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WP 2 RESEARCH

Project partner: Syntra West (BE)

WP 2 has the following aims:

1. Carrying out research concerning existing competence profiles, materials, methodologies and competence profiles for workers in the sectors installation, electro and maintenance, regarding energy performance of buildings Installations for comfort of people >12 Kw.
2. Providing advice on adaptation, upgrading and transfer of materials to make them fully fit the EU directive EPBD, 2002/91/EG.

In WP 2 the following activities will be executed:

1. Research on and comparison of available competence profiles, training & lesson materials, approaches and methods within the partnership's organizations concerning the topics mentioned above;
2. Report and advice on: transfer of competence profiles, methods, materials and approaches (use, adaptation and upgrading) to make them fully fit the EU Directive EPBD, 2002/91/EG.

Introduction of the EPBD in the Flemish Region

In Belgium, the transposition of the EU Directive on the Energy Performance of Buildings lies within the competence of the Regions. In the Flemish Region, the Flemish Energy Agency (VEA) is responsible for articles 3, 4, 5, 6 and 7. The Department of Environment, Nature and Energy (LNE) is responsible for the implementation of articles 8 and 9.

The EPB-decree regulates the conversion of articles 3, 4, 5, 6 and 7 in regional regulations and explains the enforcement framework.

A decree to set the conditions and parameters to be measured to calculate efficiency of refrigeration has been drafted, but still needs practical implementation rules.

Inspection of airconditioning systems

Air conditioning systems with a rated cooling incline of more than 12 kW must be inspected regularly energetically by a qualified expert that they are optimally tuned for a power consumption as low as possible, taking into account the cooling requirements of the building. If an air conditioner is made up of a number of individual plants by means of a central control unit or system of pipes connected to each other, then the nominal cooling capacity of the various individual installations must be added. If this sum is greater than 12 kW is the inspection requirement. The energetic testing is mandatory for air conditioning systems used for comfort cooling, not for process cooling.

Since 1 April 2007, air conditioners with a rated output of more than 12 kW have to be regularly inspected by a qualified expert. From 10 April 2011, the inspection frequency is as follows:

nominal cooling capacity	frequency
> 12 kW and < 50 kW	every 5 year
≥ 50 kW and < 250 kW	every 3 year
≥ 250 kW	every 2 year

Air conditioning systems with a nominal cooling capacity of more than 12 kW installed after August 1, 2011, have to be inspected within 12 months after the initial operation.

Reports on the inspection of heating or airconditioning systems

The inspection of the air conditioning must be done by a qualified expert on the basis of the spreadsheet made available by the Department of Environment, Nature and Energy of the Flemish government.

The spreadsheet is available for download online. The Flemish government, dep. LNE is however currently working on a web-application. This should make it easier to use for the inspection.

Accredited energy experts

Current situation

The legislation changed since May 3, 2013: the "qualified expert" that could run the energy inspection up to this date has been replaced by the "accredited air conditioning energy expert". An accredited air-conditioning energy expert is a person who was accredited after following a specific training and passing a specific test in a special recognized training center. It is expected that in October 2014 the first examination centers will be recognized.

Up to January 2015, persons who meet at least one of the following criteria shall be deemed accredited air-conditioning energy expert:

1. A certified refrigeration technician with a certificate of category 1 or 2
 - Category 1 certificate: person can execute any operation on refrigeration systems.
 - Category 2 certificate: person can perform leakage checks on refrigeration systems if the refrigeration circuit containing fluorinated greenhouse gases or ozone depleting substances is not opened, he can install refrigeration systems, maintain or revise them and recover fluorinated greenhouse gases or ozone depleting substances when it comes to cooling installations with a nominal cooling capacity no larger than three kilograms or hermetically sealed systems which are labeled as such with a nominal cooling content of less than six kilograms of fluorinated greenhouse gases or ozone depleting substances
2. A Bachelor in electromechanics, specialization in climate conditioning
3. A diploma of secondary education in cooling and heating techniques, industrial refrigeration and refrigeration systems
4. One of the following by the Flemish government approved certificates:

- a certificate of technician climate control - air conditioning
 - a certificate of installation air conditioning and heat pumps
 - a certificate of refrigeration technician
 - a module certificate airconditioning
5. obtained a diploma or certificate in adult education of refrigeration technician, airco technician
 6. subject of an EU Member State and in possession of the qualification as expert for the certification of airco systems in another EU state or in another region
 7. at least have three years of proven experience in maintenance and performance aspects of airconditioning systems with a rated output of more than 12kW

The Department LNE published a complete list of certified experts on their website (annex).

As of 2015

From 1 January 2015 on, this energetic testing can only be performed by an air conditioning energy expert who is recognized after following a certified training and who passed an examination in an approved training institution.

Training

As of January 2015 only experts who passed the specific and certified training will be allowed to perform any certification activities.

The training can only be organised by training organisations accredited by the Flemish government-Dep. LNE. The Department LNE has, in collaboration with representatives of different training organisations, created a training programme and an examination procedure.

To get accredited as a training organisation you have to submit a request to the Department LNE with following information:

- details of the training organisation (address, contact, ...)
- details of the employees responsible for providing training (detailed CV, diplomas, certificates and testimonials, indicating which parts of the course they will be responsible for ...)
- details of the examination committee (chairman and other members) (detailed CV, diplomas, certificates and certificates, ...)
- training and examination procedure with the minimum program of training

A decision is taken on the application within 90 days after submission of the complete application. Recognition as training is valid for an indefinite period.

Submission of an application has been possible since Septembre 2014, so Department LNE is currently in the accrediting process.

Syntra West has submitted an application in Septembre and received, after an inspection visit, approval to start the training programme. As soon as this approval is official, Syntra West will start the first training programme.

Competence profiles

There are no competence profiles available yet for certification experts.

The SERV has however published the national profiles for refrigeration technicians.

Annexes

Annex 1: Competence profile refrigeration technician

Annex 2: Competence profile Installation and maintenance of refrigeration and airconditioning

Annex 3: Spreadsheet Department LNE

Annex 4: Minimum programme training