

Hot Air



Newsletter of the Vehicle Air conditioning Specialists of Australia
Year End Edition - 1995

National Secretariat: VASA (ACN 063 969 782) PO BOX 6222 Silverwater NSW 2128

The Flammables Debatea Damp Squib?

The flammables debate has developed into a messy, sordid and frustrating affair. In short, it has been hijacked by the media.

The media generally has thrown rational judgement out the window and decided to rally behind those who have hidden agendas but big mouths.



Despite what the media may reflect, VASA has been at the forefront of media statements, government lobbying and industry debate.

Mark Mitchell - in happier times.

As your president, I have spent countless, mainly frustrating hours trying to rally the Australian motor industry behind VASA in its endeavours to stabilise the refrigerant issue and ban flammable hydrocarbons from automotive systems where they don't belong.

But what a disappointment.

As the debate raged on and the media focused on the popular greenie point of view to the almost complete exclusion of common sense, VASA was out there slugging away - but where were the big players of the motor trade?

It seemed that no-one but VASA and the MTA and a couple of others, were prepared to stick their necks out and make a solid stand.

Some of the world's biggest industries have been frightened off by a vocal academic who puts environmental idealism before personal safety - and even then doesn't get it right.

Major players in our industry seem to have taken the view "let it run its course....perhaps it will go away."

These companies have all the resources in the world. VASA on the other hand, has

been attempting a significant national lobby on a peanuts budget.

My long suffering colleague and consultant to VASA, Ken Newton, is in my office every day trying to educate me in the strange ways of the media. He stands in VASA's corner with the towel and bucketfuls of advice and then pushes me back in the ring every time someone puts up their dukes.

A couple of individual VASA members, like John Wallace from Cool Drive Automotive Air conditioning have been gutsy enough to stick a barb into Today Tonight in Sydney. Good one John.

Thanks to the behind the scenes efforts of our technical boys including Chris Lindeman with help from Ken Newton and myself, Choice Magazine elevated VASA to supreme industry status in its October expose on automotive air conditioning. They quite rightly gave all sides of the story, but at least it was balanced and VASA got a good hearing.

Members generally may well be wondering why VASA didn't achieve the publicity we thought we would following our last conference and the big decision on flammables.

(Continued on Page3)

Top start to national Training Program



The VASA national training program is well under way, with a highly successful launch in Queensland, attended by members and senior staff from companies across two states.

Others were planning to follow as Hot Air went to press. Special thanks to the service technicians who have participated in training and for their input into this article.

The participants have given the program top marks. According to President Mark Mitchell, training is essential if the industry wishes to maintain its credibility and distance itself from the amateurs in the eyes of the consumer public.

As part of this process, Hot Air will regularly publish technical articles from VASA experts. To begin, Grantley Hand offers this summary of evaluation on systems retrofitted to 134a.

"Sufficient time has now passed to enable critical evaluation of systems and their reliability with respect to component failure and refrigerant leakage.

(Continued on Page 3)

VASA Responds to Queensland Legislation

The Chief Gas Examiner in the Department of Minerals and Energy in Queensland sought industry comment on proposed regulations dealing with flammable hydrocarbon refrigerant restrictions.



Mark Padwick - Chairman of VASA Technical Committee

The task was expertly addressed by VASA's technical committee, and chairman Mark Padwick's response was as follows:-

"Technical standards for the use of the gases in refrigeration or air conditioning

The standard for those installations outside the scope of AS 1677 such as small air conditioners, small refrigerators and installation in mobile equipment (ie cranes, farm equipment and motor vehicles) is the prior written authorisation by original equipment manufacturer that flammable hydrocarbons may be used safely in their equipment. In the case of installations in motor vehicles the prior written authorisation must be given by the original manufacturer of the motor vehicle, in conjunction with system and/or component manufacturer.

Training for workers in the use of the gases in refrigeration or air conditioning

Authorised training courses will be introduced by the appropriate government body which will provide the safety training necessary to work with these gases.

