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Reducing regulatory burden: changes to the permit scheme in 2018

In 2016, a review of the Ozone Protection and Synthetic Greenhouse Gas Management Program – including the refrigeration and air conditioning (RAC) permit scheme – was completed by the Australian Government Department of the Environment and Energy.

The review followed extensive consultation with RAC industry stakeholders through public consultation and targeted consultation with industry representatives.

Outcomes of the review identified a number of measures to be implemented. Specifically, two measures that relate to the RAC permit scheme are listed below:

1. 3-year refrigerant handling licences (RHL) & refrigerant trading authorisations (RTA)

- *From 1 Jan 2018 to 31 Dec 2018 a new option for a three (3) year RHL and RTA will be available – along with the standard permit durations (transition period).*
- *From 1 Jan 2019 onwards the default duration for all RHLs (except for trainee RHL) and RTAs will be three (3) years.*
- *Trainee RHLs will remain 1 year in duration.*

If, after the transition period, applicants have genuine concerns or a legitimate reason to seek a different permit duration there will be scope for deviating from the default period of three years for full permit holders or one year for trainee permit holders.

2. Update to RTA and RHL re-application process

From 1 Jan 2018 the process for re-applying for your RTA or RHL will be streamlined, becoming a 'renewal' process, compared to a re-application. The renewal option will only be available for RHL or RTA holders renewing greater than 30 days prior to their permit expiring.

Changes to the RAC permit scheme will reduce the administrative cost of the Regulations on business by reducing the length of time a business or individual needs to spend gathering information together and applying for a permit.

For a full breakdown on licence durations and associated fees see the article on Annual indexation to application fees.

Annual indexation to application fees

Under the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995, Regulation 346 provides for the annual indexation of permit application fees.

The annual indexation formula uses the Wage Price Index (WPI) figures published by the Australian Bureau of Statistics. Consistent with the WPI figures released in November 2017, RAC licence application fees will increase by 2.006 per cent from 1 January 2018.

For further information about changes in 2018 see article on Changes to the licence scheme in 2018 and visit the Department of the Environment and Energy's website at **www.environment.gov.au**.

A table outlining the current fees, as well as the permit fees and durations for 2018 is provided below.

RTA and RHL durations and fees for 2018

RAC Industry Permit	Year(s)	Application Fees 2017	Application Fees 2018
Refrigerant handling licence (RHL)	2	$143	$146
	3	N/A	$219*
Restricted refrigerant handling licence (RRHL)	1	$72	$73
	2	$143	$146
	3	N/A	$219*
Trainee refrigerant handling licence	1	$30	$31
Refrigerant trading authorisation (RTA)	2	$461	$470
	3	N/A	$705*
Restricted refrigerant trading authorisation (RRTA)	2	$143	$146
	3	N/A	$219*

** Note: proposed fee for 2018.*

87,000 strong – RAC permit holders keeping Australia cool

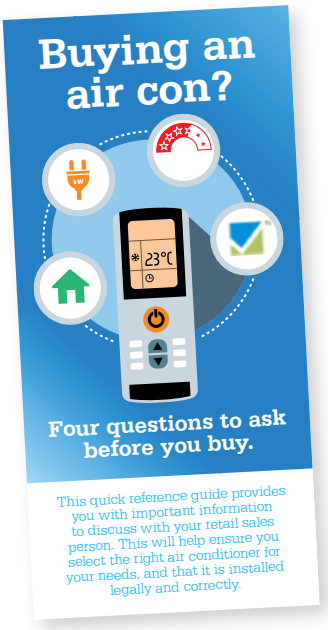
Support for the refrigeration and air conditioning (RAC) permit scheme has never been stronger with total permit holders (individuals and businesses) recently ticking over to 87,000 Australia-wide – the highest ever.

