

## **Attachment E.6 – Environmental Nuisances**

### Bird Control

The proposed waste activity at the facility will not attract birds.

### Dust Control

The proposed waste activity at the facility will not generate dust. Some debris or dust may be deposited from traffic movements but the site area and the surrounding access roads are hard surfaced and will not lead to significant dust deposition at the facility.

The Deputy Facility Manager and staff will maintain the facility in good condition and ensure that any debris is cleaned immediately to reduce the potential for dust to be generated.

### Fire Control

The refrigerant gases to be accepted at the facility are non-flammable, therefore a fire resulting from waste gas received on the site is highly unlikely.

It is also highly unlikely that a fire will be generated from storage of waste refrigerant oils and cooling fluids.

Fire detection and alarm systems were upgraded in early 2016 to meet the requirements of I.S. 3218:2013. In the event of a fire, the local fire brigade will be notified of the incident. Tallaght Fire Station is located on the Belgard Road approximately 3km to the north east of the facility. There are also fire extinguishers available on site for use in the early stages in the development of a fire where appropriate.

A Fire Survey carried out by Fahy Fitzpatrick Consulting Engineers in April 2016 is included.

### Litter Control

It is unlikely that there will be any litter generated at the facility. The facility staff will deposit waste generated in the warehouse and in the office areas into appropriate bins for collection by an appropriately licensed waste contractor.

The facility gates will be closed over and locked outside of operational hours to eliminate the potential for illegal disposing of waste at the site.

Any litter which is blown onto the site will be collected and transferred to appropriate bins by employees.

### Traffic Control

There is only one gate entrance to the facility and there is a small amount of space available (circa 200m<sup>2</sup>) for parking in the external yard at the front of the facility. Traffic can only enter and exit the site through the gated entrance as shown on the Site Layout Plan (Figure B6.1).

Delivery/collection trucks will park in the external yard during deliveries or collections. The forklift will operate mainly inside the warehouse building but will operate in the service yard for offloading as required.

Incoming/outgoing traffic movement is anticipated to be at a maximum of six movements per day which will not have an adverse impact on the surrounding areas.

### Vermin Control

The nature of the proposed activity will not attract vermin to the site. Any putrescible waste materials generated will be disposed of in suitable containers and collected by an authorised waste contractor.

### Road Cleansing

It is not likely that there will be significant dust, mud or debris generated from activities at the site as the roads approaching the facility are all paved and the entire site is covered in concrete paving. In the event of any dust, mud or debris generated on the site or in front of the site from activities related to the waste facility, Harp employees will clean the roadways and disposal of the material appropriately.

For inspection purposes only.  
Consent of copyright owner required for any other use.



# Fahy Fitzpatrick

CONSULTING ENGINEERS

## FIRE SAFETY COMPLIANCE REPORT

**PROJECT:** FIRE SAFETY COMPLIANCE ASSESSMENT OF  
2 WHITESTOWN ROAD,  
WHITESTOWN INDUSTRIAL ESTATE,  
TALLAGHT,  
DUBLIN 24.

**CLIENT:** HARP INTERNATIONAL

**JOB No:** 3599F

Date:	Issue:	Comment:
15.02.2016	-	Issue to client
02.03.2016	A	Report Updated.
30.04.2016	B	Report to be lodged with Local Authority by client.

For inspection purposes only.  
Consent of copyright owner required for any other use.



# CONTENTS

<b>1.0 INTRODUCTION</b>	<b>4</b>
<b>1.1 Scope of report</b>	<b>4</b>
<b>1.2 Basis of compliance with the regulations</b>	<b>4</b>
<b>2.0 INSPECTION DETAILS</b>	<b>4</b>
<b>2.1 Date of inspection</b>	<b>4</b>
<b>2.2 Details of building</b>	<b>4</b>
2.2.1 Building details, layout and construction.	4
<b>3.0 FINDINGS OF INSPECTION WITH COMMENTARY AND RECOMMENDATIONS</b>	<b>6</b>
<b>3.1 Means of escape in case of fire</b>	<b>6</b>
3.1.1 Occupancy details	6
3.1.2 Occupant capacity of exits	6
3.1.3 Travel distances	6
3.1.4 Commentary on the findings for Means of Escape	6
<b>3.2 Protection of escape routes</b>	<b>7</b>
<b>3.3 Way finding signage and emergency lighting</b>	<b>8</b>
3.3.1 Inspection findings for way finding signage and emergency lighting	8
3.3.2 Recommendations from inspection findings for way finding signage and emergency lighting	8
<b>3.4 Fire detection and alarm system</b>	<b>8</b>
3.4.1 Inspection findings for fire detection and alarm system	8
3.4.1 Recommendations from findings for fire detection and alarm system	8
<b>3.5 First aid fire-fighting equipment</b>	<b>9</b>
3.5.1 Inspection findings for fire-fighting equipment	9
3.5.2 Recommendations on findings for fire-fighting equipment	9
<b>3.6 Internal Fire Spread (Structure)</b>	<b>9</b>
3.6.1 Inspection findings for internal fire spread	9
3.6.2 Recommendations for inspection findings for internal fire spread	9
<b>3.7 Inner Rooms</b>	<b>10</b>
3.7.1 Inspection findings for inner rooms	10
<b>4.0 CONCLUSIONS</b>	<b>11</b>
<b>5.0 APPENDIX A: PHOTOGRAPHS</b>	<b>12</b>



