Newsletter for the Refrigeration and Air Conditioning Industry

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COOLCHANGE

In this issue

RTA survey gives positive feedback

When ARC makes field engagement visits to RTAs, it's a two-way street – after we assess them, we invite them to assess us too – and the feedback is proving to be extremely positive.

After every visit we send a survey to ask how we went, and 99% of responses are positive. The feedback is anonymous and gives us valuable data which is analysed and used in a variety of ways. Where there are suggestions or concerns, this feeds directly into training and improvements at our end. It's part of ARC's commitment to quality service to the industry. Here are some of the comments from RTAs when asked about their experience of the field engagement visit:

- The field officer made our business feel secure that we had all the information to be compliant and help the environment.
- The visit was professional and helpful and now we are all sorted we look forward to using our compliance to secure some new business directions.
- Field officer was so flexible arranging for a time to visit me as I'm currently so busy.

One word used repeatedly is 'helpful'. Our field visits are designed to be educational and assist you in meeting your permit conditions. We will provide tips and tricks for maintaining or achieving compliance. We know that people facing their first visit are often nervous, but they are usually much more relaxed after it has been done.

If ever in doubt, ask ARC for help. That's what the field officers are for, plus you can phone us on 1300 88 444 83 or email enquire@arctick.org.

To help you prepare for a field engagement visit, ARC has produced this short video.

Refrigeration is career of first choice

Australians are increasingly turning to refrigeration and air conditioning as a career of first choice, according to new ARC licensing data.

ARC figures for the past five years show strong year-on-year growth which peaked in 2023-24 for both Refrigerant Handling Licences (RHLs) and Refrigerant Trading Authorisations (RTAs), especially in the automotive sector.

Net growth in the number of RHLs exceeded 10,000 for the financial year, 14% up on the previous year, while RTA numbers grew by almost 2,000, or 10%. The strongest growth was in automotive, which accounted for a third of RHL growth and half of RTA growth.

Of particular note was a massive increase in classroom training licences, which almost equalled automotive growth, with 3,211 additional young people obtaining a training licence in the year – a lead indicator of an increased workforce.

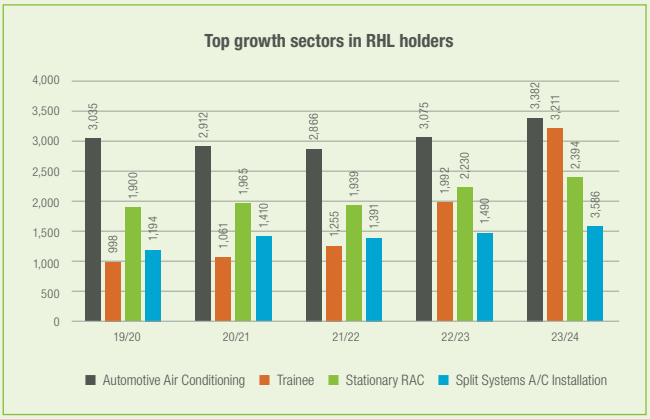
ARC Chief Executive Officer Glenn Evans said the growth in licensed technicians and businesses – and especially in apprentices – showed a much brighter outlook for the industry than many people believed it had.

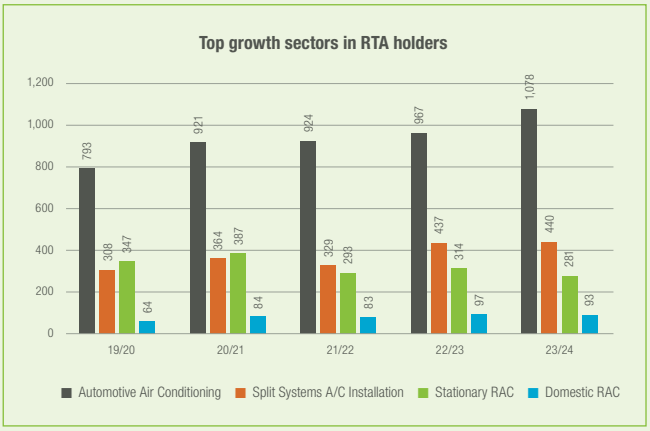
'We hear about a skills shortage and a lack of new people entering our industry, but these figures give us hard data to prove the RAC industry is actually growing,' he said.