Signs and safety notices

If this type of refrigerant is to be allowed to be used, a metallic plate must be permanently affixed to the vehicle, and the owner of such a vehicle be made aware that the system contains potentially flammable refrigerant. The use of flammable refrigerants, or the use of any refrigerant, in a system that has not been scientifically tested by the industry and equipment manufacturers, seems ludicrous. The supplier should be asked to prove the product they are trying to sell into the market place, as no test data has been provided to my knowledge at this point in time, however evidence to support claims that this type of refrigerant is potentially lethal is plentiful. Tests by the NSW

VASA DIRECTORY 1995/96

Directors and Chairmen of Committees

Phone		Fax
Directors		
Mark Mitchell	07 5532 8133	07 5532 8602
Ralph Cadman	02 648 3499	02 748 6137
John Blanchard	03 9890 7333	03 9890 0061
Glen Watkinson	08 347 1155	08 268 8048
Paul Robinson	09 279 3336	09 279 3156
PUBLIC RELATIONS		
Mark Mitchell	07 5532 8133	07 5532 8602
TECHNICAL		
Mark Padwick	02 791 0999	02 791 9029
TRAINING		
Mike Everett	08 243 2422	08 243 0546
CONFERENCE 1996		
Tony Heat	02 949 5188	02 949 5461
QUEENSLAND COMMITTEE		
Mark Mitchell	07 5532 8133	07 5532 8602
NEW SOUTH WALES COMMITTEE		
Les Howard	02 477 2422	02 477 7360
VICTORIA COMMITTEE		
John Blanchard	03 9890 7333	03 9890 0061
SOUTH AUSTRALIA		
Glen Watkinson	08 347 1155	08 268 8048
WESTERN AUSTRALIA		
Paul Robinson	09 279 3336	09 279 3156

Government as late November also add to the increasing doubts.

The reasons behind the push to hydrocarbon refrigerants is as a cheaper alternative but at what cost. The real cost is the potential cross contamination of our declining supplies of R12, the dangers to the service technician and his workshop, not to mention the potential dangers to vehicle occupants and innocent bystanders.

Hydrocarbons are mainly a gap filling refrigeration. During the transition between vehicles manufactured with air conditioning systems containing HFC-134a and vehicles that use CFC-12 that may require minor service when CFC stocks are completed, the major cause of the minor service is system leaks.

If the customer is looking for quick, cheap fixes, then in all likelihood the system will not get leak checked and repaired correctly. Therefore the potential for the hydrocarbon to leak and ignite is even greater.

Although I understand your position, the total ban on the use of untested, potentially hazardous material is, we consider, the only option when all facts are considered."



Stop Press - US EPA Rejects reports by hydrocarbon proponents

The US EPA, at a conference in Washington USA, has rejected the submissions from Dr I.L. Maclaine-Cross of the University of NSW, the Arthur D Little report (commissioned by Calor gas UK manufacturer of HC refrigerants) and Oz Technology.

It appears all submissions were rejected on the basis "that they did not present a valid, comprehensive or scientific risk assessment" - and at best are only preliminary studies.

Preliminary study of these submissions by the VASA technical committee are supportive of the US EPA's assessment the VASA technical committee will do a full review of this material and details will be available in the near future.

1996 Conference

The conference committee, headed by Tony Heat is toiling away on the 1996 conference.

Plenty of work, but little to report, says Tony.

But...the dates are set...so put this in your diary - August 9, 10 and 11 1996.

The Flammables Debate

.....(From Page 1)

We sent out a major release and canvassed many media across Australia.

Keep in mind the timing. In August, the debate hadn't blown up publicly. That really only happened in New South Wales in late October. (And I really mean BLEW UP)

What is really frustrating is that the media DID respond to our story. I did long interviews with the Courier Mail, Adelaide Advertiser and others. Nothing was published. Our view is that it was either too hard to understand, or they couldn't find anyone to knock it.

Later, in response to more statements, I did a major interview with AAP-Reuters. It developed into a disagreeable conversation with a young impressionable reporter who had been so obviously "got at" by the flammables lobby that the interview with VASA was a farce and sham.

Then we had the big breakthrough when the New South Wales government attended the explosion of two cars under supervision after a small amount of flammable refrigerant was leaked into the passenger compartment.

Minister for Consumer Affairs Faye Lo Po' was so shocked, she couldn't get to parliament quick enough to bring down an instant ban.

They may have won the battle, but the war raged on. The very next day, the Government's initiative was wiped out of the media with the counter-claims of the environmental/flammable lobby. Who do you think got the biggest publicity - certainly not the Government initiative.

Do you ever notice that those with the least amount of facts and supporting evidence have the biggest mouths and somehow get the most media exposure.

As Ken Newton tells me daily, the media don't care who the experts are. Worse than that, they don't even check. They simply go for the biggest noise. Besides that, good news doesn't sell.

It's a sad indictment on our media and I've learnt a big lesson from this I can tell you.

....so maybe the big boys in the vehicle industry already know this. Perhaps I am being unkind by calling them whimps. Maybe they take the view that it is better to beaver away behind the scenes politically to achieve results and stay well away from the media.

