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Supporter of

Landcare Australia

23rd April 2013

Dr Ian Holland
Committee Secretary
Senate Standing Committees on Community Affairs
PO Box 6100
PARLIAMENT HOUSE
CANBERRA ACT 2600

Dear Dr Holland

Thank you for the opportunity to respond to adverse mentions of the Australian Home Heating Association from the New England Greens submission into the Senate Inquiry into the impacts on health of air quality in Australia.

Claim
Misrepresentation of pollution measurements in Libby, Montana, US by the AHHA.

AHHA response

The change out program in Libby, Montana swapped new low emission wood heaters for older non compliant models, improving the town's air quality by more than 80%. A report into the program, *Clearing the Smoke: The Wood Stove Change out in Libby, Montana,* clearly states that the program had a significant effect:

"While all new stoves and fireplace inserts sold in the U.S. are certified to be low-particulate emitting according to strict standards set by the U.S Environmental Protection Agency (EPA), most Libby homeowners installed their stoves long before the standards took effect in 1992.

"These older, uncertified stoves can release from 15 to 30 grams of smoke per hour, while new EPA-certified stoves produce only 2 to 5 grams, a 65 percent to 90 percent reduction."[1]

The report also states that as a result of the two-phase, two-year program, Libby residents are now "breathing significantly cleaner air – both outdoors and inside their homes".[2]

> ***"By 2007, average wintertime fine particulate levels in the outdoor air decreased by nearly 30 percent. The results are even more dramatic for indoor air quality with***

[1] http://www.woodstovechangeout.org/fileadmin/PDF/Libby_Report-Final.pdf
[2] http://www.woodstovechangeout.org/fileadmin/PDF/Libby_Report-Final.pdf

initial research by the University of Montana finding indoor air more than 70 percent cleaner in homes with new, EPA-certified stoves.

"The scale of the Libby change out – 1,130 wood stoves in a little over two years – makes it the premiere example of a successful change out program.

"... The Libby experience demonstrates that a wood stove change out can significantly and cost-effectively reduce harmful emissions."[3]

Claim
The AHHA has provided misleading information when promoting wood heaters.

The AHHA promotes wood heaters as the most cost effective form of domestic heating and later model wood heaters emit fewer particles and have the lowest greenhouse emissions when compared with heating alternatives.

A 2007 report prepared for the Victorian Department of Sustainability and Environment, "Options to reduce Greenhouse emissions from new homes in Victoria - the building approval process", highlights the benefit of using firewood instead of fossil fuels:

"The key determinant of energy use and greenhouse gas emissions is the choice of energy form – whether the home will be all-electric, or whether it will use natural gas or other energy forms such as solar, LPG or wood. Natural gas and LPG have inherently lower greenhouse gas intensities than electricity and wood, as a renewable energy form, has a lower intensity still. [4]

"... Where gas is available: the highest greenhouse option is, of course, electric resistance heating; the lowest greenhouse option is wood."[5]

"... Also, if the use of wood were encouraged (at least in non-urban areas) greenhouse gas emissions from heating could be further reduced."[6]

Burning of fossil fuels is a major cause of increasing atmospheric CO2, which in turn is a major cause of global warming. Burning firewood releases greenhouse gases during combustion.

However, burning firewood that has been grown in sustainable wood production systems can significantly reduce greenhouse gas emissions, compared to emissions from non-renewable energy sources. This is because unlike fossil fuels, biomass is a renewable resource and the CO2 released from burning biomass can be re-sequestered in subsequent rotations.[7]

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[3] http://www.woodstovechangeout.org/fileadmin/PDF/Libby_Report-Final.pdf

[4] http://www.homeheat.com.au/pdf/Wilkenfeld_Report.pdf
[5] http://www.homeheat.com.au/pdf/Wilkenfeld_Report.pdf
[6] http://www.homeheat.com.au/pdf/Wilkenfeld_Report.pdf
[7] http://www.homeheat.com.au/pdf/Heating_Greenhouse_Gas.pdf

The AHHA is committed to improving air quality through continued reduction in the emissions of wood smoke. This can be achieved through improved technology and informing users of correct operation of their wood heater.

Claim

a *The AHHA's claim about "most stringent Australian Standards" lulls purchasers into totally false sense of security.*

Australia has some of the toughest emission standards in the world for wood heating. The AHHA supports the removal of polluting older style wood heaters and open brick fireplaces, but encourages the continuation of wood heating as a viable and environmentally responsible home heating option, through the use of clean-burn wood heaters.

Clean burning wood heaters slow down the exit of smoke through a secondary combustion process. This process generates more heat from each log and reduces the amount of smoke and particles going up the flue and into the environment. New wood heaters with clean burn systems greatly reduce CO2 emissions and require less fuel, gaining more energy out of the wood.