Refrigeration and Air Conditioning Training Alliance (RACTA) co-chair Paul Wright said the ARC data confirmed the lived experience of registered training organisations.

'ARC's data shows us that people are getting the message that ours is a good industry to be in – and we are seeing that in our classrooms around Australia,' he said.

'I know that ARC promotes our industry to school careers advisers and students as a career of first choice for bright young people, and the numbers suggest this is having an impact.'





Similarly, ARC's consumer marketing campaigns highlight the value of licensed technicians and businesses, which puts the industry on the radar of consumers who might be considering careers for themselves or their children.

Higher freezer temperature could cut emissions

A landmark European study has confirmed the potential to increase freezer temperatures and reduce carbon emissions – and Australian industry leaders are supporting the concept for local introduction.

The year-long study was commissioned by leading European frozen food company Nomad Foods. It revealed that a 3° Celsius increase in frozen food storage temperatures could reduce freezer energy consumption by 10%, in turn reducing carbon emissions from energy generation by a similar percentage without impacting the quality and safety of food.

It found that storing frozen food at -15°C, instead of the industry standard -18°C (zero degrees Fahrenheit), could reduce freezer energy consumption by 10-11% without noticeable impact on product safety, texture, taste or nutritional value. In Australia, the Refrigerated Warehouse and Transport Association of Australia (RWTA) has embraced the 'Three Degrees of Change' campaign developed from the research.

RWTA Executive Officer, Marianne Kintzel, said the interest was driven by the potential benefits of reducing energy usage and the reduced cost and carbon emissions associated with the cold chain. 'The campaign aligns with broader environmental objectives and is seen as a progressive step towards sustainable practices within the frozen food sector,' she said.

Ms Kintzel said there were 3 key factors in effecting such a change:

- Stakeholder engagement, bringing together stakeholders including manufacturers, retailers, and logistics providers, to ensure a unified approach;
- Potential modifications to existing refrigeration systems and infrastructure to operate efficiently at the new standard temperature; and
- Educational campaigns to inform all stakeholders, including consumers, about the benefits and safety of the new temperature settings.

'As Australia transitions to a renewable energy-based economy, managing energy supply becomes crucial, especially for high-demand systems like refrigeration,' she said. 'There is a consensus in our sector on the potential benefits of the initiative, particularly in terms of sustainability and operational efficiency.'

Cold Hard Facts 4 shows growth and challenges

Cold Hard Facts 4 (CHF4), the latest edition of Australia's unique and comprehensive refrigeration and air conditioning industry research report, reveals an industry that is growing steadily and spells out the challenges of the near future.

Highlights from the report include:

- Australia's refrigeration and air conditioning industry has grown across all classes of equipment and services. In the 6 years from 2016 there was 15% growth in the stock of vapour compression driven equipment for HVAC&R services, reaching more than 62 million pieces of equipment by 2022.
- This equipment on average consumes up to 24% of electricity generated in Australia.
- The stock of vapour compression equipment in Australia includes domestic fridge/freezers, heat pumps, air conditioners in vehicles (personal vehicles, public transport, rail and road transport) large HVAC systems in buildings, shopping malls, hospitals, factories, commercial and transport refrigeration, large cold stores at ports and supermarket distribution centres.
- The total refrigerant bank of HCFCs and HFCs in Australia has grown strongly since 2006, increasing around 80% in the period to 2022, when it reached an estimated 55,000 metric tonnes, an increase of about 1.6% on the previous year.
- As a result of its electricity consumption and the high GWP gases that make up most of the refrigerant bank, the report estimates that vapour compression driven equipment was responsible for 58.5 Mt carbon dioxide equivalent in direct and indirect climate emissions in 2022 – down by more than 10% since 2016.
- Refrigerants sent for destruction, recovered from end-of-life equipment or during servicing of working equipment, totalled 463 tonnes in 2022. Recoveries reclaimed for reuse totalled about 100 tonnes in the year.
- The majority of new hot water heat pumps imported from 2020 to 2022 were charged with high GWP HFCs, but latest data indicates most models now use hydrocarbons.
- The uptake of natural refrigerants continues with steady growth in the use of hydrocarbons (e.g. R290, R600a), carbon dioxide (R744) and ammonia (R717). Partly as a result of this, the average GWP of the total refrigerant bank has declined by 8% over 6 years, from 1,837 in 2026 to 1,681 in 2022.

