## **About the Licence**

People working in the refrigeration and air conditioning (RAC) industry in Australia must have a licence issued under the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995 (the Regulations). It is illegal to handle refrigerant without the relevant licence.

The **Restricted Refrigerant Recoverer Licence** applies to those who handle refrigerant while decommissioning stationary and automotive refrigeration and air conditioning (RAC) equipment. It certifies the holder to recover refrigerants from equipment such as automotive air conditioning units, refrigerators and in-window air conditioning units.

The licence typically covers persons removing and/or disposing of equipment as found in building demolition, waste transfer stations, automotive recyclers, other recycling plants and any other enterprise concerned with disposal of end of life RAC equipment.

Applicants for this licence are required to complete a knowledge assessment and a practical skills assessment. The process is summarised below and explained further in the pages that follow.

### Step 1. Download All Resources

Documents include information for the applicant, a refrigerant recovery booklet and an application form for a restricted refrigerant handling licence.

### Step 2. Learn and Practise

To learn how to recover refrigerant, you can watch a refrigerant recovery video tutorial online and/or read the refrigerant recovery booklet. You also need to practise recovering refrigerant under supervision of a licensed person until you feel confident to undertake the knowledge and practical assessments.

If there is no licensed person in your workplace, you could approach another licensed operator, a recovery unit supplier or manufacturer, a local training provider, or contact ARC for assistance.

### Step 3. Complete the Knowledge Assessment

The knowledge assessment consists of questions about the refrigerant recovery process. All questions are based on the refrigerant recovery video tutorial and booklet. You can complete the knowledge assessment online, or answer the questions as part of your practical assessment.

### Step 4. Complete the Practical Assessment

You will need to correctly demonstrate the refrigerant recovery process to an approved assessor. An assessor is anyone who holds a relevant refrigerant handling licence to the industry sector that you work in.

### Step 5. Complete All Documentation

All the documents you need are included in Step 1. You will need to obtain a signed Assessment Record Sheet from your assessor.

### Step 6. Submit Application

You need to post a certified copy of the signed Assessment Record Sheet, with a completed Refrigerant Handling licence application form to ARC.

## **Learning the Refrigerant Recovery Process**

To learn how to recover refrigerant you need to be supervised by an approved trainer/assessor. This may be any person with a current ARC refrigerant handling licence and can include the business owner, manager, supervisor, work colleague, equipment supplier or external training provider.

Before undertaking any training or assessment activities, you need to obtain the following documents from the ARC website:

- refrigerant recovery booklet
- Information for Applicants (this guide)
- Licence Application Form

## **Preparing for Learning**

With the assistance of your coach or trainer, ensure you obtain all the necessary tools, equipment and materials, including:

- hand tools and equipment
- refrigerant recovery unit
- refrigeration or air conditioning equipment containing the refrigerant to be recovered
- a gauge manifold set, including hoses and fittings
- safety equipment, including personal protective equipment (PPE)
- refrigerant cylinder weighing scales
- refrigerant recovery record sheet/book

Before practising the recovery procedure you should review the refrigerant recovery video or booklet with your coach/trainer.

Make sure you follow the instructions of your coach/trainer as well as the steps in the refrigerant recovery booklet/video.

Make sure you allow plenty of time and ensure that you are not interrupted when learning or practising:

- ☑ watch your coach/trainer demonstrate the procedure
- ☑ then practise each step yourself
- $\blacksquare$  you may need to watch your coach/trainer a number of times
- ☑ keep practising until you are confident you can perform each step of the refrigerant recovery process correctly
- $\ensuremath{\boxtimes}$  always follow safe working practices

**REMEMBER**, if you are not sure of something as you are learning - ASK!

Practise the refrigerant recovery procedure until you feel confident to attempt the assessment.