The 2016-17 financial year alone saw an additional 4,797 licence and authorisation holders join the scheme. In an environment of changing refrigerants, this continued support reflects the industry's commitment to raising the level of skills, while delivering real environmental outcomes. These outcomes include reducing emissions of both ozone depleting substances (ODSs) and synthetic greenhouse gases (SGGs) into the atmosphere, while at the same time ensuring the safety of workers and consumers. Much of the success of the RAC permit scheme results from the genuine partnership between industry, via the ARC, and the Government. It is a partnership that delivers on Australia's environmental policy objectives, through the collective efforts and commitment of industry.

Retailers spreading the ARCTick message this summer

Over the last 5 years the ARC has distributed the consumer-focused ARC Air Con Checklist to refrigeration and air conditioning (RAC) retailers Australia-wide, to reinforce the need for consumers to use RAC licensed technicians.

The questions in the checklist help retail sales staff and customers to think of the important factors that influence a unit's performance, as well as the significance – and legal requirement – of using appropriately licensed technicians to install and service refrigerated air conditioners, refrigerators and freezers containing fluorocarbon refrigerants. The checklist can be viewed on the website **www.lookforthetick.com.au**



Retailer testimonials

"Customer feedback on the checklist has been very positive. Not all customers know what to ask, and the questions given are very helpful."

"We hand them out to customers and when changing a unit over we explain how the gas should be disposed of and how it's important to use a RAC-licensed tradesperson."

The future looks bright – young fridgie cool in the heat

The outstanding performances of the 2017 'Skillaroos' and their experts at the 44th WorldSkills International competition in Abu Dhabi has propelled Australia into the top 10 skill nations in the world.

Nathan McHugh, Australia's refrigeration competitor, scored 84.91%, and came 7th out of 23 competitors. Nathan, who was a student at TAFE Qld SkillsTech and employed by DTM Air Services in southern Queensland, was awarded a Medallion of Excellence for his performance in the 4-day competition. In preparation for this competition he worked closely with his mentor and WorldSkills Australia's International Expert, Carl Balke and his fellow teachers at TAFE Qld SkillsTech in Brisbane and well as WorldSkills Australia's previous International Judges, Chris MacDonald from City Holdings and Noel Munkman from ARC. Gold medals went to Korea and Russia and a bronze medal to China.

The refrigeration competitors were tested on their air conditioning and refrigeration skills through a series of stand-alone modules over four days. These tests included brazing, equipment knowledge, installation, commissioning and adjustment, fault finding and component replacement. The main project was to install and commission an ice tank system with heat recovery.

Overall results for Australia's 18 competitors saw it ranked 10th in the world, out of a total of 77 competing countries. Prior to the event, Australia was ranked 12th in the world. This is an outstanding achievement by Nathan and the whole team which included silver medals for carpentry and industrial millwright, and bronze medals for beauty therapy and bricklaying.

A WorldSkills media release said "The jump from 12th at the 2015 São Paulo competition to 10th in this year's International competition has ensured that Australia is continuing to build its reputation for skills and trades on the international stage, cementing the continued importance of Vocational Education Training (VET) for the nation's future prosperity."

For more information, visit: **www.worldskills.org.au**

Nathan in action at the 44th WorldSkills International, Abu Dhabi 2017.

Do the RTA checklist this summer

Follow the refrigerant trading authorisation (RTA) checklist below to make sure your business is in prime position to capitalise on the busy summer ahead.

Make sure your business is following the legal requirements of its refrigerant trading authorisation (RTA):

- ✓ Updated refrigerant records (quarterly – bought, sold, recovered).
- ✓ Updated refrigeration and air conditioning (RAC) equipment list and maintenance records.
- ✓ Ensure you have a current risk management plan for handling/ storage of refrigerant.
- ✓ Ensure your cylinder leak test and test date records are current.
- ✓ Notify the ARC of any changes to staff who hold a refrigerant handling licence.

Advertising

- ✓ Have you organised your local/ national advertising for summer? Please ensure that you meet the condition of your RTA to display your authorisation number on all advertising of RAC services (including: any RAC advertising on your vehicle, business stationery, print advertising, website, phone book, etc.).

