



The Certification Mark for Onsite  
Sustainable Energy Technologies

## **MCS Heat Pumps Working Group Minutes for 28<sup>th</sup> June 2011**

**Meeting of:** MCS Heat Pumps Working Group

**Date:** 28<sup>th</sup> June 2011

**Venue:** Gemserv

<b>Name</b>	<b>Representing</b>
Kunal Sharma	Chair (MCS Licensee)
Aartee Hardas	Gemserv (MCS Licensee)
Garry Broadbent	ICS Heat Pumps
Chris Wickins	DECC
Penny Dunbabin	DECC
Richard Freeborn	GSPH Association
Brian Stringer	British Drilling Association
David Matthews	GSHP Association
Simon Lomax	Kensa Engineering Ltd
Simon Keel	Daikin
Peter James	BBA
Tony Bowen	HPA
Niraj Mistry	Stroma
Ulla Lindberg	EHPA
John Holden	BRE Global
David Butler	BRE Global
Tom Garrigan	BSRIA
Mitch Cogger	Worcester Bosch



The Certification Mark for Onsite  
Sustainable Energy Technologies

## **MCS Heat Pumps Working Group Minutes for 28<sup>th</sup> June 2011**

### **Apologies**

John Lightfoot	TEV Limited
Kelly Butler	BEAMA
Chris Davis	Dimplex
Terry Seward	FETA/HPA

### **Agenda:**

1. Welcome to the Meeting
2. Approval of the agenda
3. Minutes of the last meeting
4. Updates to the Installer Standard
5. EHPA presentation and Product Family discussion
6. CO<sub>2</sub> Heat Pumps
7. AOB
8. Date of next meeting

### **1. Welcome to the meeting**

Kunal Sharma welcomed attendees to the meeting and requested introductions. Kunal Sharma requested the Group to nominate a Chair and explained that he would take on the responsibilities should no nominations come forth. No nominations were made and the Group accepted Kunal as the Chair of the Working Group until nominations are made at future meetings.

### **2. Approval of the agenda**

The agenda was approved, and no additional items were added.



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Sustainable Energy Technologies

## **MCS Heat Pumps Working Group Minutes for 28<sup>th</sup> June 2011**

### **3. Minutes from the last meeting**

The Group made minor changes to the minutes from the last meeting which were; the addition of Richard Freeborn to the list of apologies and BRE's name corrected to BRE Global for John Holden.

The Group went through the actions from the last meeting and it was noted that these had been completed or underway with the exception of the action on BEAMA. Gemserv agreed to check this with BEAMA who were unable to attend the meeting to provide an update.

**Action: Gemserv to follow up with BEAMA for an update on the Heat Pump Keymark Certification action from the last meeting.**

Richard Freebourn explained that the action on GSHPA from the last meeting has been part completed, with the paper currently under review with track changes. Once completed, Gemserv will then be able to pass on the findings to SummitSkills.

Kunal Sharma explained that Gemserv would send through the current draft MCS Planning Standard for noise which is being completed by MCS at the moment in conjunction with the Department for Communities and Local Government (DCLG) and Defra.

**Action: Gemserv to circulate draft air source heat pump methodology from the MCS Planning Standards.**

### **4. Updates to the Installer Standards**

Chris Wickins from DECC presented the revisions and proposed changes to the MCS Installation Standards as developed by DECC, Energy Saving Trust and representatives of the Heat Pump Working Group. The presentation focused on ground heat exchangers and emitter design as well as the project timeline and dissemination. The Group were also provided with paper copies of the changes and updates. Gemserv took an action to circulate the presentation to the Group after the meeting.

**Action: Gemserv to circulate the presentation to the Group post meeting.**

The Group were in support of the changes proposed and agreed that a note of clarity around the use of the CIBSE Guide A and MET Office data should be added as to why two sources of information are referred to in different sections of the draft MIS 3005. The Group further discussed the use of additional look up tables for installation companies to use for the various types of ground loops and the expected full load equivalent level of run hours applicable for a given region, and the expected ground temperatures (see appendix C of the draft MIS 3005).



The Certification Mark for Onsite  
Sustainable Energy Technologies

## **MCS Heat Pumps Working Group Minutes for 28<sup>th</sup> June 2011**

The Group also discussed the possibility of having a template for calculations for Certification Bodies to check against. Kunal Sharma suggested that benchmarks can be included in the standards and the Certification Bodies can check their data against the benchmarks, but installation companies should also have the option to then use manufacturer tools and methodologies should they wish to, however as a minimum they should be consistent with MIS 3005. GSHPA agreed to look into potential benchmarks and tools and to report back to the Group with any recommendations.

**Action: Richard Freeborn from GSHPA to look into the data and issues regarding the benchmark and inform the Group of any recommendations.**

Referring to ground heat exchanger design, it was explained that these should be designed according to the required heat load for the entire building (100% sizing). The GSHPA took an action to check the impact of horizontal and vertical boreholes for the ground loop arrays, as the boreholes should be a certain length and the impact on whether the horizontal lengths of a borehole should be included in the overall required length needs to be checked.

**Action: Richard Freeborn to report back to the Group on the impact of horizontal and vertical boreholes.**

The Group noted that an item should be added to future agendas to include open loop and closed loop arrays in water for the working group to develop.

