

Inspection of air conditioning systems

Addendum: Requirements for inspections in Scotland

1 Introduction

TM44: *Inspection of air conditioning systems* was published by CIBSE in conjunction with a working group in June 2007 specifically for use in England and Wales to provide guidance for the inspection of air conditioning systems in accordance with Article 9 of the Energy Performance of Buildings Directive⁽¹⁾ (EPBD).

2 Use of TM44 in Scotland

TM44 can be used in Scotland subject to the following provisions.

2.1 Legislation

The legislation relevant to air conditioning inspections in Scotland is:

- (a) The Building (Scotland) Act 2003⁽²⁾
- (b) The Building (Scotland) Amendment Regulations 2006 Scottish Statutory Instrument 2006 No. 534⁽³⁾.
- (c) The Building (Scotland) (Procedural) Regulations 2004 Scottish Statutory Instrument 2004 No 428⁽⁴⁾.
- (d) *Technical Handbook: Non-domestic*⁽⁵⁾:
 - Section 0: Regulation 17 (Continuing requirements) and guidance clauses
 - Section 3: Environment
 - Section 6: Energy
- (e) *Technical Handbook: Domestic*⁽⁶⁾:
 - Section 0: Regulation 17 (Continuing requirements) and guidance clauses
 - Section 3: Environment
 - Section 6: Energy

2.2 Timetable

Phased implementation of inspection will start according to the effective rated output of air conditioning systems. Commencement of inspections of systems is as follows:

- (a) For all new systems with an effective rated output of more than 12 kW, not later than 5 years after acceptance of the completion of the commissioning of the system to standard 6.7 (see *Technical Handbooks*^(5,6) section 6, 'Commissioning building services').

- (b) For all existing systems with an effective rated output of more than 250 kW from 4 January 2009 with first inspections completed by 4 January 2011.
- (c) For all other existing systems with an effective rated output of more than 12 kW from 4 January 2011 with first inspections completed by 4 January 2013.

2.3 Inspection frequency

For completely new air conditioning systems, the first inspection should be not later than 5 years after the acceptance of the completion of the commissioning of the system to standard 6.7 (see *Technical Handbooks*^(5,6) section 6, 'Commissioning building services').

For existing systems, the accredited expert doing the inspection has the discretion to set the frequency of inspections ranging from three years for poorly maintained and inefficient systems up to five years for those systems that are well maintained and demonstrate excellent levels of efficiency.

The following issues should be considered in setting an inspection of systems more frequently than five years:

- (a) inefficiency of system
- (b) significantly oversized in relation to the cooling requirements
- (c) evidence that the design is not fit for purpose
- (d) evidence of poor installation
- (e) evidence of lack of maintenance
- (f) control system out of adjustment
- (g) age of system.

2.4 Size of systems

A number of individual systems each 12 kW or less, but taken together totalling more than 12 kW, within one building or fire-separated part of a building, would only qualify for inspection if they are linked by way of a central control.

2.5 New buildings

For new buildings, commissioning of building services including air conditioning systems and the provision of written information shall be in accordance with standards 6.7 and 6.8 respectively and guidance to these standards is provided in the *Non-domestic Technical Handbook*⁽⁵⁾.

2.6 Accredited experts

Inspections of air conditioning systems should be carried out by accredited experts who are members of organisations which have entered into a protocol agreement with the Scottish Government to carry out such inspections.

3 Other legislative requirements

This guidance relates purely to Article 9 of the EPBD. There are other separate legislative requirements for the inspection of air conditioning systems such as the F-gas Regulations, which are not dealt within building regulations. However from an operational point of view, consideration could be given to combining inspections where appropriate.

References

- 1 Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings ('The Energy Performance of Buildings Directive') *Official J. of the European Communities* L1/65 (4.1.2003) (Brussels: Commission for the European Communities) (2003) (available at http://ec.europa.eu/energy/demand/legislation/buildings_en.htm)
- 2 Building (Scotland) Act 2003 Elizabeth II. 2003 asp 8 (London: The Stationery Office) (2003) (available at <http://www.hmso.gov.uk/legislation/scotland/acts2003/20030008.htm>) (accessed December 2008)
- 3 The Building (Scotland) Amendment Regulations 2006 Scottish Statutory Instrument 2006 No. 534 (2006) (London: The Stationery Office) (2006) (available at <http://www.opsi.gov.uk/legislation/scotland/ssi2006/20060534.htm>) (accessed December 2008)
- 4 The Building (Scotland) (Procedural) Regulations 2004 Scottish Statutory Instrument 2004 No 428 (London: The Stationery Office) (2006) (available at <http://www.hmso.gov.uk/legislation/scotland/ssi2004/20040428.htm>) (accessed December 2008)
- 5 *The Scottish Building Standards — Technical Handbook: Non-Domestic* (Edinburgh: Scottish Building Standards Agency) (2009) (available at http://www.sbsa.gov.uk/tech_handbooks/tbooks2009.htm)
- 6 *The Scottish Building Standards — Technical Handbook: Domestic* (Edinburgh: Scottish Building Standards Agency) (2009) (available at http://www.sbsa.gov.uk/tech_handbooks/tbooks2009.htm)