

Dear Refrigerants Australia et al

151202

This responds to your letter of Nov 30 2015 where in you and your associates question the accuracy and motives behind our advice to the OPSGG MA review.

I am surprised by the liberty you are taking in writing this letter. I am not aware that any of your organisations has been appointed as a custodian or protector of the OPSGG MA. It is the process owned and directed by the Department of the Environment. They have not expressed any concerns with regard to our submission. On contrary, they welcomed our inputs and encourage more of our members to contribute.

You largely miss the point of our submissions. The idea that the HVACR industry should not address the need for better licensing and training because the OPSGG MA is constrained by the constitution is simply wrong. We need a comprehensive treatment of HVACR regulation and education involving both government (all levels) and industry. Please note 89 organisations and companies have now supported our submissions to the DoE.

The fact is that regulation of HVACR in Australia is far less effective than it could be from both a cost and emissions POV. We need a nationally consistent licensing program that is focused on refrigeration technology skills, energy efficiency and emissions reduction. The contribution of the synthetics refrigerant industry has not served these purposes. The synthetic refrigerants industry has consistently failed to serve any purpose excepting its self-interest; therefore the need for the ARA to point out the failures and the need for improvement.

In response to your specific concerns

1. The OPSGG MA review process has been dominated by industry and lobby groups such as those you lead, which mainly represent large international or local synthetic refrigerants manufacturers, distributors and those aligned with them. That follows a well-established pattern employed by the synthetic refrigerants industry whereby every attempt is made to dominate through numbers and to stifle all other views and voices. The ARA has consistently made numerous suggestions, comments and submissions, most of which were ignored by the review as contrary to interests of organisations you represent and their affiliates, regardless of the genuine benefit to the environmental and national objectives.

More particularly, the issue relating to cost benefit was raised by Phil Wilkinson. I raised the same point directly with both the Department and the Expert Group. At no time was any effort made to clarify the assumptions underpinning the cost benefit analysis. In any case it was fundamentally wrong to the extent that examining individual issues was far less important than addressing the framework of the analysis, which we did comment on to the department by way of written submissions.

The bottom line is that you know and I know and the Department knows that far more could be done. That Australia could reduce its cost by \$10B pa and reduce emissions by 6-7% from HVACR alone.

2. The ARA represents exclusively the interest of natural refrigerant suppliers and users. We do not represent synthetics and therefore have no conflict of interest, something that most of organisations you represent could hardly claim.

Your statement regarding the source for majority of support that the ARA derives is indicative of the way you deal with facts. The majority of our support is in fact engineering consulting firms that want to see better performance and know that natural refrigerants are the solution. We all know that retrofits can be done safely and generate major savings using HCs and ammonia.

In our view Refrigerants Australia does a poor job of representing the value of natural refrigerants or the national interest. The fact is that there are major cost and emissions reduction gains available that you obfuscate in the commercial interest of synthetic refrigerant suppliers and users. Most importantly, it is the synthetic refrigerants industry that created products that drilled a humongous hole in the Ozone layer and greatly contributed to the global warming and climate change issue. For you to claim that you somehow represent interests of the natural refrigerants is preposterous.

I have never said the ARA is not interested in better commercial outcomes for our members. For decades the entities you represent have successfully taken advantage of their collective market power achieved through majority at all levels of the HVACR industries globally. The entities and organizations you represent have used

that majority position in the market for commercial gain and for the implementation of barriers to trade for competitors.

This process has taken place with less than adequate regard on the part of your members to the environmental impacts. The science underpinning the position that your membership now finds itself in is clear and the same science forces very significant changes upon the organizations and entities you represent. ARA on the other hand represents what in the future will evolve to become mainstream and will become the technologies of choice in the majority of vapour compression installations. The same science that has worked to the detriment of your membership will work in favour of the organizations that ARA represents.

3. Once again I must point out that you confuse hydrocarbon with natural refrigerants. As you may know there are other natural refrigerants than hydrocarbons. These are ammonia, carbon dioxide, water and air. It is interesting that you choose the words "most likely". Either our claim is false or it is not. ARA has consistently claimed that natural refrigerants reduce direct and indirect emissions. We stand by that claim and it can be backed by a large amount of readily available literature compiled via the bi-annual Gustav Lorentzen conferences that are dedicated to natural refrigerant applications/research. These have been held since 1992 and are organized by the International Institute of Refrigeration (IIR).

I suggest you have a look at the work of shecco, the International Institute for Refrigeration and the Consumer Goods Forum. These and many others have published the proof that HC refrigerants and in fact all natural refrigerants are innately more energy efficient than synthetic refrigerants, scientific fact. The Consumer Goods Forum representing over 400 food retailers and food suppliers (with revenues in excess of \$3.5 Trillion pa) have published their policy of converting their refrigeration systems to natural refrigerant based technology, particularly Hydrocarbons and carbon dioxide refrigerants, because they consider it environmentally and commercially superior.

The evidence in this regard is absolutely clear. It is well known that many OEMs that support the view that natural refrigerants used properly in the most applications are superior in energy performance. The industry knows that the denigration of natural refrigerants on safety grounds is not valid and no amount of propaganda will obscure that.

4. The information provided to the industry by those organisations that are dominated by the synthetic refrigerants industry is consistently incorrect and heavily tainted by their commercial bias. You know and I know it. You and the organizations you represent have a considerable commercial interest in maintaining status quo. Furthering the science of refrigeration engineering that will ultimately transition the HVACR industries towards the application of natural working fluids delivering reduced environmental footprint of HVACR activities is hardly in the interest of synthetic refrigerant manufacturers and those who are proponents of their continued use.

5. The point is that the industry your organisations represent could and should have done more, if not for consistent road-blocks and opposition to more efficient, cheaper and more readily available alternatives which offer clear environmental benefits but no commercial gain to the synthetic refrigerants manufacturers. The fact is that synthetic refrigerant emissions are rampant because neither the industry nor the Department do enough / anything to enforce the OPSGG MA. The significant global warming impact of HFC's has been well known and documented since the early 1990's. The fact is that you elected to delay your advocacy in favour of an HFC phase-down until such time the HFC cash cow had run its cycle and a new synthetic refrigerant product (HFO's) could be marketed.

For your organisations (RA et al.) to accuse ARA of misrepresentation is disingenuous in the extreme. It was the synthetic refrigerant industry that stockpiled 2.5 yrs. of synthetic refrigerants prior to the SGG levy being applied and then increased its prices as if the levy had been paid. It is the synthetic refrigerants industry that fails to enforce the prohibition on intentional emissions or make a significant effort to encourage better maintenance to reduce emissions. Why – because it serves the synthetic refrigerants industry to sell more. It is the synthetic refrigerant industry that consistently disseminates misinformation and half-truths, trying to stop progression of natural refrigerants through overstating safety issues and minimising or plainly denying issues related to synthetic refrigerants. It is the synthetic refrigerants industry that directly contributed to the demise of PRIME by refusing to support it. It is the synthetic refrigerants industry that attempted to subvert the review of the Automotive Code of Practice and hideously invoke restrictions on competing product. The list could go on.

Natural refrigerants have what you and the organizations you represent may perceive as an unfair advantage.

We deny your assertion that our claims are inaccurate and unfair. For your own benefit and further education it is suggested you consult the vast amount of available literature on this subject. ARA members have a commercial interest in designing systems that employ natural refrigerants as well as in manufacturing, selling and promoting natural refrigerants. This is in the national interest and indeed in the interest of the global community. This is a statement supported by scientific facts.

Yours truly,

Tim Edwards, President, Australian Refrigeration Association