

Project Information

Building type Detached house

Reference

Date 20 January 2015

Client Spencer Cullis
Cullis Architecture Design
25 Sunningdale Close
Wrexham
LL139QU

Project Alexandria
Blackwood Road
Garth
LLANGOLLEN
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REGULATION COMPLIANCE REPORT - Approved Document L1A, 2010 Edition

assessed by program JPA Designer version 5.04x, printed on 17/02/2015 at 09:21:13

New dwelling as built

1 TER and DER

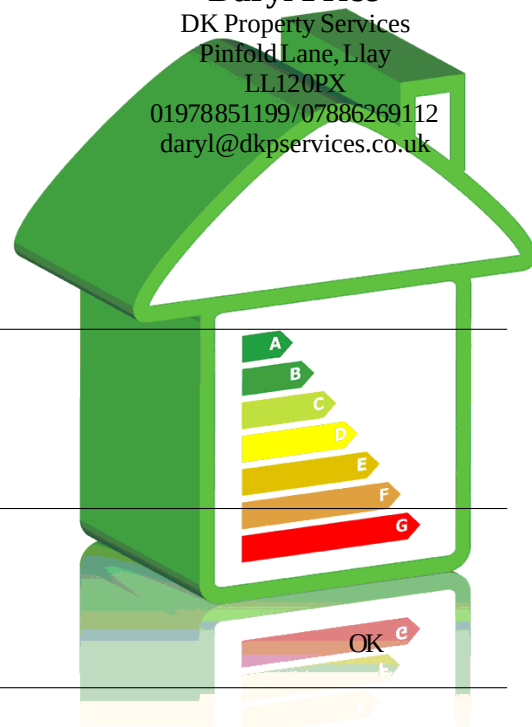
Fuel for main heating system: Heating oil (fuel factor = 1.17)

Target Carbon Dioxide Emission Rate

TER = 18.11

Dwelling Carbon Dioxide Emission Rate

DER = 16.37



2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

2b Fabric U-values

Element	Average	Highest	
Wall	0.15(max. 0.30)	0.15(max. 0.70)	OK
Floor	0.11(max. 0.25)	0.11(max. 0.70)	OK
Roof	0.11(max. 0.20)	0.11(max. 0.35)	OK
Openings	1.62(max. 2.00)	3.00(max. 3.30)	OK

3 Air permeability

Air permeability at 50 pascals:	2.07	OK
Maximum:	10.00	

4 Heating efficiency

Main heating system:

Boiler and radiators, oil
Mistral CKUT1 15/20

Source of efficiency:

from boiler database
Mistral CKUT1 15/20

Efficiency: 91.9% SEDBUK2009

Minimum: 88.0%

OK

Secondary heating system:

Room heater systems - Solid fuel
Closed room heater

Efficiency: 65.00%

Minimum: 65.00%

OK

5 Cylinder insulation

Hot water storage

Manufacturer's declared cylinder loss factor (kWh/day)	2.30
Permitted by DBSCG	2.30

OK

Primary pipework insulated

Yes

OK

6 Controls

(Also refer to "Domestic Building Services Compliance Guide" by the DCLG)

Space heating controls

Time and temperature zone control

OK

Cylinderstat - Yes

OK

Independent timer for DHW - Yes

OK

7 Low energy lights

Percentage of fixed lights with low-energy fittings: 100.0%
Minimum: 75.0%

OK

8 Mechanical ventilation

Not applicable

9 Summertime temperature

Overheating risk (West Pennines):

Not significant

OK

OK

Based on:

Thermal mass parameter :

110.01

Overshading :

Average or unknown (20-60 % sky blocked)

Orientation : NorthWest

Ventilation rate :

8.00

Blinds/curtains :

None with blinds/shutters closed 0.00% of daylight hours

10 Key features

Ground floors U-value 0.11 W/m²K

Pitched roofs insulated between joists U-value 0.11 W/m²K

Sloping walls, Skillings, Cambceils U-value 0.11 W/m²K

Walls U-value 0.15 W/m²K

Design air permeability 2.1 m³/h.m²

Low-carbon or renewable for secondary heating fuel.

Wood logs
