

ACHPI news is designed to help signpost new legislation and industry developments and help you work out how they are going to effect you.



Heat Pump Installer standard revision published - MIS3005

The Heat Pump Association together with the Department of Energy and Climate Change have issued a revised MCS heat pump installer standard . A summary of areas of progress are:

- ◆ 100% sizing. The 100% rule for sizing of heat pumps in domestic dwellings has now been incorporated in the new MIS. For some projects this will mean selection of a higher capacity and more expensive heat pump, but manufacturers have backed it in the interest of better long term outcomes and improved customer satisfaction. The 100% rule also links into DECC long term planning for electricity infrastructure.
- ◆ Guidance for the installer is much more complete. For example the CIBSE tables for outside air temperatures are supplied and methods of heat loss calculation prescribed .

The Heat Emitter Guide

Heat pumps operate more efficiently at lower flow temperatures, and guidance for installers on both new and retrofit installations will soon be available from the Heat Pump Association Emitters Group, endorsed by all relevant trade associations. The Guide offers a facility for installers to look at either a proposed new build or retrofit heat pump installation and make a relatively quick assessment of what efficiency they can expect from the heat pump. For new build, calculate the heat loss, choose the ideal flow temperature from the heat pump, match it to the correct heat emitter selected from the selection table. For retrofit, calculate the heat loss, look up the capacity of the existing radiators, and by comparing the two figures get an idea of what efficiency could be achieved from a heat pump at different flow temperatures. The methodology is logical and easy to follow, and heat emitter types include standard radiators, fan assisted radiators, under floor heating and fan coils. The Guide also links performance to insulation levels, with helpful examples relating insulation to efficiency.

The Guide will be published as a free download from <http://www.heatpumps.org.uk> and will be distributed at a series of DECC/MCS MIS roadshows taking place this autumn.

Ground Source array sizing and selection

Vertical and horizontal ground source collector systems are a complex technical area and MIS3005 also offers guidance in this area with input from the Ground Source Heat Pump Association.

MIS 3005 and supplementary guidance is available from the Micro Generation Certification website at <http://www.microgenerationcertification.org/installers/installers>



Renewable Heat Incentive delay

On 7th October DECC issued a statement explaining that it was planning to launch the Renewable Heat Incentive (RHI) for non-domestic generators on 30 September 2011. State aid approval was a necessary condition for the scheme to go ahead. But, as part of that process, the European



KEY DATES

By 4th July 2011

Individuals carrying out activities covered by the F Gas Regulation must have obtained an individual F Gas qualification (City and Guilds 2079 / CITB J11).

Companies who employ personnel carrying out these activities must have obtained their full Company F Gas Certificate and interim certificates are no longer valid.

The EU will report on the impact of the implementation of the F Gas Regulations and recommend revisions if necessary in September 2011.

19th December 2011

Consultation on the EU Review of the F Gas Regulations closes for comments.

By 1st January 2015

No recycled or recovered HCFC can be supplied or used to service existing equipment.

Commission expressed concerns that the large biomass tariff was set too high. They have now received the letter from the European Commission providing state approval for the RHI - subject to a reduction in the large biomass tariff. This means that they need to change the regulations and resubmit to Parliament before the scheme can open to applications. The intend to do this as soon as possible so that the scheme is open before the end of November. We they unable to launch the scheme as a whole until this process has been completed.

The Government's Renewable Heat Incentive policy to designed to change the way heat is generated and used. It takes the form of a financial support scheme for renewable heat generation. The Renewable Heat Incentive(RHI) policy document, sets out the detailed arrangements for the scheme, which is expected to provide long-term financial support to renewable heat installations to encourage the uptake of renewable heat. The scheme was due to be introduced in two phases. In the first phase, long-term tariff support would be targeted in the non-domestic sectors, at the big heat users – the industrial, business and public sector – which contribute 38% of the UK's carbon emissions. Under this phase there will also be support of around £15 million for households through the Renewable Heat Premium Payment. The second phase of the RHI scheme would see it expanded to include more technologies as well as support for households. This transition was to be timed to align with the Green Deal, which is intended to be introduced in autumn 2012.

The RHI is being administered by Ofgem E-Serve who have set up an accreditation enquiries line on 0845 200 2122 and email RHI.Enquiry@Ofgem.gov.uk

Renewable Heat Premium Payments



The Renewable Heat Premium Payment scheme is designed to help make renewable technologies affordable for domestic homeowners.