It is important that you can perform the procedure according to the manner in which you will be assessed. The following table outlines the criteria your assessor will look for. All of this information is covered in the online video and the refrigerant recovery booklet. If you are unsure of any aspect, go over the video or booklet or ask your trainer to answer any questions you may have. **It is better to prepare well than to be unsure during your assessment!** 

## **Refrigerant Recovery Procedure - Assessment Criteria**

Expected performance	Critical aspects
Set-up and put away Recovery Unit	Ensures PPE is worn and area is well ventilated.
	Checks condition of Gauge, Lines and Rubbers.
	Stores Recovery Cylinder correctly.
	Completes Labelling and Records.
Electrically Isolate	Not connected to a power-point.
Connect Recovery Unit to Unit Correctly	Uses correct Refrigerant Recovery Cylinder.
	Connects Recovery Lines correctly.
	Where applicable, uses Piercing Pliers correctly.
Recovery Cylinder	Locates and selects correct Recovery Cylinder.
	Checks condition & expiry date of Recovery Cylinder.
	Weighs Recovery Cylinder correctly prior to filling.
	Weighs Recovery Cylinder correctly during and/or after filling.
	Correctly identifies the maximum filled weight permitted for cylinder.
Recover Refrigerant	Operates Recovery Unit as per manufacturer's instructions.
	Recovers all refrigerant from system.
	Shuts down & isolates Recovery Unit.
	Purge Recovery Unit and hoses, where applicable.
	Disconnects Recovery Unit from system.

## **Refrigerant Recovery Assessment**

To obtain your Restricted Refrigerant Recovery Licence, you will need to undertake an assessment. The assessment will confirm your ability to safely recover refrigerant from refrigerators and/or room air conditioners and/or automotive air conditioners.

There are two parts to the assessment, as follows:

- knowledge assessment
- practical assessment

These are explained in more detail below.

## **Knowledge Assessment**

The knowledge assessment can be completed in one of two ways:

- 1. online and prior to the practical assessment or
- 2. together with the practical assessment

#### Online assessment

You may complete an online knowledge assessment prior to undertaking the practical assessment. Advise your assessor the date you completed the online knowledge assessment. He/she will record this on the Assessment Record Sheet.

### Together with the practical assessment

If you have not completed an online knowledge assessment, or cannot supply your assessor with a verification code number, you will need to undertake an oral assessment. Your assessor may ask you questions separately or as part of your practical assessment.

You need to correctly answer a total of **ten** knowledge questions, from a possible fifteen questions. The knowledge questions are included at the end of this guide.

## Practising the Knowledge Questions

You should practise answering the knowledge questions before undertaking the assessment. You can practise answering the questions online (you need to log on) or by referring to the knowledge questions at the end of this booklet.

All the information you need to answer the questions is covered in the online video and the refrigerant recovery booklet.

## **Practical Assessment**

The practical assessment requires you to safely and correctly demonstrate the refrigerant recovery procedure to your assessor. Depending on the circumstances, the practical assessment may be conducted at your workplace or at the premises of a training provider or recovery equipment supplier. Talk with your assessor about the best place to hold the assessment.

## Before the Assessment

**preparation** is the **key** to success in any assessment. Follow this checklist to make sure you are well prepared:

- familiarise yourself with the content of the refrigerant recovery online video and booklet
- read the assessment task requirements in this document
- with your assessor, prepare any **materials** and **equipment** needed for the assessment
- check the **environment**:
  - plenty of room
  - no distractions
- ☑ your assessor will explain the assessment process and what is expected. Make sure you are comfortable with the process and that the assessor has answered all questions you may have
- ☑ if necessary, practise the refrigerant recovery procedure with your assessor before the actual assessment
- ☑ switch off your mobile phone. You are not permitted to use a mobile phone during the assessment.

## **During the Assessment**

- during the demonstration make sure you perform all the refrigerant recovery steps correctly
- D pay particular attention to correctly performing the critical aspects outline earlier in this document
- ☑ make sure you follow all safe work practices and wear all the required Personal Protective Equipment (PPE). Serious safety breaches that are considered to endanger you or other persons will result in you being excluded from the assessment.