It now seems obvious to me that VASA must use its very limited public relations resources to put the most hard hitting information in front of the decision makers and work be-

hind the scenes to convince these people that we do know what we are talking about, we do represent the industry and we do care about our staff and our customers. This is the direction we have been taking for the last few months and I believe it is working.

Check out the responses from the various politicians and others who we contacted in the flammables debate. I think VASA members can be confident that we have made our presence felt and that we are now considered the senior service of the mobile air conditioning industry.

We must now strive to live up to that status by constantly improving our skills through education and being prepared to speak out and defend our status at every opportunity.

We are proud of our industry....and it's about time we told the world about it. If we don't, we'll end up like the dinosaurs. If we are not too careful, the non-specialists, back-yarders and "would be's if they could be's" will turn the specialised air conditioning industry into yet another supermarket, with inferior goods and inferior service.

Grantley's Tech Talk....Continued from Page 1

Hose and Hose Jointing

The following service perspectives are critical when rehousing systems to 134a using single piece (beadlock) type fittings and barrier hose.

It is important to note there are two different types of hose on the market which is tending to confuse many service technicians.

Paraflex/composite veneer hose consists of an outer layer of NBR, HNBR, EPDM or alternative material, a reinforcement layer and an inner lining of nylon. The refrigerant and the fittings are in direct contact with the nylon lining and commonly glued on assembly.

Barrier type hose has the outer layer, one or two reinforcement layers, a nylon layer and an inner lying of HNBR, CLIIR or associated 134a compatible material.

Barrier hose is "heavier" in construction than Paraflex. This does not mean it is a superior product.

Paraflex, being "thinner", is much softer and is used by vehicle manufacturers and in most aftermarket systems due to its low levels of NVH (noise, vibration and harshness). Paraflex hoses have fittings with a smaller ferrule diameter to match the thinner wall diameter when compared to barrier or NBR type fittings available through A/C parts suppliers.

Given the above, when making hoses for retrofit, barrier type hose and their fittings will be used, as these are readily available.

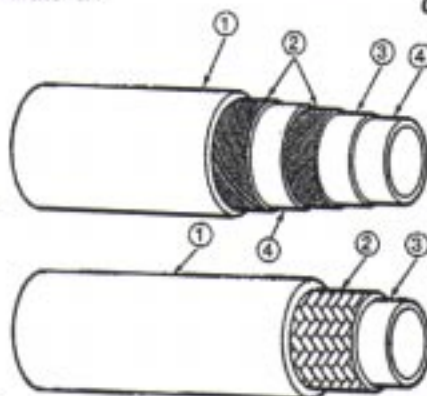
Please take into account the following points to ensure system reliability and to minimise levels of NVH.

- Fittings should be angled to ensure "hose set" - minimises stress on the joints and minimises noise vibration and harshness transmitted into the passenger compartment.
- Hoses should be of sufficient length to enable them to "sit" to minimise joint stress and NVH. "Looping out" hoses is a common practice and should be done where it is deemed to be beneficial.
- In applicants of high vibration (agricultural, earthmoving, associated plant and diesels etc) joints must be saddled or otherwise supported to prevent failure of fittings and components and/or the leakage of refrigerant between the fitting and the hose. In applications where fittings cannot be saddled adequately, use steel in preference to aluminium if possible. (Sometimes this is limited due to the tail length of the fittings)
- When using a beadlock crimper (bubble crimper) do not have the fitting connected to its associated component if using an impact gun.
- Foot and hand operated hydraulic attachments are available for beadlock crimpers. These are much "smoother" for crimping and reduce fitting stress markedly.

Continued on Page 6

BARRIER
SPEC: WSH-M96D25-A2
APPL: R-12 AND R-134a
LIQUID LINE
SUCTION LINE
DISCHARGE LINE

COMPOSITE
SPEC: WSH-M96D25-A
APPL: R-12 AND R-134a
LIQUID LINE
SUCTION LINE
DISCHARGE LINE



1. BUTYL COVER
2. FABRIC REINFORCED
(BRAIDED OR SPIRAL)
3. NYLON BARRIER
4. NITRILE TUBE

1. BUTYL COVER
2. FABRIC YARN
(BRAIDED OR SPIRAL)
3. NYLON BARRIER

Hot Air and Flammables...



“I am aware of concern being expressed about the safety of hydrocarbon refrigerants. The matter first came to my department's attention in June 1995 when the Queensland Office of Consumer Affairs notified an alleged hazard associated with the use of flammable hydrocarbon gases.

At this meeting, there was consensus among representatives with technical expertise in refrigerant gases that hydrocarbon refrigerant gas would create a hazard if used as a replacement for CFC in a motor vehicle air conditioning system. For example, the refrigerant may leak into the interior of a motor vehicle and form an explosive atmosphere.