## Table of Figures

Figure 1: Building location – (Thin Red Line Site Boundary) .....	5
Figure 2: Front Elevation.....	5
Figure 3: Rear Fire Exit.....	12
Figure 4: View along boundary line.....	12
Figure 5: Channel through escape route.....	13
Figure 6: Door from kitchenette to main hall.....	13
Figure 7: Door from Main hall to Main Entrance.....	14
Figure 8: Storage in protected entrance.....	14
Figure 9: View from front mezzanine.....	15
Figure 10: Minimal wayfinding signage.....	15
Figure 11: No Emergency Lighting.....	16
Figure 12: Fire Detection and Alarm System.....	16
Figure 13: No Fire Detection and Alarm System.....	17
Figure 14: Fire Extinguisher.....	17
Figure 15: Fire Extinguishers.....	18
Figure 16: Column and Beam supporting Mezzanine.....	18

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

## 1.0 Introduction

### 1.1 Scope of report

This report has been commissioned to provide a visual fire safety assessment of 2 Whitestown Road and its compliance with Requirement B (Fire Safety) of the second schedule to the Building Regulations 1997 (as amended).

This has been requested of Harp International by South Dublin County Council as a condition of their waste permit.

### 1.2 Basis of compliance with the regulations

Technical Guidance Document B 2006 referred to as TGD B hereafter.

I.S. 3217: 2013 Code of practice for emergency lighting.

I.S. 3218: 2013 Code of practice for fire detection and alarm systems for buildings.

## 2.0 Inspection details

### 2.1 Date of inspection

The building was inspected on Wednesday the 27<sup>th</sup> of January 2016 by Philip Mc Glynn of Fahy Fitzpatrick Consulting Engineers.

The building was inspected during the works on 02<sup>nd</sup> March 2016.

The buildings was snagged and reinspected on 22<sup>nd</sup> and 28<sup>th</sup> April 2016.

### 2.2 Details of building

#### 2.2.1 Building details, layout and construction.

The building is a single storey building with two small mezzanine levels, the building is rectangular in shape and there is a small section of offices at the front entrance, the first mezzanine level is above these offices. The second mezzanine level is to the rear of the building.

The building is a steel portal frame structure; the offices are separated by blockwork construction from the remainder of the building. There is a concrete ground floor to the entire building.

The front Mezzanine is built from timber joists supported by the external wall and the internal wall separating the office area from the main floor.

The rear mezzanine is a steel framed structure.



**Figure 1:** Building location – (Thin Red Line Site Boundary)



**Figure 2:** Front Elevation

## 3.0 Findings of inspection with commentary and recommendations

### 3.1 Means of escape in case of fire

Whilst there are a suitable number of exits provided in the building, deficiencies exist, in regards compliance with B1.

#### 3.1.1 Occupancy details

The number of occupants in an area will determine, exit widths (corridors, stairs and doors), number of exits and direction of door opening required as outlined below:

Total Occupancy estimated at 40 persons.

#### 3.1.2 Occupant capacity of exits

##### 3.1.2.1 Inspection findings for number and position of exit routes

All exit capacities from individual rooms and floors has sufficient capacity. However, the rear fire exit, to which the persons at Mezzanine level or the alternative route used by the remainder of persons within the building will use the exit as an alternative, does not have a safe route once persons have exited the building. (Fig. 3 & 4)  
The access door between the protected hallway and the main hall the doorway has a large channel in the floor. (Fig. 5)

##### 3.1.2.2 Recommendations from inspection findings for width of exit routes

A boundary wall or fence should be established to provide a route for persons to get off the site and away from the building.  
The channel at the door way should be filled in to create a level floor.

