

Cibse EPBD Regulations TM44 Air Conditioning Energy Assessments

All Air Conditioning Inspections should have been complete by January 2011 in England and Wales; January 2012 in Scotland. It follows that if you do not have a report by now you face a £300 fine on each "space" that you occupy and control. If you are a tenant in a multi occupier building, and control your own system, then you need a TM44 straight away. The trigger for an air conditioning inspection is the size (effective rated output) of the system not the type of building and so the measures apply to homes, commercial and public buildings. TM44 also applies to parts of a building if there are separate controls (for instance a shopping centre).

The inspection done by an Accredited Assessor will include an assessment of efficiency, a review of the AC system sizing and advice on efficiency, improvements, replacements or alternative solutions. The TM44 platform changes at times, reports analyse any changes and through their CPD programme ensure that all Assessments are valid using the latest version of TM44.

Many commercial buildings and an increasing number of homes have air conditioning systems. These systems should be carefully maintained and managed in order that they consume the minimum amount of energy possible. Assessors also look at R22 and other banned gas replacement programmes whilst undertaking the air conditioning inspection.

Air Systems Requiring an Air Conditioning Energy Inspection

Only AC systems with an effective rated output of more than 12kw are affected by the EPBD regulations, however as few as two cassette systems will equate in 99% of cases.

The "effective rated output " is the differentiator , it is the maximum calorific output in kW of the complete system as stated by the manufacturer deliverable whilst in continuous operation. Our best guide is to tell clients that if they have more than two cassette systems they are likely to need a TM44 AC assessment.

One or more parts of the system in a building must be added together, provided that the air conditioning system is controlled by a single person, this is the AC system which is considered to be a whole system by the EPBD regulations (Energy Performance Certificates Guidance)

(Air-conditioning inspections for buildings)

The responsible person is the person who controls the AC system, that means the technical functioning and maintaining, not the person who simply alters the temperature, or the company that maintains the system, unsure call us for technical advice.

The type of building is also defined. This is the same definition as the EPC regulations, a building is defined as "a roofed construction having walls , for which energy is used to condition the indoor climate, and a reference to a building includes a reference to a part of a building which has been designed or altered to be used separately". This is a complex subject as it can lead to multiple AC reports in one building, again we can advise.

An air-conditioning system refers to any AC system where refrigeration is used to provide cooling for the comfort of the occupants of the space. Separate refrigeration which is not for the comfort of the occupants such as process applications, Computer servers, cold stores, beer cellars in pubs etc. will not need a TM44 report.

Complying with Air Conditioning Inspection Regulations

Local Authorities (trading standards officers) are responsible for enforcing the requirements and they have the authority to issue penalty charge notices for non - compliance and continued non - compliance. Fines are currently £300 per building or space, and can be repeated at the discretion of Trading Standards, so weekly fines are possible. Local Authorities get to keep the money so building owners beware! Now that all reports are lodged on Landmark, it is very easy for Trading Standards to check remotely whether a building is compliant with TM44.

Air Conditioning inspection Report requirements

What the client needs to know – basic rules;

If you control the technical operation of an air conditioning system, are a building manager or owner, you are responsible for obtaining an assessment report.

- With an effective rated output greater than 12Kw inspections should have been completed by 4th January 2011
- With an effective rated output greater than 250Kw, systems should have been inspected by 4th January 2009.
- New systems over 12 kW installed after January 2008 must be inspected within 5 years of being put into service. So, in January 2013 you will need to start having TM44 inspections on all re-fits after January 2008.
- Systems should be inspected every 5 years.
- Be aware of partial re-fit works; if any part of an old a/c system is left in place, the site will require a current air conditioning report
- If you have just moved into a space or acquired a building with air conditioning, the law states that you must have a valid air conditioning report within three months of moving in
- From April 2012 all TM44 reports must be lodged onto the Landmark database, this is mandatory. Only CLG style reports can be lodged, never accept a document in "Word" format, it cannot be lodged and is invalid. In Scotland word documents are currently allowed
- A new, updated TM44 was issued in April 2012; clients are advised that any reports after that date must comply with the new TM44 rules

All assessments must be carried out by an accredited Air Conditioning Energy Assessor. Accreditation ensures that the Assessors are professional and competent. However, there are two levels of assessment, level 3 and level 4; the Assessor must be appropriately qualified for the complexity of the a/c system, or the report is invalid.

What Does the air conditioning inspection report cover?

You will receive a report from the assessment which includes recommendations for steps you could take to improve the efficiency of your system. These may range from improvements to the maintenance regime, through changes to the way the system is operated, to recommendations on the specification of a new or replacement system.

