

Report for An Bord Pleanala

on

Appeal against Condition 2, 3 and 6 to 7 Day Notice Fire Safety Certificate (Reg. Ref. FS/94/2017)

for

Sub-division and Material Alterations to an Existing Storage Building

at

Poolboy, Ballinasloe, Co. Galway

Client: An Bord Pleanala
An Bord Pleanala Ref: 305963-19
Our Ref: ABP_R006_Issue 1
Date: 8th September 2020

1.0 Introduction

This report sets out my findings and recommendations on the appeal submitted by Knapton Consulting Engineers, acting on behalf of Lidl Ireland GmbH, against Condition 2, 3 and 6 to 7 Day Notice Fire Safety Certificate (Reg. Ref. FS 94/2017) by Galway County Council in respect of an application for works related to the Sub-division and Material Alterations of an Existing Storage Building at Poolboy, Ballinasloe, Co. Galway.

It is noted that having regard to the nature of the Conditions under appeal, it is considered that the appeal can be adjudicated upon without consideration of the entire of the application.

1.1 Subject of Appeal

Condition 2, 3 and 6 of the granted 7 Day Notice Fire Safety Certificate (FS 94/2017) by Galway County Council are as follows: -

Condition 2:

The emergency exits from the unit are to be level or have a ramp complying with Technical Guidance Document K (or an external refuge with the external walls adjacent to the refuge having a fire resistance of 60/60/30.

Reason:

In order to comply with B1 to the Building Regulations 2006.

Condition 3:

High pressure hoses are to be provided conforming to IS EN 671: Part 1 and BS 5306: Part 1 in accordance with Section 1.4.16 of Technical Guidance Document B 2006 of the Building Regulations.

Reason:

In order to comply with B1 to the Building Regulations 2006.

Condition 6:

The building is a portal frame and should comply with Section 4.1.3 of Technical Guidance Document B 2006:

- (i) External walls are to be 60/60/15 on the 'rear' elevation with an unprotected area of less than 28% of a 6m x 60m enclosing rectangle (i.e. less than 100.8m² unprotected area to meet the space separation requirement for a boundary distance of 4.944m).*
- (ii) The columns supporting this external wall are to have a fire resistance of 1 hour and moment resisting foundations in accordance with SCI (Steel storey Steel Framed Buildings in fire boundary conditions'.*

Reason:

In order to comply with B4 to the Building Regulations 2006.

2.0 Documentation Reviewed

- 2.1 7 Day Notice Fire Safety Certificate Application (application form, compliance report and fire safety drawings) submitted by Knapton Fire Safety, on behalf of Lidl Ireland GmbH, on 20th September 2017.
- 2.2 Letter from Galway County Council to Lidl Ireland GmbH confirming a valid application on 22nd September 2017.
- 2.3 Email and letter correspondence between Galway County Council and Knapton Fire Safety with respect to Extension of Times.
- 2.4 Report on Assessment of 7 Day Notice Fire Safety Certificate Application recommending that a Fire Safety Certificate is granted with 6 conditions attached dated 20th October 2019.
- 2.5 Granted Fire Safety Certificate No. FS 94/2017 from Galway County Council dated 21st October 2019.
- 2.6 Letter of Appeal from Knapton Consulting Engineers, acting on behalf of Lidl Ireland GmbH, received by An Bord Pleanála on 20th November 2019.
- 2.7 Letter from Galway Fire Services to An Bord Pleanála dated 19th December 2019.

3.0 Building Control Authority's Case

Condition 2: -

Section 6.1 (and Figure 2) of BS 5588: Part 8 specifies that buildings on uneven sites should be provided with refuges for example at the top of stairs.

Section 8.2 of BS 5588: Part 8 only specifies an exception for buildings less than 280m² (but no deeper than one basement nor higher than first floor) and plant rooms. Technical Guidance Document B 2006 specifies 30 minutes fire resistance for walls next x/x/30 to an escape route (Table A2) but fire resisting glazing need not have insulation.

The exits to the front (loading area) are nearly level or have a platform / loading bay (which could provide a refuge). The exits to the rear are to a landing of an external stairs which could provide a refuge and to nearly level (but rough) ground.

A ramp in accordance with Document K leading to path to an area of relative safety would provide egress for wheelchair and other occupants and eliminate the need for a refuge (with 60/60/30 walls) in this location.

The compliance report referred to Part 11 and Part 8 of BS 5588 and an older code seemed appropriate for the existing exits along the perimeter. The current use may be intermittent and there may be no wheelchair users envisaged, but the tenancy / ownership may change in the future.

Condition 3: -

Hose reels are a requirement of Technical Guidance Document B 2006 for over 500m² for this usage. Extinguishers would be of little use for a sustained attack on a sizable fire. N.B The building originally had sprinklers.