## Following the Assessment

- ☑ your assessor will discuss the outcomes of the assessment and provide feedback about your performance. If you have been has been unsuccessful, he/she will explain areas where you need more practise.
- ☑ the assessor will hand you a completed Assessment Record Sheet

You need to:

- make a copy of the Assessment Record Sheet
- have the copy certified (see below)
- keep the original certified Assessment Record Sheet for your own records
- forward the certified copy, with a completed refrigerant handling licence application form to the address below

## Australian Refrigeration Council Ltd, Locked Bag 3033 Box Hill VIC 3128

**Important:** DO NOT send in the original copy of the Assessment Record Sheet. Details of how to have a copy document certified are shown on the pages that follow.

## Website: www.arctick.org ARCTick Hotline: 1300 88 44 83

## Reassessment

If you are unsuccessful in the knowledge and/or practical assessments, you may reattempt the assessment after practising the relevant parts:

- arrange a suitable time with your assessor to carry out the reassessment
- you only need to be reassessed against those criteria recorded as unsuccessful
- your assessor will complete and return the Assessment Record Sheet
- if you are again unsuccessful, arrange to carry out another reassessment at a suitable time after further practise

## **Guidelines for Certification of Documents**

In order for the copy document to certified, it must be sighted by an authorised certifying agent, who will then certify (sign and stamp) the documents. Examples of authorised certifying agent are medical or legal practitioners, however many other qualified persons may perform the role. A list of authorised persons is shown below.

Each copy of the document must be certified separately and must show clearly:

- the words "certified true copy of the original"
- the signature of the certifying officer; and
- The name and address or provider/registration number (where appropriate) of the certifying officer, legibly printed below the signature. It must be possible, from the details provided, to contact the certifying officer, if necessary.

### A statutory declaration under the Statutory Declarations Act 1959 may be made before:

(1) a person who is currently licensed or registered under a law to practise in one of the following occupations:

Chiropractor, Dentist, Legal practitioner

Medical practitioner, Nurse, Optometrist

Patent attorney, Pharmacist, Physiotherapist

Psychologist, Trade marks attorney, Veterinary surgeon

(2) a person who is enrolled on the roll of the Supreme Court of a State or Territory, or the High Court of Australia, as a legal practitioner (however described); or

(3) a person who is in the following list:

Agent of the Australian Postal Corporation who is in charge of an office supplying postal services to the public Australian Consular Officer or Australian Diplomatic Officer (within the meaning of the Consular Fees Act 1955) Bailiff

Bank officer with 5 or more continuous years of service

Building society officer with 5 or more years of continuous service

Chief executive officer of a Commonwealth court

Clerk of a court

Commissioner for Affidavits

Commissioner for Declarations

Credit union officer with 5 or more years of continuous service

Employee of the Australian Trade Commission who is:

- a. in a country or place outside Australia; and
- b. authorised under paragraph 3 (d) of the Consular Fees Act 1955 ; and
- c. exercising his or her function in that place Employee of the Commonwealth who is:
- a. in a country or place outside Australia; and
- b. authorised under paragraph 3 (c) of the Consular Fees Act 1955 ; and
- c. exercising his or her function in that place Fellow of the National Tax Accountants' Association

Finance company officer with 5 or more years of continuous service Holder of a statutory office not specified in another item in this list Judge of a court Justice of the Peace Magistrate Marriage celebrant registered under Subdivision C of Division 1 of Part IV of the Marriage Act 1961 Master of a court Member of Chartered Secretaries Australia Member of Engineers Australia, other than at the grade of student Member of the Association of Taxation and Management Accountants Member of the Australian Defence Force who is: a. an officer: or a non-commissioned officer within the meaning of the Defence Force Discipline Act 1982 with 5 or more years of continuous service; or h a warrant officer within the meaning of that Act C. Member of the Institute of Chartered Accountants in Australia, the Australian Society of Certified Practising Accountants or the National Institute of Accountants Member of: a. the Parliament of the Commonwealth; or b. the Parliament of a State: or c. a Territory legislature; or d. a local government authority of a State or Territory Minister of religion registered under Subdivision A of Division 1 of Part IV of the Marriage Act 1961 Notary public Permanent employee of the Australian Postal Corporation with 5 or more years of continuous service who is employed in an office supplying postal services to the public Permanent employee of: a. the Commonwealth or a Commonwealth authority; or b. a State or Territory or a State or Territory authority; or a local government authority; C. with 5 or more years of continuous service who is not specified in another item in this list Person before whom a statutory declaration may be made under the law of the State or Territory in which the declaration is made Police officer Registrar, or Deputy Registrar, of a court Senior Executive Service employee of: the Commonwealth or a Commonwealth authority; or b. a State or Territory or a State or Territory authority Sheriff Sheriff's officer

