

The essential toolkit for reducing refrigerant emissions across Europe

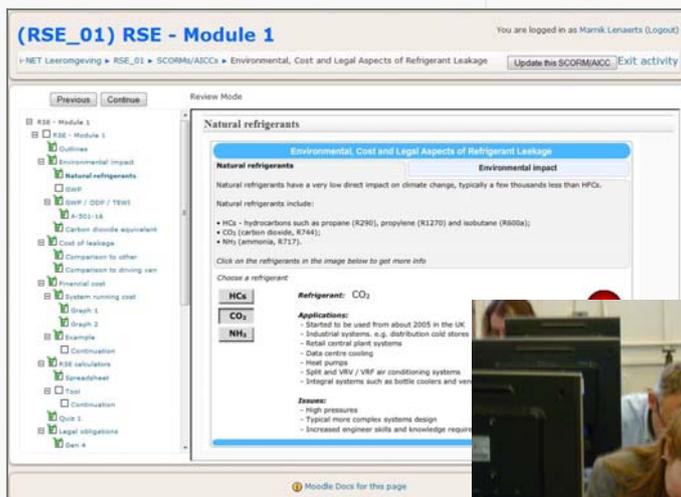
The REAL Skills Europe programme is now available to all with an integrated e-learning and assessment package, supported by guidance notes and f gas monitoring tools up and running.

So far over 550 people have registered for the programme from a wide range of countries within and outside of the EU including the UK, Germany, Greece, Italy, Sweden, Poland, Australia, USA and South Africa. 100 of these have already passed at least one of the assessed modules.

The training has been well received by learners so far. A typical comment from a user "I see each part of Guidance Notes as logically connected. They appeal to imagination, for example by showing visually 13 of the most common leaks and how to prevent and repair them using quite simple methods".

The programme was recently given an award for the International Collaboration of the Year at the RAC Cooling Industry Awards in 2011.

The key aims of the project were to help industry take practical steps to reduce refrigerant leakage by raising awareness and understanding of F-Gas legal obligations and responsibilities across Europe; sharing refrigerant leakage and containment information and best practice from the



how to register

- Access free downloads and more information about how you can become accredited for the award winning REAL Skills Europe training at the programme website www.realskillseurope.eu.
- Open to technicians, consultants and anyone interested in finding out more about how they can measure and help reduce refrigerant emissions.
- Once your registration has been accepted you will be able to access the interactive learning pages which are based around four on-line training modules.

more on page 2

www.realskillseurope.eu

The essential on line toolkit for reducing refrigerant emissions

five partner countries and provide free software tools and guidance to assess the financial and environmental impact of leakage in various languages.

The programme has culminated in a multi-lingual e-learning and certificated assessment scheme which can be used by employers or individuals to gain independently certified evidence of Continued Professional Development.

The project methodology draws on the material originally developed in the UK by the Institute of Refrigeration REAL Zero project and benefits from the inputs of a pan-European group of stakeholders and partners, giving access to new ideas, methods and technologies.

It complements and builds on mandatory F-Gas training by taking a more proactive approach to refrigerant management, focusing on the prevention of leaks through the application of best practice in design, installation, commissioning and service and maintenance.

Environmental, Cost and Legal Aspects of Refrigerant Leakage

<p>Shell and tube condensers</p> <p>Likely causes:</p> <p>Corrosion of the copper and mild steel if the water circulating in the tubes is not treated correctly. Leaks can be particularly hard to locate, as they cannot be seen – refrigerant might be detected in the water, but usually the leak is only detected by carrying out a full pressure test of the system.</p> <p>Solutions:</p> <ul style="list-style-type: none"> • Ensure adequate corrosion prevention scheme is in place e.g. chemical dosing. • Regular inspection to monitor potential corrosion level. • Regular maintenance and monitoring has occurred in the tube bundle it is economy to replace one tube, as the tubes are probably in a similar 	<p style="text-align: center; font-weight: bold; font-size: x-small;">Generic Information about Common Leak Points</p> 
--	---



As we now enter the second stage of the project we keen to extend take up of the tools and learning programmes and gain wider recognition for professional development of technicians and consultants as well as helping to achieve even more reductions in refrigerant leakage.

What learners will gain from the programme

An improved knowledge and understanding of refrigerant leakage covering:

- Environmental awareness, financial impact, regulatory framework, and TEWI-concept.
- Legal obligations of RAC-system owners, operators and maintainers and practical tools to help fulfil these.
- Importance of system design, installation and commissioning for minimising leakage
- RAC-system maintenance concepts, best practice regimes and methods including direct and indirect leak detection methods.
- Analysing and diagnosing problems
- Tools to help communicate with system owners the business benefits of improved containment.
- A methodology for more detailed site surveys and comprehensive reporting for clients

- The first three modules include examples, self tests and animations. You will also need to download some guidance notes and electronic tools. Each module concludes with a 10 question randomised assessment. The pass mark is 80%.
- When you have successfully completed each of these modules you will received a CPD certificate as evidence of your learning.
- To complete the fourth and final module you need to show that you apply what you have learned in practice by carrying out a leakage reduction site assessment on a real piece of plant or equipment using the REAL Skills tools and formats.
- The fee for accessing the on line modules, the assessment and certification is 100 euros. Once you have download the templates and formats for sites reports and carbon calculators you can use this in your own business.

