



COOLCHANGE

In this issue

Environment Minister
praises our industry

ARC Licence scheme:
from strength to strength

A matter of fact

ARC Member Profile – Victorian
Automobile Chamber of Commerce

New auto refrigerant
leaking down under

R22 Phase-Out information

Training for all occasions – RAC
qualification review recommends
training in all refrigerants

110,000 summer visits to
RTA directory website

Licence scheme acts
on non-compliance

Environment Minister praises our industry

The refrigeration and air conditioning (RAC) industry deserves to be proud. This was the sentiment communicated by Federal Minister for the Environment, the Hon Greg Hunt, at the Air-conditioning and Refrigeration Equipment Manufacturers Association of Australia (AREMA) industry dinner in November last year.

Minister Hunt said the RAC sector had delivered a great service to the Australian community across a wide variety of essential uses and is a significant contributor to the economy.

In particular, he noted that the industry has delivered more emissions savings than any other sector in the Australian economy, highlighting a reduction in emissions rates of 55 Mtpa in the early 1990s, to 5 Mtpa today. With the likelihood of this figure being less than 1 Mtpa in a few years.



Federal Minister for the Environment, the Hon Greg Hunt

40 businesses
can no longer
work with f-gas
due to non-
compliance
> read more inside



ARC Licence scheme: from strength to strength

Increase in licences = increase in health of sector

Despite the emergence of new refrigerant types over the past two years, ARC has seen significant growth in licence and business authorisation numbers.

Licence numbers grew by 2,148 during 2014 and business authorisation numbers grew by 184.

These figures represent real increases and are adjusted for any individuals or businesses no longer purchasing, storing or handling ozone depleting substances or synthetic greenhouse gas refrigerants.

The strength of the scheme clearly demonstrates the refrigeration and air conditioning sector's world-class commitment to environmental protection.

ARC's 2014 performance

Performance in the key areas of administration, communications and compliance are indicators of the success of the ARC scheme. The ARC not only strives to be effective and efficient but also to deliver value to licence and authorisation holders.

ARC licence scheme – recognised as most cost-efficient for industry

- ✓ The national ARC licence scheme was recognised as having the greatest net benefit (most cost-efficient) for industry, compared to similar state-based schemes (National Occupational Licensing Authority - Decision Regulatory Impact Statement 2014).

5 day licence processing times – and that's with over 75,000 licences

- ✓ Innovative online application facility and best-practice administration systems allow applications to be processed, on average, in only 5 days - with many being processed in just 2-3 days for complete applications.

ARC assists over 64,000 licence holders on the phone in 2014

- ✓ The ARC Customer Service team assisted 64,141 licence holders in 2014 – the highest annual number on record, reflecting the importance and popularity of the licence scheme to the whole RAC industry.

Most visits to consumer website and online business directory ever

- ✓ The 2013/14 summer communications campaign achieved almost 100,000 hits on the ARC's consumer website www.lookforhetick.com.au. This figure represents potential customers for licence and authorisation holders.

131 rogue businesses kept out of the industry

- ✓ 131 businesses had their authorisations denied due to on-going illegal practices in the 2013/14 financial year.



A matter of fact

There are many reasons why the national refrigeration and air conditioning licence scheme is an effective mechanism to reduce emissions of harmful refrigerant gasses. But it is also an effective way to ensure qualified and professional technicians are the face of the RAC industry:

- ✓ Ensures only qualified technicians handle refrigerants that are synthetic greenhouse gases and ozone depleting substances, including:

- servicing
- maintenance
- installation
- recovery

- ✓ Ensures only authorised people and businesses can

- purchase
- store and
- sell SGG and ODS refrigerant

These measures ensure the containment of refrigerant that would otherwise be omitted.

Fast Facts

- 43,000 tonnes of SGG and ODS refrigerant currently in use (89% of all gases in use)*
- Up to 500,000 kg of SGG and ODS refrigerant recovered annually
- Prior to licence scheme being introduced, recovery was below 100,000 kg per year.
- Just 1 kg of the commonly used refrigerant gas R410a, has the same greenhouse impact as two tonnes of carbon dioxide, which is the equivalent of running your car for six months!

None of these results happens without the support and dedication of the refrigeration and air conditioning sector.

**Cold Hard Facts II – A study of the refrigeration & air conditioning industry in Australia, Expert Group, 2013*



The Victorian Automobile Chamber of Commerce (VACC)

VACC is committed to supporting its 5,000 plus members in the retail, service and repair sector of the automotive industry. It provides key services and products to members enabling them to run their business.

These services include industrial relations, occupational health and safety and environment, training, and lobbying governments and industry bodies. Its technical library is the largest in the southern hemisphere and the award winning auto-apprenticeship group scheme is the biggest in Victoria. A recent addition is the commercial department which provides business solutions for members and non-members, both in Victoria and interstate.

The VACC brand is displayed by member businesses and promoted through a range of activities, including this year's Australian Motoring Festival at the Melbourne Showgrounds (26-29 March). The Festival is a new model compared to previous motor shows and will include interactive displays, driver test tracks and family entertainment.