While old open fireplaces lose as much as 80% of their heat via the chimney, clean burn systems lose around 15%. Modern controlled combustion (clean burning) wood heaters are more efficient than older wood heaters and open brick fires. There are over 300 controlled combustion (clean burning) models in Australia. These wood heaters are of great economic benefit to families because they can heat an entire house.

Wood heaters in Australian should be manufactured to all the rigorous Australian Standards applicable to wood heaters. All wood heaters manufactured since 1992 must adhere to AS/NZS 4013 – the Australian Standard for emissions. This ensures they are clean-burning and environmentally responsible.

The AHHA is committed to improving air quality through continued reduction in the emissions of wood smoke. This can be achieved through improved technology and informing users of correct operation of their wood heater. The technical advances in the Australian industry over the past years have been extremely impressive. We suggest that few other sectors of Australian business have achieved what we have in this time. The products now on the market that comply with the Australian Standard, AS4013, are cleaner burning and more efficient. Given that there are hundreds of different models on the market, this is a significant achievement in a relatively short period.

If the industry is to continue this product development and, through ongoing research and development, produce still cleaner and more efficient models of wood heaters it must have the co-operation and support of the pollution control authorities across the country. The industry has clearly demonstrated its willingness to work with pollution control authorities to deal with existing problems. However, we are concerned that the outspoken minority does not provide a constructive foundation for dealing with wood-smoke issue.

The emissions standard currently in force for wood smoke emissions is 4g/kg. This is why AHHA members are moving down the path of self regulation by reducing wood smoke emissions through a co-operative approach between industry and control authorities. The industry initiative which will be launched in December 2013 is reducing the current National Standard AS/NZS 4013 from 4g/kg to 2.5g/kg and introducing an efficiency requirement of 55%.

Claim

The Senate Committee should also recommend an investigation into the failure of 'truth in advertising legislation' to correct the mis-information from the wood heating industry to determine if such mis-information is in the public interested, and if not what needs to be done to ensure that it never happens again, either in relation to wood heaters or any other consumer products.

The AHHA is concerned that exaggerated impacts of wood smoke are being presented that fail to acknowledge the roll that technology and education will play in the next decade.

Wood smoke is a problem that can be solved without destroying an important Australian industry. The AHHA seeks acknowledgment of this view, and looks forward to working closely with pollution control authorities to improve urban air quality throughout Australia.

More than 900,000 Australian households use firewood for heating. Substantial technological advances have led to modern wood heaters that produce only a small fraction of the smoke and particle pollution that earlier models did.

The AHHA recommends the following control measures, which would reduce the emission of particles from wood heaters by over 80% within 10 years.

- **Uniform National application and enforcement of AS4013.**
- **Effective community education on correct use of wood heaters.**
- **Restricted resale of second hand, uncertified heaters.**
- **Support for an industry change-out program of older heaters.**
- **Targeting of the worst performing heaters and open fires for removal.**
- **Code of Practice for installation of heaters to aid smoke dispersion.**
- **Maximum allowable firewood moisture content through a fuel-wood standard.**
- **Warning of poor dispersion days and voluntary no-burn periods for non-complying heaters.**

Claim

To help people understand the need to reduce woodsmoke pollution, as well as counter misleading information from the AHHA, a National Woodsmoke Education Campaign is needed.

AHHA Response

The AHHA has always advocated for and implemented education campaigns to encourage consumers to be responsible wood heater owners.

Wood burning tips – including burning only dry, well-seasoned wood, buying wood from a reputable supplier and buying heaters that comply with AS/NZS 4013 to produce low smoke emissions – are just some of the many tips available via our website and via our members.

We strongly advocate for all wood heaters manufactured since 1992 to adhere to the Australian
Standards for wood heater emissions (AS/NZS 4013), ensuring they are clean burning and environmentally responsible.

As an industry we recognise the poor operation of wood heating appliances can contribute to air quality concerns. It is important to note that wood heaters are not the sole source of particle pollution in winter months. With collaboration between enforcement bodies and the industry to provide education and good operating skills to the community will go a long way to improving and encouraging best practice in the use of wood heating.

As an industry we recognise the poor operation of wood heating appliances can contribute to air quality concerns within certain areas of Australia, particularly those that sit within valleys and often experience inversion layers which traps and holds smog and fine particles close to the ground.

Fine particles, within many areas of Australia are caused by a variety of sources;

- **diesel engines**
- **lawn mowers**
- **motor vehicles**
- **industry**
- **natural bush fires**
- **controlled hazard reduction burning.**

It is clear that domestic wood heaters in general contribute to these pollutants, however, there are many factors which affect our weather conditions and increase PM10 and PM2.5 readings

The submission portrays AHHA as having a "veto" over the standards applied by Australian Standards. This is false. The AHHA works with Standards Australia to ensure that the emission thresholds recommended are safe. Moreover, the industry is working to ensure the manufacture of wood heating appliances complies with strict industry standards that ensure future products on sale across Australia fall below the accepted standard applied by the Commonwealth.

Demi Brown
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