I am mindful of the national significance of the issue and I have written to the Federal Minister for Consumer Affairs seeking consideration of this issue with a view to a uniform approach throughout Australia to dealing with the use of hydrocarbon refrigerant gas as a replacement for CFC in vehicle air conditioning system.”

The Hon Faye Lo Po' MP
NSW Minister for Consumer Affairs

“No information on usage (of flammable refrigerants in motor vehicles) in Europe is currently available. Usage is zero for original equipment manufacture in the UK which has changed to HFC 134a.

The Department of the Environment were informed of the reasons for our opposition to the use of flammable refrigerants during negotiations for an industry agreement on HFC's.”

Brian Moore
Technical Manager
The Society of Motor Manufacturers and Traders Limited
London
UK

“To the best of my knowledge, and that of our compressor supplier Sanden International, there is no widespread commercial use of flammable refrigerants in European vehicle applications.

It is known however that Calor Gas have conducted limited field trials with a very small number of vehicles retrofitted to use their flammable refrigerant product CARE-30.

Rover have examined the implications of using such products in an automotive air conditioner and it is our view that there are too many unanswered safety questions for us to be happy to recommend them. If we take CARE-30 as an example, it can readily be shown that the ratio of system charge to cabin size for a typical passenger car would be much higher than the published safety threshold recommended by Calor Gas themselves.

I think it should also be pointed out that the retrofit use of flammable refrigerants in vehicle car air conditioners would invalidate any remaining warranty on the parts in that system. I also wonder whether it might invalidate some auto insurance policies.”

James Irvine
Rover Group, UK

“In changing from CFC-12 to HFC-134a as the refrigerant of choice for automotive air conditioners SMMT (Society of Motor Manufacturers and Traders Limited) believes that the motor industry has made significant environmental gains.

HFC-134a has zero ozone depletion potential and its global warming potential is less than half that of CFC-12 on a 20 year time horizon and looks even better on longer time horizons. Furthermore, the fact that HFC-134a is routinely recovered and recycled ensures that the actual amounts of HFC-134a released to atmosphere will be minimal compared to the amounts of CFC-12

released when deliberate venting to atmosphere was commonplace.

Additionally, through adoption of more advanced technologies and better design practices it has been possible to downsize components in HFC-134a based systems so that the average refrigerant fill is 20% less than for a CFC-12 systems. Furthermore, it is estimated that the average vehicle refrigerant leakage has been reduced to between 3% and 10% per annum of the initial fill level.

Notwithstanding the improved environmental benefits noted above, the motor industry recognises that there is scope for further environmental improvement, through the adoption of emerging technologies which have lower global warming potential than HFC-134a air conditioners. Accordingly vehicle manufacturers routinely investigate the practicality of candidate technologies and conduct research into those with merit.

However, despite this ongoing work, it is the view of the world industry, including SMMT members, that there is currently, no fully satisfactory alternative to HFC-134a air conditioners available for automotive use and it is the estimate of the industry that such alternatives are unlikely to be consumer

ready for at least 10 years.”

The Society of Motor Manufacturers and Traders Limited response to Department of the Environment call for voluntary agreements on HFC restraints in the automotive air conditioning sector.

“Thank you for bringing this matter to my attention.

I too share your concerns at the exasperating behaviour of the hydrocarbon lobby group, accuracy notwithstanding!

ICI, as a major manufacturer has chosen to respond on these matters through our industry association, AFCAM. Steve Anderson has been very active of late presenting our side of the debate and seeking to rectify inaccuracies. To that end AFCAM will be producing a Facts Sheet on R134a which I'm sure you will find very useful.”

John Bresnahan
Business Manager
ICI Chemicals, Melbourne

“Ford complies with the legislative requirements in this area by using HFC 134a refrigerants in all of its new vehicles that are equipped with air conditioning systems. Ford also recommends that vehicle owners who wish to retrofit air conditioning systems in vehicles whose original air conditioning systems were designed for CFC 12 refrigerant, retrofit a system which uses HFC 134a as a refrigerant.

Ford does not endorse the retrofitting in its vehicles of air conditioning systems which use refrigerants other than HFC 134a.”

W. Roger King
Senior Engineer-Regulations Planning
Vehicle Safety and Regulations
Ford Motor Company of Australia Ltd

“Vehicles manufactured by Mitsubishi Motors Australia Ltd, for both domestic and export destinations, do not have hydrocarbons installed in the air-conditioning systems. I understand that in New South Wales and the United States of America this gas has been banned from use due to its highly combustible properties.