#### 3.1.3 Travel distances

The recommended maximum travel distances are not exceeded at any point in the building. The maximum dead end travel distance is approx. 14m from the rear mezzanine and the front mezzanine.

#### 3.1.4 Commentary on the findings for Means of Escape

Where there is a dead end, all travel distance limits are within the limits. Where there is no dead end there is an alternative exit, these limits are also satisfied.  
All final exits must be accessible at all times and free from blockages.  
All exits from rooms must be accessible.  
The route externally from the rear fire exit should be provided to ensure persons can get to a place of safety away from the building.

The locked gate must be openable from the rear yard and not blocked by rubbish or overgrowth.

***Update:***

***The above gate and fencing had been tidied up and is now openable. (02.03.16)***

## 3.2 Protection of escape routes

### 3.2.1 Corridors and doors

The requirements for stairs to be used as an escape route are:  
The walls of the stairs should be carried up to the structural ceiling above.

### 3.2.2 Inspection findings for protection of corridors and doors

Both doors which provide access to the office block from the main floor space did not appear to be fire doors and there was no evidence of intumescent strips. (Fig. 6)

A fire door should be fitted between the office and the entrance lobby to protect the escape route of persons exiting from the main hall space. (Fig. 7)

There was a small gathering of items and a bookcase in the main entrance. (Fig. 8)

The mezzanine level above the office space did not have any railings to protect persons from falling off the edge. (Fig. 9)

### 3.2.3 Recommendations on findings for protection of escape routes

- Replace all doors mentioned above to the FD30S standard in accordance with Appendix B – Fire Doors of TGD B.
- The main entrance should be a sterile area and be kept free from rubbish and any other potentially flammable items.
- The mezzanine should be fitted with a railing to prevent persons from falling off the edge, if persons are to have access to it. If access is required for forklifts to store materials, gates should be installed in the railings.

**Update:**

***The Fire Doors have now been upgraded to an FD30S standard. (28.04.16)***

***The main entrance is relatively free from obstructions. The bookcase remains in place. (22.04.16)***

***The mezzanine has been decommissioned and will not be used by the company. The staircases are closed off and signs have been erected. (22.04.16)***



### 3.3 Way finding signage and emergency lighting

Escape routes should be provided with emergency lighting i.e. lighting provided for use when the power supply to the normal lighting fails and signposting to ensure that routes can be safely and readily used by persons evacuating the building in the event of an outbreak of fire. The emergency lighting should also enable people to see any directional or warning signs associated with common escape routes, changes in floor level, the location of fire alarm call points and fire-fighting equipment.

#### 3.3.1 Inspection findings for way finding signage and emergency lighting

Wayfinding signage has been provided, but not in accordance with BS 5499 Part 3 1990. Some changes in direction on escape corridors have not been afforded wayfinding signage. (Fig. 10)  
There was no indication of emergency lighting anywhere within or external to the building. (Fig. 11)

#### 3.3.2 Recommendations from inspection findings for way finding signage and emergency lighting

- Wayfinding signage to be provided within the school, to be in accordance with BS 5499 Part 3 1990 and Safety, Health and Welfare at Work Act 2010.
- Emergency lighting should be provided in accordance with I.S. 3217: 2013.

**Update:**  
***Emergency Lighting & Signs have been provided. (22.04.16)***

### 3.4 Fire detection and alarm system

The installation of automatic fire detection and alarm system can significantly increase the level of protection from fire by giving early warning of its occurrence.

#### 3.4.1 Inspection findings for fire detection and alarm system

There is an insufficient level of smoke detection within the building. The existing system would not meet the minimum requirements of I.S. 3218: 2013. (Fig. 12 & 13)

#### 3.4.1 Recommendations from findings for fire detection and alarm system

- A fire detection and alarm system designed in accordance with I.S. 3218: 2013 should be installed, to cover all areas of the building.

**Update:**  
***The Fire Detection and alarm systems has been upgraded. (22.04.16)***

## 3.5 First aid fire-fighting equipment

First aid fire Fighting Equipment is provided in buildings to be used by the occupants, with appropriate training and where it is safe to do so, in the early stages in the development of a fire.

### 3.5.1 Inspection findings for fire-fighting equipment

There are some fire extinguishers around the building, however, none of these extinguishers appeared to have been maintained or serviced in quite some time. (Fig. 14 & 15)

### 3.5.2 Recommendations on findings for fire-fighting equipment

- Fire Extinguishers should be provided in accordance with I.S. 291:2015 and serviced.

