May 24, 2010

Approved Document L2A – 2010 – Summary Notes

Limitations on requirements:-

- Modular Buildings are no longer exempt, even if they are to be sited at a single venue for less than 2 years – see para 4.20 for further guidance. This states that where a modular building is to be sited for less than 2 years, a generic modular TER/BER calculation can be undertaken when the unit is first constructed and then re-issued to Building Control upon re-siting elsewhere.

- For existing modular buildings constructed before October 2010, reasonable provision would be to demonstrate that the BER is not greater than the 2010 TER, taking into account the TER multiplying factor from Table 3.

- Any alteration works including refurbishment of modular buildings should meet the standards of ADL2B.

- A new class of non-exempt buildings with low energy requirements has been defined. This includes buildings with localised heating requirements or for frost protection. In this instance no TER/BER calc is required but the installed fixed building services should meet the energy efficiency standards in the Non-Domestic Building Services Compliance Guide and the building should be constructed of fabric with a U-value no worse than 0.7 (excluding glazed elements).

- Any work carried out by competent persons under the self-certification schemes should ensure that the occupier of the building is issued with a certificate of compliance within 30 days of the completion of the work.

Five Criterion need to be satisfied:-

Criterion 1 – Achieving the BER

- The TER is established using new approved software. This is no longer a 2002 notional building with an improvement factor but is based on a building of same size and shape built to a concurrent specification as given in the NCM modelling guide. In terms of the improvement factor this will differ for different building use types. The over all CO2 reduction is aggregate at 25%, but some building types will require more or less than this figure.

May 24, 2010

- A compliant TER/BER calculation should be undertaken prior to commencement of works and provided to Building Control along with a list of specifications of the building envelope and fixed building services used in the calculation of the BER.

- Upon completion of the works the builder must notify Building Control of any changes to the as built construction and their effects on the TER/BER as submitted prior to commencement of the works. A list of changes to specifications must be provided. Building Control can accept a certificate to this effect signed off by a suitably accredited energy assessor.

- Shell and core developments must also produce s design-stage TER/BER calculation showing how the shell could meet energy efficiency requirements.

- Fit-out developers should submit an as built TER/BER to Building Control. Where shell constructed fixed building services are not being extended or further provided (except lighting), then reasonable provision would be to demonstrate that the lighting provided meets the efficiency standard as assumed in the shell developer's initial submission.

Criterion 2 – Limits on Design Flexibility

- Table 4 provides Limiting fabric Parameters in terms of U-values. – little change from 2006 standards (High usage entrance doors and roof ventilators have increased from 6.0 to 3.5 minimum. All other values are the same.

- A minimum air permeability performance of 10.0 is now included in the table.

- Display windows are still exempt from limiting U-values but their performance must be taken into account in the TER/BER calcs.

- Fixed building services should be at least as efficient as their particular type as set out in the Non-Domestic Building Services Compliance Guide.

- In buildings with useful floor area over 1000m2, metering should be fully automated.

May 24, 2010

Criterion 3 – Limiting the Effects of Solar Gains in Summer

- Overheating risk can be assessed using CIBSE TM37 or BB101 for education.

- A g-value can be calculated according to BS EN 410 and should be no greater than would occur through the reference glazing system of this document.

Criterion 4 – Building Performance Consistent with BER

- To ensure that as built performance is consistent with BER calculation 3 no. approaches to construction details may be adopted:-

  i) Use accredited construction details – linear thermal transmittance can then be used directly in the BER calculation.
  ii) Use unaccredited but calculated details (to BR497). The calculated value must be increased by 0.02 W/mk or 25% (whichever is greater) in the BER calculation.
  iii) Use unaccredited and unquantified details. The generic values of IP 1/06 must be used as reference and increased by 0.04 W/mk or 50% (whichever is greater) for the BER calculation.

- Air permeability testing is required in all new buildings and extensions except for the following:-

  i) Buildings under 500m2 total useful floor area – a value of 15 can be assumed of this will work within the TER/BER calculation.
  ii) Modular buildings less than 500m2 in floor area with a planned time of use of no more than 2 years at more than one location.
  iii) Large extensions where air pressure testing may not be practical – see ATTMA publication for guidance.
  iv) Large complex buildings – see ATTMA publication for guidance.
  v) Compartmentalised buildings – see ATTMA publication for guidance.

- A Notice of Completion detailing a commissioning plan should be submitted to Building Control within 5 days of completion of the commissioning work. However, where the work is carried out by a person registered under a competent person scheme the notice must be giver within 30 days.

- Building Control is unlikely to be able to issue an FC until the commissioning notice has been received.

- Where pressure testing of ductwork is required due to assumptions within the BER calculation, testing should be undertaken in accordance with DW/143.

Criterion 5 – Provisions for Energy Efficient Operation of the Building

- The building owner should be provided with a building log book – see guidance of CIBSE TM 31.