The Federal Chamber of Automotive Industries representing the local vehicle manufacturers and importers are the most appropriate body to respond to your concerns. I am informed that they are in receipt of a letter from you and have referred it to the appropriate Standing Committees within the Chamber for discussion.

M.T. Quinn
Managing Director
Mitsubishi Motors Australia Ltd,
Adelaide.

.....here's what they said

"The technical issues that relate to safety and leakage are the only ones worth focusing on.

Example: It is an open secret in the industry that corrosion of Aluminium Evaporators is occurring particularly in high humidity polluted environments. This leads to pin holing and failure of evaporators, which is not a situation that would be desirable for HCs. (Is this an issue in Australia ie are many aluminium evaporators used on R12 systems, and how can it be used if it is, without leading to general reliability questions for new R134a systems).

What are the risk factors that the HC lobby has considered so far?

- Overcharging with HC?
- Service related injuries?
- "Amateur" refilling of systems

The question of the safety of service personnel needs to be addressed, and is considered to be an important issue for OEMs.

Normally the car is considered a safe personal environment (conditioned air, stereo music, security, air bags, crumple zones, seat belts etc.) In the risk studies that have been presented for HCs it is not clear how many additional injuries there will be from the use of HCs- what is clear is that the EVENT (explosion within a passenger compartment) can cause serious injury, and it is worth questioning whether the individual citizen is happy to accept this risk. Should an owner inform his passengers that he has a non standard flammable refrigerant?

The case for R-134a is a very difficult message to convey to the average person, but the themes to consider are

- Concern for personal safety and the personal environment balanced with
- Concern for the global environment
- For existing designs of systems non-flammable R134a provides this balance

Car makers are concentrating on designing vehicles with improved personal safety and reduced environmental impact and will concentrate on those issues that achieve maximum environmental (for equal investment ie maximum environmental return per unit investment)

Optimised R134a systems are fully compatible with these aims.

Dr A A Lindley
Technical Service Manager
ICI Klea, Cheshire

“ Nissan Genuine air conditioning and conversion systems have been developed, tested and approved in conjunction between Nissan Motor Company's En-

gineering Group and the Calsonic Corporation. The choice of R-134a as a refrigerant gas has been adopted and advised to us through this channel as it has for all worldwide Nissan distributors.

Over the past two years we have been converting all original fit air conditioning and Genuine Nissan dealer fit air conditioning to R-134a specified systems, a program that has now been fully completed for the entire Nissan range.

In addition to the supply of genuine air conditioning systems, we will also provide conversion kits for those customers requiring to convert their CFC-R12 systems. As per the genuine air conditioning systems we will specify only R-134a gas.

R-134a is an extremely stable refrigerant gas with a long history of known reliable and safe performance. As safety of our customers is of foremost importance to us we will continue our policy to specify R-134a as the retrofit gas."

Neville Green
General Manager-National Parts
Nissan Motor Co. (Australia) Pty Ltd, Victoria.

“ Mitsubishi fully supports the industry recommendation that R134a is the only suitable R12 replacement and has advised this policy to our Dealer Network. This view is also promoted by the FCAI as MMAL and other manufacturers are concerned with the safety aspects of flammable replacement refrigerants.

Our Parts and Accessories Division is about to release a range of R134a Retro-fit kits on to the market, thereby confirming our policy.

Good luck with your campaign."

AW Pearce
Manager-National and Export Service
Mitsubishi Motors Australia Ltd, South Australia.

“ Nippondenso has chosen HFC-134a as the refrigerant used in new automotive air conditioning system and also to Retrofit CFC-12 air conditioning system. HFC-134a along with the relevant oil (ND-Oil 8 or ND-Oil 9) is the only refrigerant that we can recommend. The use of other substances cannot be guaranteed."

Mitch Yamagishi
Acting Manager-Service Department
Nippondenso (Australia) Pty Ltd, Victoria

“ Mercedes-Benz do not recommend blends of any description for use in automotive air conditioning systems and

certainly are not investigating the use of a propane/butane blend for refrigerant gas.

Mercedes-Benz believe that whatever development CO2 and similar systems may take, R134a as currently used in all products, will be the legally approved refrigerant for mobile A/C systems worldwide.

In Germany during September 1995, the EPA is conducting hearings to contemplate a future prohibition of R-12a gas also in existing systems. Vehicle owners would therefore have the alternative to convert their vehicle systems to R134a operation or drain the R12 and render the system unserviceable.

BG Layton
Manager-Vehicle Regulations
Mercedes-Benz (Australia) Pty Ltd, Victoria.