In addition, VACC provides support services for the Tasmanian Automobile Chamber of Commerce (TACC), works closely with other interstate Motor Trades Associations and is a member of the national retail automotive body, the Australian Motor Industry Federation (AMIF).

Since inception in 1918, VACC has been a loud and influential voice for its members and the industry. Always promoting the interests of the retail sector, VACC has ensured that when policy decisions about the 'automotive industry' are discussed, the focus is not solely on manufacturers and that retail is fairly, and

squarely, represented. And why shouldn't it be when three quarters (approximately, 320,000) of people employed in the automotive industry work in the retail, service, repair and recycling sectors – a fact often overlooked by governments, regulators and the media.

In fact, many recent reports on the demise of car making in Australia suggested the end of the automotive industry as we know it. VACC, and its national body, AMIF, were on the front foot highlighting the significant contribution the retail side makes to the economy and community, so much so, that it generated a Senate Inquiry into the 'whole' of the automotive industry later this year.

Approximately 2,500 VACC members service, repair and install automotive air conditioning systems, so VACC has a very close relationship with ARC. As strong supporters of regulation in the air conditioning industry, a productive and co-operative relationship with ARC has resulted in VACC members being better informed and better equipped to meet their customers' needs, while ensuring the environmental benefits of the legislation are realised to the fullest extent.

VACC's ARC membership is an active one, with regular contributions, information-sharing and participation in meetings. For example, VACC supports the intent of the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* and the regulation of ozone depleting substances.

When the *Australian Automotive Air Conditioning Code of Practice 2008* was redrafted, VACC provided input. This activity led to the announcement of the Review of the Act.

And just last year, VACC tabled a submission to the Department of the Environment's review of the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* and associated legislation, and participation in the subsequent Transport Refrigeration and Air conditioning summit.

VACC looks forward to continuing its working relationship with ARC and ARC members.

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New Auto refrigerant leaking Down Under

Alternatives to automotive air conditioning refrigerant R134a are starting to arrive on Australian shores. HFO 1234yf is now being seen pre-charged in some vehicles imported into the country as well as commercially available from selected wholesalers. Therefore, it is important that technicians have a basic understanding of this new refrigerant, as they would any new refrigerant.

Background

Refrigerant R1234yF (HFO-1234yf) has been jointly developed by DuPont and Honeywell, specifically to cut the global warming potential of mobile air conditioning systems. This new gas has a Global Warming Potential (GWP) of 4, while HFC-134a – commonly used in automotive air conditioning systems – has a

GWP of 1,430. HFO-1234yf is being adopted by automakers in Europe and Japan, and Australia is now seeing this refrigerant in vehicles being imported into the country, as well as in selected wholesalers.

HFO-1234yf is not currently a scheduled substance under the *Ozone Protection and Synthetic Greenhouse Gas Management*

Act 1989 (Act) and therefore not regulated under Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995 (*Regulations*). Only fluorocarbon-based refrigerants are covered under the *Act, Regulations* and the ARC licence scheme. Other lawful requirements may apply for handling of HFO-1234yf and technicians should make themselves aware of these.



R22 Phase-Out information

As Australia moves towards a total phase-out of R22 imports (as well as all HCFC refrigerants) by 2016, industry is already well advanced in the transition from R22, including moving away entirely from the import and manufacture of air conditioners that operate on R22 refrigerant.

HCFC-22 (R22) has been commonly used in residential heat pump, air conditioning and refrigeration systems since the 1990s. In 2012, R22 accounted for approximately 26 per cent of the total bank of working gases in Australia.

Australia has a legislated phase-out of HCFCs, in line with its obligations under the Montreal Protocol, and will largely phase-out the import of HCFCs from 2016. There will be an allowance for a small amount (2.5 ozone depletion potential tonnes a year) which will be permitted to service equipment until 2029.

After 2029, the maintenance of remaining R22-based systems will rely on recycled or reclaimed refrigerant. It is expected that reclamation and recycling will ensure that existing supplies of R22 will last longer and be available to service a greater number of systems.

The ARC has received a lot of questions from technicians and facility managers on what they should be advising their clients about systems currently containing R22.

Important information for users of R22 refrigerant:

- R22 will continue to be available in Australia, although quantities of new R22 imported into Australia are reducing until 2016, when importing will be completely phased-out.
- If R22 systems are in good working order, there is no need to transition to an alternative refrigerant/system.
- Regular servicing to minimise leakages is important.
- Existing units using R22 can continue to be serviced with R22.
- Some used R22 is being reclaimed to manufacturer's specifications. Contact your refrigerant supplier for further information.
- Conversion (retrofitting) of existing systems to use a non-ozone-depleting substitute refrigerant. Retrofits are allowed if the substitute refrigerant has been found acceptable for that type of use and it is done in accordance with relevant legislation and Australian Standards.