Promote your business with FREE ARCTick promo items:

- ✓ 'Licensed Air Conditioning Maintenance' posters.
- ✓ 'Benefits of using Licensed Technicians' handouts for customers (RAC and Auto).
- ✓ Importance of regular maintenance handouts for customers.
- ✓ ARC Licensed stickers for vehicles.
- ✓ ARC Certificate and Authorised stickers.
- ✓ Degassed stickers.
- ✓ Air Con Information guides for customers.
- ✓ Service tags and stickers.

Contact the ARC on **1300 88 44 83** or email **enquire@arctick.org** to order your free promotional items.

National scheme – invisible borders

ARC works hand-in-hand with all states and territories to ensure qualified and compliant individuals and businesses are operating in the refrigeration and air conditioning (RAC) industry.

We are in contact with relevant state-based consumer affairs and licensing bodies, assisting with issues and incidents relating to consumer protection, technician safety and non-licensed activity.

As a priority, a refrigeration and air conditioning technician working in Australia must meet national licensing requirements covering environmental, safety and consumer protection. In addition, and depending on what state/territory they are working in, technicians may also need to meet state/territory licensing requirements.

The RAC licence scheme is the only national licence. So, regardless of the state or territory, if you are working on refrigeration and air conditioning equipment where there is a risk that ozone depleting substances or synthetic greenhouse gases may be emitted, then the appropriate RAC licence is required.

ASQA: student experience to influence RTO audits

The national regulator for Australia's vocational education and training sector, the Australian Skills Quality Authority (ASQA), has recently improved the way they audit training providers, with a new focus on the practices and behaviours of the registered training organisation (RTO) in relation to the phases of the student experience. This puts the onus squarely on the RTO to deliver compliant and quality training.

This risk based approach to regulation will look at the five key phases of the student experience from marketing/recruitment and enrolment, support and progression, to training, assessment and completion, as well as the practices and behaviours of the RTO.

To read more visit **www.asqa.gov.au/asqa-audits**

Hard rubbish/easy refrigerant recovery

ARC is undertaking a detailed investigation of refrigerant recovery management practices by local councils in the greater Brisbane area. Brisbane City Council, Ipswich City Council, Logan City Council, Redland Bay Council and Gold Coast Council are all being visited, to ensure understanding and compliance with the Ozone Protection and Synthetic Greenhouse Gas Management Regulations (1995).

Local councils play a key role in the management of air conditioners and refrigerators as they travel from kerbside and rubbish collection, to landfill or recycling. As a result, ARC Field Officers are looking at refrigerant recovery and management policies for kerbside collection and transfer stations. They are ensuring relevant employees understand their responsibilities and that each employee, council, contractor and scrap/demolition company is clear about the consequences of refrigerant emissions into the atmosphere and related safety issues.

These visits will be complimented by education and awareness activities targeting local councils Australia-wide.

250,000
customers building your business

Last year, Australian Refrigeration Council (ARC) advertising directed over 250,000 people to the licensed refrigeration and air conditioning business directory website www.lookforthetick.com.au

The annual ARC summer advertising campaign further educates consumers on the importance of using refrigeration and air conditioning (RAC) licensed technicians, in addition to promoting the refrigeration and air conditioning industry to the Australian community.

This summer's advertising campaign will use a variety of cost-effective marketing strategies including: search engine marketing, online advertising, Google AdWords and Facebook advertising. In doing this, the ARC looks to alert consumers to:

- The importance of using qualified and licensed technicians for refrigeration and air conditioning work.
- The differences between licences and ensuring consumers use an appropriately licensed person for the job.
- The professionalism and skill of licence holders.

As stated by ARC CEO, Glenn Evans:

"Connecting refrigeration and air conditioning businesses with customers has been a big part of ARC's operations for many years. Businesses and technicians that do the right thing and get themselves qualified, licensed and authorised, deserve to be promoted as the highest standard of professionalism in the industry."

Importantly, improving consumer knowledge and providing pathways to connect consumers with licensed practitioners is good for the environment and good for your business.