**Update:**  
***The Fire extinguishers have been replaced. (22.04.16)***

## 3.6 Internal Fire Spread (Structure)

### 3.6.1 Inspection findings for internal fire spread

The mezzanine is supported with a steel structure (Columns and Beams), none of these columns or beams appear to have fire resisting materials applied to them. (Fig. 16)

### 3.6.2 Recommendations for inspection findings for internal fire spread

- The structure which supports the mezzanine is required to be 30 minutes fire resisting. The structure should be fitted/ coated with a fire resisting materials.

**Update:**  
***Not applicable as the mezzanine has been decommissioned from use. (22.04.16)***

### 3.7 Inner Rooms

A room whose only escape route is through another room is at risk if a fire starts in that other room. It is termed an inner room and is at risk from a fire in the outer room (access room).

Such an arrangement is only acceptable if the following conditions are satisfied:

- a) the inner room should not be likely to have more than 20 occupants;
- b) the escape route from the inner room should not pass through more than one outer (access) room;
- c) the travel distance from any point in the inner room to the exit(s) from the access room should not exceed the appropriate limit given in Table 1.2 of TGD B
- d) the access room should not be a place of special fire risk and it should be in the control of the same occupier
- e) one of the following arrangements are made -
  - 1) the enclosures of the inner room are stopped at least 500 mm below the ceiling, or
  - 2) a vision panel is located in the enclosure of the inner room, of sufficient size, to enable occupants of the inner room to see if a fire has started in the outer room,
  - 3) or the access room is fitted with a suitable fire detection and alarm system to warn the occupants of the inner room should an outbreak of fire occur in the access room.

#### 3.7.1 Inspection findings for inner rooms

The arrangement of inner rooms is acceptable within this building. However, item e) above is not achieved and one of these solutions is required. Given the existing partitions that are in place it would seem that upgrading the fire alarm system is the easiest way to achieve compliance.

**Update:**

***The Fire Detection and Alarm system has been upgraded. (22.04.16)***



## 4.0 Conclusions

A number of deficiencies were noted during our inspection of the building in respect of fire safety.

The largest issue presenting itself is the escape route from the rear fire exit to the external. The internal escape route is acceptable, however once the occupants escape from the building there is no route to a place of safety.

***This has now been corrected.***

The rear mezzanine level is supported by non fire rated steel. TGD B recommends that structure supporting a mezzanine floor be fire resisting for at least 30 minutes.

***Not Applicable as mezzanine no longer in use.***

Similar in priority is the need to upgrade the fire detection and alarm system to I.S 3218: 2013 and emergency lighting to I.S. 3217:2013 at the earliest possible time. All inner rooms should have an audible alarm signal to provide the occupants of warning of a fire. Wayfinding signage must be provided in accordance with the Safety, Health and Welfare at Work Act 2010 and BS 5499 Part 3.

***This has now been corrected.***

The 2 access points between the office space and the main hall should be fitted with Fire Doors to FD30S standard as specified in TGD Part B 2006: Appendix B.

***This has now been corrected.***

For inspection purposes only.  
Consent of copyright owner required for any other use.

## 5.0 Appendix A: Photographs



Figure 3: Rear Fire Exit



Figure 4: View along boundary line. (From Rear Exit and from Front Yard)



**Figure 5: Channel through escape route**



**Figure 6: Door from kitchenette to main hall**

For inspection purposes only.  
Consent of copyright owner required for any other use.





**Figure 7: Door from Main hall to Main Entrance**



**Figure 8: Storage in protected entrance**

For inspection purposes only.  
Consent of copyright owner required for any other use.



**Figure 9: View from front mezzanine**



**Figure 10: Minimal wayfinding signage**



**Figure 11: No Emergency Lighting**



**Figure 12: Fire Detection and Alarm System**





**Figure 13: No Fire Detection and Alarm System**



**Figure 14: Fire Extinguisher**

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



**Figure 15: Fire Extinguishers**



**Figure 16: Column and Beam supporting Mezzanine**

For inspection purposes only.  
Consent of copyright owner required for any other use.



**Photographs taken after Upgrade Works:**



**Figure 17 Item 3.1.4 Gate and route to gate cleared.**



**Figure 18 Item 3.2.3 FD30s Fire Doorsets installed.**



**Figure 19 20 Item 3.2.3 FD30s Fire Doorsets installed.**

*For inspection purposes only.  
Consent of copyright owner required for any other use.*