Alternatives to R22

Equipment manufacturers, gas suppliers, refrigeration engineers, technicians and state and territory work health safety regulators can provide advice on equipment and refrigerant issues, warranties and safety requirements when it comes to finding alternatives to R22 for existing systems.

HCFCs (including R22) are being phased-out globally under the Montreal Protocol on Substances that Deplete the Ozone Layer.

Australia has adopted an accelerated phase-out of HCFCs. The level of permitted imports and manufacture decreases every two years, as specified in the table below.

Year	Annual import limit (ODP tonnes*)
2012, 2013	40
2014, 2015	10
2016 – 2029	2.5
2030	0

**1 ODP tonne equates to 9 metric tonnes of HCFC-141b or 18 tonnes of HCFC-22*

For further information, the Department of the Environment has a Fact Sheet available on the Phase-out of R22 refrigerant. Visit www.environment.gov.au and type 'R22 Phase Out' in the search bar.

Training for all occasions

RAC qualification review recommends training in all refrigerants

As reported in the July edition of Cool Change, E-Oz Energy Skills Australia has commenced a major review of the Refrigeration and Air Conditioning trade qualification to ensure it meets the current and future skill needs of Australia's Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) industry.

After consultation with a wide variety of stakeholders, the following draft recommendations were made:

A *revised Certificate III in Refrigeration and Air Conditioning* qualification should:

- a. Remain as an apprenticeship.
- b. Cover the essential knowledge and skills required by all RAC mechanics irrespective of the area of specialisation. That is, the generic skills required to install, commission, test, fault find, repair, replace components and maintain manufactured or unity equipment. This includes:
 - Refrigeration: single refrigerated normal and low temperature merchandising/ display cabinets and small cool/cold rooms, including those with remote condensing units which are commonly found in commercial applications
 - Air Conditioning: self-contained, split and ducted packaged air conditioning units, ventilation systems, evaporative coolers commonly used in residential and light commercial applications.

- c. Meet the relevant National/State/ Territory regulatory requirements for Refrigerant Handling, Refrigeration and Air Conditioning Work and Restricted Electrical Work in every State/Territory, including Western Australia.
- d. Cover all the groups and classes of refrigerants, including natural and synthetic refrigerants.
- e. Include benchmark units to enable competency based progression.

A new qualification was also recommended as an advanced version of the Certificate III qualification.

The proposed Certificate IV in Advanced Refrigeration and Air Conditioning qualification should:

- a. Be established as an apprenticeship.
- b. Either have the Certificate III in Refrigeration and Air Conditioning qualification as an entry requirement or contain the Certificate III core units embedded in its core.

- c. Contain specialisation electives covering higher level or more complicated equipment and systems for example: Variable Refrigerant Volumes (VRV), Variable Air Volume (VAV) boxes, Central plants, Bus and train air conditioning, Supermarkets, Cold stores, Industrial refrigeration, Ammonia/CO2 systems, Secondary systems, Beverage coolers.

The end goal will be for E-Oz Energy Skills Australia to finalise their draft recommendations and submit the revised/ new qualification and competency standard units for endorsement by the end of 2015.

Training, codes of practices and licensing are the cornerstones of a quality and professional industry.

For further information, or should you wish to comment, go to the E-Oz website <http://www.e-oz.com.au/> under Industry Projects/ Electrotechnology Projects.



For more information contact us
call **02 6230 5244**
visit www.refrigerantreclaim.com.au



**REFRIGERANT
RECLAIM
AUSTRALIA**



110,000 summer visits to RTA directory website

The ARC launched its summer advertising campaign late last year and the results have been fantastic for authorised businesses and licence holders alike, with almost 110,000 people visiting the RTA directory website.

Using a number of cost-effective marketing strategies – including search engine marketing and online advertising, as well as local paper editorials and advertising – the ARC achieved results in the following areas:

- **Total visits www.lookforthetick.com.au** – visitors to this website will learn about the importance of using licensed technicians and can find authorised businesses nearest to them.
- **Use of the RTA directory** – actual proof that ARC advertising is driving customers to your business.
- **Licence check facility** – If potential customers want to check the status and type of licence a technician holds.
- **Downloads of info guides** – Used by people looking to buy air conditioners/refrigerators or get their systems serviced. Provides helpful tips on what to look for, and the importance of using licenced technicians.

Results *Figures accurate as of March 2015*

KPIs	2014/15	Improvement on last summer
Visits to www.lookforthetick.com.au	109,192	Up 44%
Use of the RTA business directory	3,610	Up 5%
Use of the ARCTick Licence check	3,528	Up 6%
Downloads of ARCTick info Guides	9,784	Up 1%



Licence scheme acts on non-compliance

Since July 2014, a total of 151 Refrigerant Trading Authorisation (RTA) re-applications were refused due to ongoing non-compliance.

Through being collaborative in the first instance the ARC have helped 111 of these businesses to become compliant, however, 40 businesses remained deficient with non-compliances and, as a result, are no longer legally 'in business' when it comes to the purchase and handling of fluorocarbon refrigerant. *Figures accurate as of 17 February 2015.*