On behalf of everyone at the ARC – have a safe and bumper summer season.

The Ozone hole – what's the latest?

The Australian Government's Ozone Protection and Synthetic Greenhouse Gas Program and the associated refrigeration and air conditioning licensing scheme protect the Earth's ozone layer in the upper atmosphere from ozone depleting substances (such as CFCs and HCFCs) and protect the climate system by reducing synthetic greenhouse gas emissions (such as HFCs).

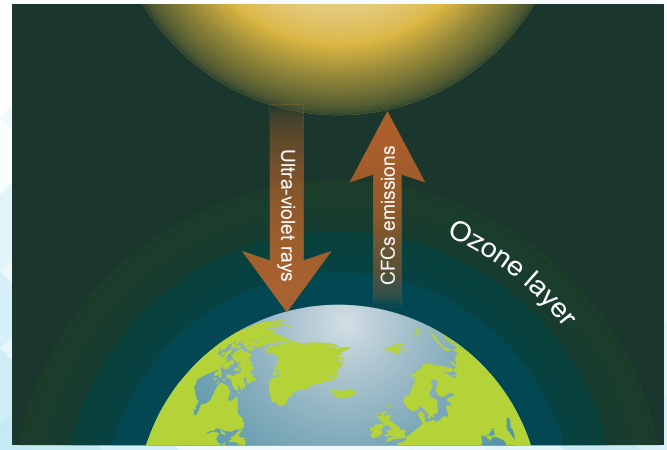
Ozone in the stratosphere (15 to 30 kilometres above the Earth's surface), absorbs a large part of the sun's biologically harmful ultraviolet (UV) radiation that can lead to skin cancer, cataracts and a suppressed immune system. These harmful UV rays also damage terrestrial plant life and aquatic ecosystems.

The ozone 'hole' over Antarctica is a symbol of the impact of ozone depletion. The 'hole' is an annual thinning of the ozone layer over Antarctica. It occurs between September and November when low temperatures and sunlight react with ozone depleting substances to destroy ozone.

All 197 United Nations member countries have agreed to phase out ozone depleting substances through the Montreal Protocol on Substances that Deplete the Ozone Layer. The Montreal Protocol has phased out production and import of over 99% of the most harmful ozone depleting substances globally.

However, ozone depleting substances survive in the atmosphere for many years after they are released so ozone layer recovery will take a long time. Scientists are reporting the concentration of these substances in the atmosphere is starting to reduce and predict the ozone layer will recover by about the middle of this century in the mid-latitudes.

While the collective effort with ozone has been highly effective, important issues remain with many of the refrigerant replacements currently in use. These are typically synthetic greenhouse gases (SGGs) which are significantly more potent than the more typical greenhouse gases, carbon dioxide and methane. If emitted to the atmosphere these SGGs can further contribute to global warming and other climate change impacts. Therefore, efforts by RAC technicians to minimise refrigerant leaks, and the recovery and return of waste refrigerant for safe disposal by those appropriately licenced, remain critical.



R32 refrigerant: FAQs you should know

What is it?

R32 is a hydrofluorocarbon (HFC) refrigerant with a lower Global Warming Potential than R410a. R32 has been adopted by various global air conditioning manufacturers as an alternative to R410a, as it has virtually the same operating pressures as a R410a system. However, R32 is a Class A2L refrigerant, which all have lower flammability and lower toxicity, but are not explosive. Therefore the R32 refrigerant, and the systems designed for it, will present significant changes to the tools, working practices, component standards and workplace safety considerations relating to repair, service and refrigerant recovery. The main characteristics of R32 compared to R410a are provided in the table below.

PROPERTIES	R32	R410a
Boiling/Bubble Point	52^{0}C	51.5^{0}C
Critical Point	78.1^{0}C	70.5^{0}C
Saturation Pressure at 5°C	848 kPa	839 kPa
Saturation Pressure at 40°C	2382 kPa	2338 kPa
Global Warming Potential	675	2090
Flammability Rating	A2L Low Flammability	A1 Non Flammable

Can I convert a R410a system to R32?