A significant finding is that industry growth, adoption of new refrigerants, and demand for equipment and services indicate that Australia's demand for HFCs will significantly exceed supply of new HFCs available under the legislated import quota. As a result, it is very likely that additional measures will be necessary to mitigate the current demand trend.

CHF4 is based largely on primary data, including equipment and refrigerant import records, manufacturer and sales surveys, licensing data and numerous other industry sources. It shows that refrigeration, air conditioning and heat pump equipment is the main consumer and emitter of the ozone depleting substances and synthetic greenhouse gases controlled under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*.

Download Cold Hard Facts 4 and supporting data at the DCCEEW website: www.dcceew.gov.au/environment/protection/ozone/publications/cold-hard-facts-4

The Department wants your views on compliance, training and licensing

The Department of Climate Change, Energy, the Environment and Water (DCCEEW) is looking to strengthen the permit scheme and will soon be asking for feedback from RHL and RTA holders.

The survey will seek your views on:

- The Department and ARC's approaches to permit condition checks and compliance
- Training and qualification requirements and gaps
- Licence conditions, the application process, our websites and more.

Keep an eye on your email for the survey link in coming weeks.

Wire & Gas gets the licensing message

ARC took the licensing message to Australia's automotive sector at this year's Wire & Gas conference staged in Brisbane by VASA (Automotive Air conditioning, Electrical and Cooling Technicians of Australasia).

In addition to fielding questions from conference delegates in the main display area, ARC presented a detailed insight into the industry and the significance of licensing as part of the conference program. General Manager Compliance and Training, Rod Cumming, outlined the size and growth of the industry, with the number of current RTAs growing by 8-10% each year. Also growing are the number of apprentices, at 11% of all RHL holders, and the number of female RHL holders, which has increased by 400% over the past 5 years.

Mr Cumming also spoke in detail about being prepared for a visit by an ARC field engagement officer, explaining how it can be simple and straightforward to achieve compliance in the key areas of record keeping, leak testing and equipment maintenance. He also highlighted the value of having a refrigerant analyser to be sure of what gases a system contains. Reinforcing a theme already raised by VASA President Brett Meads, Mr Cumming stressed that any air conditioning business really should have an analyser to do the job properly.

ARC also presented at the Facility Management Association (FMA) annual Ideaction.24 conference, highlighting the importance of licensed technicians in maintaining the efficiency of commercial refrigeration and climate control systems.

Cyber security alert

Online scams such as phishing emails or fraudulent websites are becoming more sophisticated, so it's vital to beware of unexpected emails, messages or calls requesting personal or financial information. Sometimes they might even claim to be from ARC.

ARC will never request your bank details or any sensitive information via email, phone calls, or any other electronic means. If you ever receive such a request, consider it suspicious and refrain from sharing any personal data. When processing the payment for a new licence or renewal, it is done during the application on our website. If you encounter any issues making the payment, you can request a top-up payment link. We will send you an email containing a link with your application reference ID for a convenient and secure transaction.

The types of communication you may receive from us include:

- Licence/Authorisation renewal notifications
- Application status updates
- Request for further information to complete applications
- Top-up payment links (sent upon request)
- Approval letters
- Permit condition check notifications
- *CoolChange* newsletter.

Beware of any other message that claims to be from ARC, particularly if it contains unusual links or asks for your information.

If you have any doubts about any communication you receive, call us on 1300 88 44 83 or visit our website www.arctick.org

$45,000 in fines for unlicensed electrical work in WA

A recent prosecution by Building and Energy in WA, which has resulted in $45,000 in fines, is a timely reminder of the requirement for refrigeration and air-conditioning (RAC) technicians to ensure they hold any licences required to conduct electrical work in their local jurisdiction.

WA's Electricity (Licensing) Regulations 1991 requires electrical workers to hold an electrical licence relevant to the qualifications they've completed. The requirement for a refrigeration and air conditioning restricted electrical licence (RAC REL) in WA applies where electrical work on refrigeration and/or air-conditioning electrical machines, instruments, appliances, equipment or installations is carried out.