“ Many consumers may unknowingly have flammable refrigerant in their vehicles, and the service industry must invest in refrigerant identification equipment, to protect consumers and technicians, and to prevent contamination of other vehicle air conditioning systems.

And flammable refrigerants are only part of the problem. Refrigerants have been illegally imported, some not produced to acceptable levels of purity, others perhaps used and not reprocessed at all - and have found their way into the market.

There is added concern about used refrigerants that are reclaimed in this country (USA). Although there is no reason to indict the refrigerant reclamation industry as a whole, its members are currently allowed to self-certify their operations and the purity of their product. This sets the stage for unscrupulous operators to cut corners and distribute inferior products, contributing to refrigerant contamination.

MACS Worldwide is in the process of petitioning the EPA to provide for independent inspections of imported refrigerants, random inspections of the product from companies certified to reclaim refrigerant in this country, and strict labelling of containers to detail content purity levels.

When contamination occurs it is not limited to a single system, but will perhaps damage recovery/recycling equipment used in service, and just as likely be spread to other vehicles."

"Like it or not, CFC ban is here" by Simon Oulouhojian
Ward's Auto World Magazine, September 1995, America

Continued next page

Continued from previous page

“It is pleasing to note your organisation's support for Australia's move to phase out ozone-depleting substances and your proposal to take a public stance, over the next twelve months, to attempt to correct the mis-information on air conditioning retrofits is to be commended.

The public safety aspects associated with hazardous substances are handled by the Department of Minerals and Energy (DOME) in Western Australia and I will forward a copy of your correspondence on to the Minister responsible for his consideration.”

Hon Peter Foss MLC
Minister for the Environment
Water Resources, the Arts, Fair Trading, Western Australia.

“Use conditions:

1. No substitute refrigerant may be used to “top off” a system that uses another refrigerant has first been extracted in accordance with EPA regulations.

2. Any automotive refrigerant may only be used with a set of fittings unique to that refrigerant. Fittings have to meet certain criteria derived from SAE standards.

3. A unique label must be used to identify the refrigerant in the system for the purpose of proper future service. This label must comply with certain standards.”

SNAP Alert (USA)
Mobile Air Conditioning Society
Simon Oulouhajian, President

“The Department for Industrial Affairs is taking an active role in this matter. It is involved in national discussions to develop a national position and is also coordinating a meeting of State representatives from the MTA, RAA and various State Government Departments to discuss the issue. The VASA South Australian representative, Mr Glen Watkinson, will be invited to attend the meeting.”

Hon Graham Ingerson, MP
Minister for Industrial Affairs, SA.

“The Attorney-General has asked me to thank you for the special edition of Hot Air and to advise that your comments have been noted.”

Denis Carey
Manager, Administrative Services
for the Hon K Trevor Griffin LL.M, MLC
Attorney-General Minister for Consumer Affairs, SA.

“Thank you for providing the Minister with a copy of your official newsletter, Hot Air.

The Minister appreciates your efforts in keeping him informed of the activities and views of the Vehicle Air Conditioning Specialists of Australia.”

Sally O'Brien
Chief Administrative Officer to
the Hon Dale Baker MP
Minister for mines and Energy
Minister for Primary Industries, SA.

“The ban of CFC production in the European Union (EU) became effective this past January 1, 1995. Since the middle of last year, according to some estimates, literally tons of CFCs have been illegally entering Europe with little (if any) interest or reaction from EU officials - until recently.

Many EU authorities are beginning to view illegal CFC imports as a genuine issue of concern, due to media pressure and enforcement activities in the United States. Customs officials in increasing numbers are being briefed to watch out for imports. Hardly a crackdown, but at least a step in the right direction.

The result of this lack of interest on the part of officials, has been a stream of illegal CFC imports which have provided end users and distributors with a much as a year's worth of CFC stocks - inexpensive CFCs are hardly an incentive to invest in new equipment that is compatible with the more costly CFC alternatives.

One reason the EU has taken so little action so far, may be the cost of enforcement. The United States is the only developed country with an excise tax (\$5.35 a pound) on CFCs - illegal CFC imports cost the US Treasury millions of dollars annually, and aggressive enforcement is profitable. In the EU, however, the only ones losing hard cash are the companies who manufacture the alternative refrigerants and service equipment.”

Shop Talk - Magazine of the
International Mobile Air Conditioning
Association
Fort Worth Texas USA

“The Commonwealth does encourage owners to select refrigerants which suit the type of equipment being converted and to seek advice from specialists in the automotive industry.

Information on alternatives needs to be provided to the general public to assist in the retrofitting of equipment and to ensure that owners are not left with unviable systems. I will welcome your Association's assistance in providing reliable information on retrofits and their costs. I agree that we need to encourage the continuation of the high standards of training to ensure that environmen-

tal and safety impacts and costs are minimised.