Teacher employed on a full-time basis at a school or tertiary education institution

## **Knowledge Assessment – Questions**

## Q1: Who is responsible for disposal and processing of contaminated refrigerant on behalf of the Federal Government?

- a. The Australian Refrigeration Council
- b. State and Territory Governments
- c. The Motor Traders Association
- d. Refrigerant Reclaim Australia

## Q2: Why is it important to recover refrigerant from EOL (end of life) equipment?

- a. Because it can be converted into LPG
- b. Because it can be used in the production of 'dry ice'
- c. Because of its potential harmful effects on the ozone and environment
- d. Because it will burn you

### Q3: What types of equipment are covered by the EOL Refrigerant Recovery Licence?

- d. Motor vehicles
- e. Window/room air conditioners
- f. Refrigerators
- g. All of the above

## Q4: What are piercing pliers (crimping tool) applied to?

- a. A refrigerant cylinder
- b. The compressor
- c. The gauge manifold
- d. The refrigerant line

### Q5: What Protective Personal Equipment (PPE) should be worn when recovering refrigerant?

- a. Eye and hand protection
- b. Safety boots
- c. Long sleeves and trousers
- d. All of the above

### Q6: How long should you run a recovery unit when extracting/recovering refrigerant?

- a. 20 minutes
- b. 30 seconds
- c. Until the gauge manifold pressure reads zero kPa (kilopascals)
- d. Until the recovery unit turns itself off

## Q7: Before starting the recovery unit which valves should be open?

- a. The recovery cylinder valve
- b. The gauge manifold valve
- c. The recovery unit valves
- d. All of the above

### Q8. What are the possible consequences of overfilling a recovery cylinder?

- a. The pressure relief valve would activate and/or possible explosion
- b. Damage to gauge manifold
- c. Damage to the recovery unit
- d. The Australian Refrigeration Council could withdraw your licence

### Q9: Where should recovery cylinders containing refrigerant be stored?

- a. Anywhere out of the way
- b. Underground
- c. In a secure, cool place away from any sources of direct heat
- d. Any of the above

## Q10: The purpose of agitating or tapping the compressor with a rubber mallet is to:

- a. Dislodge/vaporise any remaining refrigerant
- b. Start the recovery process
- c. Indicate a full bottle
- d. Test for an empty compressor by the sound

## Q11: Records must be kept of the amount of refrigerant returned to the wholesaler for destruction to:

- a. Know when to order another recovery cylinder
- b. Meet audit requirements by the Australian Refrigeration Council
- c. Prevent theft
- d. All of the above

Q12: Best practice requires the blue hose to be connected between the unit and manifold gauge, the yellow from the gauge manifold to the recovery unit and the red hose from the recovery unit to cylinder.

- a. True
- b. False

Q13: The maximum weight of the recovered refrigerant that can be accommodated in a 25kg cylinder is:

- a. 8Kg
- b. 16Kg
- c. 50Kg
- d. All of the above

## Q14: After completing the recovery process equipment should be labelled by:

- a. Painting the unit with green paint
- b. Attaching a 'Degassed' sticker or label to the unit
- c. Attaching red tape to the unit
- d. Telling your co-workers and boss

## Q15: Scales measuring weight should be used to identify and/or assist in calculating the:

- a. Total weight of the cylinder
- b. Amount of refrigerant in the cylinder
- c. Amount of refrigerant that can be put into cylinder
- d. Any or all of the above