Condition 6: -

The building originally had sprinklers, and these could have or would have had an effect on space separation calculations. The deactivation of the sprinkler system since construction requires a re-evaluation of space separation requirements.

In the absence of a functioning sprinkler system the protection of the columns and moment resisting foundations are required for space separation.

The plan drawings indicate a 1 hour fire resisting external wall (and compartment wall) both marked green. The elevations seem to indicate an unprotected area of less than 3m x 3m, however on site this elevation has limited fire resisting construction.

4.0 Appellant's Case

Condition 2

Condition 2 relates to provisions for disabled persons and more specifically, wheelchair users. There are existing steps after Final Exit 2 and Final Exit 4 which will remain unchanged by the proposals. There is an existing single step at Final Exit 3. Final Exit 1 is level.

The basis for compliance for B1 – Means of Escape in Case of Fire is TGD-B 2006 and BS 5588 Part 11: 1997. Clause 6.3 of BS 5588 Part 11: 1997 refers to BS 5588 Part 8 for guidance on the provisions of escape for persons with disabilities for the purpose of Means of Escape. BS 5588 Part 8 has been withdrawn and superseded by BS 9999: 2008 which in turn has been withdrawn and superseded by BS 9999: 2017. Therefore, the relevant guidance documents are TGD-B 2006 and BS 9999: 2017.

Clause 1.4.15 of TGD-B 2006 sets out when considerations of means of escape provisions of wheelchair users is required and then points to BS 9999: 2017 for the guidance, if require: -

Clause 1.4.15 of TGD-B 2006 states: -

'Where access for people with disabilities is provided to a building or part of a building in accordance with Part M of the Second Schedule to the Building Regulations, provision should also be made, in the building or part of the building (as the case may be) for appropriate means of escape for such people'.

The condition relates to a specific category of disabled persons, namely wheelchair users. The tasks required in the storage area will involve moving pallets with a pallet truck and are not suitable for a wheelchair user. Therefore, in accordance with 1.4.15 of TGD-B 2006, since the building will be solely occupied by members of staff who need to be ambulant, means of escape provisions of wheelchair users are not required and the guidance in BS 9999: 2017 need not be consulted.

In relation to the single step at Final Exit 3 it is noted that TGD-B 2006 is ambiguous vis-à-vis steps located on the line of storey or final exit doors. Accordingly, it is reasonable and appropriate to refer to the current England and Wales Approved Document B (Fire) (2010 Edition) for guidance on this issue in so far as TGD-B 2006 is based on an early draft of the Approved Document B. It is noted that the UK AD-B (fire) in Clauses 3.26, 5.12 and 5.22 specifically allow single steps on escape routes, provided they are located on the line of the doorway in question, are prominently marked and do not create a hindrance for disabled persons at a final exit. Since the premises will be solely occupied by ambulant staff members these requirements are satisfied.

Furthermore, Northern Ireland Technical Bulletin E (Fire) also allows such steps, subject to the riser not exceeding 180mm. Based on the foregoing, single steps are considered acceptable at the final exit or storey exit subject to the riser not exceeding 180mm and the step being located on the line of the door and clearly marked.

Condition 3

It is noted that the most up to date guidance on the provision of hose reels is given in section 10.4.5 of BS 9999: 2017 and it states that 'Hose reels should be installed where the fire risk assessment show it to be necessary'.

It is not proposed to provide any hose reels in the storage building to which this application relates as it is the Appellant's view based on fire risk assessment of areas to be protected and other reasons listed below that fire hose reels are more appropriate for property protection than life safety.

Hose reels are not suitable as a result of the possible discharge of water on low level electrical light fittings and other electrical equipment which would provide an unacceptable risk of electrocution to occupants.

Staff should only attempt to put out a fire if it is minor, in other words, if it can be put out using an appropriate extinguisher and if not, they should activate a call point and exit the building.

Fire extinguishers are more appropriate than Fire Hose reels as: -

- When fire fighting hose reel is put into use by a staff member there is no time limit imposed as to how long the user may remain, attempting to fight the fire as opposed to a fire extinguisher which will discharge fully in a short period of time. If staff are not successful in an immediate knockdown of the fire whilst it is still relatively small, they may well become tempted to continue their efforts until they have got control of the situation. What they may not realise is that all the time the fire is burning, large amounts of toxic and asphyxiant gasses are being given off which could have drastic consequences.
- The level of skill required to operate fire hose reels successfully is greater than the average employee. Hose reels are a 2 person operation that require specialist training and requires refreshers to be provided on a regular basis which is often difficult to achieve with the amount of movement of staff in this industry.
- The Fire Safety Risk Assessment document in Northern Ireland by their Department of Health, Social Services and Public Safety in 2013 note that it is not safe to fight fires involving aerosols with hose reels. A quantity of aerosols will be stored in this building. The installation of hose reels is a trip hazard for occupants and the Fire Brigade and can keep fire doors open during an evacuation.
- Water is not a suitable extinguishing medium when used near electrical equipment.