I understand controls on the use of hydrocarbon refrigerants in vehicle air conditioning systems have been proposed by various sections of the automotive industry and are being considered by State consumer departments and gas authorities. The Environment Protection Agency will monitor developments in hydrocarbon technology and regulatory controls both nationally and internationally and will keep these agencies and industry informed of progress.”

Senator John Faulkner
Minister for the Environment, Sport
and Territories, ACT.

“I have read Hot Air and noted its contents. If I can be of any further assistance, please do not hesitate to contact me further.”

The Hon Tony McGrady MP
Minister for Minerals and Energy, Qld.

“I found your newsletter to be most informative. I would welcome the opportunity to receive future copies. In addition, this office would be interested in providing articles from time to time for your newsletter on developments from an Office of Consumer and Business Affairs perspective.”

Manager, Consumer Affairs
Attorney-General's Department
Adelaide SA

Tech Talk Continued (from Page 3)

- When using a beadlock crimper ensure the die pieces “come together” to ensure adequate compression.
- Do not use a “Mini crimp” with a beadlock type fitting. Joint separation is likely to result.
- Beadlock (bubble) crimps and barrier hose can be used with barb type fittings although they are not the optimum joint. It has been widely circulated that barbs cut through the nylon barrier, however the barbs do not actually contact the nylon with this hose type. Conventional barb fittings however must never be used on Paraflex type hoses as the nylon is the inner layer.
- Rehosing of systems is only essential when long lengths of “old type” NBR hose is used, the hose is deteriorated or the jointing is inadequate for 134a containment. (ie hose clamps, fittings that turn or are leaking or weeping). It is not necessary to re hose systems that are well jointed and in good condition. In many cases NVH levels will increase and system reliability will decrease.

At the first VASA advanced training workshop held in Australia, conducted by Grantley Hand, a group from two states honed their air conditioning skills for tomorrow's technologies.

Photographed at SuperCool's Southport headquarters were (from left) Mark Jackson (Stay Cool Air conditioning - Southport), Carl Halls (Cool Cars - Southport), Ken Kane (Kenny Kool Car Air conditioning - Gold Coast), Bob Rayner (Ballina Car Air conditioning - Ballina), Grantley Hand, Geoff Michael (EF and G Michael's - Grafton), Noel Anderson and Richard Bowyer (SuperCool - Gold Coast).



ODS Fund and what's happening to our recovered gas supplies

The question of what's happening with the re-processed gas supplies being collected around Australia by members of VASA is without doubt the biggest single issue in our 40 year history in the motoring trade.

I think we are entitled to know what the ODS Fund is doing with our money and with our gas supplies. VASA is not convinced that it yet has all the answers.

With the close down of Australia's only CFC refrigerant gas manufacturing plant in December and the gradual changeover to ozone friendly refrigerants, it became timely to review the situation with the ODS Fund, to which the automotive air conditioning industry has been a significant contributor.

Recognising that the motor industry is one of the biggest consumers of CFC gases, president Mark Mitchell wrote to the Fund and posed these questions:-

- 1 **Has the gas recovery management policy been determined by the Fund and if so, how will it operate.**
- 2 **Considering that large quantities of R12 has been recovered from commercial air conditioning systems, is it possible that the motor industry might have access to these supplies for use in vehicles during the phase out period.**
- 3 **We understand there are considerable stocks of contaminated material in storage. This ranges from gasses contaminated with oils and acids and other stocks which have been cross**

contaminated. Is the fund seeking to undertake the purification of contaminated gasses for future use by the automotive or any other industry. In the case of cross contaminated gasses, is the Fund planning to employ separation technology.

The ODS Fund responded, and enclosed a copy of the working document which sets out in detail how the process works through each of its stages. They said it was being printed prior to circulation to wholesalers across Australia.

However, VASA was not entirely satisfied with the depth of some of the answers and has since responded with further questions:-

- 1 **How much R12 will be released to our industry following recovery.**
- 2 **Having discussed the issue with manufacturers, VASA is still concerned with the procedures to be used to determine if a particular cylinder of gas is re-processable or not. Will this decision be made by experts within the re-processing industry or by the wholesalers? VASA believes the decision must be made by the experts at the re-processing end of the industry.**

VASA would hate to think that there were large quantities of reprocessible R12 being destroyed at the wholesalers end through lack of procedures for gas management, when it could be recycled and channelled back through our industry.