The technologies covered include: Solar thermal panels; **Heat pumps** (air source , ground source or water source) and Biomass boilers. The amount received as part of the Renewable Heat Premium Payment scheme depends on which technology applied for. The voucher value for Air Source Heat Pumps is £850 and for Ground Source or Water Source Heat Pumps £1250. The scheme will run from 1st August 2011 to 31st March 2012.

Those living in England, Scotland or Wales are eligible to apply for the Renewable Heat Premium Payment for air, ground - or water - source heat pumps and biomass boilers **provided they do not currently use gas as their main heating fuel.**

If you have any further questions about who can apply call 0800 512 012 or see the Energy Savings Trust <http://www.energysavingtrust.org.uk/Generate-your-own-energy/Financial-incentives/Renewable-Heat-Premium-Payment>



Consultation opens on future policy on use of F Gas Refrigerants in air conditioning and heat pumps

The EC has issued a review of the effectiveness of the F Gas Regulations which cover the use of HFC refrigerant gases. They have also published a statement on future policy options. The review acknowledges that it is still too early to draw firm conclusions about how effective the regulations have been so far in reducing green house gas emissions. It also outlines policy options that could be used to strengthen the regulations, inviting comments from all parties by 19th December.

The Commission is inviting suggestions as to how the current Regulations might be made more effective in reducing leakage and improving recovery of F Gases. But it has also added to uncertainty about the future by making references to international policies on HFC phase down and restrictions on use.

The UK has already certified nearly 22,000 individuals in the stationary rachp sector and established registration bodies for companies issuing full F Gas compliance certificates. Back in July last year, the Air Conditioning and Refrigeration Industry Board in the UK carried out its own review of effectiveness and concluded that: "The consensus of industry, many elements of which have made considerable investment in compliance, is that containment works, but improved enforcement is necessary to fully achieve the emissions reductions possible under the Regulation" .

ACRIB will be co-ordinating a UK response to the consultation and publishing this on its website in advance of the deadline for comment at www.acrib.org.uk The EC report and consultation is available at: http://ec.europa.eu/clima/consultations/0011/index_en.htm

Compliance monitoring activity of F Gas Regulations in the UK

Since the 4th July 2011 it has been an offence to undertake installation, servicing and/or maintenance on stationary refrigeration, air-conditioning and heat pump (RAC) equipment that contains or is designed to contain F gas refrigerants without valid certification. Engineers must hold a full F gas qualification and their employer needs to hold a full Company Certificate. The requirements for a Company Certificate apply to businesses that employ personnel to work on all types and sizes of stationary RAC equipment, including sole traders and companies servicing domestic equipment.

The number of full qualifications issued to engineers increased significantly in the lead up to the deadline and continue to increase, with those who were enrolled on courses now completing them. Full Company Certification figures have also seen a steady increase over the past few months.

Defra's F Gas Support service reports that now, 3 months on from the deadline the number of organisations with a full

Company Certificate is almost 80% of those that held an interim Company Certificate. They are continuing to look into the reasons why businesses have not yet upgraded.

To ensure compliance, regulatory follow-up of the organisations that have not upgraded has now started. F-Gas Support is assisting the regulators (the Environment Agency and local authorities) by undertaking checks on organisations that previously held an interim Company Certificate and have not yet upgraded to a full Certificate. Letters from the Environment Agency are now being sent to organisations that appear to be operating without the correct certifications.

If you or a company you work for has not upgraded to a full Company Certificate you need to take action now. To obtain a full Certificate, businesses must show that:

They employ a sufficient number of engineers who hold full F gas qualifications to cover the expected volume of activities; and they have proof that the necessary tools and procedures are available to engineers engaged in activities for which certification is required.

Contact one of the following 3 designated certification bodies for more details on how to get a full Company Certificate:

Bureau Veritas:
www.bureauveritas.co.uk/fgas
telephone: 0207 661 0726
email: fgas.mail@uk.bureauveritas.com

Quidos:
www.fgasregister.com
telephone: 01225 318400
email: fgas@quidos.co.uk

Refcom:
www.refcom.org.uk
telephone: 01768 860409
email: info@refcom.org.uk

Automatic monitoring of energy-consuming air conditioning and heat pump systems



Automatic monitoring of energy-consuming systems in buildings has been recognised in the 2010 recast of the European Energy Performance of Buildings Directive (EPBD) as a significant contributor to the aims of the Directive.

