

APPEAL AGAINST REFUSAL TO RELAX REQUIREMENT L1(a) IN PART L (CONSERVATION OF FUEL AND POWER) OF SCHEDULE 1 TO THE BUILDING REGULATIONS 2000 (AS AMENDED), IN RESPECT OF THE CONSTRUCTION OF AN SWIMMING POOL ENCLOSURE OVER THE EXISTING OUTDOOR POOL AT A PRIMARY SCHOOL

The building work and appeal

3. The proposed building work comprises the provision of an polycarbonate enclosure for a primary school outdoor swimming pool so that it can be used all year round. The pool enclosure is of the arched portal frame type, which is supplied in pre-cut parts for assembly on site and fixing to a concrete foundation. It has powder-coated aluminium arches every 2100mm, and is covered in 16mm triple wall polycarbonate with a nominal heat loss (U-value) of 2.4W/m²K. The end gables, internal changing rooms and the lift-up sides are made in impact resistant sheet polycarbonate. The enclosed swimming pool will be provided with a space heater to keep the air temperature at 1 to 2°C above the pool water temperature of 27°C when the pool is in use. When the pool is not in use, a floating thermal cover will retain the pool heat and prevent evaporation.

4. The Council rejected your first full plans application for the swimming pool enclosure on 2 February 2010, and your amended application on 4 March 2010, for not providing details demonstrating compliance with a number of requirements of the Building Regulations. Following discussions with the Council, most of these issues have been resolved and the remaining matter in dispute, which is the subject of this appeal, relates to compliance with Requirement L1(a) in Part L of Schedule 1 to the Building Regulations.

5. You are of the view that the thermal qualities of your pool enclosure are not quantifiable under "Part L rules", and on 14 May 2010 you formally applied to the Council for a relaxation of the applicable Part L requirements, which was refused on 20 May 2010. The Council noted among other matters that no thermal calculations had been submitted in support of your application, and that the walls and roof of the pool enclosure did not meet the minimum design limits for the envelope set out in paragraphs 34 to 38 of Approved Document L2A (Conservation of fuel and power in new buildings other than dwellings - 2006 edition) to achieve compliance with Requirement L1(a) of the Building Regulations. It is in respect of this refusal that you have appealed to the Secretary of State.

The appellant's case

6. You have provided a detailed submission to support your view that the polycarbonate material of your proposed swimming pool enclosure should not be

expected to comply with the maximum U-values set out in Approved Document L2A. Your reasons include:

- Heating of pool buildings follows a different set of scientific rules from other buildings. Pool buildings with a polycarbonate enclosure are carbon efficient to Part L standards, despite not using materials which conform to Part L U-values.
- A polycarbonate enclosure benefits from solar gain, and when combined with air heating enables schools to economically transform outdoor pools into indoor pools that can be used throughout the year. Schools are being encouraged to install polycarbonate enclosures over outdoor pools.
- If the air above the pool water is not heated, extra heat must be put into the water to warm the air. This is a far less efficient way of providing water and space heating and causes considerable amounts of undesirable condensation.
- You do not believe Part L requirements are applicable to buildings with liquid floors where evaporation is the main method of heat transfer.
- Polycarbonate pool enclosures are transportable and should not be considered as fixed buildings under the Building Regulations.

The Council's case

7. The Council argues that, by enclosing the swimming pool, the intention is to provide all year round swimming, which will require additional heating to condition the indoor climate. Therefore, the walls and roof of the enclosure should meet the minimum design limits for the envelope as set out in the guidance in paragraphs 34 to 38 of Approved Document L2A, which the Council considers they do not.

8. The Council notes that no compliance checklist, thermal calculations or compensatory features were included with your relaxation application, which was refused. The Council believes that the material point of your arguments – which you accept – is that the building is akin to a “greenhouse” and should therefore be exempt from the functional requirements of Part L. However, the Council disagrees with this view and considers that the proposed building fabric does not reasonably limit the heat losses or gains and therefore is not in compliance with Requirement L1(a).

The Secretary of State's consideration

9. The Secretary of State has given careful consideration to the particular circumstances of this case and the arguments presented by both parties. He notes that under the Building Regulations adding an enclosure to an outdoor swimming pool is considered to be the construction of a new building, and that the energy efficiency requirements of the Building Regulations would therefore potentially apply. He further notes that, as the pool in this case is to be provided with air heaters and its useful floor area is greater than 50m², and as it is not a portable building with a planned time of use of less than two years, it is not exempt from these energy efficiency requirements.

10. For new buildings, the energy efficiency requirements of the Building Regulations 2000 are:

- Part L of Schedule 1 – to make reasonable provision for the conservation of fuel and power by:
 - limiting heat gains and losses through the fabric and from heating pipes, etc (Requirement L1(a));
 - providing energy efficient building services (Requirement L1(b));
 - providing to the owner operating and maintenance information (Requirement L1(c));
- Regulation 17C – the carbon dioxide emission rate for the building as constructed (BER) shall not exceed the target carbon dioxide emission rate (TER) calculated in accordance with an approved procedure;
- Regulation 17E – the provision of an energy performance certificate.

11. As the Council has explained, one way of demonstrating that the fabric of the new swimming pool enclosure complies with Requirement L1(a) is to not exceed the limiting heat loss U-values set out in paragraphs 34 to 38 (and Table 4) of Approved Document L2A. These U-values in W/m^2K are 2.2 for windows and curtain walling, 0.35 for walls and 0.25 for floors and roofs. The Secretary of State notes that the polycarbonate material of the ... pool enclosure in this case has a U-value of 2.4, and that the Council takes the view that the walls and roof of the swimming pool enclosure therefore do not comply with Requirement L1(a).

12. Compliance with regulation 17C can be demonstrated by following the thermal calculation procedure described in Approved Document L2A. In this respect the Building Regulations 2000 require a notice to be submitted to the local authority specifying the target carbon dioxide emission rate and the calculated carbon dioxide emission rate for the building as finally constructed, not later than five days after completion of the work.

13. It should be noted that regulation 11 of the Building Regulations 2000 gives local authorities the power to relax or dispense with certain requirements, **but this power does not extend to regulations 17C or 17E**. In its letter to you of 20 May 2010, the Council noted that no thermal calculations had been submitted in this case.

14. The Secretary of State considers that a way forward in this case would be for you to submit thermal calculations to the Council in accordance with regulation 17C to show that, after taking account of solar gain through the polycarbonate enclosure with a U-value of $2.4W/m^2K$, the BER does not exceed the TER. The Council would then be in a better position to consider whether there is a case to relax or dispense with Requirement L1(a).

The Secretary of State's decision

15. The Secretary of State concludes that compliance with Requirement L1(a) in Part L (Conservation of fuel and power) of Schedule 1 to the Building Regulations 2000 (as amended) has not been achieved and – as indicated above – that you have not made a case to relax the requirement in relation to the swimming pool enclosure in question. Accordingly, he dismisses your appeal. However, he has offered an opinion, that if you comply with regulation 17C, as detailed in paragraph 14 above, then the Council would be in a better position to consider whether there is a case for relaxing Requirement L1(a).

16. You should note that in the application of building regulations to the proposed building work, it is relevant when that work begins. Where the work – which as in your case is the subject of full plans deposited with the Council before 1 October 2010 – is started before 1 October 2011, the Building Regulations 2000 (as amended) will apply and the Secretary of State has made his appeal decision on this basis.

17. You should also note that the Secretary of State has no further jurisdiction in this case and that any matters that follow should be taken up with the building control body.