To start your e-learning programme now see www.realskillseurope.eu/training

www.realskillseurope.eu



REAL skills learning in the classroom

Although the REAL Skills Europe (RSE) e-learning training is designed as a self study e-learning programme it can also be delivered in partnership with selected Training Providers to support the delivery of the programme in their own training centres.

Experience indicates that there is interest in technicians attending a face to face training session to discuss the issues outlined in the material, revise contents and take the assessment for the first three modules under controlled conditions.

Training centres can now register as REAL Skills Europe Training Associates with the right to deliver their own classroom training and set up invigilated online assessments for REAL Skills.

RSE Training Associates

- Training providers details will be added to a list of providers on the REAL Skills Europe website when approved
- Centres can use of the Real Skills Europe logo on their website to promote the courses
- Special arrangements for bulk discount on enrolment fees are available
- Access to the complete e-learning modules and supporting documents is provided

- The right to distribute customised RSE Guidance Notes, RSE Calculator and training support materials is offered
- Joint badged Real Skills Europe CPD certificates for successful candidates will be issued

Training Centre Requirements

- All relevant Tutors must have passed Modules 1, 2 and 3
- Centres will supporting training by organising their own courses and make arrangements for the invigilation of on line assessments.

To find out more about current registered training associates or to register your centre contact:

Lisa Waters at lisa@ior.org.uk or download an application pack. at www.realskillseurope.eu



the four REAL Skills modules

- **Environmental, Cost and Legal Aspects** - develop your knowledge of the environmental and financial impact of refrigerant leakage and the principles of effective refrigerant containment and management.
- **Reducing Leakage Through Appropriate Maintenance and Service** – acquire information and advice on best practice in servicing and maintaining equipment to reduce refrigerant leakage including leak test methods and how to interpret and use data to make improvements.
- **Minimising Leakage – Good Practices for Design, Installation and Commissioning** - gather information and advice on how to design, install and commission RAC systems to minimize the potential for refrigerant leakage.
- **Reducing Refrigerant Leakage through Site Surveys and Advice** – bring together all that has been learnt in the first three modules and acquire the skills and tools needed to complete site surveys and develop an effective strategy to reduce refrigeration leakage from existing systems

www.realskillseurope.eu

achievements and objectives of the project

- Identification of national priorities and vocational educational programmes in the partner countries
- Group of over 50 European stakeholders established including trade associations, professional institutes, universities, training providers, contractors and end users.
- Comprehensive website available as a platform for registration for the e-learning programme and downloading guidance notes and tools
- A high profile publicity and communications strategy has been implemented in all partner counties with launch events, conference papers, presentations to groups of employers and magazine articles.
- Recognition as a leading International Collaboration with an award from the UK's National Cooling Industry Awards

the EU Leonardo da Vinci programme

The Programme funds practical projects in vocational education and training as part of the European Commission's Lifelong Learning Programme. Activities include 'mobility' initiatives enabling people to train in another country, co-operation projects to transfer or develop innovative practices, and networks focusing on topical themes in the sector.

It enables organisations in the vocational education sector to work with partners from across Europe, exchange best practices, and increase their expertise. A core objective is to help people to gain new skills, knowledge and qualifications, and boost the competitiveness of the European labour market.

Innovation projects are key to the programme. They aim to improve the quality of training systems by developing and transferring innovative policies, courses, teaching methods, materials and procedures.

http://ec.europa.eu/education/lifelong-learning-programme/doc82_en.htm

This project has been funded with support from the European Commission.

This publication newsletter reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

European partner contacts

Institute of Refrigeration

Carshalton, UK
<http://www.ior.org.uk>
 Contact: David Cowan
 david@ior.org.uk

Limburg Catholic University College (KHLim), Limburg, Belgium

<http://www.irefrigeration.eu>
 Contact: Marc Schreurs
 marc.schreurs@khlime.be

London South Bank University (LSBU), London, UK

Dept of Engineering
<http://www.lsbu.ac.uk/esbe/>
 Contact: Prof Graeme Maidment,
 maidmegg@lsbu.ac.uk

Ethniko Metsovio Polytechnio,

Thermal Engineering Section,
 Laboratory of Applied Thermodynamics,
 National Technical University of Athens (NTUA)

<http://www.mech.ntua.gr>
 Contact: Dr Irene Koronaki
 koronaki@central.ntua.gr

Informationszentrum für Kälte-, Klima- und Energietechnik gGmbH (IKKE),

Technology Centre of Refrigeration, Air conditioning and Energy, Duisburg, Germany
<http://www.i-k-k-e.com>
 Contact: Dipl.-Ing Karsten Beerman
 beermann@i-k-k-e.com

Krajowe Forum Chłodnictwa. National Refrigeration Forum (NRF), Poland.

<http://www.kfch.pl>
 Contact: Mr Michal Dobrzynski
 biuro@kfch.pl

Estonian Environmental Research Centre (EERC), Ozone Unit

<http://klab.ee>
 Contact: Mr Inari Truumaa,
 inari.truumaa@klab.ee

Centre technique des industries mécaniques (CETIM)

<http://www.cetim.fr/cetim/en>
 Contact : Mr Xavier Cazauran
 xavier.cazauran@cetim.fr

Email: rse@ior.org.uk Telephone: +44 208 647 7033

www.realskillseurope.eu