Not holding the appropriate licence in WA can result in a fine of up to $50,000 for individuals and $250,000 for companies. Building and Energy WA has published guidance on the maximum scope of work an RAC REL holder may perform. The fact sheet provides a checklist on the type of work a person with the maximum RAC REL can and cannot complete. View the fact sheet **online**.

Each state and territory has its own electrical licence requirements for work on refrigeration and air conditioning equipment, so it is necessary to check with your local electrical licensing regulator to ensure you meet those requirements, which are summarised in this **ARC technical bulletin**.

Colin Mugford

Long before Colin Mugford joined ARC as a field officer in Adelaide, he was familiar with the field engagement process from having had many field engagement visits in his working life.

His decision to join ARC was largely motivated by a desire to do something more for the environment than he was already doing in his work as a refrigeration and air conditioning service manager.

'I've seen it from the other side, so I understand how people can be scared of being non-compliant, and I work with them to help them get their compliance right,' he said. 'Most people are good, hard-working people trying to do the right thing. When we visit them, it's all about education. All our field officers are the same style of people as I am – we're all here to help.'

Colin began his apprenticeship at 15, and became a service manager overnight at the age of 30 when his service manager had a serious heart attack. After three decades in the trade, he has seen many changes. 'We've gone from a few refrigerants to hundreds, and we've become much more environmentally aware,' he said. 'I've long been conscious of the need to protect the ozone layer and minimise global warming, and I decided I could contribute more to the cause if I worked for ARC.'

Outside of work, Colin's big interest is in restoring vintage tractors and farm machinery. He and his wife also spend a lot of time on their bush block with family and friends, so he is keenly attuned to protecting the natural environment. 'Especially now having grandkids, we have to leave something for them,' he said. 'We need to repay the debt from when we were young, and my ARC work means I can now help people to be compliant.'

Keep on top of cylinder leak testing

FROM THE FIELD

One of the most common areas where RTA holders are non-compliant is leak testing cylinders. It's a simple thing, but often overlooked or misunderstood.

It is a condition of your permit to have records for the last 2 quarters that show you have checked all refrigerant cylinders (including reclaim cylinders) in your possession for leaks at least once during the quarter.

We often hear 'the wholesaler does that' as a reason for not having done this. And that is fine because they are their records. A new quarterly record requirement commences when the next RTA takes possession of the refrigerant. If for instance you are only in possession and return the cylinder to the wholesaler under that initial quarter, leak test records for that cylinder are not required. However, we sometimes see reported cases where a cylinder delivered by a wholesaler was found to be leaking when delivered, and was all but empty when the technician went to use it. It's good practice to leak test all cylinders on arrival and after use, in addition to routine checking.

Leak testing is not a big job, so put it on your schedule as a regular task. Fill in your cylinder records when the cylinder arrives so you're not searching for the information later. It is good practice to nominate one person to do the leak testing and maintain the records, so there is someone who knows it is their job to do it. Many workshops give this task to the apprentice.

Filling in the records themselves is also simple.

There are only 6 fields to fill in for each cylinder: identify the refrigerant type, cylinder owner and cylinder serial number; then record the date it was leak tested, the expiry date and the name of the person who leak tested it.

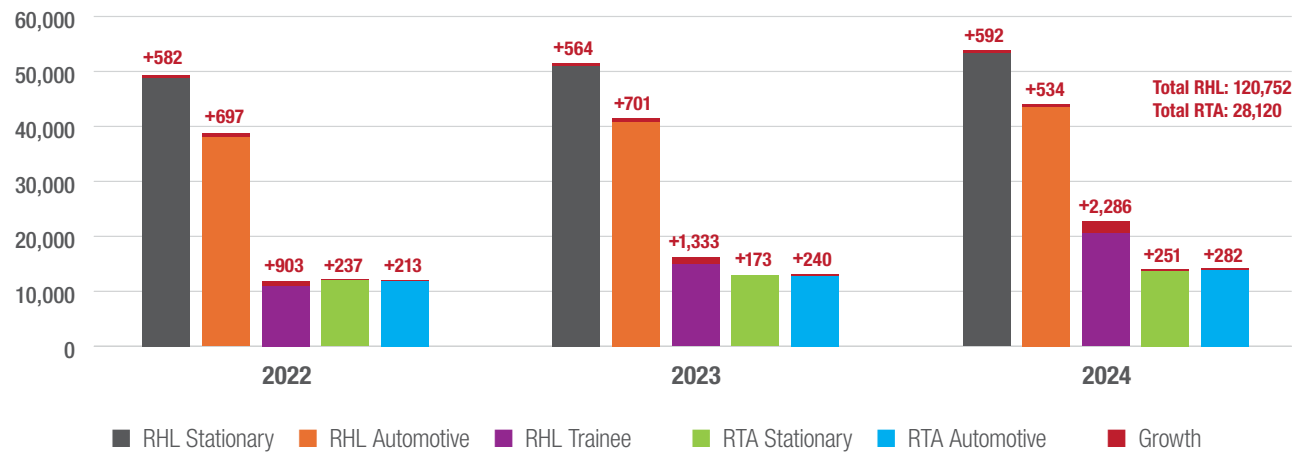
The information you need is all stamped into the cylinder: serial number, build date and test date are all there.