**Action: Gemserv to add open and closed loop arrays in water to future agendas for the Working Group to develop.**

The Group discussed emitters and it was explained that the draft emitter table in appendix D of the draft MIS 3005 standard has been developed by all significant heat emitter type manufacturers in conjunction with the Heating and Hot water Industry Council (HHIC) and the HPA, with the table also getting approval from all parties. Tony Bowen explained the heat loss SPF tables and added that CIBSE are also initially pleased with the work. Chris Wickins added that the installation companies should be explaining how lower flow temperatures and higher efficiencies can be achieved, whilst also providing the customer with a star rating. The Group queried if the table was using EN1264 for the surface temperatures and Tony Bowen took an action to check this.

**Action: Tony Bowen to check that the tables used in the draft emitter guide are using EN1264.**

Garry Broadbent raised the key issue of Domestic Hot Water (DHW) guidance not being included directly in the new draft version of MIS 3005, other than for SAP to be used as in the previous versions of MIS 3005. It was noted that ICS Heat Pumps have guidance which can be used to explain to installers about how to consider and calculate the DHW requirements. The Group suggested that a more detailed analysis would be required before the DHW

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The Certification Mark for Onsite  
Sustainable Energy Technologies

## **MCS Heat Pumps Working Group Minutes for 28<sup>th</sup> June 2011**

considerations can be included in MIS 3005. Garry Broadbent took an action to circulate the guidance and for the Group to comment accordingly before this can be taken forward.

**Action: Garry Broadbent to supply Gemserv with guidance for installers on DHW for Gemserv to then circulate more widely to the Working Group.**

With regards to the timescales for publication of the new MIS 3005 and the consultation, it was explained that the new standard should be published around 1<sup>st</sup> September with a two week consultation beginning from around 1<sup>st</sup> July 2011. Following this, training for installers is to be looked into with DECC working internally to seek funding for some “roadshows” to explain the changes to installation companies once the new MIS 3005 has been published. Additionally, there may also be some media interest with a launch in conjunction with the Minister.

### **5. EHPA Presentation and Product Family Discussion**

Ulla Lindberg from the European Heat Pump Association gave two short presentations on the EHPA Quality Label as the current Chair of that committee, and also on how the EHPA use their product families’ definition. The presentations are to be circulated with the minutes from the meeting.

**Action: Gemserv to circulate EHPA presentations.**

It was explained that there are more than 340 certificates to date on the database for EHPA Quality Labelled heat pumps, <http://www.ehpa.org/ehpa-quality-label/database/>. Training of installers are within an education committee assisting with the EUCERT training. Ten member countries are included (including the UK) in the EUCERT program on training for installers, <http://www.ehpa.org/european-certified-hp-installer/>. This means that for heat pump products the EHPA Quality Label exists and for the installers the EUCERT can be applied. The EUCERT originates from an EU project.

Ecolabel was also discussed and it was noted that for the COP of heat pumps, the Ecolabel criteria is the same as for the EHPA criteria, attached to the minutes is a comparison done between Ecolabel and EHPA.

Ulla Lindberg further presented on product families and model ranges. It was added that the quality of a heat pump was defined as the product itself, service network and its maintenance. For a model range definition, the national commissions (NC) accept manufacturer test data if the data falls in line with the data from the testing that the test lab has carried out. If the data is outside of the expected results, then that product is not accepted as part of the model range and is tested separately. The National Commission chooses the model through a selection of serial numbers.



The Certification Mark for Onsite  
Sustainable Energy Technologies

## **MCS Heat Pumps Working Group Minutes for 28<sup>th</sup> June 2011**

The Group raised a concern around manufacturers providing the test lab with data on heat pump models to fit in line with the models selected for testing. However, as the product is tested after data has been provided it is of the interest for the manufacturer to provide sufficient data as it is not known beforehand which model will be chosen for test.

It was added by the Group that some approved products already approved within MCS have provided data for the purposes of certification, which differs from actual test data and performance. Gemserv took an action to contact the Certification Bodies for a sample of testing to check whether actual data of the heat pumps is in line with the information provided as part of the certification process.

**Action: Gemserv to contact Certification Bodies to request they sample data from approved products to see if they are performing in line with the data provided as part of their certification.**

Tony Bowen took an action to also sample data from manufacturers and their actual test data to see whether it differs.

**Action: Tony Bowen to check for evidence on comparing manufacturer's data with test laboratory data.**

Kunal Sharma added that there is also the issue of marketing of products and whether this should be in line with reported test data and certification data. It was noted that this is to be raised at the next MCS Standards Management Group which is meeting shortly.

**Action: Gemserv to raise issue around false marketing of performance with SMG.**

Gemserv took an action to also circulate the product families definition and ask the Group to add to it and comment on it.

**Action: Gemserv to circulate the EHPA product family definition for group comments.**

EHPA welcomed initiatives from MCS to use the definition of EHPA for a model range. This would help those involved in the certification process as well as manufacturers. An updated version could include special requests or demands for the UK market, and the EHPA welcomed further discussions in this area.

### **6. CO<sub>2</sub> update**

BSRIA received no feedback with regards to the paper circulated to the Working Group members about CO<sub>2</sub> testing and inclusion in the MCS product document. Garry Broadbent took an action to work with Tom Garrigan to develop the updated text to go into the MCS product document.



The Certification Mark for Onsite  
Sustainable Energy Technologies

## **MCS Heat Pumps Working Group Minutes for 28<sup>th</sup> June 2011**

**Action: Tom Garrigan and Garry Broadbent to finalise the CO<sub>2</sub> testing requirements to be added to the MCS product document.**

### **7. AOB**

No items were added under AOB

### **8. Date of the Next Meeting**

The date for the next meeting is to be confirmed, but the Group were requested to keep 9<sup>th</sup> August free in case a meeting would be required following the consultation on the draft MIS 3005. The Group agreed that they would be happy to provide electronic sign off on the new draft MIS 3003 following the consultation.