Further to the Appellants Fire Risk Assessment of the materials stored in the premises (which is mostly carbonaceous material) it is proposed to increase the minimum requirements for fire extinguishers by 25% in lieu of providing hose reels.

Condition 6

The condition refers to the rear elevation, this elevation is not subject to this application and the intent of the condition was to reference 'Side Elevation B'.

The 7 Day Notice Fire Safety Certificate application has been submitted for the sub-division of, and the material alterations to, an existing storage / warehouse building. No change of use is proposed as a result of the proposals.

It is submitted that the external fire spread risk has been reduced considerably as a result of the subdivision of the building into two separate fire compartments.

The appellant can demonstrate compliance with section 4.2.9 of TGD-B 2006 in relation to space separation as follows: -

- There is no increase in the extent of unprotected areas to the existing external walls of the building.
- The building is not altered or extended by provision of additional floor area.

Furthermore, it is submitted that the proposals are an improvement to the existing situation as the building has been sub-divided, reducing the size of each compartment, which is beneficial for the purposes of External Fire Spread. There are also extensive existing PVC rooflights which will provide roof venting to give early heat release and reduce the effects of external fire spread (radiated heat) towards the boundaries.

5.0 Consideration

Condition 2: -

Clause 1.4.15 of TGD-B 2006 states: -

‘Where access for people with disabilities is provided to a building or part of a building in accordance with Part M of the Second Schedule to the Building Regulations, provision should also be made, in the building or part of the building (as the case may be) for appropriate means of escape for such people’.

It is noted that in accordance with Building Control (Amendment) Regulations 2018 (SI No. 526 of 2018) that a Disabled Access Certificate is not required for the subdivision of a warehouse into multiple compartments / tenants. This is implicitly acknowledging the fact that warehouses and other Purpose Group 7(a) type buildings do not have to be wheelchair accessible.

The appellant also makes this case, that given the tasks required in the storage area will involve moving pallets with a pallet truck, this area is not suitable for a wheelchair user.

With respect to single steps in general it is noted that we agree with the appellant that TGD-B 2006 is ambiguous vis-à-vis steps located on the line of storey or final exit doors. The current guidance in the UK Approved Document B (Fire) (2010 Edition) in Clauses 3.26, 5.12 and 5.22 specifically allow single steps on escape routes, provided they are located on the line of the doorway in question, are prominently marked and do not create a hindrance for disabled persons at a final exit.

Condition 3

It is noted that the provision of hose reels is a B1 recommendation of TGD-B 2006 and not a B5 recommendation. Hose Reels are not provided as a facility for the Fire Service. TGD-B 2006 states that the ‘First Aid fire fighting equipment is provided in buildings to be used by occupants, with appropriate training and where safe to do so, in the early stages in the development of a fire’.

The Building Control Authority’s point that fire extinguishers would be of little use for a sustained attack on a sizable fire is correct but also highlights the main problem with hose reels; that it encourages untrained occupants to try to fight the fire well beyond when it is safe for them to do so. At least with a fire extinguisher, once it runs out, the untrained occupant will then evacuate.

It is noted that section 1.4.16 of TGD-B 2006 recommends the provision of hose reels in a purpose group 7(a) building that is more than 500m². However, it is also noted that BS9999 section 10.4.5 of BS 9999: 2017 states that ‘Hose reels should be installed where the fire risk assessment show it to be necessary’.

The appellant has reviewed the provision of hose reels and have concluded based on this fire risk assessment that hose reels are not required. This is a reasonable approach and the reasons that they have outlined for not providing hose reels are compelling.

Condition 6

With respect to the Condition 6 and the rear elevation it is noted that the scope of the application does not adversely impact on this elevation. The compartment that faces this elevation is reduced in size by the provision of the new compartment wall but the elevation is unaltered by the proposed works. There is no new or greater contravention due to the proposed works.

Therefore the elevation should be beyond the scope of the application, it is noted that if the Local Authority have concerns that the removal of the sprinkler system has had an adverse impact on the space separation design of this elevation then they have a range of statutory powers that would permit them to pursue their concerns e.g. they could determine that the building is a potentially dangerous building under the Fire Service Act.

6.0 Recommendation

On the basis of my findings and conclusions I recommend that An Bord Pleanála grant the appeal and instruct that Condition 2, 3 and 6 are removed from the 7 Day Notice Fire Safety Certificate.

Signed by:

Des Fortune

MSc(Fire Eng), BSc(Eng), CEng MIEI, MIFireE

Date: **8th September 2020**