Our own Fire Ecologist & Geographer Prof David Bowman says, "...who cares whether we achieve FUEL MANAGEMENT with burning, [fuel management can be achieved with brush cutters, fuel management can be achieved with goats](https://cleanairtas.com/departments/ABC-The_Drum.David-Bowman13.11.19.wmv)." He also says, “"There has got to be an understanding that people who complain about smoke have a legitimate case, the medical science is on their side now." - ABC News Feb. 20, 2012.

We cannot have our health authorities promoting planned burning across the state and setting elevated health-based categories when particulate matter is a Group 1` carcinogen the same as asbestos**, arsenic, formaldehyde, and mustard gas.** It is a known fact more people die from the smoke than die in the flames.

It is recognised we have the oldest and sickest population in Tasmania and pernicious smoke affects vulnerable groups, i.e. the elderly, the young, those with cardio vascular and cardio pulmonary disease, pregnant women, and so on has largely been ignored**. Surely no child should have to breathe air that could kill them.**

It is not just a matter of locking these people up inside their homes whilst deliberate burning and smoke continues. We cannot just have people needlessly put on asthma plans using corticosteroids and airway dilating medication to breathe this intentional smoke deeper into their lungs. Our lungs naturally close off to prevent this happening. All we are doing is putting off the inevitable; ‘smoking’ causes cancer and please refer to Sir Stephen Holgate’s statement re other diseases highlighted further on in this correspondence. **The smoke needs to be stopped at the source. People need to stop burning stuff** **and this also applies equally to planned burning** mentioned in your final paragraph, as it does to all the other forms of burning going on in this state that you have rightly identified. There are too many of them and the health effect is cumulative. Tasmania has turned into a designated smoking area.

Deliberate burning should never take priority over peoples’ health. Our health system is over-stretched. Burning is an option, breathing is not.

Yes wood heaters are a major source of emissions. So are fire pits and fire pots.



This recent plot courtesy of the EPA shows Launceston ‘enjoying’ good air quality just for a few hours! This is unacceptable.

Now Tasmania boasts to be on 100% renewables it is time to introduce another wood heater buy-back scheme. Wood heaters need to be banned when the majority population is subjected to this level of harmful, filthy air by a minority.

It is not only the visible smoke emissions from wood heaters that are of concern. The ‘Burn brighter’ program encourages people to burn more rather than to use cleaner forms of heating.

It is acknowledged Health has no control over the use of wood heaters, nor does it regulate air quality or planned burning but it does set the health-based air quality categories, i.e.

“The air quality category is from the Tasmanian Department of Health, and is determined by the hour-averaged PM2.5.”

However, have a look at this and you would be aware of the other burning events during Dark Mofo:

How could a Group 1 carcinogenic substance be allowed to inoculate the public like this when fire pit emissions are included in our Tasmanian Smoke Regulations? Download [HERE](https://cleanairtas.com/departments/7_Nightly_News-24.6.2022.wmv).

Back yard burns are a significant problem. They should only be used if there is no other means to get rid of the green waste **but this is not happening.**

Again it is the minority causing health problems for the majority. They are using the air as a sewer.

Our EPA provides one of the best air monitoring networks I know of. Unfortunately, the health-based air quality categories do not fit the science and this also needs to be better reflected in the Bushfire smoke document.

I feel we should be talking more about the latest science to do with short-term health harm from smoke. The science say particulate matter can cross over the lung barrier and enter the blood stream. It can travel straight to the brain and to every other organ in the body. We should not be minimising the harm of woodsmoke, calling it a nuisance that makes your eyes itch and nose run but will get better when the smoke stops. It is far more harmful than that even in ‘healthy’ people.

It is not a matter of the population managing their own health conditions caused by other’s smoke.

The Tasmanian population wouldn’t even know if health conditions they have, have been caused by deliberate wood smoke. An education campaign needs to be implemented to inform them of the following, amongst other things:-

**"Every single disease that is non-communicable is impacted by air pollution. It is not only involved in worsening diseases but in causing them, and new diseases that would not otherwise occur are happening because of air pollution."** -**Sir Stephen Holgate, National Clean Air Conference Nov. 20/21.**

You work for DHHS. I worked for DHHS. I trust we are on the same page here? All particulate matter is harmful.

Thank you.

Kind regards,

Clive Stott

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