With the recasting of the EPBD, iSERV is designed to show the ability for automatic HVAC system monitoring to reduce energy use in practice, and in particular how allowance should be made for it in the new regulatory frameworks now being developed by European Member States for the recast Directive.

There are opportunities for equipment owners and manufacturers to get involved in a new project called iSERV which will evaluate the energy savings actually achieved from the continuous monitoring of up to 1600 heating, cooling and

ventilation (HVAC) systems in at least 16 Member States.

iSERV will explore opportunity identified in HARMONAC project reported in previous ACHPI newsletters, for improving the energy performance of Heating, Ventilation and Air Conditioning (HVAC) systems in the buildings of Europe through the use of automated meter data collection. This data will be used to identify and feedback potential Energy Conservation Opportunities (ECOs) to the HVAC system owners. This data will also be used to help establish initial ranges of benchmarks for HVAC systems by activity served.

HVAC systems in the 27 EU Member States were estimated to consume the following fractions of the total electricity use in the EU in 2007 :

Air Conditioning (AC) systems - 0.75%,
Ventilation systems - 3.34%,
Circulators - 1.81%, and
Space/Water Heating around 5.23%.

(Note that this is electricity consumption only, not including heating fuels.)

The aims of the iSERV project are:

- ◆ To show the energy savings achievable from continuous monitoring and benchmarking in up to 1600 HVAC systems located in over 16 EU Member States.
- ◆ To highlight remote data monitoring capabilities already existing and to identify new ones needed – especially for existing systems.
- ◆ To generate benchmarks of achieved energy performance by ventilation and air-conditioning systems for specified end use activities served.
- ◆ To show this approach is an effective complementary activity to Inspection that can reduce the overall costs of inspection to HVAC system owners (and hence the EU).
- ◆ To show that the approach can potentially 'reward' system owners for good design, operation and maintenance of their HVAC systems by allowing them to highlight good performance in relation to specific activity-based benchmarks, and also to avoid the cost of Inspection where there is clearly no need for one.
- ◆ To leave inspections targeted only at those installations which show poor performance or which choose not to provide this information. Both should probably expect more detailed (and therefore costly) Inspections in future.

The project is looking for support from all the main sectors involved to act as study sites and help gather data. To get involved or find out more see <http://www.iservcmb.info/>

In brief....

National Heat Pump Awards

Entries for the 2nd National Heat Pump Awards open on 1st November with ten categories in which installers and manufacturers can be nominated.

- Installation of the year - domestic, air source
- Installation of the year - domestic, ground/water source
- Installation of the year - commercial, air source
- Installation of the year - commercial, ground/water source
- Product innovation of the year, heat pumps
- Product innovation of the year, ancillary components
- Training excellence award

- Public sector project of the year
- Installer of the year
- Consultant of the year
- Heat pump champion

The awards ceremony will take place on Thursday 31st May 2012 at the ICC Birmingham
<http://www.national-heat-pump-awards.co.uk/>

UK engineer scoops medal at World Skills 2012 in London



Congratulations are due to Stuart Millar of South Eastern Regional College and A & N Shilliday & Co Ltd, and his training team, for placing with a bronze medal in the World Skills 2011 held in London last week.

During a gruelling five day public event, Stuart competed against over 20 young engineers from across the globe. What's more the event was held in front of an audience of 200,000 school children and teachers who took over the ExCel centre to view skills from the construction, building services, engineers, transport, it, fashion and catering industries.

Next-door to the refrigeration competition stand wholesaler HRP provided a range of "have a go" activities to encourage young people to try their hand at related skills such as pipebending and leak finding (using nitrogen of course). A real ice rink was there for those who completed their tasks to show the young people that refrigeration technology can be fun.

VIP visitors to the World Skills London event included David Cameron, Boris Johnson, ministers and members of the Royal Family.

Our thanks to all of the judges, sponsors, employers, organisers and trainers for giving UK refrigeration skills such a high profile on the world stage.

See more about the World Skills results and next years SkillFRIDGE competition which is now looking for nominations at <http://www.skillmande.org.uk>

What is the ACHPI?

The Air Conditioning and Heat Pump Institute (ACHPI) is a new way of accessing information relevant to your work. Join the ACHPI to

- keep up to date with news and practical tips
- broaden your knowledge of current technology
- help fill gaps in theory and fundamentals
- signpost new developments which could affect your business and track changes to legislation

Subscription is just £30 per annum renewable in March.

Join now at www.ior.org.uk/achpi

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