No. R32 is not suitable as a drop-in replacement for R410a and must only be used in systems specifically designed for R32. R410a systems are not designed to operate using a flammable refrigerant. R410a systems are unable to be converted to a safety level that satisfies the requirements of international standards set for systems that use R32.

Where can I buy R32?

R32 is available from most refrigerant wholesalers and HVACR equipment suppliers.

Do I need a RTA and a RHL to buy and handle R32?

Yes. R32 is controlled under Australia's Ozone Protection and Synthetic Greenhouse Gas Management legislation. A refrigerant handling licence (RHL) is required to work on systems containing R32. A refrigerant trading authorisation (RTA) is required to purchase, store and dispose of R32. For additional occupational and WHS licensing requirements, check with your relevant state-based licensing authorities.

What refrigerant cylinders can I use?

The Australian Dangerous Good Code classifies R32 as a Dangerous Goods class 2.1 flammable refrigerant. R32 requires a higher pressure 6.2MPa cylinder with a left hand valve thread and requires additional transport, handling and storage safeguards compared to class 2.2 non-flammable refrigerants. The Australian Dangerous Goods Code is available to download free at **www.ntc.gov.au**. The Flammable Refrigerants Safety Guide and Fact Sheets outline the WHS risks associated for working with refrigeration and air conditioning equipment and systems that use flammable refrigerants.

These are available to download for free on the AIRAH website – **www.airah.org.au/technicalresources**.

What are the handling requirements?

Under the Australian Standard AS/NZS ISO 817:2016, R32 is classified as A2L lower flammability. This means that technicians need to take the relevant safety measures for the correct transport, storage and handling of a flammable gas. This includes, ensuring that the gas is not exposed to open flames or other ignition sources, including cigarette smoking. Toxic substances are created when R32, like all fluorinated refrigerants, is burnt. Asphyxiation and freeze burns are also a risk.

You should check with your state-based WorkSafe agency and refer to the relevant material safety data sheets available from your refrigerant wholesalers for specific safeguards when handling this refrigerant. Importantly, suitable trade training in flammable refrigerants is recommended prior to working on systems containing flammable refrigerants.

What equipment do I need to safely handle R32?

Due to the flammability and high operating pressures of R32, equipment compatibility of your existing equipment (e.g. manifolds, gauges, recovery units) must be checked and all electrical equipment must not have any potential sources of ignition. Only use equipment rated for use with (A2L, A2 or A3) flammable refrigerants, such as that listed below, and remember that Personal Protective Equipment (PPE) should be worn when handling the refrigerant:

- R32 calibrated gauge manifold set.
- Electronic refrigerant detector, rated for use with (A2L) flammable refrigerants.
- Vacuum pump rated for use with (A2L, A2 or A3) flammable refrigerant which uses a brushless motor and enclosed electrical components.
- Recovery/reclamation equipment, rated for use with (A2L, A2 or A3) flammable refrigerant.
- Only use dedicated R32 reclaim cylinders for recovered R32 refrigerant.

Relevant Australian Standards, available for purchase from SAI Global at **infostore.saiglobal.com/store**

- AS/NZS ISO 817:2016 Refrigerant – Designation and safety classification
- AS/NZS 5149.1 :2016 Refrigerating systems and heat pumps – Safety and environmental requirements:
  - Part 1 Definitions, classifications and selection criteria
  - Part 2 Design, construction, testing, marking and documentation
  - Part 3 Installation site
  - Part 4 Operation, maintenance, repair and recovery
- AS/NZS 60335.1: Household and similar electrical appliances – safety, Part 1 General appliances
- AS/NZS 60335.2.40: Household and similar electrical appliances – safety, Part 2.40 Particular requirements for electrical heat pumps, air conditioners and dehumidifiers.

This information has been provided as a guide only. For more detailed information on R32 refrigerant, please refer to the relevant Australian Standards, Work Health and Safety regulations and relevant material safety data sheets.