Implementing some or all of the recommendations should reduce your energy bills for air conditioning and could improve the energy ratings for the building, as calculated for an Energy Performance Certificate (EPC) or Display Energy Certificate (DEC).

Portfolio and building owners need to be aware that the lack of a certificate may lead to a fine and Solicitors will start to ask for certification upon building transactions taking place. Pre planning for this legislation and ensuring compliance is important NOW!

What is contained in the air conditioning inspection report?

The purpose of the TM44 AC Inspection and AC Report is to ensure that building owners and managers are given basic information regarding the efficiency of the air-conditioning systems they control, together with advice on how the energy efficiency of the system may be improved. You will receive a report and a separate certificate, both of which will be lodged on Landmark.

The report will analyse your system based on a set of guidelines produced for CLG, and will cover in the reporting process such items as the potential reduced energy consumption due to the implementation of modifications, identification of inefficient plant, inappropriate user operation and major system and controls defects. Other items reviewed will be identification of opportunity to renew outdated equipment and control systems and cost effective alterations to the building fabric. Your assessor will advise you if old outdated gases are found in the a/c systems.

Acting on the advice in the AC Inspection report and rectifying faults or making appropriate improvements, where this is cost effective, should result in immediate improvements to the effectiveness of air - conditioning systems or reduce operating costs.

In some cases the costs of providing both heating and cooling, may be reduced where the AC report identifies improvements in how the AC System is operated.

In many cases reports will identify that the AC system is being run well, all documents are in place and commissioned, with records available showing that the AC equipment has been regularly maintained to a good standard. In these cases the report will be brief with the main content advising on load reduction or on alternative solutions not previously considered. The AC Report will suggest relatively basic maintenance, such as cleaning and repairs, to AC equipment whose efficiency has suffered through neglect.

Cleaning operations or adjustments to controls do not form part of the AC Inspection procedure, although they will be advised upon. The Air Conditioning Inspection is purely visual and non intrusive.

Most reports are likely to contain advice with a combination of simple, low or no cost measures and recommendations which will carry an investment cost , or suggestions to investigate areas in more detail.

Local Authority trading standards officers have the power to check certification and issue fines for non-compliance, currently £300.00 per building, with additional fines for continued non-compliance.

Air Conditioning Inspection Certificate

Site Details:

Equipment Owner's Organisation	
Equipment Owner's / Manager Name	
Equipment Owner's Address	
Site Address (where inspection was carried out)	
City	
Related RRN	0390-0458-7369-5291-5006

Report Information:

Inspection Date	2018-09-17	Next Inspection Date	2023-09-17	Issue Date	2018-09-18
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Assessor Details:

Assessor Name	
Employer/Trading Name	
Employer/Trading Address	
Accreditation Scheme Name	
Website Address	
Related Party Disclosure	
Assessment Software Used	

F-Gas Compliant Date/ Not Applicable	2018-01-29	Total Effective Rated Output (kW)	255	System Sampling?	Yes
Treated Floor Area (m ²)	486	Air Conditioning Sub Systems Metered?	No	Total Estimated Refrigerant Charge (kg)	74

The following sub systems were inspected in accordance with DCLG guidance to produce this air conditioning report

Sub System ID	Sub System Description	Refrigerant Type(s)	Age(s) of Main Components
VOL001/SYS001	3x Packaged Multi-Split serving First Floor Shared Space	R410A	6 years.
VOL001/SYS002	2x Packaged Split serving Reception	R410A	7 years.
VOL001/SYS003	2x Packaged Split serving Server Room	R410A	9 years.

I certify that the above sub systems have been inspected in accordance with the approved methodology

Air Conditioning Inspection Certificate

About this document and the data in it

This document has been produced following an energy assessment undertaken by a qualified Energy Assessor, accredited by Sterling Accreditation Limited. You can obtain contact details of the Accreditation Scheme at www.sterlingaccreditation.com.

A copy of this certificate has been lodged on a national register as a requirement under the Energy Performance of Buildings Regulations 2012 as amended. It will be made available via the online search function at www.ndepcregister.com. The certificate (including the building address) and other data about the building collected during the energy assessment may be made publicly available at www.opendatacommunities.org.

This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. Any personal data it contains will be processed in accordance with the General Data Protection Regulation and all applicable laws and regulations relating to the processing of personal data and privacy. For further information about this and how data about the property are used, please visit www.ndepcregister.com. To opt out of having information about your building made publicly available, please visit www.ndepcregister.com/optout.

There is more information in the guidance document *Air-conditioning inspections for buildings* available on the Government website at: www.gov.uk/government/collections/energy-performance-certificates. It explains the content and use of this document, advises on how to identify the authenticity of a certificate and how to make a complaint.