**Media Release issued by
The Hon Faye Lo Po'
NSW Minister for Consumer Affairs
26 October 1995**

The Minister for Consumer Affairs, Faye Lo Po', announced in Parliament today that the Government has prohibited the use of hydrocarbon (HC) gases as refrigerants in motor vehicle air conditioning systems.

The move follows a dramatic demonstration showing a car blown to pieces by the potentially fatal combination of just 300 grams of the gas and a spark.

"The results were horrifying," Mrs Lo Po' said.

"These gases are extremely dangerous when used for this purpose in cars," Mrs Lo Po' said.

"We must put public safety first. My colleague, Attorney General Jeff Shaw, has today directed NSW WorkCover to prohibit, under the Dangerous Goods Act, the use of HC gases in motor vehicle air conditioning systems.

Mr Shaw said: "Under the new regulation signed by me today, anyone breaching the Act will face fines of up to \$10,000 for each offence."



**Mark Mitchell and the Directors
and their little elves wish all mem-
bers and friends a happy Christ-
mas and a profitable 1996**

HOT AIR TECH COLUMN

Welcome to VASA's first tech paper with the aim to keep members as accurately informed as possible.

Our first issue is:- What refrigerant should I use?

Based on information received via USA organisations and the fact that all car manufacturers have chosen R134a for both initial fill and retrofit, VASA recommends R134a as the R12 replacement.

Compressor manufacturers and system manufacturers have spent millions of testing hours on both vehicle and test benches to assist the industry in choosing a product that will ensure the durability we expect and to meet our customer's demands.

Due to the many alternatives on the market, it is imperative that you check with the vehicle owner/operator about the service history and thoroughly check for any labels and signs that the system has been modified.

If in doubt do not reclaim into your R12 cylinder.

Use an empty cylinder and have the refrigerant analysed by your refrigerant supplier. R12 is a very limited resource - do not contaminate your hard earned supplies.

Some very good refrigerant identifiers are on the market. The technical committee strongly suggests you investigate the models and choose a unit that best suits your needs.

Remember the most important issue, **it is not illegal to use R12 in any system nor is it illegal to re-gas a vehicle with R12 provided the system is leak proof and correctly checked.**

Do not follow the sloppy techniques of some organisations into fooling your customer that it will be, or is illegal, for them to use their R12 systems. This is completely untrue and misleading.

Whilst on the subject of retrofit, the NSW EPA has issued regulations re-

garding the use of labels. Please ensure you are aware of the regulations. If not or you require assistance please let us know.

In the next Hot Air, we will tackle the issue of oils and try to dispel the myths surrounding PAGS and Esters.

If you have any technical issues you would like researched or assistance with please fax it to **Mark Padwick on 02-791 9029.**

Geoff,
It's a sad day when a democratic society cannot believe its own media. Last night you discredited yourself by making statements without due regard to any kind of proper research into this very sensitive subject.

In fact, you have put the station in a position where some retractions and corrections should be made because of the effect of your biased program on the consumer public.

On behalf of VASA, my grounds for responding to the program in this manner are:-

- 1• You interviewed a person who is not a toxicologist, nor is he a fluorocarbon expert, who made untrue and possibly libellous claims regarding R134A. This gas is the only alternative to the ozone destroying gasses which are being phased out, which has been adopted internationally by the major equipment and car manufacturers and government agencies, including environmental protection agencies.
- 2• Your newsreader made a false and misleading claim regarding the cost of converting a car air conditioning system to ozone benign refrigerants. This may be the reflection of those in the industry who are untrained, unprofessional and perhaps hoping to capitalise on confusion of the market place.

Obviously your research in this area has been very superficial, misguided

As Hot Air went to press, VASA president Mark Mitchell was sending off a blast to yet another news organisation who got it wrong.

This time it was Geoff Mullins on Channel 10 news out of Brisbane. A camera crew spent a full ten minutes interviewing Mark, but he ended up with a few seconds while a person with no credentials in this subject was given the limelight. Here's is Mark's unedited response.

and deficient in that you deliberately accentuated attention-seeking negatives from non-experts, in favour of logical, proven and rational pronouncements from industry professionals.

VASA, the national body I represent, has introduced high level training programs across Australia in an attempt to address the sort of rubbish which your program regrettably helped to disseminate. If you are in the business of seeking opinions in a complex area which you patently don't understand, at least have the professional judgement to seek those opinions from people with the knowledge to make comment. The news may not as be as sensation seeking as you would like, but then the truth vary rarely is sensational.

On behalf of the damage done to VASA members and the public mischief and confusion your treatment of the story has triggered, I ask that some remedial action be taken by your program to restore some credibility to the debate. Please advise today what steps you intend to take and I will then pass your comments on to my national executive.