If at any stage you cannot find these markings or they are unreadable, contact your supplier.

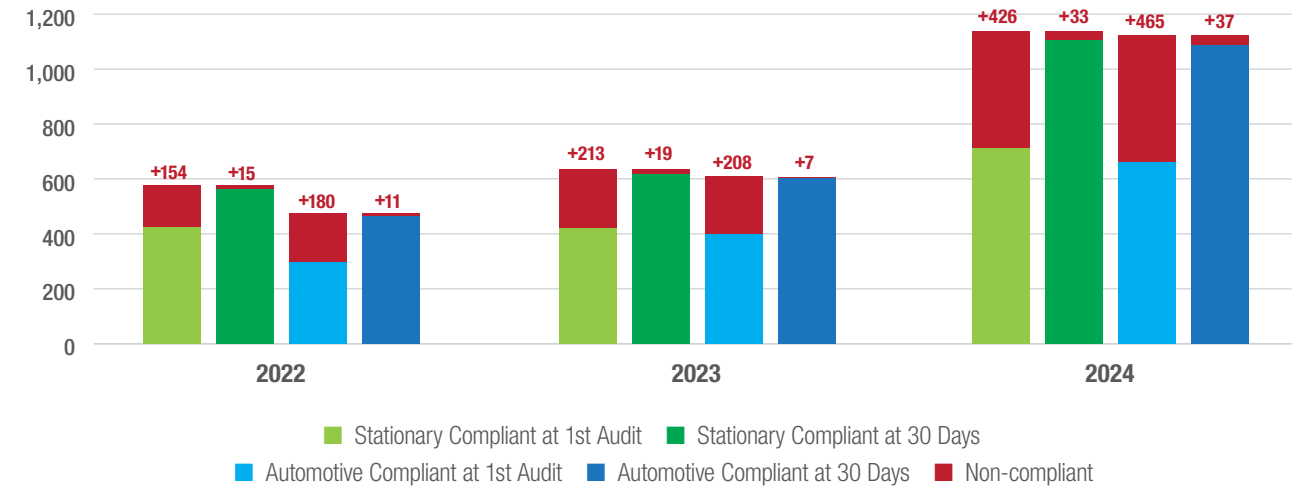
In summary, not only are these a requirement under the 'Conditions of Authorisation', it just makes good business sense to regularly check your cylinders for leaks.

By the numbers

LICENSING (at 30 September)



COMPLIANCE (1 July – 30 September)



What's On

22 November 2024

AMCA Industry Excellence Awards 2024

Playford Hotel, Adelaide, SA.
The AMCA Industry Excellence Awards 2024 celebrate the outstanding achievements of emerging leaders and exceptional staff – the future leaders of the HVAC industry. Details and registration **here.**

17 March 2025

RWTA Adelaide Golf Day

Kooyonga Golf Club, Lockleys, SA.
Forge valuable connections, mingle with cold chain industry leaders and pioneers from across Australia, and expand your industry and professional knowledge in the relaxed atmosphere of a golf day. Details **here.**

24 March 2025

AIRAH REFCON.25

Rydges Melbourne, Victoria.
AIRAH's Refrigeration Conference 2025 brings together international and local experts, practitioners and stakeholders to explore the latest developments and challenges facing the refrigeration industry. Details **here**.